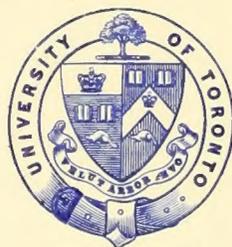


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- Experiments on the Biliary Secretion of the Dog, with Reference to the Action of Cholagogues. By Dr. Rutherford and M. Vignal. In JOURNAL of July 7th and August 4th.
- The Antagonism of Aconite and Digitalis. By Dr. J. M. Fothergill. In JOURNAL of August 4th.

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VERITATIS invicta vis est. Adrastæ legem nemo potest facile effugere, si credendum veteribus et Galeno nostro, qui ipse suo exemplo hæc demonstravit. Sicut vero in multis aliis hoc patuit, ita nescio an unquam clarius quam in novâ doctrinâ de motu sanguinis.—Pauli Marquartii Stegelii *De Motu Sanguinis Commentatio*. Hamburgi: 1650.

MR. PRESIDENT AND FELLOWS OF THE ROYAL COLLEGE OF PHYSICIANS, GENTLEMEN,—The fog that prevailed in the realms of science before the publication of Harvey's great work, compared to the ever-brightening light that has been shed over them since he taught the doctrine that has been all but universally associated with his name since 1628, necessarily renders us, as it did his contemporaries of this ancient College, anxious to see that his fame suffers no diminution through our neglect.

It might seem impossible for any one who has carefully studied the literature of the subject, to entertain a doubt as to Harvey's claim to be regarded as the regenerator of human and animal physiology. The feeble opposition of the ungenerous Riolan,* who taught a modified Galenic doctrine of the functions of the heart and vessels, was triumphantly met by the clear and practical exposition of Professor Schlegel of Hamburg. Other men, no less distinguished in their age and country, appeared to establish Harvey as the real founder of the doctrine of the circulation, to which we ascribe the origin of modern scientific medicine. Professor Walæus† in Leyden in 1640, Joannes Trullius‡ in Rome in 1651, supported the new doctrine. Plempius in Louvain, in 1652, voluntarily and publicly professed himself an adherent of Harvey. Previously to the appearance of Schlegel's admirable work in 1650, his friend and compatriot Werner Rolink§, reputed one of the best German anatomists of the time, had in 1630 given his adhesion to Harvey's views. Nor is it without significance that Descartes,|| in his *Discours de la Méthode pour bien conduire sa Raison et chercher la Vérité dans les Sciences*, in 1637, spoke of the English physician as the man to whom the world owed the knowledge of a continuous circulation of the blood. Although here and there writers, jealous of Harvey's fame, brought forward Servetus, Särpa, Cæsalpinus, and others still less worthy of being named, as possessing prior claims to the position assigned to Harvey, the great body of scientific men of that and all future days have subscribed to the opinion that we owe the modern doctrine of the circulation of the blood and of the moving power of the heart to him.

After the many disquisitions on the priority of Harvey's claims that have been offered to the Fellows of this College, from the oration of Friend to that of the exhaustive address by the learned Linacre Professor Dr. Rolleston, four years ago, it would scarcely have been befitting in me to bring up this *crambe iterum repetitæ* on the present

* "Les mauvais raisonnements de Riolan."—Flourens, *Histoire de la Circulation*, p. 37.

† Born in 1604 at Kondekerke in Zeeland, died in 1649.

‡ See *Versuch einer pragmatischen Geschichte der Arzneykunde*, von Kurt Sprengel. Halle, 1800-1803, 5 vols. 8vo, vol. iv, p. 43. This book may be generally consulted with advantage on all questions connected with the history of medicine from the earliest times to the end of the eighteenth century.

§ Werner Rolink was born at Hamburg in 1599, and, like Schlegel, filled the post of Professor of Medicine, Botany, Anatomy, and Chemistry at Jena. His chief work was entitled *Dissert. Anat.*, lib. vi (see lib. v, c. 12, p. 843, and lib. vi, c. 14, p. 1089). He died in 1677.

|| *Discours de la Méthode par Descartes, avec une notice biographique*, par A. L. Hatfieldt. Paris, 1872, p. 71, et seqq.

occasion, had not a recent event appeared to make it a matter of duty to inquire again into the claims of one of the three names just mentioned.

English physicians were startled last year* by the announcement that on October 30th a monument of Andrea Cesalpino was unveiled at Rome, on the ground of his being the first discoverer of the circulation of the blood. Dr. Giulio Ceradini, Professor of Physiology at Genoa, appears to have been the chief orator on the occasion, and to have asserted, after stating that Cesalpino produced experimental proof of the circulation in 1593, that Harvey could in 1628 adduce nothing more than a fresh proof of the circulation in the venous valves, discovered by Fabricius at Aquapendente as early as 1574, by demonstrating that the said valves must oppose the centrifugal movement of the blood in the veins. Ceradini maintained that Harvey's merit really consists in having sustained and won a battle against ignorance and prejudice by divulging the discovery of Cesalpino.

Although the claims of Andrea Cesalpino of Arezzo have been put forward and amply discussed—by none, perhaps, more fully and justly than by Dr. Willis in his admirable *Life of Harvey*†—it has appeared to be, under the circumstances, a duty of the Harveian orator of the present year to search the original works of Cesalpino, and to ascertain whether contemporary and later history have erred in awarding to our countryman the palm which really belongs to a greater predecessor of his. One thing appears indisputable: that, whatever Cesalpino has written, his views on the circulation were not considered of much consequence, and certainly not subversive of the old Galenic doctrines, at the time that Harvey resided in Padua, and subsequently Schlegel in Venice and other parts of Italy. The former, whom his greatest detractors‡ have never accused of want of uprightness and honesty, does not allude to the discoveries of Cesalpino; and the latter§ distinctly says that, having been in familiar intercourse with the most distinguished anatomists in Padua, Venice, and throughout Italy, for some years, he had found "the movement of the blood almost entirely unknown, or that it certainly was regarded as incredible."|| Schlegel manifestly speaks of the movement of the blood as taught by Harvey, as earlier writers had discussed the question of the circulation, as Harvey himself admits,¶ but, "like persons purblind or groping about in the dark", had failed to recognise the intimate connection and beautiful harmony of the different parts involved in the process.

The entire tenour of Harvey's life and work forbids the view that he was a plagiarist, and that, as Cesalpino's panegyrist has recently asserted, he arrogated to himself a discovery which belongs to the latter. Contemporary writers failed to recognise in Harvey's doctrine a reproduction of the teachings of Cesalpino; and, though his great adversary, Riolan, was satisfied that Harvey had been anticipated by Aristotle and Cesalpino, we can scarcely doubt that Schlegel correctly describes the state of medical science and the effect produced by the

* *Lancet*, November 4th, 1876.

† Prefixed to the Sydenham Society's edition of the *Works of William Harvey*, 1847, p. c.

‡ Among these we are pained to mention William Hunter, who, in his two introductory lectures to his last course of *Anatomical Lectures*, 1784, pp. 43, et seq., speaks of Harvey in a manner that is a blot upon the lecturer's name, and shows that he had not investigated the question by a reference to the original works of the men whom he compares with Harvey.

§ Pauli Marquartii Stegelii, M.D. Hamburgi, *De Motu Sanguinis Commentatio*, Hamburgi, 1650, p. 7. Schlegel (Latinised, Siegelius), the son of a merchant, was born at Hamburg in 1605, and studied medicine at Altorf, Wittenberg, and Jena. In 1631, in company with Rolink, he undertook a long scientific tour. He visited Holland and England, then went to Paris, where he remained two years; subsequently spent several years in Italy; and, after taking a degree at Padua in 1636, returned to Germany in 1638. He was at once appointed Professor of Anatomy, Surgery, and Botany at Jena. In 1642, Schlegel was invited to accept the office of "subphysicus", or assistant officer of health, in Hamburg, where he founded an anatomical theatre. He died in 1653. For further details, see *Mittheilungen aus der älteren Medicinal Geschichte Hamburgs* von Physicus Dr. Gernet, Hamburg, 1869; and also *Lexicon der Hamburgischen Schicksale bis zur Gegenwart* von Dr. H. Scherzer, Leipzig, 1874, p. 10. In the last, a list of twenty-four works by Schlegel is given, which illustrates both the variety and the depth of his studies.

|| The original Latin is: *Quin imo doctrinam illo tempore de motu sanguinis apud omnes fere incompertam aut certe pro incredibile habitam fuisse, neque obtineri potuisse rationibus ab iis ut assentiretur.*

¶ Sydenham Society's edition of *Harvey's Works*, p. 10.

great work published in 1628. He says of Harvey's doctrine: "Inaudita, communibusque et per multa sæcula inveteratis opinionibus adversissima sententia, omnes commovit."

But let us do justice to Cesalpino; for, though it is clear to my mind that he failed to appreciate the truth as it was made plain by Harvey, he approached nearer to him than any of the physiologists of earlier days. Any one who was satisfied with the evidence afforded by solitary passages in his writings might fairly assert that Cesalpino had taught the true doctrine of the circulation; but, when we search further, and find that he still regards the flow of the blood comparable to the flood and ebb tides of the Euripus; that the arteries, according to him, convey the spirit to which their pulse is due; and that he utterly failed to recognise in the heart the central moving power of the circulation,—we cannot but arrive at the conclusion that his doctrine, by itself, would never have formed the basis of modern physiology.

Cesalpino, whose work was published at Venice in 1593,† in the fifth book of his *Peripatetic Questions*‡ describes the circulation in the following words. "As rivulets draw water from a spring, the veins and arteries take their origin from the heart. It is further necessary that they should all be continuous with the heart, that the blood contained in them may be preserved by its heat, for it congeals under the influence of cold, as appears whenever it is removed from the veins. Dissection shows that all veins are continuous with the heart alone, for those which pass from the heart to the lungs are continuous with no other viscus; they terminate in the ventricles of the heart and pass no further. The vena cava and the aorta, having reached the other viscera with the exception of the heart, pass beyond them; or, if they come to an end, they do not pour their blood into a general receptacle (*non in ventrum aliquem transfundunt sanguinem*), but are broken up into hair-tubes (*capillamenta*), for nowhere excepting in the heart is the blood contained in a receptacle out of the veins."

Although in this passage Cesalpino speaks of a continuity of the blood-vessels, he still adheres, as shown in another passage,§ to the view that the venous system depends less upon the heart than upon the liver, which organ possesses a special nutritive power (*vim alimenticam*), and is the real source of the veins: "non igitur cor sed hepar est principium venarum". Again, elsewhere|| Cesalpino gives his adhesion to the ancient fallacy that the blood passes not only to the lungs from the right ventricle, but also through the septum into the left side of the heart; "partim per medium septum, partim per medios pulmones (sanguis) refrigerationis gratiã ex dextro in sinistrum transmittitur".

Even Harvey himself, conclusive as are his proofs of a continuity of the current both in the lesser and greater circulation from the heart as a starting-point back again to the central organ, nowhere gets beyond the prevailing view of an anastomosis between the arteries and the veins. It would be as reasonable to infer that Cesalpino had, without a microscope, anticipated the great discovery of the capillaries by Malpighi because he accidentally uses the term "capillamenta" to designate the minute divisions of the vena cava and the aorta, as it is to regard him as the true discoverer of the circulation of the blood. Everybody, as Cesalpino says, knew in his day that the arteries took their origin from the heart, in order that they might distribute the vital spirit throughout the body; and, again, he maintains that a continuous movement is propagated throughout the different parts of the body, because there is a continuous generation of spirit, which, by its increase (*amplificatione*), is fitted very rapidly to be diffused everywhere.

Cesalpino argues that the heart is manifestly the chief organ of sensation (*primum sensorium*), because it is associated with every sense of joy or sadness, which are first perceived to exist in the heart. The heart, therefore, is the origin of the nerves. And what, he asks, could such a struggle about the heart effect, unless there were a continuous passage from the heart to the instruments of movement, by which a large amount of spirit (*spiritus multus*) could be conveyed? There is not much in the foregoing passage that we can utilise; but in the following there is a mixture of truth and error which is more suggestive, although it will not bear comparison with the clear and practical deductions, based upon observation in the dead and living body, which Harvey has laid before us in language as free from hypothetical jargon as anything known in science. In discussing the question of suffocation, Cesalpino¶ says: "It appears worthy of inquiry why veins swell on the distal side of a ligature, and not on the opposite side,

which those know from experience who open a vein, for they apply the ligature above the point of section, and not below, because the veins swell below, and not above the ligature. But the opposite result ought to happen if the movement of the blood and spirit passed from the bowels to the body at large; for, if the passage be intercepted, no further progress is possible: therefore the swelling of the veins ought to have been above the ligature."

After inquiring into Aristotle's view on the subject, Cesalpino goes on to say: "The passages of the heart have been so prepared by Nature that the vena cava opens into the right ventricle of the heart, from which a passage opens into the lung; from the lung there is another passage into the left ventricle of the heart; from which, finally, an outlet opens into the aorta, certain membranes being placed at the mouths of the vessels to prevent a return; for there is a certain continuous movement from the vena cava through the heart and lungs into the aorta. But as, during wakefulness, the movement of native heat takes place outwards, namely, to the sensorial parts; but during sleep inwards, namely, to the heart,—it appears that during wakefulness much spirit and blood are carried to the arteries, for there is a passage from them to the nerves. But in sleep the same heat returns through the veins to the heart, and not through the arteries; for the natural entrance is through the vena cava into the heart, and not through the arteries. The proof of this is to be found in the pulses, which are large, powerful, quick, and frequent in those waking up, occurring with a certain vibration; during sleep, they are small, languid, slow, and scanty. For during sleep the native heat tends less into the arteries, but rushes more violently into them as the individual wakes up. The veins behave in a different manner, for during sleep they tumefy, but shrink in the waking state, as any one may see who looks at the veins of the hand. For during sleep the natural heat passes from the arteries to the veins by inosculation which are called anastomoses, and thence to the heart; but, as the tidal movement of the blood (*exundatio*) to the upper parts, and its ebb (*retrocessus*) to the lower parts, like Euripus, is manifest in sleeping and waking, so this kind of movement is not obscure wherever a ligature is applied to a part of the body, or the veins are closed in some other way."

I trust I shall be pardoned if I do not go more fully into this question of priority, but refer those in whose minds any doubt may remain, to the original works of Cesalpino, where they will find much to interest them. Even the brief quotations that I have laid before you appear to justify to a certain extent the claims that have been raised for higher distinction among the physiologists of the past for Cesalpino than may have hitherto been awarded him, but at the same time I venture to think that they are conclusive as to the view that Cesalpino cannot be declared worthy to occupy the place so long and universally assigned to our illustrious countryman. Certainly Cesalpino himself was not conscious of having made an important, if any, discovery; for he introduces the subject of the circulation incidentally in a chapter headed "Cor non solum arteriarum sed et venarum et nervorum principium", and nowhere lays stress upon what is now claimed as his prerogative. Even among the list of subjects contained in his *Index eorum que notatu digna visa sunt* the circulation is not inserted. Lest, as Englishmen, we may be tempted to take a one-sided view of the question, permit me to adduce a few words from the work of one of the most eminent modern French physiologists. Flourens,* in his *Histoire de la Circulation du Sang* gives evidence of a minute study of the authors who preceded Harvey, says: "Lorsque Harvey parut, tout, relativement à la circulation, avait été indiqué ou soupçonné, rien n'était établi. Rien n'était établi, et cela est si vrai que Fabricé d'Acquapendente, qui vient après Césalpin et qui découvre les valvules des veines, ne connaît pas la circulation." And it may be added that he quite misinterpreted the functions of the valves.

A careful study of the entire subject appears fully to justify the opinion expressed by Dr. Willis,† that Cesalpino, tried by a moderately searching criticism, presents himself to us as but very little further advanced than the ancients in his ideas on the motion of the blood; and, again, that "the world saw nothing of the circulation of the blood in Servetus, Columbus, Cesalpino, or Shakespeare, until after William Harvey had taught and written".

We all know that Harvey did not evolve his doctrine out of his inner consciousness, but that by intense application and the study of vital phenomena he arrived at the conclusions set forth in 1628, having

* *De Motu Sanguinis Commentatio*, p. 1.

† Andrea Cesalpini, Aretini, *Questionum peripateticarum*, libri v; *Demonstratio Investigatio pneumatice*; *Questionum Medicarum*, lib. ii; *De Medicaminum Facultatibus*, libri ii. Venetiis, 1593.

‡ *Ibid.*, p. 116.

§ *Questionum peripateticarum*, lib. v, p. 117.

¶ *Quæst. peripat.*, p. 236.

‡ *Loc. cit.*, p. 234.

* *Histoire de la Circulation du Sang*, par P. Flourens, Professeur au Muséum d'Histoire Naturelle de Paris, 1854, p. 28. An excellent summary of the history of the circulation is given in Mr. Lewes's *Physiology of Common Life* (vol. i, p. 259, 1859), in which the claims of Harvey and of his predecessors are fairly and succinctly set forth.

† *The Life of Harvey*; introduction to Sydenham Society's edition of Harvey's works, p. 63.

undertaken a task which at the outset he regarded "as so full of difficulties that he was almost tempted to think with Fracastorius that the motion of the heart was only to be comprehended by God". It will be interesting to the Fellows of this College, no less than to the world of science at large, to know that we now have it in our power to estimate more accurately the gradual advances by which Harvey eventually arrived at his goal, inasmuch as the original notes of the first lectures which he delivered in this College in 1616 and in subsequent years, as Lulleian Lecturer on Anatomy and Physiology, have been recently rediscovered in the British Museum. Harvey tells us in the introductory letter to his "very dear friend Dr. Argent, the excellent and accomplished President of the College of Physicians, prefixed to his work *De Motu Sanguinis*, published in 1628, that he had "for nine years and more confirmed his views by multiplied demonstrations". Hence the first date of the new doctrine is ordinarily fixed in 1619; but the manuscript lectures show that Harvey delivered his first lectures in 1616, and was then already on the threshold of the complete discovery. These lectures formed a part of the library of Sir Hans Sloane, which was purchased by Government in 1754, and, though entered in the Catalogue of the Museum, they have disappeared for above a hundred years. A few months ago, in going over the duplicate books which had been set aside, this manuscript was found, probably in all the better preservation from having been so long buried. Allusion is made to these lectures by several writers. Dr. Rolleston, in his Harveian Oration (p. 70), gives all the details that he was able to collect regarding them, and recounts with what diligence they had been searched for. They were also evidently seen by the writer of Harvey's life prefixed to the edition of his works published by the College of Physicians in 1766, but have been mislaid since then. The notes are written in Latin, but the abbreviations and the handwriting are so quaint that no one but a gentleman in the habit of studying manuscripts of the period can decipher them.* Mr. Bond, the Chief of the Manuscript Department of the British Museum, has kindly produced a readable transcript of that portion of the lectures which commands our special attention. Possibly this College may consider it a duty that it owes to itself no less than to the memory of the illustrious author to publish these notes, entire or in part, so as to complete as far as possible the history of the subject to which our attention is specially directed. Coupled with Schlegel's admirable *Commentatio de Motu Sanguinis*, which has received too little attention in this country, the two would form a not inappropriate memorial of the natal year of William Harvey, of which we celebrate the three hundredth anniversary in 1878.

Every detail concerning Harvey's early studies appears to command our interest; I, therefore, make no apology for presenting you with a few details concerning his first lectures. The volume, which is carefully bound in leather, with some pretensions to elegance, contains about 99 pages of foolscap paper, reduced to a size of 6 inches by 8. The binding was evidently an after-thought, and the loose pages may have been used for one or more years before they were put into their present form, because they bear the marks of having been folded lengthways twice over, so as then to occupy a very small space of about 8 inches by 2. There is also evidence that Harvey used the book in its present form for his lectures; for he had attached, by sealing wax, threads of twine along the inner side of the cover, under which he could slip any further notes for future lectures. The writing throughout appears to have suffered little or nothing in distinctness, except that of the title-page; but in evidence of the style and the difficulty of putting it into a modern form, I venture to send round an autotype copy of one of the most legible passages, which happens to be the *résumé* of what Harvey taught in his early lectures regarding the heart and circulation.

The title-page, which is in red ink, is very nearly illegible. It is to the following effect: "Prælectiones anatomie universalis, per me Guglielmum Harveium Londinensem, anatom. et chirurg. Professorum. Anno Dom. 1616. Anno ætatis 37. Prælect. April. 1st, 1617." Underneath are the numbers 16, 17, 18, which probably imply that these particular notes were used for the lectures of 1616, 1617, and 1618.

The manuscript evidently consists of mere memoranda; jottings of the subject upon which the speaker could dilate as he chose. Each

full page contains about thirty lines, and but few of the words are written out in full. The abbreviations, which sometimes assume an almost hieroglyphic form, are very numerous; and as the terminations of the words are commonly mere up and down strokes, a considerable latitude must necessarily be allowed to the transcriber. Under these circumstances, and from the impossibility of interpreting or verifying some of the allusions and references, the transcript and translation of the portion that particularly concerns us, relating to the heart and circulation, inevitably leaves much to be desired.* I may say that this section occupies a little more than 15 pages of the volume, comprising altogether 441 lines.

The notes are put together in an aphoristic manner, and are occasionally interpolated with English words for which the writer, at the moment of composition, was unable at once to supply the corresponding Latin term. There are frequent references to other authors; Hippocrates, Galen, Columbus, Vesalius (*sic*), Colsius, Aquapendens, and one, though this is doubtful, to Cæsalpinus. Every now and then we meet with initials W. H., appended, probably, for the purpose of distinguishing the passage as one that the speaker wished to mark as belonging especially to himself. The notes show that Harvey had, at that time, already studied the subject by vivisection, and that he had employed a variety of animals for his inquiry. But one feels throughout that he is still somewhat influenced by the prevailing views, and that he is only laboriously attaining that clear insight which his work, published in 1628, so plainly shows.

Harvey commences the section on the heart and circulation with an etymological assertion, for which, I fear, it would be difficult to find sufficient justification: "Cor a currendo, quia semper movetur." His first anatomical statement is to this effect: † "This (the heart) is the chiefest of all parts of the body, not by any inherent quality, for its flesh is more fibrous and harder and colder than the liver, but by the quantity of blood and spirits contained in the ventricles." You see, he still clung to the view that the heart contained something besides blood. The heart, he says, cannot bear any serious lesion without death ensuing; still, he adds, showing that he had already devoted attention to pathological anatomy, "vix ullis vitium cadaveribus vidi, nec consumitur ptysi (phthisis) secundum spem Galeni." An amusing instance of a jumble of Latin and English occurs in this section: "Exempto corde frogg scipp, eel crawle, dogg ambulat"; in which the English, not one word of which would pass muster at a spelling-bee, is as interesting a feature as the physiological fact embodied in the sentence.

The next section is devoted to an examination of the structure of the heart and its contents. Harvey's initials are attached to such sentences as—"Hinc cur potius arteria oriri a corde quam vena, non video"; as—"Quære de principio venarum, puto a corde". He commences the consideration of the use of the heart with the statement—"Hæ duo lacunæ (the two ventricles) cystemæ sanguinis et spiritus"; the latter, he subsequently says—"in totum corpus hinc distribuitur". Much comparative anatomy is introduced; and we meet, probably for the first time in English medical literature, the designation of "bishop's miter" as applied to the left auriculo-ventricular valve. Harvey heads the next division of his subject "*Historia, Transitus Sanguinis et quo modo spiritus fiat*". In this, he discusses the question of the transmission of the blood through the foramen ovale, which he regards as a fetal arrangement, describing at the same time the changes occurring in the ductus Botalli. The substance, colour, and temperature of the heart are considered; and here, as elsewhere, there are suggestions manifestly derived from clinical practice. Under the heading "*Motus*", Harvey dwells upon difficulties, which he subsequently surmounted, in understanding the movements of the organ, and especially in determining which was systole and which diastole.‡ He evidently took his audience into his counsel and displayed before them the living heart, for he says§: "I have watched the process for entire hours, and was unable to determine the question for myself, either by sight or by touch; therefore, I shall ask you to look for yourselves, and give me your opinion." However, he arrives at this conclusion, that, whether

* The attempt I have made in translating it has not yielded satisfactory results; and, after submitting it to more competent Latin scholars than I profess to be, I fear others would not be much more successful. It would probably be wisest to publish the notes in autotype, with an accompanying transcript, and allow each reader to be his own interpreter.

† Principissima omnium pars, non propria ratione, carne fibrosior enim et durior et frigidior hepate, sed copie sanguinis et spirituum in ventriculis. Harvey enlarges upon this paragraph under three heads. 1. Unde fons totius caloris; 2. Unde auricula dextra pro apostemate cernitur morte; 3. Unde piscis quasi lacuna sanguinis, et eo major quo sanguis spirituosior, calidior; puto quo distentius et non concretum possibile ad vitam, unde auriculae pulsant post emotum cor sanguinis multitudinem. The italicised letters are the terminations suggested by Mr. Bond.

‡ Videtur quod arduum et difficile discernere aut visu aut tactu, dilatari et contraheri, et qualis sit systole qualis diastole.

§ Ego per integras horas animadvertendo non facile potui discernere neque visu neque tactu, quare vobis cernendum et indicandum proponam.

* In his own day, Harvey's writing was evidently a puzzle to his readers, for Dr. Ent, in his epistle dedicatory to the work on *Generation*, which he edited, says: "As our author writes a hand which no one without practice can easily read (a thing that is common among our men of letters), I have taken some pains to prevent the printer committing any very grave blunders through this." Many of my readers may already be familiar with Harvey's handwriting through the *fac-simile* of a letter of his, prefixed to Dr. Aveling's *Memorials of Harvey* (London, 1875), which fully confirms Dr. Ent's statement, as its authenticity is in its turn corroborated by MS. lectures.

the erection of the heart is to be regarded as the act of systole or diastole, the heart, by its erection, projects the blood and causes the pulse.*

One more extract, and I will detain you no longer with the notes; hoping, however, that I have not taken up your time unprofitably with a subject that appears to me to justify our liveliest interest, and to merit a more complete and permanent record than my present opportunity permits.

The passage that I am about to quote forms the peroration to the first Lumen Lecture on the heart, and comprises a summary of the doctrines on the movement of the heart and the circulation as taught by Harvey at the beginning of his career. I shall give the passage verbatim, prefacing it only with the remark that it is initialled W. H.

"Constat per fabricam cordis, sanguinem per pulmones in aortam perpetuo transferri; as by 2 clacks of a water-bellow to rayse water.

"Constat per ligaturam transitus sanguinis ab arteriis ad venas.

"Unde Δ (demonstratur) perpetuum sanguinis motum fieri pulsu cordis.

"An (?) hoc gratie nutritionis, an magis conservationis sanguinis et membrorum per infusionem calidam, vicissimque sanguis calefaciens membra, frigidus, a corde calefit."

Most of this is taught more explicitly in Harvey's work of 1628; but he then, as shown in his letter to Riolan, abandoned the theory that the heart was the source of heat.

I owe you, Sir, and Fellows of the College, an apology for having occupied so much of the brief time at my disposal by the inquiry into the merits of Cesalpino;† but it appears to me one of the duties of the Harveian orator not to allow (as far as in him lies) an aspersion to rest on a name that has been justly called "immortal". Our departed friend Edmund Alexander Parkes, in fervent language, vindicated Harvey's claim to that title, in the posthumous oration which Sir William Jenner read from this chair last year. He spoke of Harvey's discovery as one "that is not only one of those cardinal discoveries which lie at the very foundation of physiology and medicine, but is one that from its very nature forms one of those great landmarks which must remain in the sight of all". Upon that topic it is unnecessary for me to dilate before an audience in whose ears the words of Parkes still ring. But it may not be unfitting to inquire whether we, the spiritual descendants of Harvey, are carrying on the great tradition which we have received from him in a manner that he would approve of—by a steady pursuit of truth for its own sake, by that rigid sobriety of judgment which everywhere characterised his researches, by that "marvellous industry" and "insatiable curiosity" with which he prosecuted his researches to the day of his death.

Our Hunters, our Marshall Halls, our Bells, our Brodies, all trod in Harvey's paths, and have largely aided in the onward movement of medical science in this country; but I think I do not indulge in a vain "Eidolon", if I look upon the present period of British medicine as one to which pre-eminently the term of the Harveian age of medicine

* Erectio ne prendit sanguinem et facit pulsus, pro cresci (an heretical notion) et contra Galenum— "as in a globe," he adds in English, and concludes. Hinc pulsus arteriarum, non ex innata facultate sed protendente corde.

† Cesalpino's inquiries into demonology have no bearing upon the subject matter of the oration; but I venture to direct the reader's attention to them, as they are often extremely amusing, and may assist in forming some opinion of the writer's character and frame of mind. As a whet to their appetites, I extract the following illustration from the *Demonium Investigatio* (chap. ix, p. 154), of the views that prevailed even among the educated classes in the sixteenth century as to the influence exerted by evil spirits upon man. Cesalpino relates that "A ship having put into Salamis, in the island of Cyprus, for the purpose of purchasing provisions, a young man left the vessel and bought some eggs of a certain woman. He ate them on the shore, and, after the lapse of an hour, lost his voice and became half stupefied. When he assayed to go on board, he was driven back by his associates, who did not recognise him, but regarded him as an ass. As the wretched man was unable to express himself in words, the ship quitted the harbour without him; and he, anxious and having nobody to advise him, returned to the woman by whose influence he suspected that he was detained. He obtained no help from her; and, therefore, waiting his opportunity, remained three years in the country, occasionally carrying burdens according to the custom of asses. At night he stayed with the woman; but, continuing dumb, was unable to give evidence against the poisoner. However, having been accidentally led to the town, and passing a church, the ass was seen by certain Genoese merchants, at the elevation of the host, which happened at the moment to be raised, to bend his hind legs and to raise his forepaws in adoration. The merchants seeing this miracle, inferred that the woman who was leading the ass was a witch (for this species of transformation was common in Asia). They brought the affair to the notice of the mayor of the town, who ordered the woman to be seized. She confessed her crime, and, in the hope of pardon, restored the young man to his former condition, and he returned home. She, however, suffered condign punishment." Cesalpino adopts this tale as a fact, and infers that such occurrences prove that the accounts given by poets of the metamorphoses of the companions of Ulysses into animals by Circe were not mere fables. It is not difficult to conceive how the sober mind of Harvey would treat these lubrications of Cesalpino if he were acquainted with them; but they scarcely impress us with the conviction that the latter was a man capable of effecting a great revolution in science. It may be interesting to modern demonologists to know that a picture by Gius. Sabatelli—painted in the present century—is to be found in a chapel of Santa Croce in Florence, in which a mule is represented as kneeling before the host which is being conveyed to a sick person (see *Museo di Pittura e Scultura*, Firenze, 1842. Tavola 112).

may be justly applied. The future only can determine the meed of praise to be awarded to an individual, and will not fail to correct any exaggerated estimate which a contemporary may form. But as it is one of the functions of the Harveian orator to speak "in commemoration of those who have added aught to the sum of medical science in the course of the bygone year", I believe myself to be only fulfilling the trust confided in me if I dwell upon the earnest work which we see on all sides, and which, in spite of malevolence and misconstruction, is leading us on step by step to more perfect knowledge, and enabling us more and more to benefit our fellow-men.

Two of our distinguished contemporaries of this College I have already named—one, alas! no more—whose names will shed lustre upon the present time. But there are many both in and out of this College whom this country may be proud of, and whom we cannot but think that Harvey would gladly have extended the right hand of fellowship to, and have recognised as fellow-labourers. Scientific medicine of the present cannot fail to command the grateful acknowledgments of our descendants with such an array of names as Billing and Watson, Burrows, Williams, Carpenter, Sharpey, Beale, Paget, Bennett, Simon, Radcliffe, West, Sanderson, Johnson, Brown-Séquard, Lockhart Clarke, Murchison, Handfield Jones, Richardson, Garrod, Wilks, Pavy, Dickinson, Harley, Hughlings Jackson, Hutchinson, Bastian, Ferrier, and many others, whose researches have already secured them a renown that nothing my feeble voice might urge can either abate or increase.

Would not Harvey have rejoiced to learn the revelations of the microscope and of the chemical laboratory, which belong especially to our day? Can we not picture to ourselves the flash of joy that would beam from his black eyes as he traced the intricacies of cardiac action and of respiration with the stethoscope, the sphygmograph, and the cardiograph? Would it not have gladdened his heart to see the admirable reports of the Medical Officer of the Privy Council, spreading light over recondite processes, and illuminating subjects not less interesting to the man of science than fraught with benefits to the human race? Would Harvey not have followed with profound intelligence and animation the discussions in our societies on the causes and pathology of cancer, on the communicability and production of tubercle, and the intricate question of syphilitic infection?

Who can study the researches of Dr. Burdon Sanderson into the pathology of infective processes without feeling that he is leading us to a profounder study of the most hidden phenomena of disease than was thought attainable a very short time ago? Mr. Simon,* alluding to his work and that of his colleagues, says well that their studies are extremely important, and that ordinary professional practice supplies neither opportunity nor immediate stimulus for them; studies of elaborate and purely scientific research in aid of the development of medical knowledge, studies never immediately convertible to pecuniary profit, but perhaps, on the contrary, involving heavy cost; studies, too, which, from their nature, cannot promise rapid results nor be conducted in fragments of leisure, but require systematic and continuous labour extending over long periods of time.

Dr. Sanderson's researches have especially served to open out a new vista with regard to many inflammatory and febrile processes; and, although they are not to be regarded as concluded, they have already shed much light, particularly on the origin and course of infective processes. We owe to his earlier experiments the discovery of the fact "that when in the lower animals local inflammations are produced, either in the skin or peritoneum, by the introduction of irritant substances, two distinct sets of consequences manifest themselves, viz.—a chronic disease exhibiting in all respects the anatomical characters of tuberculosis, and consisting essentially in the overgrowth of certain tissues, designated as lymphatic or adenoid, and shown to be in close relation with the lymphatic system; and (2) an acute disease presenting the leading features of pyæmia, attended with the formation of metastatic abscesses, and, as a rule, terminating fatally and very rapidly by the formation of infective abscesses and nodules associated with inflammation, not only of the peritoneum, but of other serous cavities."

It is no small matter to have learnt from Dr. Sanderson's inquiries into the pathology of diphtheria, that microzymes and micrococci exist which possess the power of colonising in living tissues, and "thereby inducing a variety of inflammation which is distinguished from others by its tendency to result in disintegration, and that this faculty of disintegrative inflammation is possessed by them independently, and can be exercised without the concurrence of any previously existing morbid process". The micrococci found by Sanderson, by Keber, Cohn, and others in small-pox, the rod-like bodies, distinct from bacteria,

belonging to splenic fever, the wavy spirilla discovered by Obermeier in the blood of persons suffering from relapsing fever, and not seen in other acute and infective diseases—all point to the necessity of remodelling many of our views regarding the essence of disease; while a more intimate knowledge of its pathology cannot fail to give greater precision to our methods of combating morbid processes.

We cannot hope to apply a more scientific treatment to disease than we do now, until we thoroughly understand the origin and course of the disease, and the changes that occur. Although it is manifest that morbid poisons do not all act equally upon man and animals, still, it is also clear that we must be content to study the synthesis of disease, with very rare exceptions, in the brute creation only. Would that it were possible to popularise such researches as those initiated by the Medical Officer of the Privy Council, in order to convince a sentimental public that they open a prospect of hopeful harvest in the field of preventive and curative medicine. Surely, it is as much in accordance with the dictates of the most refined humanity to utilise animals for the extension of knowledge that shall afford relief or immunity from disease, as to employ them for the sustentation of life as food and raiment. As some of the agitators against scientific advancement are proof against facts and evidence brought forward in the vernacular tongue,* we may hope that they more readily accept arguments when expressed in the language of Virgil. We would recommend them to read the "Carmen Elegiacum" of Dr. Bridges,† in which the poet offers an elegant protest against the imputation that heartlessness and cruelty direct experiments made upon animals. After referring to the good work done by our distinguished fellow Dr. Brunton, whom he describes as

"Promptus aberrantes vivisecare canes",

and, after alluding to the popular errors prevailing on the subject, he exclaims

"Hoc crudele aliquid nobilitatis habet,
Hic simul humanis prodesse videntur;
Quoque loco cecidit rana, resurgit homo."

Assuming that we have acquired a power to recognise the germs giving rise to febrile and infective processes, or of the *causa proxima* (to use an antiquated term) of other morbid conditions, we could not hope to determine satisfactorily by chemical reagents in the test-tube the antidote that would neutralise them. This would merely be an ancillary method, guiding to further researches; the real value of the antidote could not be established in any other way than by experiment upon a living body into which the germs had been introduced. Valuable as are the reports of Dr. Baxter,‡ as to the relative disinfecting power of chlorine, permanganate of potash, sulphurous acid, and heat, they deal only with contagia outside the body. We have probably all of us in practice hoped that, by introducing these and similar agents into the diseased body, we might influence beneficially the processes manifestly depending upon such contagia. I fear that as yet no results have been achieved that would in any way justify a belief that the antidote has been discovered, that will neutralise or arrest an infective process in the body, as we have succeeded in doing external to it. Our treatment in these cases, as yet, consists in dealing with the product of the morbid germ, and in assisting nature to bear its assaults with more or less impunity. The goal that we or our successors must aim at is to discover a germicide agent, whether to be introduced by the mouth or by injection directly into the blood; so that, to use Mr. Simon's words,§ "the bedside practitioner shall be able to apply his counteragents with the precision of one who conducts a mere physical experiment".

But if we are still far from a perfect knowledge of the intimate cause of morbid processes, promising as the investigations are to which allusion has just been made, we have greater reason to congratulate ourselves on our recent advances in the determination of the various phases exhibited during the progress of disease. Few appliances, during the most recent period of medicine, have contributed more to this advance than the thermometer, the universal adoption of which might well be adduced in evidence of that Harveian spirit which I venture to claim as a characteristic and prevailing feature in the medical profession of the present day. Remembering the early days of the stethoscope, and the comparative slowness with which it forced itself into universal recognition, the manner in which the thermometric test of morbid processes has been received in all ranks of the profession, from the time its value was first shown by Wunderlich and Traube, seems to justify a high estimate of the advance made by the students of

medicine during the present generation. The thermometer does not give us the reason of the change of temperature in the individual case; but it enables us to form a correct estimate of many processes, the nature of which previously could only be determined in the *post mortem* room; and increased diligence in its employment is likely to render more clear the diagnosis of various obscure changes, as, for instance, Bastian* and others have already indicated in the department of cerebral pathology. The thermometer tells us a fact, which the most educated tactile sensibility is inadequate to determine with precision; and both in the outset, course, and convalescence of acute disease, it is an invaluable help to judge of the requirements of our patients. Whether more care in observation, or more refined instruments, will materially increase the value of thermometry, remains to be seen; but what we specially require is a means of determining the commencement of the incubative stage of febrile disease, so that we might be enabled to apply our remedies before the zymotic process has actually poisoned the entire system. The interval that elapses between the absorption of a germ and the actual manifestation of the complicated processes to which it gives rise, is the period during which an antidotal or germicide agent would be most certain to effect the desired end. It suggests itself whether we are not likely to find, in a combination of the galvanometer and thermometer, the means of a further advance in this direction; and it seems to me that we must look to the galvanic test also for a solution of the problem, which is so often presented to the practitioner: how pain, which at present is only a subjective sign, can be rendered more objective; how we may estimate and measure this important symptom; how we can secure an instrument which, by anticipation, may be termed an odynometer.

The "tactus eruditus", upon which our predecessors justly laid stress, and which cannot now be dispensed with, is rendered more intelligible and receives a scientific basis in the explanations of the varying conditions of arterial tension afforded by the sphygmograph. It is one of those inventions and applications of the modern physiologist which we conceive that Harvey would have especially delighted in, as giving confirmation to many views which he held, and explaining much that necessarily was beyond even his powers of solution. The sphygmograph affords us the *rationale* of those differences of the pulse which the practised physician has long recognised; and though not suited, at least in its present form, for ordinary bedside practice, has already, in the hands of experienced observers, thrown much light on the changes which the heart and vessels are subjected to in the varying phases of disease. As it has already given precision to our physiological doctrines on the action of the heart, the condition of the arteries, and the balance of the circulation, we may hope that it will aid us still further in determining the action of many substances which affect the circulating apparatus and the blood, concerning which the medical mind is still in a painful state of dubiety.

In connection with this subject, I am confident that I re-echo the feelings of every member of this ancient Corporation if I dwell upon the loss which the College has sustained, since the last Harveian oration was delivered, by the decease of a man whom we may justly designate as a genuine follower of our great medical prototype, and who showed by his work that he also "avowed himself the partisan of truth alone", questioning nature with all the perseverance of the earnest student, and not content with anything but the most rigid examination of the replies she vouchsafed to his inquiries. Among the numerous works of Harvey, the loss of which we have to deplore,† "by certain rapacious bands, which, not only with the permission but by the command of Parliament, stripped his house of all its furniture, but abstracted the fruits of many years of toil", we have to reckon a *Medical Anatomy*.‡ One of the various works by which our friend Dr. Sibson has established a name, which will endure while this College lasts, is a *Medical Anatomy*, in which he gives evidence of many of the admirable qualities which characterised Harvey. Like Harvey, too, he did not hurry into a publication of his researches, but thoroughly matured his work before bringing his fruit into the great market of literature. To both, we may suitably apply the praise bestowed upon Goldsmith, in a somewhat different sense, in the well-known words: "*Nihil tetigit quod non ornavit.*"§ Sibson's work in connection with respiration, with the nomenclature of disease, with aneurism, and with sanitary science, deserves a grateful record on our part. There appears a special fitness

* *Paralysis from Brain Disease in its Common Forms*, by H. Charlton Bastian, M.D., F.R.S., 1877.

† *The Works of Harvey*, Sydenham Society's edition, p. 471.

‡ *The Works of Harvey*, Sydenham Society's edition, p. 55.

§ We hope to be pardoned for taking a slight liberty with Goldsmith's epithet on Goldsmith, the complement of which runs thus: "Olivaro Goldsmithi, poetæ, physici, historici, qui nullum feri scribendi genus non tetigit, nullum quod tetigit non ornavit, sive risu essent in ore tibi, sive lacrymarum, acie tuum potius et leas luminator etc."

* See especially the Report of the Royal Commission on the practice of subjecting animals to experiments for scientific purposes; 1870; Bluebook.

† *Carmen Elegiacum* Roberti Bridges, de Nonesimo St. Bartolomæi, Londinensi. London: 1877.

‡ *Report of Medical Officer of Privy Council, 1875; Appendix No. 6.*

§ *Report of Medical Officer of Privy Council, 1875, p. 1.*

in the fact that, the last time Sibson appeared before the medical public, he delivered two Harveian lectures "on Bright's Disease and its Treatment", in which we find all those qualities of the scientific physician which have left so deep an impression upon the generation in which he lived. They do not, of course, convey to the reader the many estimable qualities of head and heart, the warmth and heartiness of his friendship, the poetic love of nature and of art, which endeared him to all who had the privilege of intimate intercourse with him, and which we rarely see so harmoniously blended as they were in our departed friend. These, indeed, are enshrined in our affectionate memories; but his chief claim to be mentioned in this place, and on this occasion, lies in the fact that those who knew him best may claim for him, in an especial manner, that he was a representative of the Harveian spirit of honest and truthful research into the mysteries of God's work in nature.

In no department of medical science has careful study offered to the inquirer of late years more promise of reward than in the domain of the nervous system. We have, indeed, been told, but recently in this hall, by one of its most successful cultivators, how much of uncertainty yet surrounds our knowledge of disease of the brain; and yet, whether we dwell upon the physiology of the cerebro-spinal system, the chemical changes which it controls, the localisation of function, the relation of nutrition and nerve-force, or the minute pathology of the brain and spinal cord, it is impossible not to be struck by the progress made by labourers of the present and most recent periods. In this field alone, of all the wide regions of medical science, we find no evidence that our Harvey instituted any special inquiries and observations. In his manuscript lectures on anatomy, the brain and spinal cord are treated in the most summary manner; and although his works afford proofs of his pathological knowledge,* of his acquirements and practice in surgery,† and of his acquaintance with and performance of operations in obstetrics,‡ we search in vain for a sign that he even appreciated the importance of the nervous system. The significance of this part of our fabric has, indeed, been scarcely recognised until the present century; and even now, great as have been the achievements of illustrious students, many of whom we claim as associates of this College, we only appear to see the dawn of the full effulgence of knowledge. Truly, whether we look to the results already secured, or to the promise they offer of greater light, we cannot refuse the claim of the labourers in this department of medical science to be considered as genuine fellow-labourers of Harvey; conscientiousness, perseverance, concentration and clearness of thought, are the characteristics of many of our contemporaries, whom, in an assembly like the present, it would be unnecessary to recall by name. But they, like the collaborators in other realms of medicine, have materially contributed towards rendering this present time deserving of the title of the Harveian era.

Few things are more encouraging to the medical man, who reads the works of Harvey with attention, than to find that his faith in the value of treatment was in no wise impaired by his studies; § on the contrary, he frequently illustrates the value of his physiological discoveries by showing the direct application to be made of them to the arrest and control of disease. The more we study the works that have survived him, the more intense becomes the admiration for the great mind that achieved them; and the greater our regret that barbarous hands destroyed other products of his labour, which we are justified in inferring to have been of the greatest value. As the reputation he enjoyed among his contemporaries has been confirmed by the continuous applause of his successors, we cannot doubt that his powers, brought to bear upon the investigation of disease and its treatment, the results of which were embodied in his (lost) "Medical Annotations", would also have largely advanced the healing art. With his help, it is not unlikely that our control of morbid processes might be greater than it is at present; and that we might already claim a greater precision in this department of our calling than our advances in diagnosis, in the chemistry of the body, and in the knowledge of drugs, can yet justify. Earnest as the work is that is being done in this field of science, it is scarcely commensurate with the results gained in other sections of the domain; though here, too, the Harveian spirit is abroad, and hu-

manity is already reaping benefits which even Harvey could not have dreamt of.

But if we may not justly assert that we have as yet acquired the precision in our control over morbid processes that the general advance of medical knowledge would appear to demand, we may claim for our knowledge of what is summed up under the modern term of State medicine a high position among the sciences that are directly conducive to the welfare of mankind.

In the application of medicine and the allied sciences to the prevention of disease, the present century may claim precedence of rank before any earlier periods in human civilisation. During the last forty years, each decennium has been characterised by an ever-growing appreciation of the great truths of sanitary science. From the days of the Health of Towns Reports by Edwin Chadwick to the later days of Parkes and Simon, medical men have continuously and unselfishly waged war against the vested interests of filth and zymosis. Nor have their efforts been futile, if increased salubrity and a higher average duration of life may be regarded as tests of success. Nowhere have these tests yielded more satisfactory results than in our naval and military forces; and seeing how much has been achieved, it does not appear out of place to express a hope that our Governments may always take the precautions that are necessary to insure to medical men, in their official capacities, such power and position that their representations may receive due support. I have already had occasion to dwell upon the reports of the (late) Medical Officer of the Privy Council. The work of which he has been the ruling spirit constitutes a memorial, which will remain an honour to himself and his colleagues, as it is to the time and people for which he laboured. It was with grief that the medical profession heard of Mr. Simon's resignation, and the pain was intensified by the report that his office was to be abolished. In the Supplementary Reports, which Mr. Simon has brought out since quitting his post, we are promised that some of the investigations, commenced under his supervision, shall be continued; may we hope with the same zeal, earnestness, and success as before. It would be difficult to express adequately the sense the profession entertain of the value and significance of all that has been achieved by the Medical Department of the Privy Council; but I am sure that we all endorse the sentiments that are so well conveyed in the following passage, which I take from Mr. Simon's last Report: * "As for the general value and promise of that kind of work in its bearing on the progress of medicine, I entertain the strongest conviction that, in regard of all antagonism to disease, whether with preventive or curative measures, and whether by official or private hands, medicine's best prospects of increase and success are inseparable from such studies of exact science; and that, in proportion as the pathological insight becomes more clear, the growth of practical power will surely follow."

It would be tedious to dwell here upon details with which my audience is as well, or better, acquainted than I am; the more so, as the time is too short even remotely to do justice to the memory of past or to the labours of present workers. But it is well to bear in mind that, in this field also, we may quote Harvey as an authority for the due appreciation of those elements of health, which it is the object of State medicine to foster and to secure, and which he feelingly dwells upon in his account of Parr, whose body he examined after death by command of His Majesty. Here, as elsewhere in his writings, Harvey indicates much that he doubtless enlarged upon more fully in those works which, unfortunately for medical science, were destroyed in the revolutionary war.

No one can say how much more rapidly medicine would have advanced, had not ruthless hands been laid upon those works of Harvey, of which only the titles have been brought down to us. But any one who has learnt to revere Harvey in what we possess of him, and has become familiar with his marvellous industry, his logical mind, and his powers of observation, cannot but feel that everything that he committed to paper was worth preserving, and was certain to impart knowledge of great value to those not possessed of the same qualities.

In the brief remarks that I have ventured to offer to you, I have dwelt upon the modern manifestations of the Harveian spirit in scientific research. But Harvey has left us other features in his character worthy of imitation. Time does not serve to speak of more than the one that especially recommends itself to the fellows and members of this College, for it was the *liberality* of Harvey by which the resources of the College have so largely benefited. His munificence provided the former library and museum; he endowed the College with his paternal estate of Burmarsh; and left to it his "bookes, household stuffe, pictures, and apparell"; his "best Persia long carpet"; his "blue embroyded cushion, one pair of brass and irons, with fire-

The Works of Harvey, Sydenham Society's edition, pp. 301 et seq. of *passim*.

† *Ibid.*, p. 274. Harvey here speaks of his surgical operations as a common thing; and it is particularly interesting to note that in an age when the "ferum candens" was still in vogue for the arrest of hæmorrhage, he says: "I have occasionally, and against all expectation, completely cured enormous sarcoceles by the simple means of dividing or tying the little artery that supplied them, and so preventing all access of nourishment to the part affected."

‡ Harvey's essay on *Parturition* affords satisfactory evidence that he was not a mere theorist, but that he personally engaged in the practice of midwifery. He appears to have paid attention to the process of parturition of animals as well as of the human female (Sydenham Society's edition, pp. 521, et seqq.; see also p. 534).

§ See especially Sydenham Society's edition, p. 129.

* *Reports of the Medical Officer of the Privy Council*, new series, No. viii, p. 7.

shovell and tongues of brasse, for the ornament of the meeting-room".* This example has not been left without imitators in the present Fellows of the College, who, in their self-denial and generosity, have of late years repeatedly shown themselves to be not unworthy recipients of Harvey's gifts. It affords me particular pleasure to announce publicly, for the first time, the special act of liberality of a recent distinguished Harveian orator, Dr. Arthur Farre, who, in his oration so eloquently and appropriately analysed Harvey's merits in connection with the subject of generation. Dr. Farre has within a few days presented to the College, with his portrait, a most valuable library of ancient and modern works, which you may observe, conspicuous by their elegant binding, in the shelves above. It is the most important donation of the kind that our Corporation has received since that of the Marquis of Dorchester, a former Fellow, in 1680; and one that doubtless affords peculiar gratification to our distinguished Harveian librarian, Dr. Monk, in whose name, as in that of the well-wishers of this ancient body, I am sure I may challenge all associates to give or bequeath to it similar "pignora amoris", that each donor may deserve, in the vernacular, the record bestowed upon Harvey in the minutes of the extraordinary comitia of July 28th, 1666: "Fastis nostris honorificè semper commemorandus." The grateful thanks of the College are certainly due to Dr. Farre for his gift; and it affords me particular pleasure to take the opportunity of tendering him from this place our acknowledgments, and our heartfelt wishes for his health and happiness.

In bringing my address to a conclusion, I beg to offer to you, Mr. President, and the Assembly, many apologies for the very imperfect manner in which I have dealt with the topics which I have ventured to touch upon. No one can be more sensible of my inadequacy to fulfil the task which you, sir, with too indulgent trust, have imposed upon me. But though I crave your merciful consideration for my effort, I cannot but admit that I owe you, sir, a debt of gratitude for having imposed upon me what has indeed been a labour of love, that again of poring over Harvey's works and studying those of his contemporaries. Every page that I have read has only served to convince me, more and more, of the magnitude of the obligations that this College and all generations of medical men who have lived, or will live, after Harvey, are under to him. Would that I could hope to have added the smallest tribute worthy of so great and good a man to the many offerings that his grateful successors have paid to his memory. But, while conscious of my own unworthiness to dilate on so great a theme, I have no fear that, for want of better advocacy, the power of the Harveian spirit will cease to prevail in English medicine, while so many illustrious workers as grace the present roll of the Royal College of Physicians are evidences of its continued influence.

Though I may not have proved what none but future physicians may fitly endorse, I cling to the belief that in no period of the past has this College been so fully imbued with a consciousness of its high calling, and a desire adequately to fulfil its important duties, as in the present; and that the many labourers in the fields that Harvey cultivated justify a humble admirer of the many distinguished contemporaries, with which it is my honour to be acquainted, in designating the present age as especially deserving of the title of the Harveian era of medicine.

It is for the younger generation of the present, and for those who are to follow, to see that the Harveian spirit suffers no abatement. Let them walk in Harvey's footsteps, and they will certainly receive their reward, in the acquisition of profounder knowledge; in the freer recognition of the value and aims of medical science by their fellow-men; and, above all, by the assurance of greater power and control over the dark influences that still chequer life and hamper man's onward march to a more elevated and spiritual existence.

* Quoted from Harvey's Will; see Dr. Monk's *Roll of the Royal College of Physicians*, vol. 1, p. 428.

NOTTINGHAM.—There were 3,481 births and 2,193 deaths registered in 1876, giving a birth-rate of 37 and a death-rate of 23.4 per 1,000 living, which is 0.2 below the average of twenty-one large towns. There were 353 deaths from zymotic diseases, of which 140 were due to diarrhoea, chiefly amongst infants; and only 40 from fever, against an average of 74. The population is estimated at 93,627, with an average of only 4.8 persons to a house. The death-rate of children under one year to registered births was as high as 19, so that there is plenty of room for improvement in the care and management of infants and of the domestic arrangements, as the conversion of offensive middens into water-closets has by no means been fully carried out; but the pail-closet system seems to be in extensive use, as five thousand are said to exist in the town. The summary of nuisances abated, showing only one hundred and four houses whitewashed, cleansed, and repaired, does not indicate anything like a systematic inspection of the poorer dwellings.

ON INFLAMMATION OF THE EPIGLOTTIS.

By W. MARCET, M.D., F.R.S.,

Late Assistant-Physician to the Westminster Hospital and the Hospital for Consumption and Diseases of the Chest, Brompton, etc.

THE physiological importance of that small organ known as the epiglottis, and the serious nature of its affections, are sufficiently great to warrant our giving it especial consideration. Both anatomically and physiologically, the epiglottis appears in a great measure to constitute a separate organ. It is placed between the tongue and the larynx, although having connections with both of them; its anterior surface is continued from the tongue, and the mucous membrane of its posterior side becomes, a little lower down, the mucous membrane of the larynx. Moreover, the cartilage of the epiglottis (with the exception, perhaps, of the cartilage of Wrisberg) is of a different nature from that of the laryngeal cartilages, being known as yellow or spongy, and belonging to the same class as that of the ear; this cartilage is more flexible than ordinary cartilage, and has little tendency to ossify (Quain's *Elements of Anatomy*). It is made up of cells and a matrix, but the latter is everywhere pervaded with fibres intersecting each other in all directions, like the filaments of a piece of felt. On removing the mucous membrane of the laryngeal surface of the epiglottis, the yellow cartilaginous lamella of which the organ consists is seen to be pierced by numerous little pits and perforations, in which are lodged small glands which open on the surface of its mucous membrane. The function of the epiglottis is also of a very special character, being concerned exclusively with the phenomena of deglutition. The laryngoscope places us in possession of a means of investigating diseases of the epiglottis and treating them by local applications and other methods; and I now propose to consider this organ when affected by inflammation.

A congested state of the epiglottis is not an unfrequent occurrence; it becomes streaked with enlarged capillary vessels, its lingual surface exhibiting much the same appearance as the back of the tongue, near its root, often does in sore-throat. The only change of form in the organ I have occasionally noticed in these cases is a slight alteration in its free edge, which appears straighter and sharper than it should be. In such cases there may be no outward sign of any affection of the epiglottis; no pain is felt by the patient on deglutition; and there is no sensation recalling the presence of a foreign body in the throat. The patient will complain of sore-throat, and, on examination, the root of the tongue will probably be found streaked with enlarged capillaries, exhibiting patches of raised follicles, while the surface of the epiglottis is also seen to be in a congested state. This condition of the epiglottis may, of course, be quite independent of such causes as syphilis, tubercle, or malignant disease; still it does not show a healthy state of the nutrition of the part, and I am always inclined to consider these cases as more serious than those of common sore-throat.

Tubercular inflammation of the epiglottis is not unlikely to commence in this way, but in such cases we may expect to find the lungs primarily affected. I shall attempt to show, however, in the present communication, that the epiglottis, and also the larynx, may become the seat of tubercular disease, although the physical examination of the chest should exhibit no signs of the lungs being thus affected.

Disease of the epiglottis is often attended with thickening of the organ, alteration of its normal shape, ulceration or a waste of substance leading to pitting; and I have seen cases of advanced laryngeal phthisis in which the epiglottis had nearly entirely wasted away.

Thickening and an altered shape of the epiglottis, in other respects, seldom results from simple inflammation, and may be considered, I think, as a rule, as due to tubercular, syphilitic, or malignant disease. I have observed, however, a few cases in which there appeared to be no constitutional affection of any kind, and yet the epiglottis had become inflamed and enlarged. One of those instances I reported in a paper published in the *Medico-Chirurgical Transactions* for 1875 (Contribution to the History of Laryngeal Phthisis). It was that of a young man aged 17, whose case I followed up for years after I had first detected the epiglottidean affection. He complained to me on April 6th, 1871, of a sensation of thickening in his throat as if a ball were lodged there, and he felt some pain on swallowing; he had coughed up a little blood on the 3rd of that month. On looking into his throat with the laryngoscope, I distinctly saw that his epiglottis was swollen. The physical signs of his chest were suspicious: there was a shade of dulness at the right apex, and the respiration was very harsh at the right supra-spinous fossa; a systolic *bruit* was heard at the heart's apex. He had never suffered from inflammation of the lungs, or cold or catarrh of any kind; there was no hereditary predisposition to phthisis. I treated the lad with cod-liver oil, syrup of iodide of iron, and his

throat was rubbed externally with iodine oil. The discomfort and pain in the throat soon disappeared, and also the cardiac *bruit*, but the epiglottis remained slightly thickened. On March 13th, 1874, or about three years later, I could only find some fine crepitation at the back of the chest on the right side, and harsh breathing on the left. The epiglottis was still slightly thickened near the rim or edge, but free from congestion or irritation. Since regaining his health three years before, he had always been quite well; indeed, he had increased in weight by ten pounds and a half between December 1872 and March 1874. In this case, there were signs of pulmonary disease, and the thickening of the epiglottis certainly appeared as if it had a tubercular origin; after a short time, however, the lungs had apparently recovered, but the epiglottis had not entirely resumed its original shape three years after it had first been affected.

Here is another case not unlike the last. A lady, aged about 30, consulted me at Cannes on account of her throat on November 15th, 1876. She had had an attack of whooping-cough in the previous month of July, not severe, though attended with slightly streaked expectoration. I observed the epiglottis to be in a highly vascular state, and enlarged or thickened, with a tendency to fall backwards; she complained of the sensation usual in such cases, as if due to the presence of a foreign body in the throat, and of a peculiar discomfort in the throat often felt just after going to bed. There was no loss of voice, but her voice was weak, and unequal to singing. There was some crepitation on the right side and harsh breathing at places; distant bronchial breathing, but no cavernous sound. On November 22nd, the epiglottis appeared less stiff, red, and angry, though still vascular; enlarged capillaries being visible on its surface. On December 3rd, the epiglottis was still red-streaked, and slightly swollen along its free edge. On December 8th, the epiglottis continued red, but had resumed its natural upright position; its rim could not be distinctly seen: she expressed herself much better in every respect. On March 23rd, 1877, or about fifteen months later, I examined this lady's larynx and found the epiglottis perfectly sound, free from any swelling or inflammation. She has resumed her singing long ago, and has felt nothing the matter with her throat for a considerable time. She is now, she says, in perfect health.

I regret my notes of the following case should be incomplete; it is clearly to be classed together with the two others.

A young lady, aged 20, residing at the Asile Evangélique of Cannes, complained to me on December 22nd, 1875, of a peculiar discomfort during the act of swallowing she had been troubled with for several years. With the aid of the laryngoscope, I found her epiglottis to be somewhat thickened, red, congested, and appearing more rigid than it should be; there were rather large isolated granulations far back on the tongue. Her general health was fair, but she was not strong. There was an absence of physical signs of any affection of the lungs. The dysphagia varied at different times in its degree, and I could not ascertain satisfactorily whether it was due to the state of the epiglottis or some peculiar condition of the nervous system. She complained much of her throat throughout the winter; and, although her epiglottis appeared to improve under treatment, it had not entirely recovered by the end of the season. This patient has again wintered this last season in the South, though not at Cannes; and I regret I had no opportunity of seeing her.

In the two following cases, the affection of the epiglottis had assumed a very much more serious aspect, and the change was certainly of a tubercular nature, although no positive tubercular disease could be found in any other part of the body except the larynx. In neither of them could I trace any syphilitic history.

On January 5th, 1877, a patient of the Asile Evangélique of Cannes, aged 35, formerly a secretary in an hotel, came under my care, having lost his voice six months before; he could, however, with much straining, emit a very slight sound for a word or two. His general health was fair, and he could take long walks without fatigue. He assured me that he had never suffered from any syphilitic affection. I failed to detect anything amiss on a careful physical examination of the chest, although he had a bad cough. With the laryngoscope, a good view of the epiglottis was obtained; it was broad, very much enlarged, and exhibited on its lingual surface a waste of substance at two places, viz, one about the middle of the free edge, and another a little lower or a little nearer the base, on the same vertical line. There was a pitting at both these places, which was, however, more like the result of softening than of positive ulceration. The lateral portions of the base of the epiglottis were not affected. The colour of the epiglottis was redder than usual, and its surface was smooth except where the pitting had occurred. It had a tendency to fall backwards towards the larynx, which it effectually concealed; and no manipulation with the laryngoscope enabled me to view that organ. He felt a pain in the

throat on deglutition, as if a foreign body were lodged there. His appetite was deficient, and he was frequently disturbed at night by cough. The patient showed no sign of pulmonary phthisis, although the laryngeal mischief had been going on for six months, giving ample time for tubercular disease to develop in the lungs. There was no cause to consider the affection of the epiglottis as malignant, as the absence of pain, or of a tumour, or of contraction, was opposed to any such theory.

When I first saw this patient, the disease was clearly progressing, and he soon lost the power of producing even slight sounds of voice with straining; but by March 17th, after being under treatment for two months and a half, a slight power of phonation reappeared, though for a time only. He no longer felt any discomfort in the throat, either on swallowing or at any other time, and had nearly lost his cough. His epiglottis was certainly reduced in size, his general state of health had much improved, his appetite was better, and he now slept soundly. When he coughed at my bidding, I could observe clearly a very great want of vibration in the larynx. On March 24th, I examined carefully his chest, and could find no positive physical signs of phthisis at any stage. (There was some harsh breathing at places, but no distinct crepitation, except perhaps at the right apex in front.) Now, what is the nature of this case? It certainly has every appearance of being tubercular, and the probability is that tubercular disease will at some future period, perhaps not very distant, break out in the pulmonary organs.

My next case is similar to the last one; it is that of a gentleman in the legal profession (age about forty) who has used his vocal organ to a considerable extent. His throat had been affected for about three years, and he had also been coughing during that period, but he continued with his work till about a month before he came out to Cannes.

On March 5th, 1877, the back of his pharynx was red, exhibiting a few raised oval masses of papillæ; his voice was rather weak; and he remarked that it met with an occasional catch, while at other times he dropped part of a word; but I failed to observe anything unusual in his voice beyond some degree of weakness. His epiglottis was thickened, and its lingual surface had assumed a rugged aspect, exhibiting a small quantity of semi-fluid white substance, which adhered to it. The epiglottis did not look red, and had rather an anæmic appearance. He felt no pain in the throat, and no discomfort on swallowing, but experienced a frequent—I may say nearly constant—sensation of irritation or tickling, which made him cough. I understand that the real state of his throat was only found out lately in London by Dr. Morell Mackenzie.

The first examination of the lungs in this case revealed nothing but a slight dry crepitation at the apices. On the second occasion (March 12th), below both clavicles, and also posteriorly in the upper half on both sides, some mucous râles were heard. The symptoms were not, however, sufficiently obvious to warrant a diagnosis of tubercular disease of the lungs. At first the case did not progress satisfactorily, but after some days the patient began to improve, and, by March 26th, his cough had greatly diminished, he experienced much less discomfort in his throat, and slept well at night. Shortly afterwards, he left Cannes.

Here is a gentleman who for two years and a half has suffered from an affection of his throat, the nature of which has only been determined lately; he has therefore, it may be concluded, had his epiglottis affected probably for two years, although the lungs were apparently free from disease. There is a complete absence of any specific cause of laryngeal disease; and therefore we must conclude that his epiglottis is tubercular, although the affection had apparently, when he was last examined by me, extended to no other part of the body. The case is interesting, but not quite so satisfactory as the last, as the result obtained from the examination of the chest cannot be considered as certain.

Out of the seventy cases of laryngeal phthisis which I recorded in my paper to the Royal Medical and Chirurgical Society, in thirty-one the epiglottis was affected; but in every one of these thirty-one cases there were obvious signs of pulmonary phthisis. I think the two cases just related go far to show that laryngeal phthisis may exist, at all events for a considerable time, independently of pulmonary consumption.

I cannot insist too much on the importance of a correct diagnosis of disease of the epiglottis. This I have been taught at my own expense, as I shall never forget a case of most painful inflammation of the epiglottis I treated with much perseverance for tubercular disease, and which, when out of my reach, turned out to be, I understood, of another nature. While mercurial preparations will be clearly indicated in syphilitic cases, they should be carefully avoided when the larynx is affected by tubercular disease. I can bear out this statement from personal experience; but it is now generally admitted that mercury should be invariably withheld in cases of phthisis.

With respect to the treatment of diseases of the epiglottis, I merely wish to remark, that in common inflammation I frequently use appli-

cations of iodised oil to the part, the solution consisting of fifteen or twenty grains of iodine in one ounce of the expressed oil of almonds; I find oil of almonds preferable to olive oil, as less disagreeable to the taste. Should there be any thickening of the part, either syrup of iodide of iron or iodide of potassium is given internally, and iodised oil is also rubbed externally on the throat two or three times a day. The treatment of tubercular disease of the epiglottis and of the larynx is unsatisfactory, although the acute symptoms may be much relieved and the patient made comfortable. Iodised oil, or the application of anodynes, often proves of benefit. I have in one case applied solid nitrate of silver to the epiglottis affected with tubercular disease, in accordance with Dr. Krishaber's suggestion, and using his laryngeal caustic-holder: the patient felt no pain whatever, and the result was encouraging. Inhalations of iodine I have never found of any use in the treatment of tubercular or syphilitic disease of the epiglottis or larynx; during the state of active inflammation they may produce much distress and increase of pain from local irritation without doing any good ultimately.

I beg finally to relate an interesting case of laryngitis I met with last season at Cannes. An English lady (aged about 32) had suffered in Paris about two months before I saw her from an attack resembling *ozæna*. It appeared from her statements that the mucous membrane of her nose, down to the soft palate, had been inflamed. After this, the pharynx also became the seat of inflammation, and the affection spread to the larynx. Before leaving Paris, however, she had partly recovered; the inflammation of the larynx alone remained. Finding that her health was not making any further progress, she came to Cannes, where I first saw her on March 3rd. She then suffered very much from laryngeal distress. The inside of her larynx was very painful, and she often felt as if a foreign body were lodged in that part. She frequently suffered at night from a sensation of impending suffocation attended with much distress in the throat, which made her anxious. She could now swallow without any difficulty or pain, although she had experienced pain on deglutition; there was a slight degree of hoarseness, but no loss of voice.

A careful examination of the chest revealed nothing but slight harshness at one apex. At first, I experienced some trouble with the laryngoscopic investigation from the contractions of the pharynx, but this was overcome by applying a bag of ice and salt externally to her throat. I was much surprised to find, the epiglottis neither inflamed, swollen, nor pendulous; indeed, it was quite healthy; the arytenoid bodies were not enlarged, and the epiglottidean folds were healthy. The mucous membrane of the larynx alone appeared very red and congested.

I treated this case with the direct application of iodised oil to the larynx, inhalations of iodine, and injections into the throat of a solution of chlorate of potash and bromide of potassium. Internally, she first took syrup of iodide of iron, and afterwards chlorate of potash.

The case progressed very satisfactorily, and although the lady had one or two relapses, she had quite recovered by the end of March. (I have no record of the precise date of her recovery.)

This case is interesting, showing that laryngitis may be attended with much pain and distress without extending to the epiglottis or vocal cords, and also that inhalations of the vapour of iodine, which appear objectionable where the epiglottis is inflamed, may be useful where the mucous membrane of the larynx alone is affected.

NOTES OF A CASE OF SPONTANEOUS FRACTURE OF THE HUMERUS AND FEMUR, RESULTING FROM DEGENERATION OF THE BONES.

By P. MAURY DEAS, M.B.LOND.,

Medical Superintendent of the Cheshire County Asylum, Macclesfield.

MORE than ordinary interest, both medical and medico-legal, attaches to the subject of broken bones among the insane. The tendency which still exists in the public mind to believe anything bad regarding an asylum, and especially to believe that instances of cruelty and assaults on the part of the attendants are of frequent occurrence, is in the main a legacy from the times, not yet very distant, when restraint and coercion, with their inevitable attendants, neglect and cruelty, were the recognised means of "treatment" (?) for the insane. It takes a very long time to convince people that abuses of any kind, which have long been practised and have grown into a system, are really reformed; and prejudice clings round the institution long after it is free from the old evils.

The feeling of distrust and suspicion, as to asylums, is still so strong that, when any case of injuries received by a patient is made public,

the idea of their having been received unavoidably or accidentally is rarely entertained; but the conclusion is come to at once that, because there are injuries, there must have been intentional cruelty or great undue violence.

It accordingly, I think, becomes the clear duty of those who are not only interested in the reputation of our asylums, but who have the best interests of the insane at heart, to put prominently forward any facts or circumstances which go to show that serious accidents may not only occur to the insane, when treated with every care and attention, but are more likely to occur than among other classes of people. It is now a well established fact in pathology that, in certain forms of insanity and affections of the nervous system, there is a tendency to a form of degeneration in the osseous tissue, leading to a brittle and softened condition of the bones, such that they are liable to break under the application of very slight force, or spontaneously from muscular action. The existence of this diseased state of the bones has been proved by the observations of Clouston, Rogers, and others. It appears chiefly to occur in cases of general paralysis and other allied forms of nervous degeneration.

Cases occur, from time to time, which revive in all their force the ideas of gross cruelty on the part of attendants. A patient dies in an asylum, and, after death, extensive (perhaps unsuspected) fractures of the ribs and sternum are discovered, such as in a healthy subject could only be caused by great direct violence. As a rule, the patient has been very restless and violent; probably in the acutely maniacal stage of general paralysis. The attendants have been compelled to hold or restrain him; possibly there have been unavoidable struggles in putting him to bed, getting him up, etc. If, at the inquiry, one or two fellow-patients can be produced to testify that one attendant kicked the patient, while another jumped on him, the case is perfectly clear; and the public, if not the jury, record another verdict against asylum treatment. Now, it has been repeatedly demonstrated, by *post mortem* examinations on the insane, both in cases where broken bones were found and also in cases where no such injuries existed, that there was such a diseased condition of the bones, and more particularly of the ribs, they would be liable to give way under the application of very slight force, much slighter force than would be quite unavoidable in a struggle between an excited patient and his attendants, even when the latter used every care. And as to the evidence of other patients, every one familiar with insanity knows that there are patients who, either from delusions or moral perversity, will constantly accuse, not only the attendants, but the medical officers themselves, of acts of cruelty, either to themselves or other patients, and giving most circumstantial accounts of the occurrences. This particularly applies to epileptic patients, who are often, too, apparently the most sensible and rational.

In the last notorious case of this kind, the death of Mr. Wimberley in the Camberwell House Asylum, sufficient attention does not seem to have been given to this most important question of the state of the bones. The medical evidence, as reported, was of a very casual nature, and contradictory as well; but one witness stated distinctly that he considered the ribs unusually brittle. In such cases, the condition of the bones ought to be the primary consideration. If they be sound and healthy, there cannot be a doubt that, with a number of ribs and the sternum broken, great undue violence must have been used. If, on the other hand, the bones be in the diseased state which has frequently been observed, the injuries may have been received in the most purely accidental way, either by the patient throwing himself about in his excitement, or by the necessary restraint on the part of the attendants to prevent his throwing himself about; and, in common justice, a conclusion as to cruelty or undue violence having been used should only be come to upon the most undeniable evidence.

From the considerations which I have alluded to, I think it of importance to place on record the notes of a case which has recently occurred in my own practice.

H. N., female, aged about 57, was admitted into the asylum as a private patient, on December 17th, 1875, under an order of transfer from the Birmingham Asylum, where she had been under treatment for twelve years. Her mental state was that of chronic mania, passing into dementia. Her mind was weak and childish; but she understood what was said to her, and could answer ordinary questions sensibly enough. At times, she was excited and noisy. She was very feeble and broken down in health, and was partially paralysed in her lower extremities, not being able to walk or even stand without assistance. She suffered much from pains in the back and legs, and often screamed out from the pain. She had a weak, probably fatty, heart, and suffered from chronic bronchitis. She continued very much in the same state, requiring care and nursing, but never violent, indeed too helpless to be so. On June 1st of this year it is noted that "she is more frail than she was; mostly confined to bed; is becoming more deformed; cannot straighten her-

self; back very much curved and head sunk down. When in bed, always lies with her legs drawn up on her body." I take the following from the Case-book, under date July 31st. "Has been just about the same since last entry, not any worse; and of late has been up, as a rule, during the day. Soon after 5 o'clock this morning, the assistant medical officer was summoned to see her, as there appeared to be something the matter with her left arm. She had complained of its hurting her to the night nurse at her last visit at 5 A.M. On examination, the left humerus was found to be fractured obliquely at the lower third, the upper point of the lower fragment being nearly through the skin. The patient stated that she did not know how it was done; that she did not feel anything wrong with it till towards morning, when it felt painful, and she told the night-nurse that 'something had come to her arm'. She had not hurt it that she knew of, and no one had done anything to her. The night-nurse said that she had been very frequently into the dormitory (containing four beds) during the night, as there was a patient very ill in it. H. N. had not complained till her visit at 5 o'clock. The only further fact elicited by inquiry was that the previous evening, between 7 and 8 o'clock, while one of the nurses, assisted by a patient, was conducting H. N. from the day-room to the dormitory, the patient helping tripped and fell; and in consequence of this H. N. fell over on one side, but she did not appear hurt in any way, and made no complaint while being taken to the dormitory. Another nurse assisted her into bed; she did not notice anything amiss, and H. N. did not complain or seem in pain. The latter, when asked about the fall in the passage, said she recollected it; that it was quite accidental, and she did not recollect being hurt then; and repeated that it was not till it was getting light that she felt anything wrong with her arm. The fracture has been put up in the usual way; but owing to the general deformity, and also to the obliquity of the fracture, more than usual difficulty was experienced in doing so.—August 5th. Going on as well as can be expected. Was kept in bed for a few days, but gets up now and sits in an easy chair. Is very restless, and if not closely watched, interferes with the bandages.—August 10th. Up to last night, patient was going on very well, when a most extraordinary complication presented itself. About a quarter to 7, Dr. Deas was summoned to see her; that she had complained of her left knee, with which there seemed to be something the matter. Dr. Deas found her seated on a commode in the dormitory, and at once discovered that the left femur was fractured nearly straight across, a few inches above the knee-joint. There was slight fulness, but no mark or discoloration of any kind. The charge-nurse of the infirmary said that a few minutes before she had wheeled H. N. along in her easy-chair from the day-room. She had then brought the commode and placed it close by the chair, and then she had lifted the patient up by her arm and shoulders and just shifted her from the easy-chair on to the commode. As soon almost as the patient was set down on the commode, she put her hand down and complained of her knee. The nurse looked at it, saw something was wrong, and sent for Dr. Deas. The latter had seen H. N. about 4 in the afternoon. She was then sitting in the easy-chair in the ward. She was as usual, and complained of nothing particular. When Dr. Deas saw her, the easy-chair was on the left inside the dormitory door, and the commode was touching it and at right angles, so that she could have been moved from one to the other with very little effort. H. N. herself said that she felt something give way in her knee all at once just as she sat down on the commode, and made no complaint of any roughness or carelessness. The patient was put to bed, laid on her right side, and the fracture put up by means of two lateral splints, the knee being bent and the thigh flexed. No difficulty was found in reducing the fracture and retaining the fragments in pretty good position. This second fracture occurring after the first, and in a situation where, as a rule, fractures only occur from great direct violence or a fall from a considerable height, seems to point to only one conclusion, viz., that there is in this case that morbid condition of the structure of the bones, under which they are liable to give way spontaneously, or from very slight force or exertion."

I need not enter into details as to the further progress of the case. The patient did pretty well for a short time; but extensive bed-sores then formed, broncho-pneumonia supervened, and the patient sank in about three weeks from the date of the second fracture.

At the *post mortem* examination, the usual signs of broncho-pneumonia were present, and the heart was in a state of fatty degeneration. The diagnosis as to the condition of the bones was amply confirmed. The ribs were reduced to the thinnest shell of bone, as thin as paper, the interior consisting of very open cancellated texture, and dark soft grumous matter, which oozed out at each end when a portion of rib was squeezed between the finger and thumb, by which pressure the two surfaces could be approximated close together. The ribs, moreover, could be cut quite readily with a knife, either transversely or longitudinally,

and broke with a soft rotten sort of fracture under very slight force. I broke a portion of rib, about one and a half inches long, in two by snapping it with the fingers of both hands, as one would break a piece of stick. There was no fracture of any of the ribs, nor of any of the bones, except the left humerus and left femur. On cutting down at the seat of these fractures, there was hardly any attempt at union, although a considerable quantity of soft rotten callus had been thrown out. The femur and humerus were in the same state as the ribs, the external dense structure being a mere shell, through which I pushed a scalpel quite easily, the interior being composed of very open cancellæ and matter similar to that in the ribs.

I have not myself had an opportunity of witnessing the degree of degeneration of the osseous structure, which has been found in some of the recorded cases of extensive fractures of the ribs, etc.; but if it were anything approaching to the state of matters in this case, one could not be surprised at any amount of fractures, especially if the patient had been at all *restless or violent*, and without supposing that there had been the least ill-usage or undue violence. The moral of our case is very plain. Had this poor woman, instead of being quiet and helpless, been a recently admitted case labouring under acute mania, restless, violent, knocking herself about, rendering holding and a certain amount of restraint necessary on the part of the nurses, and even occasional struggles probable, she must have sustained numerous fractures; and probably, at the *post mortem* examination, more than half her ribs and her sternum would have been found broken. As it was, there could not be the least suspicion that the fractures were due to violence of any kind; indeed, helpless as she was, requiring lifting, etc., the whole state of her rotten ribs bears witness to the great gentleness with which she must have been habitually handled.

In conclusion, I would venture one other remark. I think there is a tendency now-a-days in asylum treatment to trust too much to *manual* restraint on the part of the attendants; and also to allow acutely maniacal cases to be at large in a ward, where, if they are not roaming about, exposed to chance encounters with other patients, they are being "restrained" by two or more attendants holding them, certainly to the mutual detriment of tempers, not to speak of the risk to possibly diseased bones. Such cases, and especially if epileptics or general paralytics, are, in my humble opinion, treated on wiser principles, and are also much safer, in the quietness and security of a padded room; and this I state as my deliberate opinion, even at the risk of being styled "an advocate of seclusion", or of being thought behind the age in the matter of treatment.

ON THE PATHOLOGY OF URÆMIA AND THE SO-CALLED URÆMIC CONVULSIONS.*

By F. A. MAHOMED, M.D.,

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THE pathology of uræmic convulsions, by which I mean convulsions associated with albuminuria and disease of the kidneys, has always appeared to me obscure and unsatisfactory. Of course, it has long since been proved that it is not really an excess of urea alone in the blood which gives rise to them, for urea injected into the blood appears perfectly innocuous; they are, therefore, considered to be due to some other of the effete materials which are retained in excess in the blood owing to the failure of the kidneys to excrete them. But it still remained difficult to account for the production of epileptiform convulsions by the retention of this effete material. No good reason for their occurrence could be given until the theory propounded by Dr. Hughlings Jackson, that they were due to anæmia of the brain caused by spasm of the cerebral arteries, gave us what appeared to be a probable explanation, more or less consistent with known physiological facts. This view has lately been very ably and powerfully supported by Dr. George Johnson in his recent Lumeis lectures at the Royal College of Physicians, and I should be rash indeed did I venture to dispute the conclusions arrived at by such distinguished authorities. Every question, however, has two sides, and I shall endeavour in the present paper to look at another side of this question to that which has lately been brought before us, though without expressing a belief in either view, for I think it better to withhold judgment till further proof can be obtained.

It is needless for me to refer to the condition of high arterial tension which is so constantly found in acute and chronic Bright's disease, or to mention the changes taking place in the heart and arteries generally.

* Read before the Harveian Society of London.

It is well known that, as a result of these, various hæmorrhages may occur from rupture of minute or larger blood-vessels; these often take place from or into the mucous membranes of the nose, intestinal tract, uterus, and, perhaps, air-passages and bladder. They are also known to occur below the serous membranes, as in the peritoneum, pleura, or pericardium. They are frequently seen in the retina, preceding or accompanying "albuminuric retinitis". They are very commonly seen in the brain, causing extensive hæmorrhage; it is, indeed, the most common cause of apoplexy. What I want to bring forward in the present paper is the fact that small capillary hæmorrhages may, and do very frequently, occur in the brain as the result of Bright's disease, and that these hæmorrhages are the causes of the epileptiform convulsions generally known as uræmic, and that, indeed, all the so-called uræmic symptoms are due to the results of high tension on the capillaries of the brain, producing rupture of or exudation from them. I believe the reason why this has not been previously commonly observed is, that such hæmorrhages usually occur in the grey matter of the convolutions, and that it is manifestly impossible that all the convolutions of the brain should be examined for minute punctiform hæmorrhages, whose very existence was not even suspected. In future, however, our search need not be so extensive, thanks to our better knowledge of the functions of the brain, and an ability to more accurately localise lesions in it. Given an observation during life of the group of muscles especially affected by the convulsions, we need only confine our search to one or two convolutions, should such minute hæmorrhages appear likely to be their exciting cause. Before discussing further the probabilities of this view, I will mention some cases in support of it.

CASE I.—I. C., aged 61, was admitted into St. Mary's Hospital on December 29th, 1876, under the care of Dr. Handfield Jones, who has kindly allowed me to make extracts from his clinical notes. The patient was a painter: he had never had colic or dropped wrist: his mother died of apoplexy: one sister died suddenly from a fit of some kind, and another sister suffers from pain in the head. Three years ago, he began to suffer from pain across the forehead, more particularly over the left eye; he seldom passed a day free from this. He suffered from vertigo and epistaxis, which frequently occurred in the course of his illness, and was often very profuse. On admission, the patient was an anæmic flabby old man, with slight arcus senilis. The legs were oedematous: the pulse was hard and persistent, giving a tracing characteristic of high tension: the præcordial dulness was increased: the apex beat was in the normal position, but widely diffused. The second heart-sound was accentuated at base; the first was prolonged, and occasionally a systolic *bruit* was audible. There were a few *râles* in the chest, but no dulness: the liver appeared small, and there was a little fluid in the abdominal cavity: the urine was of specific gravity 1010, very pale, slightly albuminous, and contained many granular casts: vision was indistinct: there was a small hæmorrhage into the right retina: the retinal arteries were contracted: the fundus of the eye was pale, whitish, and opaque. The case was evidently one of chronic Bright's disease. Soon after he came in, he had a kind of faint, and was unconscious for some time. There was no paralysis: he was often drowsy and dizzy; he became worse, the breathing getting oppressed: dulness appeared at the base of the lungs: the urine became more scanty: he was drowsy, and exhaled an offensive uræmic smell. On March 5th, he had a convulsive seizure, described as coming on with flexion, first of the legs, then arms, followed by foaming at the mouth: the attack lasted half an hour, but was very severe for ten minutes: he had a similar one the day before. He gradually sank into a low typhoid condition, such as is common in cases of uræmia, and died on March 7th.

The principal points of interest in the *post mortem* examination are as follows. The brain weighed $4\frac{1}{2}$ ounces: the membranes were dull and opaque over the vertex: the arteries were much degenerated and mottled with atheromatous patches: the brain contained very little venous blood: on the right side, below the convolutions of the island of Reil, between the grey matter and the extraventricular corpus striatum, was a considerable and rather recent blood-clot, which was not discoloured, though of a brownish red hue, about the size of a hazel-nut; there was no surrounding softening. In the left extraventricular corpus striatum at the lower part was a small cyst of the size of an apple-pip, apparently the remains of an old hæmorrhage. In the pons near the lower surface, and in the motor tract, and also in the middle line, were several small hæmorrhages, about the size of pins' heads. The lungs were oedematous and bronchitic. There was general hypertrophy of the heart, which weighed $17\frac{1}{2}$ ounces: the left ventricle was especially thickened. The aorta was very atheromatous. There was chronic gastro-intestinal catarrh and thickening of the mucous membrane of the alimentary canal. There was also an

increase of fibrous tissue in the liver. The spleen, to which I especially wish to call your attention, was contracted: the capsule was dotted with small white spots, and there were several fibrinous nodules scattered throughout it: the tissue was dense. I believe that these fibrinous nodules, which were evidently the remains of extravasated blood, were due to previous hæmorrhages in the spleen, similar to those seen in the brain and elsewhere in Bright's disease, and that they are not an unfrequent condition. In a case which follows, we shall see, I think, an earlier stage of the same condition. The kidneys together weighed only 5 ounces; they were mottled in colour, peeled imperfectly, fragments of kidney-tissue being stripped off with the capsule. The surface was very granular and irregular, mottled, pale and dark in colour: they contained many cysts, none larger than a cherry-stone: there was scarcely any cortical portion remaining. The arteries were much thickened and gaping. There were no signs of syphilis in the testes or elsewhere.

In this case the convulsions, which from the report appear to have been of a tonic character, occurring two days before death, were apparently of the same date as the punctiform hæmorrhages in the pons Varolii. Regarding these I may here state, although I do not wish at present to enter into the minute pathology of punctiform hæmorrhages, that microscopic examination showed them to be the result of actual hæmorrhage from rupture of vessels, and not merely aneurismal dilations of small vessels. The microscope also discovered what appeared to be the remains of other and much older minute hæmorrhages among the fibres of the pons. The "fainting fit", after which he was unconscious for a time, which he had soon after admission, was probably caused by the hæmorrhage producing the clot, of the size of a hazel-nut, below the convolutions of the island of Reil on the right side. This is quite in accordance with what we might expect from a hæmorrhage in this position.

CASE II.—M. C., aged 55, was admitted into Guy's Hospital, under the care of Dr. Habershon, October 24th, and died on October 28th, 1874. She had been married twenty-five years. She had no children. One brother was subject to "epilepsy". She always had indifferent health; subject to frontal headaches, often followed by fits lasting an hour. Ten months before admission, she was an out-patient for lead-poisoning. She had, on an average, one fit in three months (all probably uræmic). On October 24th, she had a fit, and was brought to the hospital. She was comatose, with stertorous breathing. The pupils were equally contracted, but insensible. The arms were folded across the chest and quite rigid. The ankles were oedematous. There was no paralysis of the limbs. The heart's action was heaving; dulness was increased. The pulse was hard, 54. Temperature, 93.6 deg. The urine was highly albuminous, of specific gravity 1012. On the 26th, the face was drawn to the right side. Her breathing became worse and death ensued on the 28th. On the side of the left hemisphere, in the middle lobe, there was a livid discoloration below the arachnoid for a considerable space, due to extravasation of blood in the cortex of the brain; where largest, of the diameter of a shilling. Round it was some yellow softening, and also some punctiform ecchymoses. There were none of the ordinary appearances of bruising. It was not due to injury. The affected part lay above the descending cornu of the lateral ventricle. That ventricle contained blood-stained fluid, while that in right was colourless. The diseased condition did not appear to extend far into the substance of the hemisphere; but that half of the brain was very decidedly larger than the other. Little punctiform ecchymoses extended into the outer and back part of the thalamus. The ventricles of the brain were not dilated. The heart weighed 14 ounces. The left ventricle was hypertrophied. The kidneys weighed 8 ounces, and were extremely diseased. Their surface was roughened, of an opaque yellow colour; the cortex was extremely wasted, reduced in most places to one line. The arteries were much diseased.

CASE III.—H. S., aged 25, was admitted into Guy's Hospital under the care of Dr. Habershon, July 15th, and died July 23rd, 1874. He was a labourer; he drank much. About twelve months ago, his face began to swell, and then his feet and body. He was in Croydon Infirmary till three weeks before admission, and was there discharged relieved. He returned to work and the symptoms recurred. He was sallow and anæmic-looking, and had an anxious expression. The skin was rather dry; he was thirsty, and was often sick. The abdomen was distended with fluid. The cardiac dulness was extended. The apex beat was half an inch below and external to the nipple. There was a systolic *bruit*, loudest at the apex, and midway between the mamma and the sternum. The urine was of specific gravity 1008, albuminous, and containing hyaline and granular casts and secreting cells. He had convulsions, and was very drowsy. He died in fits. The brain weighed 56 ounces; it was very anæmic. There were no bloody points on section. It was dry and firm. There was no excess of fluid in the

veins, nor were they dilated. *In the pons there were scattered aneurisms, and in the cerebral cortex.* The heart weighed 17 ounces. There was much hypertrophy of the left ventricle. There was extravasated blood below the peritoneum, in the recto-vesical pouch. There were slaty-coloured patches in the intestinal mucous membrane, in the ileum, and cæcum. The kidneys weighed 12 ounces. The cortex was atrophied; the surface was smooth; the colour mottled. Much fat was contained in the pelvis. The arteries were not rigid, but the microscope showed much interstitial change. The weight was chiefly made up by the fat invading the pelvis.

CASE IV.—J. P., aged about 50, was admitted into Guy's Hospital, under the care of Dr. Wilks, on April 24th, and he died April 28th, 1874. He gave a history of fits. He had a fit on the day of admission, lasting ten minutes, in which he fell and cut his head, for which he was admitted. Erysipelas supervened, and caused death. No brain-symptoms occurred other than those due to erysipelas. The brain weighed 52 ounces. There was meningeal hæmorrhage; most blood was found in the diamond-shaped space at the anterior margin of the pons, probably due to gravitation. The vessels were fairly sound, somewhat atheromatous. There were a number of minute aneurisms in the substance of the pons and crura. There was no evidence of bruising. No small aneurisms were present, though, from the arrangement of the clot round a small branch of the posterior cerebral artery, there was suspicion of leakage here. The heart weighed 12 ounces; it was healthy. The aorta was wrinkled and inelastic. The spleen weighed 13 ounces; it was pulpy, with hæmorrhage in its substance and much blood-clots; no plugging of vessels. The kidneys weighed 12 ounces. The capsules were adherent, and their surface granular; they contained a few cysts, and were too homogeneous in appearance on section. The microscope did not show the kidney to be a bad organ, but the epithelium was a little too plentiful. Dr. Hilton Fagge appends the following note to his *post mortem* report: "The cause of the apoplexy must still remain in question. No bruising of the brain could be found, and no aneurism. Was it the consequence or the cause of the fit? The state of the spleen was remarkable. I thought it most probably due to erysipelatosus poison, a somewhat similar case to those of abscess in the same organ after typhus." With regard to the condition of the spleen, I believe the hæmorrhage to be of the same nature as those occurring elsewhere in Bright's disease, and due to rupture of capillaries by high blood-pressure; it is probably an early stage of the condition seen in Case I.

I do not propose to enter here upon the minute pathology of these capillary hæmorrhages. While bearing in mind the miliary aneurisms described by Charcot and Bouchard, and also the similar true and dissecting aneurisms of the small cerebral vessels (especially those of the cortex) described by Rindfleisch and many others, and the well-known forms of degeneration affecting the smaller vessels and capillaries of the brain, often seen in connection with Bright's disease and other allied conditions, and that with these anatomical changes frequent variations in the arterial tension occur, it will be admitted that there exists in Bright's disease abundant cause for the occurrence of all forms of cerebral hæmorrhages: moreover, these ecchymotic spots are true hæmorrhages, and not merely the sacs of minute aneurisms transversely divided.

[To be continued.]

OBSTETRIC MEMORANDA.

TARNIER'S FORCEPS.

We have employed Tarnier's new forceps on several occasions recently in this hospital: 1. In cases of ordinary tedious labour, when the head was low in the pelvis and the delay due to inertia; 2. In a case of tedious labour where, the pelvis being well formed, we deemed it necessary to effect delivery while the os was still but two-thirds dilated and the head above the brim; 3. In a case where the base of the skull was arrested at the brim, the conjugate diameter being lessened by the undue projection of the promontory of the sacrum. This woman had on two previous occasions been delivered in the hospital with the long forceps; and on the present occasion no advance had been made for nine hours, though the pains were incessant and powerful. It is, therefore, evident that we have fairly tested the instrument.

We have arrived at the conclusion that the instrument possesses the advantages claimed for it by Dr. Tarnier, and which he points out as being essential to a perfect forceps. 1. It admits of traction being made in the axis of that portion of the pelvic cavity which the foetal head at the moment occupies. 2. It possesses an indicator capable of pointing out the direction in which traction should be made. 3. It permits the head to rotate as it descends. This last point was clearly

demonstrated in the case of difficult labour alluded to above. The head lay at the brim in the third position. If we apply Barnes's long forceps to the head when in that position, we generally find that it is born face to pubes. In this case, however, while extracting with Tarnier's forceps, the head rotated and was born in the second position. We also are of opinion that less force is needed when extracting with these than with ordinary forceps. But, while thus admitting that Tarnier's forceps possesses the advantages which its inventor claims for it, it has also certain disadvantages which to a great extent counterbalance them. Of these the most important is, that the pressure of the prehensile blades on the foetal head is regulated by a screw; and, the amount of pressure which should be employed being a matter of conjecture, if the blades be not screwed sufficiently tightly together, they slip off the moment traction is made, and have to be loosened and reapplied, which, in consequence of their complicated mechanism, is a little troublesome; while, if the screw be turned a little too much, the life of the child is endangered from the effects of undue pressure. Moreover, in Tarnier's forceps the pressure exercised by the blades is never relaxed, as is the case when the English instrument is used; for every experienced operator permits the handles of the instrument to separate a little in the interval when he ceases to make traction, and, by so doing, relieves for the moment the head from pressure. Next, the instrument, in consequence of its construction, is not so easily applied as the English forceps. Doubtless, in skilled hands, this is a matter of little moment; but to others it would prove a serious drawback. The price, too (£2 16s.), is a bar to its being generally purchased. In fact, I believe the instrument to be a good one as a tractor, but am satisfied that it never will be in this country a popular one.

LOMBE ATTHILL, M.D.,
Master of the Rotunda Hospital, Dublin.

THERAPEUTIC MEMORANDA.

THE TURKISH BATH IN INSANITY.

In the Annual Report of the Colney Hatch Lunatic Asylum for 1877, Dr. Sheppard makes the following remark with regard to the use of the Turkish bath. "The more I see of the effects of hot air in the treatment of certain forms of insanity, the more am I persuaded that no asylum can lay claim to completeness which is not furnished with this apparatus for eliminating poisons and renewing life." The following case will, I think, serve to confirm that statement, or, at any rate, would seem to indicate some therapeutical value of the Turkish bath in a case of melancholia.

I was induced to take a few notes with regard to the more immediate effects of the bath on account of some observations published in the *Lancet* of May 20th, 1876, by Dr. Duckworth Williams, with respect to the alteration in the respiratory functions during the free perspiration caused by the bath. The case was one of ordinary melancholia in a man forty-two years of age. The complaint originated about a year previous to taking the baths, and was attributed to a sun-stroke in India. The patient had rather an emaciated appearance. The liver and digestive organs were out of order. He was profoundly melancholy and taciturn, and had delusions of a religious kind. During a period of six weeks, the man had twelve Turkish baths—two a week. The following are the notes with regard to the alteration in the respiratory movements and pulse, which fully bear out those made by Dr. Duckworth Williams. *First bath:* respirations 18; pulse 100; temperature of bath 175 deg. *Second bath:* respirations 17; pulse 100; temperature of bath 175 deg. *Third bath:* respirations 15; pulse 100; temperature of bath 180 deg. In each successive bath it was observed that the respiratory movements and pulse maintained about the same ratio during free perspiration. The after-effects of the baths were as follows. About half an hour after the first bath, the patient fell into a calm sleep which lasted some hours, from which he awoke greatly refreshed, and appeared for a time to show symptoms of becoming more sociable. From the time of first taking the baths, it was unnecessary to give him any sedatives. He had previously been in the habit of taking chloral; but from that time a fair amount of natural sleep was obtained, and no drugs of any kind were administered. He rapidly gained flesh; his appetite improved; there was no longer any difficulty in persuading him to take food; and his liver and digestive organs performed their functions in a natural manner. At the end of the period of his taking Turkish baths, there was certainly a marked improvement in his appearance. From being a thin, weak, depressed-looking man, suffering from dyspeptic symptoms, he became, after about six weeks, decidedly more cheerful, had gained weight, and his

delusions seemed to be gradually leaving him. I have since heard that he is making steady progress. The improvement in this case, especially with regard to the effect of the bath in producing natural sleep, seemed to me so encouraging, that I am induced to publish it.

EDWARD WALFORD, M.R.C.S. Eng., Northwood House Asylum, near Ramsgate.

HYDROBROMIC ACID IN TINNITUS AURIUM.

THE following case, selected out of several (from notes by my senior clinical assistant, Mr. Douglas Hemming), of the successful treatment of long-standing tinnitus aurium by hydrobromic acid, well illustrates the principles laid down by Dr. Woakes in the *JOURNAL* of June 23rd. I commenced using hydrobromic acid in tinnitus immediately after hearing Dr. Woakes's remarks at the meeting of the Harveian Society. It will be seen that in this case the tinnitus was of the knocking or pulsating kind, and therefore probably due to a congested condition of the labyrinthine blood-vessels. In other cases, in which the tinnitus was of a continuous roaring or rushing character, the administration of hydrobromic acid had no beneficial effect.

J. S., aged 34, applied at the Central London Throat and Ear Hospital on May 11th. He had been deaf and had loud "thumping" noises in the head for twelve years. There was no history of otorrhœa. On examination, the meatus of each ear was fairly healthy; hearing-power was extremely defective; voice was only heard when much raised, and the watch not at all; the tuning-fork was heard on the mastoid process. The tinnitus was complained of as the most distressing symptom. He was ordered benzole-inhalation, and hydrobromic acid in fifteen-minim doses three times a day. On June 4th, he reported that the noises had quite stopped, and said that his ears "felt much clearer and more healthy since taking the medicine"—June 11th. There was no return of tinnitus.

A similar successful result has attended the administration of this drug to a young lady aged 22, suffering from a sense of continuous pulsation in the right ear and deafness, the watch being heard only on contact. The hydrobromic acid entirely removed the distressing tinnitus.

LENNOX BROWNE, F.R.C.S. Edin., Weymouth Street.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

CENTRAL LONDON SICK ASYLUM, HIGHGATE.

CASES UNDER THE CARE OF DR. DOWSE.

In the wards many cases of medical importance came before us.

Use of Jaborandi.—Special observations were being made on the action of the newly introduced remedies jaborandi, gelsemium, salicylic acid, etc., and modern instruments, as the cardiograph and ophthalmoscope, were brought into daily requisition to elucidate complete diagnosis. Dr. Dowse said that his experience of the use of jaborandi did not lead him to think highly of its therapeutic value when given alone, yet it was often of great use, when combined with other drugs, to promote elimination. In the following case of Bright's disease, its efficacy was well shown. J. A., aged 73; urine pale, gravity 1010; albumen copious; hyaline casts. He had irritable heart, troublesome dyspnoea, painful and swollen joints. Five grains of the extract were being given three times a day with alkali and digitalis, producing profuse ptyalism and sweating. Under this treatment, the joints soon became free from pain, the swelling of the limbs and the dyspnoea subsided, and she was rapidly improving in every way.

Dr. Dowse said he at one time thought that jaborandi would be found of value to reduce the night-temperature of phthisis, but after a long experience he found such was not the case. He referred to its efficacy in promoting the flow of milk where the mammary gland was inactive after parturition, and remarked that its physiological action was of the greatest interest and importance, especially when compared with the action of belladonna, to which it was in every way antagonistic. One curious feature relative to its action, which had not been noted by M. Vulpian, was the resecretion of pilocarpine from the blood by the

submaxillary gland. A patient who was taking it stated that, if he re-swallowed the saliva produced by jaborandi, it then produced profuse sweating; whereas, on the other hand, if the saliva were ejected, only slight perspiration resulted.

Revolutive Treatment.—Dr. Dowse has implicit faith in what he calls the revulsive treatment of disease; and, although he admits that it is as old as the hills, yet he considers it to be of the utmost value. It appears to be his common practice to administer emetics and purges, and in cases where it would have been thought heterodox fifteen or twenty years ago. The emetic is composed of one scruple of ipecacuanha and half a grain of tartar emetic, the purge of half a drachm of compound scammony powder and two grains of calomel, to be given three hours after the emetic. He denies that this emetic is a depressant; on the contrary, it relieves depression by its revulsive action in eliminating morbid material and stimulating healthy glandular secretion: he always commences the treatment of erysipelas in this manner, even in its severest form, with the most beneficial results, and out of many hundreds of cases the success has been universal. In his opinion, it materially lessens the tendency to pyæmia.

Chloral as an External Anodyne.—Dr. Dowse uses chloral extensively as an outward application for the relief of pain, and as an antiseptic for the dressing of wounds. We saw several cases of cancer of the breast so treated with good results, also painful inflamed and rheumatic joints. They were enveloped in lint saturated with a hot solution of chloral (four drachms to sixteen ounces) and covered with oiled silk or cloths wrung out of hot water and then covered with India-rubber sheeting. When applied in this way for hemicranial neuralgia from intracranial growths, it has relieved where all other means have failed. In cancer of the uterus, it is especially useful, and for this class of case it may be advantageously combined with chloride of iron or zinc.

Psoriasis Treated by Wet Packing.—There was a case of diffuse psoriasis under treatment by the packing process with mackintosh sheeting. Dr. Dowse stated this was a means of cure which in his hands had proved of the utmost value, but it did not answer in all cases.

Diseases of the Nervous System.—We saw a large number of chronic diseases of the nervous system, and two wards of sixty-four beds were set apart for those of the greatest interest. It would be impossible to detail the particulars of these, but some few of progressive muscular atrophy presented themselves to our especial notice, and these were improving under the use of the constant galvanic current and injections of strychnine. Dr. Dowse said that he considered that rest from attempt at voluntary movement of the greatest importance in the treatment of these cases until the muscles had shown a decided increase in size and tonicity; he was of opinion that a progressive muscular atrophy, if not traumatic, was the result, firstly, of molecular derangement (malnutrition) in the cells of the grey matter of the anterior horns of the cord; and secondly, of degeneration of the same elements; and that there was almost invariably some predisposing constitutional cause which ought always to be considered. He remarked it was rather strange that men of the greatest muscular development were more prone than others to this disease. We saw a man sixty-three years of age, with total loss of power of both upper extremities from muscular atrophy, who in his younger days was a well-known walker and cricketer. Another case of unusual interest was that of a man with partial bulbar paralysis from softening of the pons Varolii, due to vascular change; the first, third, fourth, and sixth nerves were not affected; the second and the third divisions of the fifth, the seventh, eighth, and ninth were more or less involved, and the extremities were weak, rather more so on the right than on the left side: he was scarcely able to swallow at all, and the tongue could not be well protruded far beyond the lower row of teeth: the voice was weak, the movements of the vocal cords feeble, and during the attempt to swallow there was little power on the part of the muscles to raise the larynx. There were some respiratory troubles and a forced inspiration was impossible. The man was fed four times daily by means of a nasal elastic tube, and was gaining weight rapidly. The feeding apparatus was simple and practical: it consisted merely of an India-rubber inflation vaginal pessary, the circular ball acting as a funnel from which a piece had been cut to pour in the fluid, the India-rubber tubing which is attached to it being of sufficient length and size to pass well into the œsophagus. Dr. Dowse remarked that cases similar to these were rare, and that he had not seen one like it before, but the difference between it and true bulbar paralysis was most marked, although he predicted that it was merely a question of time in a man so old for the bulbar centres to become immediately involved in the degeneration. The defects of articulation were small as compared with

direct central disease of the nuclei of origin of the facial and hypoglossal nerves, and although there was constant dribbling of saliva there was not the same trophic change of the mucous membrane of the tongue. He stated that M. Hallepeau had reported a somewhat similar case in the *Prag's Medical*, and attributed the paralysis of the tongue to the fact that all the nervous conductors by which the bulbar centres are brought into relation with other volitional centres necessarily traverse the pons. Dr. Dowse observed that the want of correlation between the muscles supplied by the bulbar nerves was indicative rather of a reflex than of a central change, for where the latter condition exists a more definite paralysis ensues. There was another case diagnosed as one of hæmorrhage into the inner and inferior part of the left crus cerebri, producing complete right hemiplegia and left hemikinesis: there was not, neither had there ever been, aphasia. It was of interest to note the difference of the muscular development on the right or paralysed side in comparison with the left, which was constantly in motion: in the former the muscles were atrophied, whilst in the latter they were greatly hypertrophied. He stated that this case gave clinical demonstration of a well-known pathological fact which he had often observed, namely, that the central disease extended in the course of the anatomical distribution of the fibres of the motor tract of the brain and spinal cord, and he had no doubt but that the left half of the brain was diseased, and that the disease had extended to the right antero-lateral columns of the cord, which was the cause of the contraction of the extremities on this side. In the female paralytic ward, we found Dr. Dowse's self-retaining female catheter in general use; it appeared to serve the double purpose to prevent the bladder from becoming over-distended, and to obviate the tendency to bed-sore by keeping the beds and linen dry, as well as preventing the disagreeable smell which arises from decomposing ammoniacal urine.

PENDLETON DISPENSARY, MANCHESTER.

INJURY TO LEG: SUPPURATIVE PERIOSTITIS OF FIBULA: ACUTE
PYÆMIA: DEATH.

By D. T. EVANS, M.R.C.S., House-Surgeon.

RUTH W., aged 15, was said to have been kicked on the left leg or thigh on February 26th, 1877. No symptoms declared themselves until about the sixth day after the supposed injury, when the patient complained of some pain in the limb, and she was slightly lame when walking. By the following day, the pain had increased in severity, and it was with considerable difficulty that she was able to go downstairs. From this day the pain rapidly increased in intensity, and on March 7th, when I visited her for the first time, I found her in the following condition.

The affected limb was excessively painful and tender, and any attempt at movement was attended with great suffering. There was a diffuse swelling occupying the outer side of the leg, but there was no alteration in the colour of the skin, and no fluctuation could be detected. The patient was unable to give any account of herself, in consequence of her stupid semicomatose condition. No history of rigors could be obtained from the mother. Dulness, with bronchial breathing, was made out over the base of the right lung posteriorly; respiration was much quickened; pulse full and sharp; tongue red and glazed. There was obstinate diarrhoea. The patient rapidly sank, and died on March 11th, eight days from the appearance of the first symptom.

Necropsy, fifty-six hours after death.—Rigor mortis was present. There was recent pleurisy, with deposition of lymph in a honeycomb form on both sides. The lungs were studded with numerous embolic abscesses of various sizes, all of recent formation; some of these were situated on the surface immediately beneath the visceral layer of pleura over the lower lobes, and were undoubtedly the cause of the recent inflammation of that membrane; others were found in the upper lobes. On the posterior surface of the left ventricle of the heart there was a large soft embolic patch. The liver was healthy, with the exception of a few ecchymosed patches on the convex surface. The structure of the kidneys was healthy. There were numerous small secondary wedge-shaped abscesses in both organs; some quite superficial, others deeply seated in the kidney-substance. The spleen was soft and enlarged. The brain was healthy in every respect. On making an incision over the outer side of the left leg down to the bone, a large quantity of fetid sanguineo-purulent fluid escaped, and three-fourths of the fibula were found to be denuded of its periosteum and lying bathed in pus.

REQUEST.—The late Mr. Campbell of Senachan left upwards of £4,500 to various charitable and religious bodies; among others, £500 to the Royal Infirmary, Edinburgh; £500 to the Edinburgh Magdalen Asylum; and £500 to the Indigent Gentlewomen's Fund.

REVIEWS AND NOTICES.

THE BATH THERMAL WATERS, HISTORICAL, SOCIAL, AND MEDICAL. By JOHN KENT SPENDER, M.D. With an Appendix on the Climate of Bath by the Rev. L. BLOMEFIELD, M.A. 8vo, pp. 292. London: J. and A. Churchill. 1877.

THIS is an interesting and amusing book, full of antiquarian lore and of accounts of old medical practice. It conveys a great deal of information about Bath, both past and present. The chapter on Bath Social and Historical is decidedly good, and Mr. BLOMEFIELD'S account of the climate of Bath is a valuable addition to the book.

Having said so much in favour of the treatise, we must next point out what appear to us to be some of its blemishes, such as might easily be removed in a second edition.

The account of the chemical constitution of the waters is very confused. It is nowhere told expressly how many grains of solid materials are present in the 10,000 parts or in the pint of the water. Dr. SPENDER ventures on the statement that "in no known instance does the absolute quantity of nitrogen emitted at all approach to what is observed in the case of the Bath waters". We believe that in several other thermal springs the quantity of nitrogen is greater, as indeed it often is in common rain-water. The waters are termed by him simply indifferent; according to the usual classification, they would be called earthy or calcareous.

A good deal of space is occupied in giving various odds and ends of information about hot baths and springs, also about the sources of internal heat, which have little bearing on the subject matter of the book, and have no novelty; whereas a comparison of the Bath with some kindred waters, such as those of Lucca, St. Julian, or Leuk, would have been apposite and useful.

Old and new things are everywhere so mixed up together that, although a sufficient account of the baths and bathing establishment at the present day may be found in the work, still it is not easy to refer to any particular fact; and this reminds us of the absence of any index to the book.

The same remark applies to the chapter on the therapeutic action of the waters. We should prefer to have their action illustrated more by recent experience in the Water Hospital or among private patients at Bath, and less by a relation of cases in old authors. We gather little that is new from this chapter; but one fact is prominently brought forward—that, in cases of paralysis, if the application of electricity does good, the employment of the waters is pretty sure to be useful. We should have liked to have fuller details respecting the treatment of skin-diseases. From a book which deals so much with the past, we should have expected to learn whether the waters, which were supposed to be so useful in dyspepsia and biliary derangements, continue to be so. For a long series of years, Bath water was prescribed by London physicians in such affections, and the exportation of it must have been on a very large scale. Heberden, who wrote altogether in a most sceptical way about the waters of Bath, nevertheless said: "These springs are of singular use in remedying vomiting, loss of appetite, and pains of the stomach. . . . They are so generally beneficial in other disorders of the stomach and bowels, that they are very well worth any one's trying who is afflicted with indigestion, a chronic diarrhoea, flatulency, vomiting, or any spasmodic affections and pains of these parts." Saunders, again, who was the great authority in cases of liver in the commencement of this century, wrote: "The complicated diseases which are often brought on by a long residence in hot climates, affecting the secretion of the bile, the functions of the stomach and alimentary canal, often receive much benefit from the Bath waters, if used at a time when suppurative inflammation is not present." Surely these sagacious physicians and their predecessors were not utterly mistaken in the opinion they had formed of the value of the waters. In short, although Dr. Spender does casually allude to them in the fifth section of his last chapter, we should have been glad to have had fuller accounts given us of the modern employment of the waters in these as in other affections.

Finally, in a half-antiquarian work of this class, we should have been glad to find a reprint of Dr. Warner's catalogue of works published concerning the Bath waters, corrected and added to up to the present date. The valuable collection of works of this nature in the library of Dr. Falconer of that city, would have been a valuable aid in completing such a catalogue. In the meantime, we thank Dr. Spender for what he has given us, and hope to meet him again.

THE SULPHUR-WATERS OF STRATHPEFFER. By D. MANSON, M.A., M.D. Second Edition. London: J. and A. Churchill. 1877. 12mo. Pp. 73.

It is interesting to find that we have three of our simple sulphur-waters increasing immensely in popularity of late years. The two, which have all along had the additional help of possessing tolerably strong chalybeate springs—Llandrindod, in Wales, and Lisdoonvarna, in the west of Ireland—have made very great progress within the last few years; nor is their Scotch compeer Strathpeffer far behind them, which has lately added a chalybeate to its attractions.

All these places have the advantage of offering to patients plenty of fresh air, and of being completely in the country and away from towns.

It is an undoubted fact that an immense number of invalids benefit by visits to these places. The most remarkable results are obtained in rheumatism and in dyspepsia, but many other disorders yield at least for a time to such waters. If, indeed, we were to credit local reports, there are few of the ills that flesh is heir to that are not removed by them.

We welcome Dr. MANSON'S sensible guide to Strathpeffer, both to its waters and to the surrounding scenery. It will be very useful to visitors of that romantic spot, which is situated in a far more picturesque country than either of its two compeers which we have just mentioned.

The accommodation in lodgings and in the hotels has greatly improved of late years at Strathpeffer; and, indeed, there is a plan afloat for building an immense hotel and hydropathic establishment, intended to be open the whole year.

Dr. Manson is quite right in calling attention to the fact that, according to published analyses, the strong new well is undoubtedly a very powerful sulphur spring; but we should like to know whether any of the waters served out in the pump-room contain nearly the amount of sulphuretted hydrogen gas that is assigned to the strong spring in those analyses.

Our guide surely goes out of his way in endeavouring to point out an analogy between the Strathpeffer and the Friedrichshall waters; the former containing 43.6 of salts of an aperient nature in the gallon, while the latter contains 146 grains of such salts in the sixteen ounces.

Dr. Manson gives no account of the qualities of the climate of Strathpeffer, but he does well in praising its air. We have known families from the counties of Aberdeen, Banff, and Caithness praise it as being paradisaical. Nevertheless, it is simply nonsense to tell us that "the air of Strathpeffer and of the Engadine are much the same", even making the exception as to their difference of rarity. Every one knows that air two hundred feet above the level of the sea does not feel like air six thousand feet above it; and no one who practically knows the two places would ever pretend to see an analogy between Strathpeffer and St. Moritz.

TORQUAY PAST AND PRESENT: A SKETCH. By SPENCER THOMSON, M.D. London: J. and A. Churchill. 1876.

THIS little pamphlet professes to give an account of Torquay, in part historical and in part descriptive, the medical features of the locality being only slightly touched on, and the greater number of pages devoted to the natural beauties of the situation and to the minute topography of the town, which, as no map is provided, will be found somewhat difficult to comprehend.

The rise of Torquay from a few fishermen's huts to its present position as a first-rate health-resort is traced step by step, the population being 838 in 1821 and 21,608 in 1871; and the causes of its increase are considered. Much stress is laid on its low mortality-rate (16.54 per 1,000), on the excellence of the water-supply from Dartmoor, and on its almost total freedom from epidemics. As regards the climate of Torquay, Dr. THOMSON admits the existence of a large rainfall, but considers that this defect is extenuated by the abundant slopes and by the substratum of rock underlying the place, which carry off the moisture; and he maintains that a large rainfall, if removed with sufficient rapidity, has advantages which more than compensate for any occasional inconvenience, these being the washing of gutters and flushing of drains: advantages hardly appreciated by the penned-up invalid. The pamphlet concludes with a list of the plants which blossom at Torquay at Christmas and demonstrate the mildness of the climate; but the little work contains nothing new in either a climatic or a guide-book aspect.

THE Army Medical Corps at Aldershot are now trying two new field-kits for sick-bearers and medical attendants—one invented by Surgeon-Major Oliver, M.D., and the other by an officer doing duty with the corps.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 7TH, 1877.

MEDICAL EVIDENCE.

A CASE which had just been tried at the Winchester Assizes, before Chief Justice Coleridge, appears to reveal much ignorance of medico-legal duties, and has led to a severe reprimand of the medical witness. The facts are very simple. A man was charged with feloniously wounding his wife with intent to do her grievous bodily harm. We need hardly say that the medical proof of the use of a weapon in inflicting the injuries, would be most important in establishing this serious charge against the prisoner. The prosecutrix, on this as on most other occasions when charges of this kind are brought to trial, endeavoured to screen her husband. She gave her evidence with great reluctance. She stated that he struck her on the forehead, and that she bled profusely, but that she saw no knife or other weapon in his hand.

A medical man, Dr. Stickland, was called, who swore that he had examined the wound, and that in his opinion it was caused by some blunt instrument, not by the blade of a knife, and that a man's fist would be likely to cause such a wound.—Lord COLERIDGE thereupon inquired of the witness: "Are you a sensible educated man?"—WITNESS: "Yes, I suppose so."—The JUDGE (reading from the depositions): "Did you say this before the magistrates, 'Her face was covered with blood, and I found a severe wound over the left eyebrow about three-quarters of an inch long, very deep, as deep as it could be in that situation; it penetrated to the bone. If it had been half an inch lower it might have deprived her of her eye, and possibly penetrated the orbit, and thence into the brain, and caused death in all probability. A knife such as that produced (one found on the prisoner) would be likely to cause such a wound?'"—WITNESS: "Yes; but I have changed my opinion."—The JUDGE (with some warmth), "Leave the court, sir; go at once, and think yourself fortunate that you are allowed to go at all."

The prisoner was very properly found guilty of unlawful wounding, and sentenced to eighteen months' imprisonment with hard labour. The expenses of the medical witness who had given this contradictory evidence were disallowed.

Medical witnesses are not commonly aware that, on trials at the assizes, a copy of their original depositions before magistrates or coroners is always placed before the judge, and that he compares the evidence at the trial with that given while the facts were fresh in the witness's mind.

It is to the credit of the profession that a case like this rarely presents itself before the public. Here is a witness who deposes before the magistrates that a severe wound was probably caused by such a knife as that which was found on the prisoner, while at the subsequent trial he swore that the injury had not been produced by the blade of a knife, but more probably by a man's fist. It is impossible to reconcile such conflicting statements as these. The jury took a common sense view of the matter, and found the prisoner guilty of felonious wounding. A case like this tends to throw discredit on the profession. A remark is sometimes made by lawyers that cases would be more satisfactorily decided if medical evidence was entirely excluded, and such cases furnish strong arguments to those who desire to dispense altogether with medical evidence.

THE ARMY MEDICAL DEPARTMENT.

WE cannot help envying the skill and audacity of the surgeon-major who, according to Mr. Hardy, has succeeded in destroying the present prospects of the Army Medical Department, along with a select band of agitators. This formidable personage has checked the floods of impetuous candidates, whose eagerness to don the waving plumes of surgical glory has only yielded to his too insidious eloquence. The Secretary of State for War has traced the present disaffection among military doctors to the troublesome misrepresentations of one or two of their number, and more especially to the energetic proselytising influence of one officer, whose personality is thinly veiled under the present publicity given to his action. But we fear that the widespread and deeply rooted distrust of the administration of Whitehall Yard which now prevails so extensively amongst all sections of our military medical brethren can hardly be accounted for on such simple principles, and that the present dearth of candidates must depend on some firmer basis than the mere deterrent talk of one or two discontented grumblers. It speaks somewhat ill for the stability of any institution when its foundations are thus placed at the mercy of a sneer or an epigram; and, although we are told that "Cervantes laughed Spain's chivalry away", we only see in this easy destruction the strongest evidence of an enfeebled constitution. If one individual, however keen of tongue or strong of fence, can thus paralyse the prosperity of a powerful department, is there no official diplomatist of even higher rank whose persuasive talk may stem the flood of popular opinion which now threatens to submerge the good fame of the department? Cannot Whitehall Yard produce any counteracting influence to the impetuous wire-pulling of the few agitators whose machinations have caused one wide grumble to resound throughout the land, and whose representations have so effectually dried up the supplies of ingenuous youth? But, in this connection, may we venture to remind our readers of the reply given by Mr. Gladstone to the denunciations of a political opponent who taunted him with the profoundly injurious effect supposed to have been produced on the policy of the country by his famous pamphlet? "If", remarked the right honourable gentleman, "my few pages have thus disorganised the political situation, and if my facts are false and my argument imperfect, why did not the other side issue a counterblast? Why did they not boldly refute such deep-seated errors, and cause the light of truth to shine once more brightly throughout the land?" And, paraphrasing this most effective rejoinder, we naturally ask why public opinion does not at once rise up in defence of the War Office and in defiance of the malignant social influences at work? But, if Mr. Hardy could only shake himself free for a brief period from the enslaving influences of Whitehall Yard, and, casting aside the stereotyped opinions of his prejudiced subordinates, look at matters through the medium of his own acute intellect, he would find that this agitation is based, not on the utterances of one or two, but on the profound convictions of the many; that every large garrison or remote out-station is now a centre from which the growing unpopularity of the department is fed; that distrust and dissatisfaction are only deepening day by day; and it is by no defiant attitude, no denunciation of doctors as unsatisfied grumblers, no rigid attitude of obstruction to their claims, or sneers at their demands as unworthy of a great department, that the wavering ranks will close up and stand once more shoulder to shoulder. No amount of argument can do away with the stern fact that competition is now a mere farce, and that sufficient candidates cannot even be got to fill current vacancies. It is quite beside the question to tell us that a certain number of schedules have been issued, because it is perfectly well known that the sowing of eighty of these documents on the last occasion produced considerably fewer than twenty applicants, and that of these several were found to be professionally unfit.

Dr. Lush placed very forcibly and clearly before the House the principal grievances of his military colleagues, and Mr. Hardy seems to us to have given anything but a satisfactory reply. In the first place, he informs us that the Warrant of 1858 has been altered and destroyed by the express action of the doctors themselves; whereas it is now a mere truism to assert that the removal of many of the more important provisions of that document—the Magna Charta of the department, as it has been often called—arose solely and entirely from the jealous and encroaching attitude of the military authorities; and that this has been mainly instrumental in creating that feeling of uncertainty and distrust which is now so universally experienced. Mr. Hardy tells us that he has redressed all the grievances laid before him by the deputation of 1874; but not only has he failed to do this effectually, but he has even introduced many additional points of discomfort by his recent warrant.

We fear to weary our readers by rehearsing once more an oft-told tale; but we venture to remind them very briefly:—1. That army medical officers have recently been cut off from all exchanges; 2. That surgeons-major have been deprived of the so-called "perquisite" of horse-allowance, and thus are actually deprived of so much pay; 3. That their ordinary and sick leave of absence have been curtailed; 4. That they have been harshly and abruptly removed in many cases from their regiments, without effective compensation; 5. That all the amenity and social enjoyment of a military career are now placed in many cases beyond their grasp, by constant and vexatious changes of station, and dull and monotonous staff duties, without the cheering influences of association with brother officers and the comforts of a mess; 5. That three years' service in India is now most rigidly enforced as a necessary qualification for promotion to the higher ranks; and that considerable numbers of meritorious officers, who were previously ignorant of this regulation, now find themselves hopelessly cut off from the higher prizes of their profession. Mr. Hardy defends this law, because he believes that previous service in India is a necessary qualification for efficiency in the administrative grade; but we fail to see why the West Indies, Africa, or Canada should not supply quite as instructive experience, and why the first two at least should not rank equally for acclimatising purposes. And against all these evils, what have we to show? A little doubtful economy and a badly working machine, whose adaptability to the exceptional strain of service is theoretically supposed to be vastly superior to its predecessor; a body of officials who are profoundly disheartened and disgusted; and a body of young men outside, who decline to listen to the blandishments of the recruiting-sergeant. Now, we have always maintained the necessity in war time of some approach, at all events, to the unification system; general hospitals are then better than regimental, and a too strict regimentalism may even cripple efficiency by preventing the equal diffusion of medical aid in all directions. But there is no reason why this should not concur with a certain measure of the all-popular system at home. Have our large station-hospitals officered by the older and more experienced men, attach the ten years' surgeons to regiments, and let them follow up and treat their own cases in the wards. In this way may we avoid the now too frequent scandals of schemers going unchecked, and of prisoners spending their full term in hospital, simply because the medical officers are ignorant of the manners and customs of their men. Cases of this sort are now of almost daily occurrence, and the discipline and efficiency of the service are being most seriously hampered. And, above all, let us thus restore to the combatant officer his old and trusted faith in his family medical adviser, who could stand by him through the troubles of many years, and attain, as he often did, a position of peculiar stability and importance in his regiment. Colonel North mentioned, the other evening, the case of an officer of his acquaintance, whose medical attendant had been changed with a frequency which would have been ludicrous, had it not contained the

possible elements of tragedy. Our own experience supplies an instance in which the professional adviser relieved guard three times in one day; and such being no uncommon occurrence, we are not surprised that recent changes find no favour with the executive branches; and their unpopularity being, therefore, agreed on all hands, and their efficiency doubtful, we hope that Mr. Hardy and his responsible advisers in Whitehall Yard may yet see the propriety of yielding somewhat to the expressed wishes of the profession.

MEDICAL CHARITY AT BIRMINGHAM.

LAST week we published a portion of the Address which Mr. Sampson Gamgee recently delivered at the annual meeting of the Birmingham and Midland Counties Branch of the British Medical Association. As President, his words were sure to receive attentive consideration from a large and influential circle of his professional brethren; and those who know what an earnest reformer he has long been, will not be surprised to find that he took as his subject "our medical charities". It is now many years since he first raised his voice in favour of administrative reform at our hospitals and dispensaries, but public opinion was not then so well instructed on the subject as it now is; his words, like the words of many others, met with only a feeble response. But now it is far otherwise. The attention not merely of the medical profession, but also of philanthropists and statesmen, has been aroused. In many of our towns and cities, the question of medical charity is under consideration. Mr. Gamgee's able and vigorous address will meet with a response from one end of the kingdom to the other, and will materially help to advance the movement which has now fairly begun. All who are interested in this movement should read Mr. Gamgee's address carefully, and weigh the statistics which he has brought forward; they are very telling, for they show not only the extent of the present abuse of hospitals and dispensaries, but also the extraordinary rapidity with which this abuse is growing, even in a wealthy town like Birmingham, and during a period of unexampled prosperity.

Mr. Gamgee bases his argument upon the experience of ten years.

"The number of persons attending the Birmingham medical charities was, in 1867, 66,671; in 1876, 104,048; showing an increase of 37,377, equal to 56 per cent. Reckoning the population of the borough of Birmingham for 1867 at 325,895, one person in every five in that year obtained relief from our medical charities; whereas the proportion rose to one in 3.5 in 1876, when the population was 371,839. In the ten years, the borough population increased 13.8 per cent., and the number of persons relieved at the medical charities increased 56 per cent. In other words, in the past ten years the recipients of medical charity in Birmingham have increased more than four times as fast as the general population of the borough."

But during this same period the wealth of the town has increased enormously. This is demonstrated not only by the palatial buildings which are rising on all sides, but by exact information derived from the rateable value of property, the income tax, the savings' bank returns, and the building societies. Are we then to conclude that this immense augmentation of wealth increases the number of those who are entitled to gratuitous medical relief? Does prosperity make beggars? In answer to this question, Mr. Gamgee adduces the parochial returns for the same ten years, and shows that during the past decade pauperism has rather decreased in Birmingham. We are, therefore, shut up to the conclusion that those who make use of the hospitals and dispensaries in such rapidly increasing numbers are not poor people in needy circumstances, but well-to-do artisans, who have no claim upon medical charity.

What is the remedy for this state of things? Some of Mr. Gamgee's neighbours, laying the whole blame upon the misuse of Governors' letters of recommendation, say: "Let the hospitals be free, and let a registration fee be required from all applicants alike." But this is obviously unfair, and is likely, in the long run, to lead to greater evils than the Governors' letters. We must look in some other direction

for the true remedy, and it is interesting to observe that the Birmingham Charity Organisation Society has had its attention turned to this subject, and has arrived at precisely the same conclusion as its London prototype. The executive of the local organisation remark:

"A very large proportion of this enormous number of out-patients could afford to pay the cost of their own doctoring, if that payment could be made in the form of a small weekly payment during times of health as well as of illness; while they would generally be unable, especially when ill, to meet the lump sum of a doctor's bill. The need here is the machinery for bringing the payment for doctoring within the reach of the poorer classes, and this can be done by the establishment of provident dispensaries, as is shown by their success in many other towns. By small weekly contributions to these institutions, the working classes are enabled to pay the cost of their own medical attendance and medicine, and are thus able to avoid the humiliating position of becoming recipients of public charity whenever they are out of health. Any change in this direction seems to us to be hopeless until provident dispensaries are provided."

That the development of the provident system is the proper mode of meeting the difficulty is a conviction which is gaining round all over the country. A check must be put upon the abuse of charity, and as (to quote the words of a Quarterly Reviewer) "there is a limit to the liberality of the most liberal profession in the world", means must be found that will bring a great part of the present gratuitous service into a system that will offer a reasonable remuneration. Mr. Gamgee seems to think that we are rapidly tending towards rate-supported hospitals. Here we venture to differ from him. We believe that the medical profession would be as unwilling as the ratepayers to see such institutions established. What we desire is, that such inquiries should be made, with regard to both the social position and the maladies of the applicants, that those only shall receive our gratuitous assistance who have a claim to charity, and who, having such a claim, will be benefited and not degraded by the charitable relief they receive. For the rest, as Mr. Gamgee says: "On the principle of mutual assurance it is possible to make efficient provision for the health of the working classes, including the wives and children; and the object is one which deserves very thoughtful and earnest co-operation in the broadest and truest sense of the term."

MEDICAL CERTIFICATES AND VIOLENT DEATHS.

THE present unsatisfactory administration of inquest-law, and the entire absence of any uniformity in the exercise of the irresponsible discretion of coroners as to the necessity for holding inquests, render it almost impossible to guess whether, under certain circumstances, an inquest will or will not be held. Inquests are, however, generally held in all cases of death from violence; and it is of some importance that certificates should not be furnished by medical practitioners relating to the causes of deaths resulting from violence without reference of the case to the coroner. It was noticed, in a recent weekly return of the Registrar-General, that two deaths registered in London during the week ending June 16th were certified by registered medical practitioners as resulting from "concussion of the brain". Of these two cases of violence, one was of a child aged eight years, and the other of a man aged seventy-five years; the cause of the concussion not being mentioned in either certificate. It may be presumed that in both these cases the deaths were registered and the bodies buried without inquests being held. It is not, however, stated whether the cases had been referred to the coroner; and it appears undoubtedly desirable that, so long as the ancient and important office of coroner exists, the responsibility for deciding upon the necessity for holding an inquest shall alone rest with that official. Medical practitioners, in furnishing certificates in cases of death from violence, in great measure take upon themselves the responsibility, which properly belongs to the coroner, of declaring an inquest to be unnecessary. Registrars of births and deaths are instructed by the Registrar-General that, when a death has been caused by violence and no inquest has been held, they must bring the case under the notice of the coroner, and ascertain whether

he considers an inquest necessary, *before* registering such death. The registrars' regulations further direct that all deaths resulting from violence should be brought under the notice of the coroner, notwithstanding that a medical certificate of the cause of death may be delivered to the registrar. The medical certificate may in such cases influence the coroner in his decision as to the holding of an inquest; but it is not held to exonerate the registrar in any way from the duty of reporting the case to the coroner. This being the case, it appears undesirable that medical practitioners should give certificates of the cause of death in any cases of violence unless they are informed that the coroner has decided that an inquest is unnecessary. It is desirable that medical practitioners should, in the interest of the public, assist the Registrar-General in his endeavour to have all cases of violence brought under the notice of the coroner previously to registration; and this can be most effectually done by refusing to give a medical certificate in all such cases until they have been referred to the coroner. There is too much reason to believe that registrars do not always strictly carry out the Registrar-General's instructions on this point, which renders it the more important that medical practitioners should in such cases withhold their certificates. By this means, the due reference to the coroner will be the better secured. A more recent weekly return of the Registrar-General notices two more cases of violent deaths in London certified by medical practitioners, and resulting from fractures, although the certificates do not state how the fractures were caused. Deaths from violence are continually increasing, and in London alone no less than two thousand eight hundred and eighty-five deaths were so caused in 1876. It becomes important, therefore, that all possible precautions should be taken to secure due inquiry into the causes of these deaths.

ALLEGED DEATH FROM VACCINATION IN SUNDERLAND.

An inquiry as to the cause of death of a child, certified to have died from vaccino-syphilis, was held at Sunderland on June 7th last. The child was born on May 28th, 1876, and vaccinated on September 7th, 1876, at which date it is said to have been perfectly healthy. The only history of the case recorded is that of the child's grandmother, which was to the effect that—

"The matter was taken from the arm a week afterwards. I saw nothing unusual up to that time, but four days subsequently I noticed an eruption of small white running sores about the lower part of the body. Afterwards they extended to underneath the arms, behind the ears, and the creases of her neck. The smell arising from them was very bad. I took the child to Dr. Taylor, and he said it was usual for similar eruptions to make their appearance after vaccination."

During its last illness, the child had iritis and *three scars on the thighs*, marks of a previous eruption. It died on June 2nd, 1877, apparently from some form of cerebral-disease. Dr. Abrath, president of several anti-vaccination societies, attended the child during life, and made the *post mortem* examination in the presence of the public vaccinator (Mr. Taylor). His description of the necropsy, made about eighty-four hours after death, and a part of his remarks and inferences on the same, are as follows.

"On examining the body, we found the three scars referred to on the thighs, and on the back part of the body decomposition symptoms had set in. On removing the skull-cap, we found the covering of the brain perfectly healthy. But on coming to the optic commissure, or the neighbourhood of the optic nerve, we found a syphilitic deposit, and around the nerve, just before entering the orbit, was a gelatinous mass. All the rest was healthy. The organs of the chest, the spinal cord, the stomach, intestines, liver, etc., were all healthy, except that the right kidney was slightly congested, which might arise from convulsions. Taking the child to have been perfectly healthy, she being extraordinarily strong, and directly after vaccination the syphilitic appearances of the scars themselves and the extensive development of the syphilitic signs, and also the three large cicatrices left behind, which showed that the syphilis must have been introduced by the process of vaccination—all these, together with the syphilitic deposit in one particular portion of the brain, lead me to the conclusion that death had resulted from

the effects of vaccination. Had the child been constitutionally syphilitic, she would have had more organs involved, and would not have been so strong."

Beyond the *statement* of Dr. Abrath, that the child was suffering from syphilis, and that he found the syphilitic deposit at the base of the brain, there is nothing to show that the case was syphilis at all. The history of the development of the eruption, the fact of its occurring only in this one of three children inoculated from the same vaccifer, and the fact that the statements in favour of syphilis were made by a president of an anti-vaccination society, without microscopic examination of the diseased part of the brain, and without referring the whole to some independent but competent authority, throw grave doubts on the nature of the case. The proceedings in this case will undoubtedly do great harm to the cause of vaccination in Sunderland. To obviate this, it would be advisable that the history of this, and of similar cases alluded to in the local papers, should be investigated by some competent authority; and we suggest that this is an instance in which the Local Government Board should order an inquiry.

WE are glad to hear that Dr. Habershon has recovered from his recent illness, and will resume his professional duties next week.

DR. GREENFIELD has been appointed Assistant-Physician to St. Thomas's Hospital, in the vacancy caused by the promotion of Dr. Ord to the post of Physician.

APROPOS of the now defunct Chamber of Deputies of France, it was last week remarked that it contained no less than forty-four doctors. "Forty-four doctors", said M. de R—, "that is a very natural explanation of its premature decease."

AT the Bradford Borough Court, on June 30th, Hezekiah Thornton, described as a Doctor of Medicine of the Eclectic College of Pennsylvania, was fined £10 and costs for having used certain titles which implied that he was recognised by law as a medical practitioner in England.

AMONG many wise and witty sayings of Lord Palmerston is one of which we were reminded this week, and which it may be worth while to put on record as a valuable prescription, which is very reasonable just now, and which doctors may usefully keep among their commonplace prescriptions. It is this: "The outside of a horse is the best thing in the world for the inside of man."

DRINKING FOUNTAINS.

THE annual meeting of the Metropolitan Drinking Fountains Association was held at Grosvenor House, on Saturday, the Duke of Westminster in the Chair. The report stated that thirty-three drinking-fountains and fifty-eight troughs had been erected during the last twelve months, making a total number in London at the present time of three hundred and twenty-four drinking-fountains and three hundred and forty-two troughs.

BIRMINGHAM MEDICAL BENEVOLENT SOCIETY.

AT the annual meeting of the Birmingham Medical Benevolent Society, the following officers were elected for the ensuing year. *President*: Mr. Alfred Freer (Stourbridge). *President-elect*: Mr. Watkin Williams. *Vice-Presidents*: Mr. Kimbell (Knowle) and Mr. C. J. Bracey. *Treasurers*: Mr. Berry and Dr. Wade. *Honorary Secretary*: Mr. T. H. Bartleet.

M. LITTRÉ AND M. THIERS.

OUR Paris correspondent writes:—M. Littré, I am sorry to say, is no better, and you will learn with much concern that another eminent character is suffering from the same malady which confines the great lexicographer to his bed. I allude to M. Thiers, whose anæmic condition is so marked as to cause great anxiety among his friends, as he

is labouring under great prostration both mentally and physically. M. Thiers is past 80; but the anæmia with which he and M. Littré are affected is not attributable merely to their old age; it is the anæmia of *savants* or those given to much brain-work.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE annual election of Fellows into the Council of the College took place on the 5th instant; the following being the result:

Mr. Erichsen	...	...	189, including 31	plumbers
Mr. Savory	...	...	149	10
Mr. Holmes	...	...	123	11
Mr. Gay	...	...	112	7
Mr. W. Adams	...	...	94	6

The successful candidates were Messrs. Erichsen, Savory, and Holmes. Of these, the latter two are new members of Council.

HARVEY AND CÆSALPINO.

THE following extract from Hallam's *Introduction to the Literature of Europe in the Fifteenth, Sixteenth, and Seventeenth Centuries*, 3rd edition, part iii, chap. ix, § 18, is of interest in connection with Dr. Sieveking's remarks in his Harveian Oration on the claim to the discovery of the circulation made by the Italians on behalf of Cæsalpino.

"Portal has imputed to Harvey an unfair silence as to Servetus, Columbus, L'Évesque, and Cæsalpin, who had all preceded him in the same track. Tiraboschi copies Portal, and Corniani speaks of the appropriation of Cæsalpin's discovery by Harvey. It may be replied, that no one can reasonably presume Harvey to have been acquainted with the passage in Servetus. But the imputation of suppressing the merits of Columbus is grossly unjust, and founded upon ignorance or forgetfulness of Harvey's celebrated *Exercitation*. In the proæmium to this treatise, he observes, that almost all anatomists have hitherto supposed with Galen, that the mechanism of the pulse is the same as that of respiration. But he not less than three times makes an exception for Columbus, to whom he most expressly refers the theory of pulmonary circulation. Of Cæsalpin he certainly says nothing; but there seems to be no presumption that he was acquainted with that author's writings. Were it even true that he had been guided in his researches by the obscure passages we have quoted, could this set aside the merit of that patient induction by which he established his own theory? Cæsalpin asserts at best, what we may say he divined, but did not know to be true: Harvey asserts what he had demonstrated. The one is an empiric in a philosophical sense, the other a legitimate minister of truth. It has been justly said, that he alone discovers who proves; nor is there a more odious office, or a more sophistical course of reasoning, than to impair the credit of great men, as Dutens wasted his erudition in doing, by hunting out equivocal and insulated passages from older writers, in order to depreciate the originality of the real teachers of mankind. It may indeed be thought wonderful that Servetus, Columbus, or Cæsalpin should not have more distinctly apprehended the consequences of what they maintained, since it seems difficult to conceive the lesser circulation without the greater; but the defectiveness of their views is not to be alleged as a counterbalance to the more steady sagacity of Harvey. The solution of their falling so short is that they were right, not indeed quite by guess, but upon insufficient proof; and that the consciousness of this embarrassing their minds prevented them from deducing inferences which now appear irresistible. In every department of philosophy, the researches of the first inquirers have often been arrested by similar causes."

THE PUBLIC HEALTH (METROPOLIS) BILL.

THE local authorities of the metropolis continue to bestow a large amount of attention on this Bill, which, they believe, would very considerably abridge their free action in sanitary matters. They are to a very considerable extent mistaken in their views, as the Local Government Board Act, 1871, transferred the powers previously vested in the Secretary of State and Her Majesty's Privy Council by the Diseases Prevention Act and Sanitary Acts to that Board. This transference has probably escaped their notice, because this Act is usually classed with Poor-law, and not with Sanitary Acts; at any rate, deputations have waited on the metropolitan members of Parliament, and petitions have been laid before the House, objecting to the centralising clauses of the Bill. There have been, so far as we know, very few documents issued dealing with the individual clauses, but we have received some

which do so, amongst which we would notice those from the medical officers of health of Kensington and Hackney. The former reiterates his views as regards the admission of non-pauper cases of infectious diseases into hospitals free of expense, and also discusses the clause relating to cowsheds and dairies as being in accordance with the principles approved by his vestry. The Hackney circular as well as that from Kensington notices that the Bill very imperfectly consolidates the metropolitan sanitary law, as we have already pointed out. It is, however, doubtful if it were intended to do more than bring together the sections of the Nuisances Removal and Sanitary Acts, and add fresh powers for certain pressing necessities, leaving to a future time the framing of a Bill for the metropolis such as that brought into the House of Commons in 1871 by Sir Charles Adderley for the local government of England, except the metropolis, and which contained about four hundred and fifty clauses. There is probably little chance of the Bill passing this session, but it has been useful as showing how much scattered is the sanitary law for London, and how far from complete is the knowledge possessed by those who have to attend to its administration.

THE CANAL BOATS BILL.

MR. SALT, Secretary to the Local Government Board, who represents the Government on the Select Committee, and Mr. George Smith of Colville, spent on Saturday afternoon some hours in making inquiries among the boatmen of Paddington, finishing their visit by taking tea in one of the cabins with a boatman named King. The question, which appears a somewhat difficult one, is in a fair way for an easy solution, and without much inconvenience to those engaged in canal traffic.

THE HÔTEL DIEU.

OUR Paris correspondent writes:—The days of the old Hôtel Dieu are numbered, and, before another winter is over our heads, it will have become a thing of the past. Notice has been given officially that no new cases are to be received into the hospital, and the materials of the venerable building are already advertised for sale. The new Hôtel Dieu is far from being completed; but a portion of it, that facing the old building, is to be prepared and ready by September 1st for the reception of two hundred patients.

HORSES AND HARNESS.

PUBLIC attention has been recalled to the careless and cruel use of severe bits and tight bearing-reins by a recent case in the police-courts. We are glad to take the opportunity of expressing the satisfaction with which we learn that a constantly increasing number of medical men are disusing bearing-reins, and are giving attention to the character of the bits with which their horses are driven. No one who has once disused bearing-reins can but bear testimony to the fact that they are utterly unjustifiable and valueless appliances. There is no horse which will not go better, more comfortably and freely, without the bearing-rein; although it is still a favourite creed with grooms that a tight bearing-rein improves the appearance of carriage-horses. The ease, comfort, and free movement of horses which are relieved from this painful and unnecessary gear contrast very strongly with the distress and restlessness of the unfortunate animals, which may be sometimes seen standing from a quarter to half an hour at a time braced up and tossing their heads in pain, while the doctor is trying to relieve the discomfort of his patients in the house outside of which they are waiting. And so with bits; the heavy hinged gag-bits which many coachmen are fond of using, and declare to be necessary for their horses, may with the greatest safety and advantage be abolished in favour of some one or other of the fixed heavy but unjointed snaffle-bits which Mr. Flowers recommends. Perhaps the best, simplest, and easiest of all bits is the Capon driving snaffle; it is a ring-snaffle, the mouth-piece having a slight curvature to avoid pressure on the tongue; it is figured in Mr. Flowers's pamphlet on *Bits and Bear-*

ing-reins as No. 41, and may be seen at Mr. J. Woodley's, 26, Connaught Street, Hyde Park Square. An excellent little pamphlet on *Gag-Bits* has been written by Mr. Philip Baylis, M.A., and is published at the *London Labour News* publishing office, 15, Russell Street, Covent Garden. Mr. Woodley will forward drawings of the four kinds of bits recommended by Mr. Flowers in his popular work.

THE BRITISH ASSOCIATION.

AFTER a lapse of thirty-six years, the British Association will, in August next, meet at Plymouth. The chief local arrangements are already completed, and give promise of a successful meeting in a district of great attractions, scientifically and otherwise. The chief meetings will be held in the grand hall of the new Guildhall, and the sections will be grouped round, none being more than two or three minutes' walk distant. The Conference will open on August 15th with the address of the President, Dr. Allen Thomson.

SUNSTROKE IN PARIS.

OUR Paris correspondent writes:—According to an official report, at the review which took place on Sunday, July 1st, at the Bois de Boulogne, and at which were present about 40,000 men of all arms, 102 men were struck down by the sun. Of these, 84 had to be sent on to Val-de-Grâce, whereas the others, after appropriate treatment, were soon able to rejoin their respective regiments. Among the spectators, of whom there was an enormous assemblage on the grounds, ten persons were struck down, among whom was an unfortunate woman in the family way. It is to me incomprehensible why it is that these reviews cannot be held in more genial weather, the end of spring or autumn, for instance, instead of under an almost tropical sun.

HOW TO WARD OFF SUNSTROKE.

It is not merely in tropical countries that those very alarming and fatal seizures known by the name of sunstroke occur during hot weather. They have been witnessed on a large scale in the Prussian and Belgian armies when exercising on sandy plains. In civil life, such attacks become periodically frequent, as in the city of New York; and every year they are to be met with in England during our hottest days. We mean real sunstrokes, not merely the various unpleasant head-symptoms often induced, especially in children, by exposure to the sun. We observe that quite recently there have been three deaths from sunstroke—all of labourers: one was at Lower Norwood; the other two were at Harrow and its vicinity. *Coup de soleil* is induced by a hot still dry atmosphere. It occurs less frequently if there be moisture in the atmosphere, and very seldom indeed when there is any movement of the air. It attacks most readily those who are exposed directly to the sun, or those who are confined to a close impure atmosphere. The chief predisposing cause is exhaustion from labour, especially after the free use of beer or of spirits. The premonitory symptoms are a sensation of lassitude, of sinking, especially in the back of the neck, nausea, swimming of the head, or headache. To these, some add frequent micturition. How, then, are we to ward off sunstroke? The main prophylaxis is to avoid exposure to the sun, and this the inhabitants of most southern continental cities do by ceasing to work at midday and by retiring from the heat. No doubt, sunstroke might be in great measure avoided in England by similar precautions; but we fear there would be great difficulty in enforcing them. The number of days in England so hot as to be likely to induce sunstroke is so small, that it is not likely to be taken into consideration by masters or men. The masters would grudge the loss of labour, and the men would be inclined to laugh at taking such precautions. Next to avoiding direct exposure to the sun, the best measures for preventing sunstroke are, to have the head and back of the neck well protected by a white covering from the sun; to have the neck open, the action of the chest as free as possible; to drink no spirits; to cease working and get into the shade whenever premonitory symptoms appear; to have a plentiful supply of cold water at hand, both for drinking and for cold affusion, which is the most ready as it is the most effective of remedies.

THE STAFFORD HOUSE COMMITTEE.

THIS Committee, we hear on the authority of Mr. T. Gibson Bowles, daily receives pressing appeals for help, which they are prevented from giving, owing to the want of funds. His Excellency Ahmed Vefyk has acknowledged the receipt of thirty cases sent out by the Committee, containing a large supply of surgical instruments and appliances, and also acknowledges the receipt of £1,600 sent by the Committee, with which sum medicines, beds, and ambulances have been bought and sent by Ahmed Vefyk to the Turkish army in Asia. The despatch of these stores will, it may be hoped, have already produced a sensible amelioration of the sufferings of the wounded in Asia.

WAR AND FEVER.

IN consequence of the outbreak of war between Russia and Turkey, sulphate of quinine has trebled in value. At the beginning of the year, it was worth three hundred francs the *kilogramme*; at the present time it fetches nearly eight hundred. This increase in price is directly traceable to large purchases made by the belligerent armies. The Turks bought in one day alone a hundred *kilogrammes* of sulphate of quinine from a wholesale house in Paris. Thus, fevers are likely to prove costly diseases now that the Czar and the Sultan have commenced hostilities.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND STREET.

A NEW and substantial addition to this useful institution, consisting of an extra wing, was formally opened to the public on July 2nd, a considerable number of those interested in the charity visiting the building during the day. The wing is an isolated building, erected from designs by Mr. E. M. Barry, R.A., and consists of four wards containing sixteen beds, viz., eight on the first floor, and eight on the second, each having a ward-kitchen, bath-room, and linen store-room, also nurses' day-room and dormitories. Open windows are depended upon for fresh air, but a simple system of tube-ventilation is superadded, in order to regulate the admission of cold air in the winter. The roof of the building is laid with asphalt, to form an airing-ground for convalescent patients, while the large open space at the rear is being prepared as a recreation-ground and garden, which will add much to the comfort and welfare of both nurses and children. The funds for carrying out this latter scheme are yet required, the expenses of furnishing the new wing, which also includes a mortuary and museum, having yet to be met. The portion of the hospital newly opened is known as the North Wing; but it is in contemplation to erect a South Wing, containing wards for about eighty more patients, when funds for such a purpose are forthcoming, and rooms for the staff and other officers.

RECURRENCE OF MALARIOUS FEVER.

THE following interesting details respecting a remarkable series of incidences, if such they be, respecting the recurrence of malarious fever, were recently communicated by Admiral Spratt, F.R.S., Surveying Officer for the Admiralty during the Crimean War and in the Lycian Expedition, to Dr. Percy, F.R.S., and have, at Dr. Percy's suggestion, been reduced to a short narrative, that they may be put upon record. The circumstances related are of considerable interest in connection with the origin of malarious fevers.

"Tunbridge Wells, June 26th, 1877.

"My dear Percy,—At your request, I have put the following fact on paper, regarding some fever cases that occurred to three officers of H.M.S. *Beacon*, whilst employed surveying the coast of Asia Minor near the Meander, when I belonged to her.

"Lieutenant (now Captain) J. B. West, Mr. (now Captain) D. Aird, and Mr. H. Smith, having been away in the same boat together near Miletus, on the Meander, in the summer of 1842, were all three laid up with remittent fever of a severe form immediately on their return to the ship. About Christmas, the ship proceeded to Malta for the winter months. Both Lieutenant West and Mr. Aird, as well as Mr. Smith, were completely recovered on their arrival at Malta. The two former left the *Beacon* in the early part of the following year, joining other ships that were then about to leave for England. After their departure, Mr. Smith, who had remained in the *Beacon* at Malta, was

attacked with a return of the fever, but of an intermittent form. On hearing from Lieutenant West and Mr. Aird, we heard that they, too, had been similarly attacked; and the most remarkable fact is that, on comparing dates, it was found that each had been attacked at the same time, indeed, the very same day. The interval that had elapsed between the original attack and the return was about six months, as near as can now be given, the exact dates not being remembered by either of the survivors, who, however, are both ready to confirm the above fact, as we have frequently referred to it in our communications since that period, from the impression the interesting and remarkable fact had made upon all of us, as being a noteworthy feature in connection with malarious fevers; and these two surviving officers permit me to give their names in full, in confirmation of the fact.

"There is a point in connection with the case that deserves to be mentioned, viz., that the origin of the attack seems to be clearly traceable to the same circumstances and time—through having slept out in some vineyard on the road between the coast and Miletus, and thus all must have inhaled the poison at the same time.

"The other case I will record also if you desire it; but the above may be sufficient for your views.—Faithfully yours, T. SPRATT."

ST. ANDREW'S GRADUATES' ASSOCIATION.

THE ninth anniversary session of the Association was held at the Westminster Palace Hotel on Thursday, June 28th. A most interesting and instructive two hours were spent in Westminster Abbey under the kind guidance of the very Rev. the Dean, Lord Rector of St. Andrew's. At the dinner in the evening, Dr. Lush, M.P., was in the chair, and was supported by Lord Gordon, Mr. Knight, M.P., Mr. Ramsay, M.P., Professor Smyth, M.P., Mr. Walter James, M.P., Dr. Rowley Hill, M.P., Dr. Cameron, M.P., Dr. Mitchell, Dr. Bucknill, Dr. Crichton Browne, Mr. Balfour Browne, Dr. Richardson, Rev. Dr. Rogers, Dr. J. H. Paul, Dr. Day of Stafford, Dr. Cholmeley, Dr. Kesteven, Dr. Weir of Malvern, Dr. MacEwen of Chester, Dr. Griffith of Portmadoc, Dr. Cleveland, Dr. Wiltshire, Dr. Mott, Dr. Sedgwick, and many other London and country graduates. Dr. Lyon Playfair, M.P., was, to his great regret, prevented from attending by his parliamentary duties. Dr. Paul was presented with a handsome claret jug and goblets for his services as treasurer since the foundation of the Association; a very cordial vote of thanks to the Dean of Westminster was passed; and the hearty congratulations of the Association were offered to Dr. Richardson, on the recognition of his services to literature and the University by the conferring on him of the degree of LL.D. of St. Andrew's. The following were elected as the executive for the year 1877-8:—*President of Council*: Dr. Richardson. *Honorary Treasurer*: Dr. Paul. *Honorary Secretary*: Dr. Sedgwick. *Council*: Dr. George Bird, Dr. Cholmeley, Dr. Christie, Dr. Cleveland, Dr. Crosby, Dr. Henry Day, Dr. Dudfield, Dr. Falls, Surgeon-Major Franklin, Dr. M. Granville, Dr. Griffith, Dr. Griffiths, Dr. Holman, Dr. Kesteven, Dr. Lawrence, Dr. Lush, M.P., Dr. Macintyre, Mr. Menzies, Dr. C. Mott, Dr. Pettigrew, Dr. Julius Pollock, Dr. Bransby Roberts, Rev. Dr. Rogers, Dr. Joseph Rogers, Dr. Lawes Rogers, Dr. Cooper Rose, Dr. Royston, Dr. Scott, Dr. Seaton, Dr. Stocker, Dr. Weir, Dr. Whitmore, Dr. Willett, Dr. Duckworth Williams, Dr. Rhys Williams, Dr. Wiltshire.

THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST, CITY ROAD.

AN extensive addition to the accommodation of this hospital has lately been made, and the new rooms were opened for use last Tuesday at a public ceremony, at which Lord Charles Bruce presided. The new building is entirely on the ground-floor, and has been erected at the back of the old hospital. It is substantially and well built, light and airy, with gable roof. It contains the office for the registering clerk, two large and lofty waiting-rooms for out-patients, two consulting-rooms and a private room for the physicians, a new dispensary, with all the necessary offices, etc. A mortuary and *post mortem* room occupy a detached building. The whole of the rooms are well ventilated, and are warmed throughout by hot-water-pipes. In each waiting-room it is pleasing to see a table well furnished with periodicals and illustrated papers, for the use of patients during the necessarily tedious time of

waiting to see the physician. The cost of these buildings, with fittings, is about £2500, the whole of which amount has been paid. The old building has been completely renovated, and some necessary alterations have been carried out. The rooms formerly occupied as an out-patient department have been converted into very commodious wards, and are now ready for the reception of patients. The plan of ventilation is that known as "Tobin's principle". The bedsteads and bedding have been presented by one of the governors. Fourteen beds have thus been added to the hospital, making a total accommodation for twenty-six in-patients. Among other improvements may be noted the parquet flooring in the passages, which is warm, noiseless, and clean. Teak facings have been added to the old staircase; and blinds have been placed outside the windows for use in the summer.

WOMEN IN WAR-HOSPITALS.

LADY STRANGFORD forwards the following letter from the late chief agent in Turkey of the British National Aid Society.

"Dear Lady Strangford,—As you have asked me to give you my candid opinion as to whether women are useful in hospitals and ambulances such as you are trying to arrange now in Turkey, I can only say that I am glad of the opportunity of stating my conviction that any hospital not possessing a staff of highly trained female nurses cannot lay claim to being called an efficient hospital. If female nursing be of any value in relieving pain and misery, war is surely the best opportunity of testing it. In my opinion, it is in permanent hospitals and in hospitals at the rear of an army that women render themselves useful. Their presence is as necessary in permanent hospitals as it is useless in the field-ambulance. After a battle, the wounded should be evacuated with the greatest celerity possible, and no one should be left in a field-ambulance to be nursed. The Turkish soldier is the incarnation of sobriety and patience; he is therefore easily nursed. Moreover, a man suffering from a gunshot-wound is perfectly indifferent as to the sex or religion of his attendants; he would then gladly accept of relief to his sufferings even if it came from his most inveterate enemy.

"On the eve of my departure from England, as one of the medical men sent to the seat of war by the National Aid Society, I do not hesitate to express my hope that at least two hospitals will be arranged as quickly as possible on the coasts of the Black Sea, wherein to draught the wounded men from the battle-fields on which they have fallen. In expectation of the suffering and slaughter which must ensue within a very short time both in Asia and in Roumelia, all who desire to mitigate that suffering and to save many lives should unite to create those hospitals.—I remain, yours very truly,

"June 22nd."

"ARMAND LESLIE.

THE CASE OF SEWELL v. WELLS.

WE have been requested to publish a correction of our annotation on this subject by stating that the actual words of the verdict were not the words we have quoted from the *Times*' report—namely, "When he executed his last will, he was of sound mind"—but the following words: "The testator was not, at the date of making the will, subject to the delusion referred to." It will be seen that this is an important correction, which we have great pleasure in making.

OPHTHALMIA IN A DOCKYARD.

A SPECIAL inquiry into the causes of the ophthalmia becoming so common amongst the men in Devonport Yard has been instituted, and the surgeon reported that it is chiefly due to iron-chippings striking the unprotected eyes. In consequence, the Admiral Superintendent has ordered that plain-glass spectacles shall be kept in store, served out to and used by all dockyard men engaged upon work from which injury to the eyes is at all likely to occur.

ST. JAMES'S HALL, LEEDS.

THERE has been erected at Leeds, at the expense of Mr. W. J. Armistage of the Farnley Iron Company, from the designs and under the superintendence of Mr. Thomas Ambley of Leeds, architect, a building intended as a counter-attraction to the public-house; and refreshments, such as tea, coffee, cocoa, etc., are intended to be supplied at very low prices. The arrangements consist of a large refreshment-room, with a smoke-room and reading-room, ladies' room, bar, etc.,

on the ground-floor; the whole area on the first floor is occupied by a lecture-room; manager's rooms, and two sets of club-rooms where working men may hold their meetings, on the second floor; the third floor will be divided into sleeping apartments, where working men may have accommodation at night. The kitchens are on the basement, as also two large rooms intended as a coffee-room and classroom for gutter-children. The whole of the basement is of white glazed bricks, the outside being faced with pressed bricks relieved by stone-dressings.

CURE OF FEVER IN INDIA.

THE correspondence on the subject of cinchona-growing in India has recently been published as a blue-book, and, although bulky, deserves careful consideration by those who interest themselves on behalf of our fellow-subjects in Asia. We find that the principal cinchona plantations directed by the Government are situated at Darjeeling. They are said to be in a flourishing condition, producing about fifty tons of dry bark each year. From this sort of bark about $3\frac{1}{2}$ per cent. of medicine can be extracted, so that it would appear that the plantations are already capable of furnishing to the hospitals of Bengal two tons of quinine and other preparations of cinchona. This caused an attempt to be made some time ago to represent that the authorities were over-zealous in the cause, and prepared to cultivate the cinchona to excess. Private associations for the cultivation of the plant were especially aggrieved, as, under the influence of the large quantity of the bark poured into the market, they began to see their profits diminish steadily. The Government has not turned aside from its purpose, being supported by the testimony of a competent witness, who has stated that it is not too much to supply each native on an average throughout Bengal with five ounces of quinine *per annum*; and, at this rate, it would require an annual supply of twenty-nine tons to suffice for the wants of this presidency. The Government plantations are now being worked with a view to supply only the very best and purest quinine. It is found that cinchonidine and other inferior sorts of produce from the bark will serve only for ordinary purposes; and there is no difficulty in the way of private companies turning their attention to the cultivation of the yellow cinchona, which yields the largest quantities of the purest quinine. The immediate result of the extended growth of cinchona is, that it enables the medical man to combat more successfully ague and fever, the bane of Indian life. Appended to the report is a whole list of such cures. There is every probability that cinchona-trees will acclimatise themselves, and the increased manufacture of a most valuable medicinal agent will be reduced.

QUANTITATIVE DETERMINATION OF SUGAR IN BLOOD.

IN a paper read before the Royal Society on June 14th, Dr. Pavy described minutely a new method for the quantitative determination of glucose, and its application to physiological relations of sugar in the animal system. The details of this method are shortly as follows. A certain volume of blood—about twenty cubic *centimètres*—is first mixed with forty *grammes* of sulphate of soda. The whole must be subjected to weighing in detail, so that the precise weight of the blood taken may be known. To this mixture, contained in a beaker of about two hundred cubic *centimètres* capacity, about thirty cubic *centimètres* of hot concentrated solution of sulphate of soda are added, and the whole contents heated until a coagulum is formed. Filtration is then performed, and the coagulum thoroughly washed, so that all traces of sugar may be removed. The liquid thus obtained, having been run and squeezed through muslin, is slightly turbid, and must be boiled again and filtered through paper to render it perfectly clear. It is now ready for the application of the copper-test. Being brought to a state of ebullition, about ten cubic *centimètres* of the solution of potassium-tartrate of copper, or sufficient to secure that the test-liquid is left in excess, are added, and brisk boiling continued for a minute, but not longer. In this way, a reduction of the oxide to the suboxide of copper is effected by the action of the sugar present in the solution. The

liquid is then filtered through a plug of asbestos, or, what is better, glass wool. The suboxide having been collected and washed from excess of the copper test-liquid, is next dissolved by a few drops of nitric acid, a small quantity of peroxide of hydrogen having been previously added in order to effect oxidation and consequent ready solution. The copper present in the liquid is now deposited by galvanism. The positive pole of the battery is formed by a platinum spiral coil, around which, and forming the negative pole, is a cylinder of platinum foil; upon this the copper is slowly deposited in a pure metallic form. This operation is continued until the appropriate test shows that the whole of the copper has been thrown down. The period ordinarily required to effect this does not exceed twenty-four hours. The platinum cylinder is next removed, and instantly plunged first into distilled water and then into alcohol. After drying in a water-oven, it is ready for weighing; the difference in the weight of the cylinder before and after the operation gives the amount of copper deposited. The battery used is a modification of Fuller's mercury bichromate battery, and has been selected on account of the constancy of its action. From the amount of copper deposited, that of the sugar existing in the blood analysed may be accurately calculated. Five atoms of the cupric oxide of the test-solution are reduced by one atom of glucose; it follows that 317 parts of copper represent the equivalent of one part of glucose, or the relation stands as one of copper to 0.5678 of glucose. Therefore, to ascertain the amount of sugar, the weight of the copper has to be multiplied by 0.5678. This application of the copper test-solution yields a gravimetric instead of a volumetric process of analysis, and one which has no uncertainty. The accuracy and reliability of the foregoing process, the author stated, are strongly supported by the uniformity in the results obtained from a large number of experiments. He said that Bernard's figures are invariably too high, and there is no intelligible relation in the differences noticeable.

SCOTLAND.

AT the weekly meeting of the managers of the Edinburgh Royal Infirmary, the report from the fever-wards was more favourable than any which has been received, it is believed, for fifty years. There were only five fever-patients in the institution, and during the past week there had been no deaths from fever, nor had any new cases been received.

ADULTERATION prosecutions are still being carried on with vigour in Glasgow. A confectioner was last week charged with having sold a quantity of adulterated confections. It was proved that the sweets contained chromate of lead. The accused, who pleaded that he was not aware that chromate of lead was a poisonous ingredient, was fined £2. Two milk-dealers were fined similar sums for selling adulterated milk and cream.

WATER-SUPPLY OF DUNFERMLINE.

ON Friday last, there was cut the first sod in connection with the carrying out a new system of water-works and an additional water-supply for the burgh of Dunfermline. The thriving burgh in question has been obtaining its water-supply from two reservoirs at Glenluscar, one of which was constructed so recently as ten years ago, in order to enlarge the storage and keep pace with the growing demand. Owing, however, to the increase of population and the extension of the manufacturing requirements, the supply has been long found inadequate in quantity; while, as regards quality, it labours under the disadvantage of being partly derived from arable land; and therefore, in wet weather, requiring more perfect filtration than the available apparatus can secure. Accordingly, a water question has raged for some time past, and culminated in the passing of an unopposed Bill last year for acquiring water from Glensherup, on the Upper Devon. The new reservoir which is to be constructed for the storage of the water will cover an

area of about 23 acres, and will be capable of holding about 180 million gallons. The water is to be conveyed to the town at a rate of a million gallons a day. It will have to be carried about fifteen miles before it can be delivered in Dunfermline. The Parliamentary estimate of the cost of the scheme was about £55,000.

GLASGOW MORTALITY STATISTICS.

THE returns for the quarter ending March 31st for the City of Glasgow have recently been issued by Dr. James B. Russell, Medical Officer of Health. The average death-rate was 29 per 1,000, a decrease of 4 per cent. on the average of the quarter for the past ten years. Despite this fact, the death-rate was higher than in any other of the large towns of Scotland, and less than three only of the great English centres of population. On the comparison being carried further, it was found that the mortality was under that of five of the twenty European and above that of all the four American cities mentioned in the report of the Registrar-General. Of the deaths of infants, a considerable proportion were registered without the cause of death being certified; the illegitimate children being, in this respect, the worst. There was a large reduction, as compared with last year, in the number of deaths from infectious diseases, while there was a comparatively large increase in the total of deaths from pulmonary diseases. The influence of the Friendly Societies' Act on the uncertified deaths is discussed at some length in a pamphlet which accompanies the issue of the mortality table. It is remarked, as a fact of some social importance, that 36 per cent. of all the persons who die in Glasgow have provision made for their burial: 47 per cent. of all the deaths between their first and fifth years of legitimate children, and 22 per cent. of illegitimate, are thus insured. In contrast with these figures, it may be mentioned that, above five years of age, 39.5 per cent. was of persons insured in this manner. It is remarked, with reference to these facts, that the increase in the proportion of certified deaths of children is more than twice as great among illegitimates as among legitimates. By the Act, a child under five may not be insured for any sum exceeding £6, nor a child under ten for a sum exceeding £10; but these are sums which, under deduction of the costs of burial on the most liberal scale, still leave a balance sufficient to form a formidable element in the probable duration of the lives of the insured. Here, also, the mere fact that greater stringency as to medical certificates of death has produced a considerable increase in the number certified, shows that no excess of medical aid is expended upon the lives of even legitimate children against whose deaths an insurance has been effected by their parents.

A WATER-SPOUT ON THE TAY.

A STRANGE phenomenon made its appearance on the Tay, near Murthley, and lasted from 2 o'clock P.M. on Thursday, June 28th, until 3 P.M. on the next day. In the centre of the river, a great jet of mud and water rose to a height of about three feet above the surface of the river, and had a square area of two or three yards. In a line with this water-spout, across the stream, were three whirlpools, each having an apparent diameter of about twelve feet, revolving with great rapidity, and having a depression in their centres of about five feet. From the jet of mud and water, as well as from the whirlpools, there proceeded a sharp hissing sound. The width of the river at this part is about eighty feet, and one result of the disturbance is that the whole bed, for about one hundred feet in a line with the current, has been altered. In some parts, which were generally about six feet deep, there are now holes to the depth of upwards of thirty feet. The temperature of the water was not tested.

IRELAND.

LAST week, Dr. Andrews of Nenagh was appointed medical officer of the Silvermines Dispensary District, vacant by the death of Dr. Jones. The election was contested by three candidates, Dr. Andrews being elected by a majority of one.

MR. ROBERT J. MARTYN has been elected to the office of Resident Surgeon to the Richmond Hospital.

HIS Royal Highness the Duke of Connaught, K.G., Lieutenant-Colonel of the 1st Battalion of the Rifle Brigade, recently quartered in Dublin, has contributed £20 to the funds of the Dublin Orthopædic Hospital.

DEATH OF DR. BIGGAR BY DROWNING.

AN inquest was held at the Court House, Portadown, last week, on the remains of this gentleman, who was drowned in the River Bann by the upsetting of his boat. Dr. Biggar, who was only thirty-two years of age, was much respected in the locality, and at his funeral the hearse was preceded by a large number of members of the Masonic order, walking two deep and wearing crape on the left arm. He was interred at Drumcree Burial-ground.

HEALTH OF DUBLIN.

IN the week ending June 23rd, the deaths in Dublin from zymotic diseases amounted to 30, being above the average for the corresponding week of the previous ten years. Deaths from measles again formed nearly one-half of the total deaths from these causes, the number being 14, of which 9 occurred in No. 1 North City District, where 51 deaths from measles have been recorded within the last eight weeks. One death is ascribed to small-pox, which took place on May 30th.

STEWART INSTITUTION FOR IMBECILES.

A MEETING in connection with this institution was held last week at Dungannon, for the purpose of forming an auxiliary for the County Tyrone. Lord James Butler, who attended as a deputation, explained the origin of the institution; its uses, progress, and present position. A motion was unanimously adopted that a branch should be formed to explain the objects of the institution and receive subscriptions in its aid. A committee having been appointed, a vote of thanks to the Chairman terminated the proceedings.

MUTUAL MEDICAL FUND: BANK OF IRELAND.

THE late Dr. Cronyn was the medical officer of this fund, and in consequence of his death, an election took place upon last Saturday, the 30th ult., when nearly a dozen gentlemen were candidates, the list including Dr. Hepburn, Dr. Ward, Dr. Robinson, Dr. Carte, Dr. Thornley Stoker, Dr. Mason, jun., and Dr. Kirkpatrick. The last-named gentleman, who is one of the medical officers of the North Dublin Union, and had been acting for Dr. Cronyn during his illness, was elected by a large majority.

THE CARMICHAEL PRIZE FUND.

AN application was made to the Master of the Rolls last week on behalf of the College of Surgeons, that they might be at liberty to apply a sum of £150 out of the trust funds in paying three of their members £50 each for examining essays sent in for prizes payable out of the fund. By the terms of the late Mr. Carmichael's will, it appears that the interest of a sum of £3,000 was left to the College of Surgeons to be applied, in pursuance of directions, in a first prize of £200, and a second of £100, to be given every four years for the best two essays on certain specified medical subjects. This fund produced £88 a year, or £352 for four years, and the cost of printing seven hundred copies of the successful essays was paid out of the balance. It was arranged that, in case no essay of sufficient merit was sent in, the prize was to be doubled in value at the end of the next four years, and any surplus remaining was to be handed over to the Medical Benevolent Fund Society of Ireland. In 1869, the late Master of the Rolls refused to make any provision for the payment of persons who were to examine the essays. The Council now urged that the scheme was not workable, owing to the inability to obtain competent parties to examine the various essays sent in gratuitously. Consequently, the College had not, for the period ending in the spring of the present

year, issued any advertisements for candidates for the prizes, and they had allowed the last Monday in May, the day named for the purpose, to pass without having awarded any prizes. The Master of the Rolls, in giving judgment, said that the application was unsustainable, and regretted it had been made. The late Surgeon Carmichael had been a man of the first eminence in his profession, and one would have thought that the Council of the College of Surgeons, out of respect to his memory, if for no other motive, would have taken care that these valuable prizes should not be allowed to lapse. If they could not get some of their body to judge the essays gratuitously, they should provide remuneration for them out of their own funds. The motion was, it is scarcely necessary to say, refused with costs.

SMALL-POX.

TWO cases of this disease are reported from Drogheda. The first case was that of a young man, who is said to have contracted variola in Dublin; and the second person attacked was his father. Both patients are under treatment in the Drogheda Workhouse Hospital. They lived at Gormanstown, a village near Drogheda, and on the line of railway between Dublin and that town.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

NOTICE has been given that the election of members of Council in room of Henry Wilson, Esq., and John Cronyn, Esq., deceased, and Archibald H. Jacob, M.D., who has resigned his seat in consequence of becoming a candidate for the vacant Professorship of Ophthalmic and Aural Surgery, will be held on Monday next. The election of successors to both the vacant Chairs—Ophthalmic and Aural Surgery and Midwifery—will not take place until the 2nd of August. Dr. C. E. Fitzgerald has expressed his intention of not competing with his senior colleague in the National Eye and Ear Infirmary for the former professorship. Dr. Loftie Stoney, Ophthalmic and Aural Surgeon to the City of Dublin Hospital, and recently a candidate for the Chair of Anatomy in the College, is now also a candidate for that of Ophthalmic Surgery, in addition to those gentlemen whose names we mentioned in the JOURNAL of June 23rd.

ST. MARK'S OPHTHALMIC HOSPITAL.

IN consequence of Mr. Rainsford's promotion to the vacancy caused by the death of Mr. Wilson, the post of junior surgeon of this institution is now in the gift of the governors. The offices of assistant- and house-surgeon, and assistant-secretary to the hospital, are in future to be amalgamated. This appointment, which is open to all duly qualified gentlemen, and carries with it a salary of £80 *per annum* and the customary allowances, will be filled up by election on Monday next. As our readers may be aware, Dublin has at present two well-known ophthalmic hospitals, and, until within a recent period, possessed a third. A proposal was made soon after Mr. Wilson's death, that St. Mark's and the National Eye and Ear Infirmary should be amalgamated. The adoption of such a step, however, which would in many ways be advantageous to both institutions and to the interests of ophthalmology in Dublin, did not recommend itself to the governors of St. Mark's; although they would be very glad, we opine, to secure the services of one at least of the staff of the National in connection with those of their present senior surgeon, who, while personally most competent in every respect to creditably fill his position, is professionally the junior ophthalmologist in Dublin holding an hospital appointment.

STIMULANTS IN WORKHOUSE HOSPITALS.

AT the last meeting of the Enniscorthy Board of Guardians, a letter was read from the Local Government Board, directing that the contract for whiskey should be cancelled, and a new one entered upon. It appears, from an article in the *Freeman's Journal*, that the whiskey was reported by the medical officer as being of an inferior character, but the guardians showed no desire to act upon his report. The Local Government Board expressed the opinion that the guardians had not acted with justice to the sick, and that it was much to be regretted that they

had disregarded the medical officer's report. Dr. Cameron, the county analyst, reported that the whiskey was good in flavour, but much too weak. The port was rather new and rough, and had evidently been highly syrupe. The guardians cancelled the contract, and requested their doctor to test the liquors periodically. We agree with our contemporary in thinking that this occurrence ought to stir up inquiry in the country unions generally. It is absurd and injurious to administer bad wines and spirits to sick people, and to spend the ratepayers' money in purchasing them. Now that the process of analysis has been made easy to boards of guardians, there is no excuse for laxity or that perilous good nature which winks at evils that cannot easily be remedied.

RATHMINES WATER-SUPPLY.

WE are glad to learn that negotiations have been entered into between the Corporation of Dublin and the Commissioners of this important and populous township, whereby it may be expected that it will be shortly supplied with the Vartry water, which has proved such an inestimable boon to the citizens of Dublin.

UNFOUNDED CHARGE OF MALAPRAXIS.

THE *Londonderry Sentinel* of June 19th contains an account of an attempt to extort money from a medical man of rather a barefaced kind. On December 23rd last, Mr. McCaul was called to see the plaintiff, a poor woman, who had fallen downstairs and injured both her arms. Mr. McCaul, believing that the right arm was broken, put splints upon it; to the other he applied a bandage, and gave the patient liniment to rub on it. At the end of a week, the plaintiff consulted Dr. Byrne, and he decided that the bone had not been broken. Mr. McCaul had attended the case out of pure charity, and, from the time that Dr. Byrne was called in till the end of May, he heard nothing of the patient. But, about that date, she called upon him, and asked him to give her money, stating that she had partially lost the power of using her arms, and that a "respectable man in the city had told her that she could compel him to give her something". But Mr. McCaul had the courage to resist this impudent demand; and the present action, in which the damages were laid at £40, was the result. At the trial, Dr. Miller and Dr. McCloskey pointed out that there had been nothing unskilful in Mr. McCaul's treatment; that, in such cases, especially where the swelling is considerable, it is often difficult to say exactly what is the nature of the injury; and that it is the best practice to be on the safe side, and to treat the case as one of fracture. The application of a splint for a few days can do no harm, while the want of it may aggravate the mischief. The loss of power in her arms, of which the plaintiff complained, could not be attributed to Mr. McCaul's treatment. The magistrate, in summing up, commented in strong terms upon the hardship of bringing such a charge against a professional man, when there was not a tittle of evidence to support it, and when the defendant had given his attention to the case without asking or expecting any fee or reward, and, of course, dismissed the process.

OVARIOTOMY.

WE have again the pleasure of recording the successful performance of this operation in Dublin. Mr. W. Stokes, Professor of Surgery in the Royal College of Surgeons, and Senior Surgeon to the Richmond Hospital, removed a large multilocular cyst from a married woman, aged 34, on last Wednesday week. The woman is progressing most favourably. The patient last operated upon by Dr. Athill in the Rotunda (JOURNAL, June 23rd), is quite convalescent.

THE NEW MIDWIFERY DEGREE.

THE first examination for the degree of Magister in Arte Obstetriciæ, recently established by the University of Dublin, was held on the 25th ult. The examination was conducted by Dr. Macalister, Professor of Zoology and Comparative Anatomy in the University, who gave a paper in Embryology; Dr. McClintock, who examined in Midwifery;

and Dr. Sinclair, who examined in Practical Midwifery at Sir Patrick Dun's Hospital. Dr. A. V. Macan, Obstetric Physician to the City of Dublin Hospital, passed the examination successfully, and had the degree of M.A.O. publicly conferred on him at the Commencements, which were held last week. At the same time, Professor Sinclair and Dr. McClintock were awarded the degree *honoris causâ*. We congratulate Dr. Macan on being the first worthy recipient (by examination) of this new blue ribbon of Gynaecology, which will soon, doubtless, be eagerly sought after by all practitioners who aspire to attain a high and recognised position in this important branch of medical science.

PHARMACEUTICAL SOCIETY OF IRELAND.

THE quarterly examinations of this body were held in their rooms in the King and Queen's College of Physicians this week. Eighteen candidates came forward at the preliminary examination on Monday, of whom four were unsuccessful. For the Pharmaceutical Examination on Wednesday, there was but one candidate. To be eligible for this examination, candidates must be twenty-one years of age, and have passed the preliminary examination at least one year previously.

THE BRITISH MEDICAL ASSOCIATION.

IN a very kindly and most generously expressed article upon the British and American Medical Associations in its last week's issue, our respected contemporary, the *Medical Times and Gazette*, states that the British Medical Association (of which it speaks with many compliments and much appreciation) has never, comparatively speaking, flourished in Scotland or Ireland. This statement, however, is very wide of the mark. There are now four Branches of the Association in Scotland: viz., Aberdeen, Banff, and Kincardine, with 83 members; Glasgow and West of Scotland, with 139 members; Edinburgh, with 74 members; and Northern Counties of Scotland, with 24 members. In addition, there are 298 members not in Branches, making a grand total of 632 members in Scotland. The splendid reception given at Edinburgh in 1875 must also be fresh in the minds of a great number of the members: it was the most largely attended of any meeting since the formation of the Association, with the exception of that in London in 1873. In Ireland, there are 400 members, and two Branches, both new ones. The Dublin Branch, which will be proposed for recognition at the next meeting of the Committee of Council, elected last week 18 new members, and it now numbers 93 members. As Sir Robert Christison mentioned in his speech at the Edinburgh meeting, what we do claim for the Association is the title British. Compared with the total number of the profession practising in Scotland and Ireland, it will be seen that the Association is numerically strong in both countries; and, looking to the importance and standing of our members, it may be said to be singularly influential in both Ireland and Scotland.

MEDICAL DEFENCE ASSOCIATION.

THE first annual general meeting of this Association was held on Friday, June 27th, at the rooms of the Medical Society of London, Chandos Street, Cavendish Square; Dr. B. W. Richardson, F.R.S., President, in the chair. There was a good attendance of members. The report of the Council, which was read by the honorary secretary, Mr. George Brown, showed that during the first year of its existence the Association had done much useful work. Eight provincial Branches had been formed, viz., the East Anglian (president, Dr. Copeman); the North of England (president, Dr. Dennis Embleton); the Sunderland (president, Mr. J. Davis); the Nottingham (president, Mr. Stanger); the Shropshire and Mid Wales; the West Cornwall; the Accrington; and the Forest of Dean. These Branches, together with the Central Association, contained nearly four hundred members. The London organisation had, during the year, conducted seven prosecutions to a successful issue. Many unqualified persons had also been

compelled to cease practising through the action of the Association. The provincial Branches had also instituted several successful prosecutions, and other cases were now pending. The report referred also to the action of the Chemists' Trade Association, and the claim which the chemists had now distinctly made to the right to practise medicine, and expressed the belief that the Council would be successful in resisting their pretensions, and that neither the administration of the law nor the common sense of the country would allow the lives of the people to be tampered with by those who had received no medical education. A committee of the Council was appointed to consider and report upon the Medical Act, with a view to its amendment, and produced a report which was afterwards adopted by the meeting. A memorial was also prepared and presented to the president of the General Medical Council, and in December last a deputation of the Association, consisting of the president and seven members of Council, waited on the president and executive committee of the General Medical Council, urging them to take immediate steps for the amendment of the forty-second section of the Medical Act, so that the fines recovered under that Act within the metropolitan area should not be retained by the police authorities, as at present. Financially, the Association was shown to be in a satisfactory condition, there being a balance in hand of £22. The whole of the work had been done for an expenditure of less than £70. The report concluded by thanking the editors of the medical journals for their support.

After a few remarks by Mr. MASON and Mr. W. B. HEMMING, the president moved the adoption of the report, and in doing so said that he had never before seen voluntary work done so earnestly as that of this Council. The cheapness of the work was also remarkable, and the Association had done nothing which had not had a successful issue. The cases prosecuted by no means represented all that has been achieved. At the breath of the Association, many quacks had fled from their places. With respect to the General Medical Council, the president was of opinion that what was wanted was direct representation of the general practitioners of the country. As president also he thanked the medical journals for the support they had given to the Association, and expressed his belief that there was a strong feeling among the general public in favour of the Association.

The report and balance sheet were adopted.

The report of the Medical Act Committee having been read and adopted, Dr. DANFORD THOMAS moved, and Dr. BEECH JOHNSTONE seconded, and it was resolved,

"That the president of the Medical Defence Association be requested to communicate with the president of the General Medical Council, with the view of bringing before him the various clauses of the Medical Act as amended by the Council of the Medical Defence Association and adopted at the annual meeting."

Votes of thanks were then accorded to the retiring officers and the solicitor of the Association.

The following gentlemen were then elected as officers for 1877-78: President: B. W. Richardson, M.D., F.R.S.—Vice-Presidents: A. Carpenter, M.D., J.P.; E. Copeman, M.D.; Andrew Clark, M.D.; Dennis Embleton, M.D.; James Lane, Esq.; A. Meadows, M.D.; William Bowman, Esq., F.R.S.; J. H. Paul, M.D.; W. Spencer Watson, Esq.; A. Ernest Sansom, M.D.; C. J. White, M.D.—Honorary Treasurer: W. Spencer Watson, Esq.—Council: H. Adcock, Esq.; F. H. Alderson, Esq.; J. E. Brooks, Esq.; G. H. Blackmore, Esq.; H. Cuolahan, M.D.; T. Cooke, Esq.; W. H. Drew, Esq.; S. Gardner, Esq.; W. B. Hemming, Esq.; W. Beech Johnstone, M.D.; C. Royston, M.D.; C. P. Langford, Esq.; N. C. Maclean, M.D.; J. W. Mason, Esq.; M. Reid, Esq.; W. S. Riding, M.D.; W. Smith, Esq.; J. Stevenson, M.D.; G. D. Thomas, M.D.; H. W. Williams, M.D.—Honorary Secretaries: George Brown, Esq.; and W. Douglas Hemming, Esq.

A vote of thanks to the president having been carried by acclamation, and responded to by him, the meeting was adjourned.

CHEMISTS' ASSISTANTS' ASSOCIATION.—On June 28th, a meeting was held in the lecture theatre of the Pharmaceutical Society, at 17, Bloomsbury-square, for the purpose of inaugurating a Chemists' Assistants' Association: Mr. A. W. Postans presided. He addressed a few words to the meeting, setting forth the many advantages which chemists' assistants and their employers might reap from the proposed association.—The resolutions, proposed and unanimously agreed to, showed that the promoters of the movement intend to establish reading and smoking-rooms, with chess, draughts, etc., and to provide refreshments for members, also to have occasional papers and discussions on subjects of scientific and social interest. At the close of the meeting, a number of gentlemen joined the new association.

MEDICO-LEGAL CASES.

OFFENCE AGAINST THE LUNACY LAW.

At the sitting of the Rochester magistrates on Friday, June 29th, the Rev. Frederick Davis, of the Manor House, Northfleet, appeared to answer an information laid at the instance of the Commissioners in Lunacy, charging him with a breach of the Lunacy Act (8 and 9 Vic., cap. 100, sec. 90), in that his house, not being a hospital registered under the Act, or a house licensed under the Act, he had boarded and lodged for profit a certain female lunatic, without obtaining the necessary medical certificates. Mr. Algernon Tatham of London appeared for the defence. Mr. Channell prosecuted, and, in opening his case, said it was not suggested that there had been any ill-treatment of the lady in question, or that she had suffered for want of proper care. The 90th section of the 8th and 9th Victoria, chapter 100, provided that no person taking profit should receive, board, lodge, or take the care of, in any house other than a registered hospital or asylum, or licensed house, any one patient as a lunatic without a like order or medical certificate as is required for every patient in a licensed house. It appeared that the defendant received into his house persons who had been given to drinking and required a certain amount of care. There was a lady in the house in May last who was suggested to be a lunatic, and Dr. Bucknill went to see her, but came to the conclusion that there was not sufficient reason for considering her to be a lunatic. But, on the same occasion, he saw the lady mentioned in this case, who, in his opinion, was undoubtedly insane. Mr. Channell read a letter which the defendant had forwarded to the Commissioners on May 28th, in which he expressed sorrow at finding that he was considered to have broken the law, and his willingness to conform to it in future; he took charge of the lady through an advertisement in the *Times*, and she had never been thought to be more than a little weak in mind; and he represented that his infraction of the law was unintentional, and deprecated any legal proceedings, not in fear of the consequences, but because they would injure many without profiting one. Mr. Channell said the Commissioners came to the conclusion that it was necessary to prosecute, notwithstanding this appeal; for, assuming the defendant to be ignorant of the law, he ought not to be so, because he was not merely a person who had taken one boarder occasionally, but he kept a house for dipsomaniacs who, it was obvious, were quite on the border line.—Dr. BUCKNILL deposed that, on May 25th, in obedience to an order from the Lord Chancellor, he visited the Manor House at Northfleet to examine a lady (not the one in question). He saw the defendant, who told him the house was an asylum for dipsomaniacs. While witness was in the drawing-room, the lady in question entered, and witness saw that she looked like a person of weak mind. He examined her in the defendant's presence, and she declared that her father (long since deceased) was not dead, but in a trance, when buried; and that, by looking at the sun through a coloured glass, she could see both him and her mother (also deceased) alive, not in the sun itself, but in the car of a balloon just under it. She said she saw people in this car murdering each other with swords. Her general conversation was wandering, and she conducted herself as a chronic lunatic. Defendant subsequently told witness that he received the lady about five years ago, and had soon observed her delusions; but that she was very quiet and harmless, and frequently went to church with his daughters. Witness asked if she ever went out alone, and understood the defendant's reply to be that she did not. Witness told the defendant he should have to report the lady's insanity to the Lord Chancellor. Her answers to ordinary questions were rational. The defendant's conduct was courteous and open, and he gave witness every facility in his examination.—Mr. GOULD of Northfleet and Mr. GRAMSHAW of Gravesend gave evidence as to the lady's insanity; they both observed the delusions narrated by Dr. Bucknill.—Mr. TATHAM said that, of course, he could not contend but that technically a breach of the law had been committed; but the defendant did not consider the lady to be a lunatic under the Act, as she only suffered under a few harmless delusions; and, further, he (Mr. Tatham) was requested by the lady's friends and relations to state that they were very grateful to the defendant for the care he had taken of her, her life having been made as pleasant and happy as it could be.—The magistrates decided to send the case to the assizes at Maidstone, and defendant's own recognisances of £100 for his appearance there were accepted.

EXPOSING A SMALL-POX PATIENT.

At the Newmarket (Cambridgeshire) Petty Sessions on June 26th, before W. Parr Isaacson and H. F. Dobede, Esqs., George Gristwood, of Old Ford, London, a general draper, was charged by Dr. Armistead, medical officer of health, on behalf of the Newmarket Rural

Sanitary Authority, with knowingly sending from his house, on 15th February last, one Lydia Langley, a domestic servant in his employ, by railway to Newmarket, the said Lydia Langley at the time suffering with small-pox. Mr. Horace Brown represented the sanitary authority, and Mr. J. Rogers appeared for the defence. The case having been proved by the evidence of the girl Langley, the magistrates ordered the defendant to pay a fine of £5, and £10:11:4 costs.

PROSECUTION UNDER THE APOTHECARIES' ACT.

IN a case lately tried in the Durham County Court, the master, wardens, and society of the art and mystery of apothecaries of the city of London were the plaintiffs, and Mr. David McNeillage, of Coxhoe, was the defendant. The action was brought, under the Apothecaries' Act of 1815, to recover the sum of £20, for practising as an apothecary, and attending and supplying medicines to Michael Davison, George Thubron, and Mary Thubron, his wife, without having obtained such certificate as by the said Act is directed. Mr. Granger said the defendant had been practising for a considerable time, notwithstanding repeated warnings from the Apothecaries' Society, and had thereby forfeited the sum of £20, which the action was brought to recover. Upon hearing the evidence of the persons mentioned, the judge considered the case proved, and gave judgment for £20.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

Public Health in Birmingham.—Provident Dispensaries.—Dispensing v. Prescribing.

THE report of the Medical Officer of Health of Birmingham for the year 1876 gives very satisfactory evidence of the value of public sanitary work. Whilst the birth-rate (42.53 per 1,000) has been higher than in any previous year—higher, in fact, than in any of the other large English towns—the death-rate was 22.40 per 1,000 being less than in previous years, and less than the average of twenty large towns. The decrease has especially occurred in deaths from zymotic diseases, and notably in those from infantile diarrhoea, though that is still widely spread. Small-pox has been slightly present. Since the Corporation acquired control of the public water-supply, nearly three hundred wells have been closed. Twelve miles of sewers have been constructed, and the pan system still more widely introduced. An arrangement with the Local Government Board for the loan of more than a million on account of public sanitary work has just been concluded.

The question of the establishment of provident dispensaries on an extensive scale has been prominently before the public for some time; and, after Mr. Gangee's address at the annual meeting of the Branch last week, a resolution was proposed by Dr. Foster, and carried, strongly supporting their establishment. In accord with a requisition, the Mayor of Birmingham has now called a public meeting in order to give a definite shape to the proposal.

Another prosecution has recently been carried out by the Apothecaries' Company against a druggist "for wrongfully acting as an apothecary", and has given rise to a good deal of legal argument as to what a druggist may or may not do in the way of prescribing. Judgment was deferred, pending the decision of an appeal in a similar case.

PRAGUE.

[FROM AN OCCASIONAL CORRESPONDENT.]

The Lying-in Hospital.

TOGETHER with its grand historical past, the name of Prague is generally associated, in the professional mind, with the ancient science and art of midwifery, owing, no doubt, to the well-known fact, that the city possesses a separate hospital and teaching school, set apart for this one particular branch of medicine.

Hospitals which are solely for the use of lying-in women are not so very plentiful either in our own country or in continental ones, as these institutions have at different times suffered many things from the hostile pens of renowned physicians; yet undoubtedly to a certain class of people they are an unspeakable boon in the hour of need, and for educating students advantages are offered with which those of private practice cannot be compared. From the number of patients brought together under one roof, and the presence of competent teachers, ever ready and willing to advise or demonstrate, unequalled opportunities are afforded for acquiring a most systematic and thorough knowledge

of a factor that will one day form a no mean item in the majority of practices; and the more skilful the workman is, by so much the more is the general public a gainer.

It is not only for the male students that lying-in hospitals are excellent educational establishments, but also for those who are desirous of gaining their livelihoods as midwives. According to the present existing state of matters, numerous women are allowed to practise in Great Britain, *sine diplomate*, and with no special qualification or training, relying often on their own maternity and feelings alone for guidance. The incompetency of such is often manifested by the number of places left void, because the trusted attendant knew not the means to be taken for arresting *post partum* hæmorrhage, or was ignorant of the fact that puerperal fever was infectious. In Bohemia, and throughout the kingdom of Austria generally, most often ordinary cases of midwifery are attended by properly qualified women, the physician being only summoned for a mal-presentation or some other complication of labour. Hence it becomes expedient that all professed midwives should have had some preliminary education, and that after a test of their knowledge a certificate of their fitness to practise should be awarded; for the purpose of fulfilling these necessary conditions, Prague is a good deal resorted to by those whose object is to obtain the necessary licence.

The lying-in hospital is beautifully situated on a hill on the outskirts of the town. The present edifice has been in existence for two years, and is a handsome building, somewhat in the Elizabethan style as regards architecture, constructed of red bricks relieved at intervals by ornamental blue ones. The hospital consists of a central square, enclosing a garden, with three wings coming off from two of the sides at right angles; that side facing the street is surmounted by a short but elegant spire, while behind the fourth side, and on somewhat a lower level, are found the out-houses, where the washing, etc. are carried on. The various wings, projecting at a right angle from the central square, are quite distinct from each other, and the only communication between the different portions is by means of the corridor of the central buildings. Each of the wings has a well lighted and airy passage running its entire length, and the doors of the wards opening into it are all on the same side. Being of recent construction, the hospital has had every opportunity of putting into practice all the means that modern science could suggest, which would tend to diminish the mortality amongst the inmates; and it is to be believed that there has been no failure in this particular.

The hospital contains at the present time fifty beds for lying-in women; judging from the size of the building, it was with some surprise that this announcement was received, but inquiry revealed the fact that more than double that number were occupied by students and midwives attending the practice of the Institution. The wards set apart for the use of patients are ten in number, each one of which contains five beds; the rooms are not quite so large as those used for a similar purpose at the Rotunda in Dublin, but are lofty and clean, with three windows on one side, these opening when required into the external air. The ventilation is extremely good; in none of the wards could anything of an objectionable nature be detected by the sense of smell of the visitor. The purity of the atmosphere was effected in the following manner. Beneath the windows, on a level with the floor, were seen three small doors, similar ones existing *vis-à-vis*; one of these being opened, a metal trap came into view; this could be raised by means of a chain, and secured to a nail fixed in the wall for the purpose. On lifting up the trap, it was found to be the means of excluding the aperture of a ventilating shaft leading directly to the open air; those shafts, situated on the corridor side of the wards, passed under the passage, and consequently were much longer than their fellows of the opposite side. In the large stove, this being the means by which the rooms were heated, there were also a shaft by which fresh air could be directly brought into the ward at will, and a separate smaller one, limited to the middle and upper portions of the stove, which raised the temperature of any air that passed through it. In addition to these shafts, above each window was a ventilator, opening and shutting as was thought best.

The wards set apart for lying-in purposes are used in turn as the labour chamber; here the women are delivered, and after an elapse of a few hours are carried back to their own beds. All the births take place in the same ward for a month, and at the expiration of this another is chosen for a like period. The bedsteads in use are of iron, but the excellent brass spring mattresses are at present not in vogue. By the side of each occupied bed a small cradle is seen, so that the mother has the option of placing "baby" out of harm's way when she wishes to sleep herself, so lessening the chance of lying upon the child. The number of women delivered last year was 2,700, with a proportional amount of operational cases. When it is necessary to perform any of the more important operations of midwifery, the patient

is carried into a room set apart solely for this purpose. Cases of badly contracted pelvis amongst the Bohemians are rare, and it has only twice been found necessary, during the existence of the present hospital, to resort to Cæsarean section. Both the women were primiparous dwarfs; in both an uterine suture was used, but neither case proved successful. I also learnt that in several cases of severe *post partum* hæmorrhage, everything else having failed, the perchloride of iron injection, according to the directions of Dr. Barnes, had as a last resource been tried, and in all the cases had proved an effectual means of stopping the flow of blood, the patients after the operation making a good recovery.

Patients are admitted from all parts of the country any time during the last month of pregnancy. Those who have homes in Prague itself generally seek the hospital when the pains of labour commence; after delivery, in ordinary cases, the women remain in the place from a week to ten days, and are then discharged.

On the ground floor of the building, the kitchen is situated, and the arrangements in that department of the hospital would excite the envy of many housewives. In the centre of the room are six large copper cauldrons, each being surrounded by pipes, and having every appliance for heating or cooling as may be required, and the head of the culinary part of the establishment informed me with great satisfaction that "she could cook anything in five minutes"; and I should not be surprised if this statement were correct, although in this particular instance I did not see her powers put to the test.

The washing houses, which stand some little distance from the main building, and connected by means of a passage, are admirable in their way, the whole of the cleaning, wringing, and mangling being done by machinery, which is worked by an engine situated at one end of the building. Six women, and a man who officiates as engineer, are found amply sufficient to keep the whole hospital in clean linen.

During the present session there are forty male students and eighty midwives taking advantage of the hospital practice and lectures; all these are provided with accommodation in the building. There is a nice lecture theatre, and every appliance, not forgetting "dummies", for thoroughly teaching midwifery is found there. The lecturers are Professor Weber for instructing the women, and Professors Streng and Breisey for teaching the ordinary students. Mixed classes are not allowed, but the learners of both sexes are present at operations and labours. As there is no department for diseases of women, the two last-named teachers have wards in the general hospital set apart for the purpose of clinically instructing those male students attending the lying-in charity.

The midwives remain inmates of the hospital for four months, and then, if the examination they undergo be considered satisfactory, a diploma is given enabling them to practise. It might be better if a six months' attendance, as at the Rotunda, were required before the certificate could be obtained by any woman; an expression of this opinion led one of the chief officials to state that this was also his own idea, so that possibly in a short time some change in the existing regulations may be made. The average stay of the students is a session, consisting of six months; up to the present time, only one of our countrymen has been a resident in the new hospital for any lengthened period.

The general hospital in the town is a large irregular old building, containing eight hundred beds, but does not offer anything of much interest. The other medical institutions consist of a large military hospital, an asylum for foundlings, another for the insane, and an establishment for the deaf and dumb.

Attending the University at the present time are one thousand five hundred students, of whom three hundred belong to the medical faculty.

ASSOCIATION INTELLIGENCE.

NORTH OF ENGLAND BRANCH.

THE annual meeting of this Branch will be held in Bishop Cosin's Library, Durham, on Thursday, July 26th, at 2 P.M.

G. H. PHILIPSON, M.D., *Honorary Secretary*.

Newcastle-upon-Tyne, June 12th, 1877.

BORDER COUNTIES BRANCH.

THE annual meeting of this Branch will be held at Carlisle, on Friday, July 20th. President: Dr. BARNES. President-elect: Dr. LOCKIE.

Members wishing to communicate papers or cases are requested to send notice to the Secretaries.

RODERICK MACLAREN, M.D. } *Honorary Secretaries*.
JOHN SMITH, M.D. }

Carlisle, June 16th, 1877.

COMMITTEE OF COUNCIL:
NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 11th day of July next, at Two o'clock in the afternoon.

FRANCIS FOWKE,
General Secretary.

36, Great Queen Street, London, W.C., July 4th, 1877.

BRITISH MEDICAL ASSOCIATION:
FORTY-FIFTH ANNUAL MEETING.

THE Forty-Fifth Annual Meeting of the British Medical Association will be held in the Owens College, Manchester, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1877.

President.—M. M. DE BARTOLOMÉ, M.D., Senior Physician to the Sheffield General Infirmary.

President-elect.—M. A. EASON WILKINSON, M.D., Senior Physician to the Manchester Royal Infirmary.

An Address in Medicine will be given by WILLIAM ROBERTS, M.D., F.R.S., Manchester.

An Address in Surgery will be given by T. SPENCER WELLS, F.R.C.S., London.

An Address in Obstetric Medicine will be given by ROBERT BARNES, M.D., F.R.C.P., London.

The business of the Association will be transacted in Six Sections, viz.:

SECTION A. MEDICINE.—*President*: Sir William Jenner, Bart., M.D., K.C.B., F.R.S. *Vice-Presidents*: Samuel Crompton, M.D.; Wilson Fox, M.D., F.R.S.; Henry Simpson, M.D. *Secretaries*: Julius Dreschfeld, M.D., 292, Oxford Road, Manchester; F. T. Roberts, M.D., F.R.C.P., 53, Harley Street, London, W.

SECTION B. SURGERY.—*President*: Edward Lund, F.R.C.S. *Vice-Presidents*: W. Adams, F.R.C.S.; F. A. Heath, M.R.C.S. *Secretaries*: S. M. Bradley, F.R.C.S., 272, Oxford Road, Manchester; Henry Morris, F.R.C.S., 2, Mansfield Street, London, W.

SECTION C. OBSTETRIC MEDICINE.—*President*: W. O. Priestley, M.D., F.R.C.P. *Vice-Presidents*: A. H. McClintock, M.D., LL.D.; James Whitehead, M.D. *Secretaries*: David Lloyd Roberts, M.D., 23, St. John Street, Manchester; John Thorburn, M.D., 333, Oxford Road, Manchester.

SECTION D. PUBLIC MEDICINE.—*President*: Surgeon-Major F. S. B. De Chaumont, M.D., *Vice-Presidents*: Alfred Aspland, F.R.C.S.; W. H. Corfield, M.D., F.R.C.P. *Secretaries*: William Armistead, M.B., Station Road, Cambridge; John Haddon, M.D., Monk's Hall, Euxton, Manchester.

SECTION E. PHYSIOLOGY.—*President*: Arthur Gamgee, M.D., F.R.S. *Vice-Presidents*: John Cleland, M.D., F.R.S.; Thos. Lauder Brunton, M.D., F.R.S. *Secretaries*: Joseph Coats, M.D., 33, Elmbank Street, Glasgow; William Stirling, M.D., University, Edinburgh.

SECTION F. PSYCHOLOGY.—*President*: J. C. Bucknill, M.D., F.R.S. *Vice-Presidents*: H. Rooke Ley, M.R.C.S.; G. W. Mould, M.R.C.S. *Secretaries*: P. M. Deas, M.B., County Asylum, Macclesfield; T. Claye Shaw, M.D., Middlesex County Asylum, Banstead.

Local Secretaries.—
(Dr. LEECH, 96, Mosley Street, Manchester.
C. J. CULLINGWORTH, Esq., 260, Oxford Street, Manchester.
Dr. HARDIE, St. Ann's Place, Manchester.)

SPECIAL DISCUSSIONS.—It is intended to hold discussions on certain special subjects in several of the Sections, as follows.

Medicine.—Aortic Aneurism; the Treatment of Pleuritic Effusion.
Surgery.—Antiseptic Surgery; Excision of the Knee; Treatment of Stricture of the Urethra.

Obstetric Medicine.—Transfusion of Blood.

The following papers have been promised.
M. M. DE BARTOLOMÉ, M.D., F.R.C.S. On the Value of Paracentesis of the Chest in the Treatment of Pleuritic Effusion.
BERNARD, W., L.K.Q.C.P. A Form of Uterine Hand-spray Apparatus.
HARRISON, S. M., F.R.C.S. 1. Iodide of Potassium in the Treatment of Anæmia. 2. A Case of Aneurism treated by Iodide of Potassium.—3. Abstract of Seven Cases of Pernicious Anæmia.—3. Abstract of Cases of Cerebral Tumour.
BROWN, LENNOX, F.R.C.S. Edin. 1. Illustrative Cases of the Value of the Galvanocautery in Diseases of the Throat, Nose, and Ear; with Description of a Convenient Battery.—2. On Objective Causes of Globus Hystericus and other Allied Conditions.
BURNETT, Henry C., Esq. Home Hospital: their Scope, Object, and Management.
CHIENE, John, F.R.C.S. Ed.
COUPLAND, Sidney, M.D., and MORRIS, Henry, M.B. Cases of Intestinal Obstruction, with Remarks on Diagnosis and Treatment.
CULLINGWORTH, Charles, M.R.C.S. A Case of Cancer of the Stomach in an Infant five weeks old.
DAY, W. H., M.D. Observations on Renal Affections in Children.
DEAS, P. MAURY, M.B. Some Notes on General Paralysis of the Insane.
DRESCHFELD, Julius, M.D. On Spinal Hemorrhage.
DRYSDALE, C. R., M.D. Pigmentary Syphilide in Females.
DUNCAN, J. Matthews, M.D. Treatment of Post Partum Septicæmia by Internal Manipulations.
DURHAM, Arthur E., F.R.C.S. On Internal Urethrotomy by Aid of a New Urethrotome.
ELAM, Charles, M.D. Observations on Certain Forms of Paralysis.
ELLIOTT, John, M.B. Statistics of the Waterford Lying-in Hospital.
EVANS, R. W., L.R.C.P. Ed. On Skin-grafting.
FARQUHARSON, Robert, M.D. Some Points in the Art of Prescribing for Children.
FOSTER, Balthazar, M.D. On Sudden Death in Diabetes Mellitus.
FOTHERGILL, J. Milner, M.D. When not to give Iron.
FOX, E. Long, M.D. On a Case of Paralysis of the Diaphragm, with peculiar Features.
FOX, Wilson, M.D., F.R.S. Paracentesis in Pleurisy.
GAIRDNER, William T., M.D. A Case of Premature Sleep with Choreic Movements: Sequel to a Paper read at the Meeting of the Association in Edinburgh in 1876.
GOODHART, James F., M.D. Paracentesis in Pleurisy.
GOWERS, W. R., M.D. On some Points in the Symptomatology of Chorea.
GRIFFITH, G. de Gorrequer, L.R.C.P. Female Diseases.
GROSHOLZ, F. H. V., L.K.Q.C.P. Obstetrics in the Country.
HADDON, John, M.D. On Pleural Effusions, their Diagnosis and Proper Treatment.
HARDY, H. Nelson, F.R.C.S. Ed. Hospital Out-Patient Reform: its Helpers, its Hinders, and its Passers by.
HARRISON, Reginald, F.R.C.S. Surgical Cases.
HEATH, F. A., M.R.C.S. Cases in Surgery.
HEWITT, Graily, M.D. Abnormal Softness of the Multiparous Uterus as a Factor in the Etiology of Uterine Distortion, and as a Cause of Impairment of Power of Locomotion.
HIGGINS, Charles, L.R.C.P. Clinical Remarks on Cases of Tumour of the Orbit.
JESSOP, J. R., F.R.C.S. Antiseptic Surgery.
KERR, Norman, M.D. Habitual Drunkards: what shall we do with them?
LEECH, D. J., M.B. Abstract of Cases of Pleurisy treated by Paracentesis.
MCCLINTOCK, A. H., M.D. Fætal Therapeutics.
MADDEN, T. More, M.D. The Constitutional Treatment of Certain Uterine and Ovarian Diseases.
MAHOMED, F. A., M.D. Some Indications for the Diagnosis and Treatment of Aortic Aneurism.
MAJOR, Herbert C., M.D. The Histology of the Brain of Apes.
MANN, J. D., L.K.Q.C.P. On Current-Measurements in Electrotherapeutics.
MONON, John, M.D. The Use of Chloral-Hydrate in Convulsions.
MOULD, George W., M.R.C.S. The Best Mode of Treating and Dealing with Habitual Drunkards.
PHILIPSON, G. H., M.D. Two Cases of Abdominal Aneurism: one cured by Compression, the other by Iodide of Potassium.
ROBERTS, D. Lloyd, M.D. Transfusion.
ROBERTS, F. T., M.D. Notes from Cases illustrating the Diagnosis and Treatment of Internal Aneurism.
ROBERTS, John, M.D. Gangrene of the Ascending Colon.
ROSS, James, M.D. On a Case of Posthemiplegic Chorea.
SIMPSON, Henry, M.D. 1. The Treatment of Aortic Aneurism.—2. Abstract of Laryngeal Cases.
SQUIRE, William, M.D. On Infantile Pneumonia.
TAYLOR, Charles Bell, M.D. 1. Internal Syphilitic Ophthalmia.—2. On certain cases of apparently hopeless Blindness in which Sight was restored by Treatment.
THORBURN, John, M.D. Latent Gonorrhœa as an Impediment to Marriage.
TIBBITTS, Herbert, M.R.C.P. Ed. Medical Electricity: its Scope and its Limitations as a Remedy.
WADDY, H. E., M.R.C.S. Terebene and Scab-dressing.
WHITCOMBE, Edmund B., M.R.C.S. On the Frequency and Causes of Meningeal Hemorrhage in the Insane.
WHITEHEAD, W., F.R.C.S. Ed. Use of the Speculum Clamp in Disease of the Rectum.
WILLIAMS, William, M.D. A Case of Paralysis occurring on the same side as the Lesion in the Brain.
WOOD, T. Outterson, M.R.C.P. Ed. On a Case of Aneurism of the Middle Cerebral Artery.
YEO, I. Burney, M.D. Pleurisy of the Apex.

BARNES, H., M.D. The Value of Paracentesis of the Chest in the Treatment of Pleuritic Effusion.

BERNARD, W., L.K.Q.C.P. A Form of Uterine Hand-spray Apparatus.

BURNETT, Henry C., Esq. Home Hospital: their Scope, Object, and Management.

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ELAM, Charles, M.D. Observations on Certain Forms of Paralysis.

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HIGGINS, Charles, L.R.C.P. Clinical Remarks on Cases of Tumour of the Orbit.

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WHITEHEAD, W., F.R.C.S. Ed. Use of the Speculum Clamp in Disease of the Rectum.

WILLIAMS, William, M.D. A Case of Paralysis occurring on the same side as the Lesion in the Brain.

WOOD, T. Outterson, M.R.C.P. Ed. On a Case of Aneurism of the Middle Cerebral Artery.

YEO, I. Burney, M.D. Pleurisy of the Apex.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to the Secretaries of Sections on or before the 1st of July.

No paper must exceed twenty minutes in reading, and no subsequent speaker must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

FRANCIS FOWKE, General Secretary.

36, Great Queen Street, W.C., July 4th, 1877.

ATRINSON, E., M.R.C.S. Stricture of the Urethra, with Special Reference to

ATKINSON, J. H., M.D. On the Treatment of Pleuritic Effusion.

BAKER, J. W., M.R.C.S. On the Treatment of Pleuritic Effusion.

BARLOW, Thomas, M.D. Case of Cirrhosis of the Liver in a Child.

NORTH WALES BRANCH.

THE twenty-eighth annual meeting of this Branch will be held at the Corsydel Arms, Barmouth, on Wednesday, July 11th, at 1 P.M. The President, Dr. RICHARDS, will resign the Chair to the President-elect, ROBERT ROBERTS, Esq., who will deliver an address.

Gentlemen intending to read papers, or be present at the dinner, are requested to inform the Honorary Secretary on or before July 1st.

Dinner at 3.30 P.M. Tickets, 7s. 6d., exclusive of wine.

T. EYTON JONES, M.D., *Honorary Secretary.*

Wrexham, June 18th, 1877.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE annual meeting of this Branch will be held in the Grand Jury Room of the Shire Hall, Brecon, on Wednesday, July 11th: W. TALFOURD JONES, M.B., President-elect.

Council Meeting at 11.30. General Meeting at 12.15. Luncheon by invitation of the President-elect at his residence. Dinner at 3.

Members intending to read papers, or to dine, are requested to inform the Honorary Secretary at Swansea immediately.

ANDREW DAVIES, M.D. } *Honorary Secretaries.*
ALFRED SHEEN, M.D. }

Swansea, July 2nd, 1877.

WEST SOMERSET BRANCH.

THE annual meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, July 12th, at 2.30 P.M.

Dinner at 5 o'clock.

Gentlemen wishing to read papers are requested to send early notice to the Honorary Secretary.

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, June 23rd, 1877.

NORTHERN COUNTIES (SCOTLAND) BRANCH.

THE annual meeting of this Branch will be held at the Gordon Arms Hotel, Elgin, on Friday, July 20th, at 6.30 P.M.: Dr. MACKENZIE of Fortrose, President, in the Chair.

Subject of Discussion.—Scarlatinal Albuminuria, to be opened by Dr. Bruce of Dingwall.

J. W. NORRIS MACKAY, M.D., *Hon. Sec. and Treasurer.*

Elgin, July 2nd, 1877.

METROPOLITAN COUNTIES BRANCH.

THE twenty-fifth annual meeting of this Branch will be held at the Alexandra Palace, on Tuesday, July 24th, at 4 P.M. President: JONATHAN HUTCHINSON, Esq., F.R.C.S. President-elect: SEPTIMUS W. SIBLEY, Esq., F.R.C.S.

Dinner at 5.30 precisely. Tickets, 15s. each, exclusive of wine.

Further particulars in circulars.

ALEXANDER HENRY, M.D. } *Honorary Secretaries.*
ROBERT FARQUHARSON, M.D. }

London, June 18th, 1877.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

THE annual meeting of this Branch will be held in the University Buildings, New Aberdeen, on Wednesday, July 25th, at 1 P.M.

Exhibition of instruments and pathological specimens will take place from 11 A.M. in the University.

The members will dine together at the Palace Hotel at 3 P.M.

ALEX. OGSTON, } *Honorary Secretaries.*
JOHN URQUHART, }

Aberdeen, July 3rd, 1877.

SOUTH-EASTERN BRANCH: ANNUAL MEETING.

THE thirty-third annual meeting of the South-Eastern Branch took place on June 13th, at the Burlington Hotel, Eastbourne. There were about forty members present.

At the commencement of the proceedings, the Chair was taken by Dr. S. MONCKTON, the President for 1876-77, who acknowledged the hearty and valuable support which had been universally tendered to him by all his neighbours and friends connected with the Branch during the year of his presidency. It was with no small degree of

pride that he looked back upon the honourable position which he had held. He then introduced his successor, Dr. BRANSEY ROBERTS.

President's Address.—Dr. ROBERTS then took the Chair amid applause, and delivered an address. He began by thanking the members for the great honour conferred upon him by electing him to fill the Chair. He would, with the kind assistance of the vice-presidents and members, endeavour to do his duty to the best of his ability. In the name of the vice-presidents and of the local Committee—indeed, of the whole profession at Eastbourne—he welcomed the members to the town. Dr. Roberts then gave an account of Eastbourne as a health-resort. (See page 805 of last volume.)

Vote of Thanks.—Dr. HALL of Brighton proposed that the best thanks of the Branch should be tendered to the President and Vice-Presidents for 1876-77, for the efficient services they had rendered.

Dr. FUSSELL seconded the resolution, which was carried unanimously.

Report of Council.—The following report was read by Dr. PARSONS of Dover, the Honorary Secretary.

"In presenting their report for the past year, your Council would direct attention, in the first place, to the numerical position of the Branch at the present moment. Last year, we numbered four hundred and sixteen; of these, eighteen have either withdrawn from the Branch or have migrated to other parts of the country and have been absorbed by other Branches, whilst six have been removed by death. One of these—Dr. Carr of Blackheath—was so well known and respected in the Branch, that a recapitulation of his services is unnecessary; but your Council desire to express their deep sense of the loss which they, as a body, have sustained by the untimely death of their old and valued friend and colleague. We have also to mourn the loss of Mr. Sanger of Alfriston, Vice-President-elect, a man of the highest integrity, beloved and respected by everybody in the East Sussex district, whose professional sagacity was only equalled by the genial warm-heartedness which was so characteristic of him. The members of last year, therefore, are reduced to three hundred and ninety-two. On the other hand, however, twenty-five new members have joined the Branch, and of these one has withdrawn, so that the total number of members to-day is four hundred and sixteen, the same as last year.

"It will be in your recollection that it was a recommendation from the annual meeting last year to the Executive Council, that a Medico-Ethical Committee should be formed for the Branch. After much deliberation, the Council have constituted themselves a Committee for one year for the consideration of such questions as may be referred to them.

"In compliance with the minutes of the general annual meeting of the Association held at Edinburgh in 1875, petitions have been presented to Parliament from various towns in the Branch in favour of legislation for the 'control and care of habitual drunkards'; and there is good ground for believing that before long this question must be taken in hand by Government, and the suggestions of our Association, embodied in the Bill of Dr. Cameron, eventually be adopted by Parliament.

"The Parliamentary Bills Committee of the Association has this year occupied itself in presenting to the notice of the War Office a case of hardship involved in the deprivation of income of militia surgeons without appropriate compensation. Strong parliamentary influence was brought to bear upon Mr. Hardy, the Secretary of War, who has acknowledged the hardship, but at present alleges the incompetency of the War Office to redress it. The case will be carried further in Parliament; and it is hoped that ultimately some compensation will be obtained for the militia surgeons, in lieu of the income of which they have been deprived.

"The Committee have also co-operated with the Factory Surgeons' Association in pressing upon the Home Secretary modifications in the Factory Acts Amendment Bill now passing through Parliament, and with the various professional bodies in Ireland in bringing under the notice of the Secretary for Ireland desirable amendments in the Public Health Bill (Ireland) which the latter minister has introduced into the House of Commons."

It is probable that the attention of the Council will be required for the working of the Experiments on Animals Bill, and data for this purpose are being collected. (Since the above was written, Mr. Holt's Bill on this subject has been thrown out by a large majority.)

"The machinery of the Branch still continues to work most satisfactorily, and your best thanks are due to the honorary district secretaries for their indefatigable zeal and energy. Your Council have much pleasure in announcing that the vacancy in the office of honorary secretary for the West Sussex district has been now filled by the appointment of Mr. A. A. Napper, the son of one of our oldest and most respected members (Mr. Albert Napper), whose name is familiar

enough to you all; and it is confidently hoped that, with this addition to our official staff, our Branch next year will number many more members. The West Surrey district has been practically unworked for many years; but the revival of periodical district meetings, and the presence and co-operation of members of neighbouring districts, will doubtless develop attachment to our Association in the district, as in all other parts of Great Britain where a similar experiment has been made.

"Your Council have observed with much satisfaction the very marked success which attended the conjoint meeting of the East and West Kent districts at Rochester, when sixty-five members were brought together by the untiring efforts of the two district secretaries; and at the conjoint meeting of the East and West Sussex districts at Brighton fifty-two members assembled. The remarkable success of these experiments induces your Council to recommend occasional conjoint meetings of the various districts to the notice of the district secretaries. In this way, not only is the influence of the Association for good very greatly enlarged, but members of one district are made acquainted with those of another, and the whole Branch is thus bound together in one professional brotherhood, which our great Association is so well fitted to foster and encourage."

Dr. LANCHESTER (Croydon) proposed and Dr. BAGSHAW (Hastings) seconded the adoption of the report, which was carried unanimously.

The Secretary.—Dr. MONCKTON proposed that the best thanks of the Association be given to the Honorary Secretary, Dr. Parsons, for the very efficient way in which he had discharged his duties during the past year; and that he be re-elected. The vote was carried by acclamation, and acknowledged by Dr. Parsons.

Officers for 1878-79.—Dr. HOLMAN (Reigate) proposed that Dr. Lanchester of Croydon be the President-elect, and Messrs. A. G. Roper (Croydon) and C. W. Chaldecott (Dorking) be the Vice-Presidents-elect, for the year 1878-79; and that the next annual meeting of the Branch be held at Croydon.

This proposition was seconded by Dr. GALTON (South Norwood), and carried unanimously.

The meeting then terminated, and the members adjourned to the residence of the President, where they partook of luncheon.

Excursions, etc.—During the afternoon, several excursions were arranged. A visit was paid to Pevensey Castle, a description of which interesting ruin was given by the well-known archaeologist Mr. G. F. Chambers. An excursion was also made to Beachy Head, and another to All Saints' Convalescent Hospital, which institution was inspected under the guidance of Mr. A. Whitefield. Some of the members paid a visit to the Caldecott Museum, over which they were conducted by Dr. Ogier Ward. Visits were also paid to the Devonshire Park Pavilion and Baths, which buildings, by the kind permission of the directors, were opened to inspection; to the St. Saviour's and St. Mary's Churches, and the Redoubt and other places of interest in the town and neighbourhood.

Dinner.—The proceedings terminated with a dinner at the Burlington in the evening, over which Dr. Bransby Roberts presided.

CAMBRIDGESHIRE AND HUNTINGDONSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held in the board-room of the Saffron Walden Hospital on Tuesday, June 26th, under the presidency of HENRY STEAR, Esq. There were twenty-three members present and several visitors, including Dr. A. P. Stewart of London.

Previously to the meeting, the members were entertained at luncheon by the President.

President's Address.—The PRESIDENT, having been briefly introduced by Dr. Bradbury, in the absence of the late President, gave an interesting address on the history of Saffron Walden, Audley End, etc.

Mr. CARTER proposed and Mr. HODSON seconded a vote of thanks to the President for his address, which was carried unanimously.

New Members.—The following new members were elected:—Association and Branch: Clement Frederick Gray, Esq., Newmarket; Thomas Hyde Hills, Esq., Cambridge. Branch only: George Richards, Esq., Great Dunmow; George Samuel Watson, Esq., Thaxted; H. A. Hallett, Esq., Kimbolton.

Next Place of Meeting.—Dr. BRADBURY proposed and Mr. CARTER seconded, that the meeting next year be at Peterborough, in conjunction with the South Midland and East Anglian Branches, and under the presidency of Dr. T. J. Walker. This was carried unanimously.

Representatives in the General Council.—The following were elected: J. B. Bradbury, M.D.; G. M. Humphry, M.D., F.R.S.; Henry Stear, Esq.; Bushell Anningson, M.B., Honorary Secretary, *ex officio*.

The Secretary.—The Honorary Secretary (Dr. BRADBURY) having expressed his intention to resign, it was unanimously resolved, on the proposition of Dr. Bradbury, seconded by Dr. Latham, to elect Dr. Bushell Anningson of Cambridge in his place.

Dr. HUMPHRY proposed and Mr. HOUGH seconded a vote of thanks to Dr. Bradbury for his services as Secretary during the last six years.

Discussions at Meetings.—The PRESIDENT wished to elicit the opinions of members on the following subject, but no decision was come to; *viz.*, "The advisability of fixing upon some one subject in practical medicine or surgery at each annual meeting, to be brought forward for discussion at the ensuing one".

Papers.—The following papers were read.

1. By H. J. BUCK, Esq.: On Capsicum as a Counterirritant.

2. By A. P. STEWART, M.D.: On a Case of Neurosis affecting the Venous Circulation. There was a discussion on this paper by Dr. Bradbury, Dr. Paget, Dr. Latham, and Mr. Satchell.

3. By G. E. PAGET, M.D., F.R.S.: Cases of Opium-Poisoning. Dr. Latham and Dr. T. J. Walker took part in the discussion.

For want of time, papers by Dr. Armistead and Dr. Bradbury were not read.

Specimens.—Dr. HUMPHRY showed and made observations on Early British Skulls, and on an Anglo-Saxon Skull recently found at Saffron Walden.

Mr. BRIDGER showed specimens (1) of a Funis tied in a complete knot, causing the death of the child during birth; (2) of a portion of Funis removed from a child three days old.

Mr. IRELAND showed a woman with two Supernumerary Mammæ, and gave a short history of the case.

Excursions.—After the business of the meeting was concluded, a visit was made to the historic mansion and park of Audley End, which were kindly thrown open to the members by Lord Braybrooke. The fine old Parish Church of Saffron Walden, the Museum and Anglo-Saxon Remains, were also visited.

Dinner.—The dinner took place at the Rose and Crown Hotel the President in the Chair, and Dr. Bradbury acting as Vice-Chairman. About twenty-seven sat down to dinner, including Messrs. Tuke and Clark of Saffron Walden and other visitors.

There was an unanimous feeling amongst the members that this was one of the most pleasant and successful Branch meetings which had ever been held, this success being due in great measure to the exertions of the President.

THAMES VALLEY BRANCH: GENERAL MEETING.

A MEETING of the above Branch was held at the Griffin Hotel, Kingston, on June 14th: Dr. LANGDON DOWN in the Chair.

Communications.—1. Dr. FENN read a paper on Nocturnal Incontinence of Urine. He regarded it as a neurosis, and insisted on the importance of study of the antecedent history of the family. He recommended early treatment, and especially iron and belladonna.

2. Dr. HOOPER brought forward a case of Post-scarlatinal Uræmia.

3. Dr. TROUNCER related a case of *Post Partum* Hæmorrhage treated by Injection of Perchloride of Iron.

New Member.—Dr. Owen Jones was elected a member of the Branch.

Dinner.—The members afterwards dined at the hotel.

WEM.—The population is estimated at 12,773; the births in 1876 were 308, and the deaths 197, which affords a death-rate of 18.10, against 19.11 in 1875. In the township of Wem, the death-rate was 26.49, against 11.16 for the rest of the district, after the deaths in the workhouse had been subtracted. This high death-rate in the township is attributed to polluted water-supply, the large number of cesspools, and defective scavenging arrangements; so that the air, soil, and water have become polluted. There were 21 deaths from zymotic diseases; *viz.*, 1 from typhus, 2 from typhoid, 2 from scarlet fever, 2 from measles, 8 from whooping-cough, and 6 from diarrhoea. These figures certainly hardly point to polluted water-supply as the cause of undue mortality in the township. There were 28 deaths of children under one year, being about 9.1 deaths amongst each 100 births, which is less than usual. Dr. Gill discusses at some length the question of keeping pauper lunatics in workhouses, or giving pauper relief at home, and comes to the conclusion that neither should be allowed, but that all lunatics should go to the county asylum.

CORRESPONDENCE.

VOTING BY PROXY.

SIR,—I was very pleased to see, in the BRITISH MEDICAL JOURNAL of June 30th, that the subject of Fellows voting by proxy at the Royal College of Surgeons of England was again mooted by Dr. Harris. It does seem unfair that the greater part of the country Fellows have no voice in the College elections. Many are frequently unable, from professional engagements, to go up to town to vote; and I have no doubt the expense deters others, and not unnaturally. Cannot some arrangement be made by which all Fellows beyond a certain distance from London can vote by proxy? or are the laws of the Royal College of Surgeons of England like those of the ancient Medes and Persians, "which alter not"? Believe me, sir, yours faithfully,
York. F.R.C.S.

DR. HOGGAN'S VIVISECTIONS.

SIR,—I have just read the evidence given by Dr. Hoggan before the Vivisection Commission, and I have been very much surprised to see, by different passages like the following—"In fact, my theory did away with the necessity of muscles of inspiration; I denied the action of them as they stood"—that Dr. Hoggan still maintains the theory which he exposed before the Royal Society of Edinburgh. I was persuaded that he knew, since the time he was in Paris, that his theory was entirely wrong. In fact, in a laboratory of the College of France, where he worked during his stay here, he explained his theory. After it had been uselessly tried by reasoning to demonstrate to him its falsity, he was conducted to the laboratory of M. Cl. Bernard, and there a physiologist, of whom I think he will be the first to recognise the science and ability, made the necessary experiment without anaesthetics, in his presence and following his directions. The animal died at once; its lungs collapsed as soon as the respiratory muscles, said by Dr. Hoggan to be useless, were divided.

Therefore, sir, I trust that you will permit me to put, through the medium of your valuable JOURNAL, the three following questions to Dr. Hoggan.

1. Why does he maintain his theory after the failure of the experiment made before him, without anaesthetics, and under his directions, in the physiological laboratory of the College of France?

2. Did he not give full directions to the performer of the experiment? And if not, why?

3. Why has he not spoken of this experiment—horrible and useless, if I take Dr. Hoggan's own view—before the Royal Commission? And why has he limited himself to speaking only of "two or three animals dying" under his hand from having received too much chloroform?—I remain, sir, yours truly,
Paris, 22, Avenue des Gobelins. VIGNAL.

GAGS FOR OPERATIONS ON THE MOUTH.

SIR,—In the notice of the meeting of the Medico-Chirurgical Society of Edinburgh, reported in your issue of June 23rd, the following passages appear. "Mr. Annandale showed a gag for keeping the mouth thoroughly open in operation on it. The best for this was the late Sir William Fergusson's." As I believe there is some misunderstanding in the profession as to the origin of the gag sold by some makers as "Fergusson's gag", I feel that a favourable opportunity is now presented to place myself in the right position as to the introduction of that instrument. The fact is, that in the years 1868-69-70, Messrs. Matthews, the instrument-makers, were making various gags at my suggestion, and, after repeated failures, we at length hit upon a gag which subsequently became the model, and included the principle upon which the instrument made for Sir William was constructed. I used it on two or three occasions for operations about the mouth and fauces, and found that it answered very well, but that it was scarcely perfect, chiefly because the parts that came into contact with the teeth were covered by a too thick pad of India-rubber, so that they could not be made to fix firmly over the teeth. This, however, was a small defect, easily rectified. The instrument, from certain circumstances, lay in abeyance for a time; and the next that was publicly known of it was a reference in a paper on Hare-lip and Cleft-palate, written by the late Sir William Fergusson, and published in the BRITISH MEDICAL JOURNAL of January 1st, 1876, p. 4. In that paper Sir William, with his well known generous candour, gives me the credit of having devised the instrument, for he says "it was chiefly suggested by my friend Mr. Mason of St. Thomas's".

It may be remembered that a correspondence ensued; and I would refer those who take interest in the matter to the above quoted paper, as well as to a letter from Mr. Alfred Coleman (BRITISH MEDICAL JOURNAL, January 8th, 1876, p. 59), and also to one from myself, containing a woodcut of the original instrument made for me (BRITISH MEDICAL JOURNAL, January 22nd, 1876, p. 117). If the instrument figured in Sir William's paper and that represented in my letter be compared, I think that a very slight difference only will be observed between the one and the other. I may say that the handles of my original gag are short, and that it possesses what I conceive to be an advantage, in that the parts applied to the teeth are provided with a swivel, which makes them fit and fix on the teeth most accurately.

It would be unfair to my friend Mr. Alfred Coleman were I not to refer again to the instrument described by him in the *Medical Times and Gazette* of January 26th, 1861; and I can only repeat that when I had my gag made I was perfectly unaware that one so similar in principle, although of different construction, had been brought under the notice of the profession. I do not, therefore, join issue with Mr. Coleman, to whom I willingly give suitable precedence; but as regards the gag referred to by Mr. Annandale, I venture to think that inasmuch as Sir William Fergusson himself grants me the prior claim, it is not too much to expect that others should do likewise.—Your obedient servant,
FRANCIS MASON.

5, Brook Street, Grosvenor Square, June 26th, 1877.

CARBONATE OF LIME CALCULUS.

SIR,—Dr. Ord, in a clinical lecture reported in the JOURNAL of June 9th, speaking of carbonate of lime calculi, says: "And although the catalogue of the splendid collection at the Royal College of Surgeons contains a space wherein such a specimen should be recorded, the space is as yet a blank." If Dr. Ord will refer to page 79, Supplement I, of the College Catalogue, he will find that I was so fortunate as to be able to present the Council of the College with a specimen of nearly pure carbonate of lime calculus. The analysis was made by Mr. Thomas Taylor, the editor of the supplement.—Yours, etc.,
WILLIAM BIRD, M.D.

York, July 2nd, 1877.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Friday, June 29th, 1877.

Vaccination.—Mr. PENNINGTON, in the absence of Mr. Hopwood, asked the Attorney-General whether he was aware that another summons was, on the 19th instant, issued against Joseph Abel, of Faringdon, for the vaccination of his child, Frederick Joseph Abel, under 30 and 31 Vic., c. 84, s. 31; and whether it is discretionary with the justice, under the words "he may, if he see fit", to refuse to make the order to vaccinate.—The ATTORNEY-GENERAL said he was not in possession of any information respecting the particular case referred to; but in regard to the legal point he begged to say that, in his view, the magistrate might make an order or not as he pleased; but he considered if it was clearly proved that a child had not been vaccinated the magistrate would be disregarding his duty if he did not convict, just as much as a magistrate would neglect his duty if he did not convict when it was clearly proved an offence had been committed. If the hon. gentleman wanted further information, he begged to refer him to the case of "Morris v. the Royal British Bank".

Vaccination.—In reply to Mr. Greene, Mr. SCLATER-BOOTH said he had made inquiries with reference to the case of a man at Liverpool who had refused to allow his family to be vaccinated, and had in consequence been fined, and whose family of eight children had all been attacked by the small-pox. One of them was dead, and the others were lying dangerously ill. The family had come some months ago from Glasgow, where the father had been several times fined for not complying with the Vaccination Act. These fines appeared to have been paid by himself. Cases had been repeatedly brought to his (Mr. Sclater-Booth's) notice, in which it was said the fines had been paid by the Anti-Vaccination Society. To what extent this had been done he had no official means of ascertaining.

Monday, July 2nd.

Army Medical Officers and Militia Surgeons.—Dr. L. PLAYFAIR drew attention to the condition of the medical department of the army, especially in relation to militia surgeons, whose incomes had been considerably reduced under new regulations, suddenly depriving them of duties they had previously performed without any adequate compensation.—Earl PERCY thought that the changes that had taken place had

entailed great hardships upon the militia surgeons.—After a few words from Colonel Mure and Sir E. Colebrooke, Mr. CHILDERS considered that each case ought to be dealt with separately.—After a few remarks from Mr. M. Henry, Dr. LUSH also called attention to the medical department of the army, saying that if the army were to retain its efficiency the medical department ought not to be reduced as it had been.—Colonel NORTH referred to the reduction which had taken place in the number of medical officers in the army as being a danger when we were almost on the brink of war.—Mr. HARDY said that when he came into office in 1874, the medical officers came to him with a number of grievances, every one of which, he ventured to say, had been met; but, notwithstanding, the hon. member for Salisbury now put forward new grievances, some of which appeared to him (Mr. Hardy) to be wholly unworthy of a great profession. His whole desire had been to put the medical officers on a footing which would be alike satisfactory to themselves and to the army; and he believed that eventually the service would hold its own, and that the complaints now made would pass away. As to the unification system, he had only that very day been assured by the Director-General of the Army Medical Department that they had never gone into war as they could now, with a medical system organised and trained upon such a footing that they could put it in the field in a moment. He admitted that there had not been the number of applications to enter the service that he could have desired, but at the present moment there was no great number of vacancies. The hon. member for Salisbury had spoken of a systematic invasion of the rights of medical men with regard to honours; but would it be believed that at present they had a larger proportion of the honours than they were entitled to? With regard to the militia surgeons, they had an opportunity of entering the service under new conditions, and a great many had so entered. He hoped that in a short time the complainants would see that it was not possible to meet by money compensation changes which were deemed essential for the public service, but which in this case had been so far compensated for by additional pay and allowances.

Army Veterinary Department.—Mr. HARDY stated, in reply to Capt. Home, that no candidates had offered themselves for the fifteen vacancies now existing in the Army Veterinary Department. Many schemes had been submitted to the War Department, and were now under consideration, but until the probable cost and the results of such schemes had been inquired into, he had not thought it right to make any proposal on the subject.

Tuesday, July 3rd.

Vaccination.—Earl PERCY moved a resolution in favour of instituting an inquiry into the practice of vaccination for the purpose of ascertaining whether it cannot be conducted in a more satisfactory manner than at present. He disclaimed all sympathy with the antivaccinationists, but he advocated inquiry to meet the objections very generally urged, that the supply of lymph is losing its force and is becoming the vehicle of other maladies. With regard to the first, he showed by the statistics of the recent epidemics that the fatality of the disease is increasing; and, as to the latter, the opinions of the medical profession had altered very much of late. Although he did not feel competent to suggest a remedy, he pointed out the favourable results of animal vaccination as practised abroad; and urged that, if the State compelled vaccination, it was all the more bound to guard against even the suspicion of evil result.—Mr. GREENE seconded the motion; and Mr. PEASE moved to include within the scope of the inquiry the propriety of amending the law relating to the accumulation of penalties for refusal to submit to vaccination. He was favourable to vaccination properly carried out, but thought it impossible to insist on a stringent enforcement of the law in exceptional cases.—Mr. SCLATER-BOOTH gave his reasons for not allowing that the quality of the lymph had deteriorated, and pointed out, in regard to animal vaccination, that the French physicians had recently given it up. Although he thought it would be unwise to consent to an inquiry which might seem to intimate that Parliament doubted the efficacy of vaccination or of the manner in which it was carried out, he promised that his Department would lose no opportunity of making experiments or of inquiring into the results of foreign experience. Moreover, he did not believe that the distrust as to the mode in which vaccination is effected is so widespread as Earl Percy had assumed. As to the accumulated penalties, he hoped the House would not do anything to encourage the anti-vaccinationists. He adhered to the views expressed in his letter to the Evesham Guardians, that discretion must be left to the local authorities; and, though he should be glad to see his way to an alteration of the law in this respect, he did not believe it possible to carry such a measure at this time. The experience of the present epidemic showed that the disease had lost none of its fatality, and could only be kept in check by universal vaccination.

—Mr. FORSTER approved Mr. Sclater-Booth's reluctance to grant an inquiry, the meaning of which might be misunderstood in the country; but, with regard to accumulated penalties, he was of opinion that they were of no use in dealing with the children of those who objected altogether to vaccination. He was of opinion, therefore, that the law should be restored to the condition in which it was before 1867, when these accumulated penalties were first enforced.—Mr. WALTER asked how far this power of dispensation was to extend? Was it to be applied to the case of parents who neglected to send their children to school, or to offences against the Cattle Plague Regulations. He suggested the adoption of the American practice, that no child should be received at school who had not been vaccinated.—After some observations from Earl Percy, his motion, with Mr. Pease's rider attached to it, was negatived on a division by 106 to 56.

Wednesday, July 4th.

Contagious Diseases Acts.—Sir HARCOURT JOHNSTONE gave notice of his intention to introduce a Bill early next session for the repeal of the Contagious Diseases Acts.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

THE annual general meeting of this Association, which took place on the 3rd instant (a full report of which is before us, but which we are precluded from publishing until next week), was evidently a great success; for not only was the attendance creditable as regards the number of gentlemen who were present, but sixty members wrote expressing their regret at not being able to attend.

From the statement made by the Chairman, Dr. Rogers, it would appear that a very considerable amount of useful work has been done by the Chairman and Council during the past year, in advising members as to their duties, and in several instances of publicly supporting, through the press, individual officers who had been subjected, while in the performance of their duty, to misrepresentation, or even to absolute injustice, through the ill-considered decisions of judges, boards of guardians, or Poor-law inspectors. Several cases were referred to; among the more striking were those of Mr. Taylor of Sunderland, Mr. Ashburner of Horsham, Dr. Luce of Stratford-on-Avon, and Mr. Fenton of St. George's, Hanover Square, where success had followed as the result of the work of the Association. A very animated discussion took place consequent on the statements made in reference to the case of Mr. and Dr. Beckingsale of Newport Workhouse, Isle of Wight Union, several members protesting against the partiality exhibited in the Poor-law inquiry which had been held, and demanding a reopening of the case. Ultimately, a resolution was unanimously passed, protesting against the decision of the Local Government Board, and asking for a reinvestigation; this was sent off to the Central Board ere the meeting broke up. It is evident that this Association has aroused itself to the knowledge that *union is strength*; and if they continue to be as true to each other and as unanimous in the expression of their opinions as in their recent meeting, a very considerable improvement in the status, emoluments, and treatment of Poor-law medical officers will in no distant period be secured.

PUBLIC VACCINATORS.

Mr. J. W. Motters (Hemel Hempstead).—Public vaccinators are appointed by the Guardians in unions and parishes according to a form of contract prescribed by the Local Government Board. A public vaccinator must possess a diploma in medicine and surgery, and have obtained a certificate of instruction, issued out of some of the public vaccinators authorised by the Privy Council to grant such certificates. Vaccinating stations for instruction and examination are established in London, Birmingham, Bristol, Leeds, Liverpool, Manchester, Newcastle-on-Tyne, Sheffield, Exeter, Edinburgh, and Glasgow. There is no station, therefore, in South Wales, or nearer to our correspondent, than that at Bristol. For further information, *vide* Churchill's *Medical Directory*, page 14; 1877.

POOR-LAW MEDICAL APPOINTMENTS.

DINWOODIE, Wm., M.D., appointed Parochial Medical Officer, Medical Officer of Health, and Public Vaccinator for Houston and Killellan, *vice* Wm. Lewis, M.D., resigned.

HILL, Philip Edward, M.R.C.S.Eng., appointed Medical Officer to the Crickhowell Workhouse and Infirmary, *vice* Evan Parry, M.R.C.S.Eng., resigned.

ROBERTS, H. W., M.R.C.S.E., appointed Medical Officer to the South Deptford District of the Greenwich Union, *vice* E. H. Downing, L.R.C.P.Ed., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL PROMOTION.

SIR,—Will you allow me to publish, for the information of those interested, the only rules extant relating to Indian service and medical promotion in the Army Medical Department.

These two articles are from the *Indian British Medical Departmental Code*, page 327.

Art. 24. "A surgeon or surgeon-major, before he can be promoted to the rank of deputy inspector-general of hospitals, shall serve ten years as a commissioned officer on full pay, of which period, two years must have been as surgeon, in or with a regiment or dépôt battalion."

Art. 25. "In order to be qualified for holding an administrative appointment in *this country* (*i.e.*, India), it is requisite, in addition, that an executive medical officer should have served for three years as a *surgeon* with an European regiment in India."

The humblest capacity can see that these articles refer to India, and India only; that they were framed when the *regimental* system was in vogue, and palpably for reasons regimental—if reason was ever consulted in the matter; that they ought to have been consigned to *limbo* along with the system which gave them birth, instead of being put forward, to the detriment of worthy men, by the great *opponent* of the regimental system; and that they have never been made "general" in their application in any way.

It is inconsistent with common sense and proper administration to get rid of active, experienced, tried, and valuable officers, in consequence of the existence of a *local* rule, instead of *squashing* the rule, if it stood in the way of these officers' career, which anybody can see it did *not* do, until it was *made* to do so within the secret chambers of 6, Whitehall Yard.

Now, if this "making" had been "published" also, matters would bear a different aspect. The advisability of generalising such a rule might be questioned, but not the *integrity* of the makers. As matters stand now, men must *suspect* that the rule was acted upon as "general", not for the benefit of the State or of the service, which it palpably injures rather than benefits, but as an ingenious "dodge" to get rid of certain persons whom it was known would be affected thereby; and pray—Is this a worthy motive to influence the administrative heads of a great department?

This unfavourable view of the matter is, I regret to say, rather strengthened by the fact that, at this time, it was well known that a committee was sitting to devise a plan for the *abolition* of the dual medical department in India, an event sure to be realised before very long.

Now, when this takes place, the rule cannot be made applicable in any shape or form to the Army Medical Department; but, unfortunately, it will have lasted long enough to fulfil the objects for which it was brought into operation. But—Is this fair play?

It is palpably plain to the meanest intellect that the general application of this rule was never for a moment contemplated when Mr. Hardy penned the Warrant, April 28th, 1876. The conditions laid down in this Warrant are the same as those in *all* the others, and the word "selection" never was intended to bear any other construction than that which it bore in every other warrant, so that the interpretation *now* put upon "selection" must have been an after thought.

Every one of the medical officers who have been sacrificed by this "after-thought" are men of acknowledged capabilities, what cannot be said of all the "India Wallahs" selected under this "after-thought".

Such is Mr. Hardy's mode of dealing with a very important military department, although, of course, the "after-thought" originated among the worthies at Whitehall Yard. It would also appear, from the harsh decision in a recent very cruel case, that "after-thoughts" are not only applicable to the interpretation of Royal Warrants, but also to *promises* issued from the same locality.—Your obedient servant,

FAIR PLAY.

DEPUTY-COMMISSARY J. S. YOUNG (says the *Army and Navy Gazette*) has gone to the seat of war as Chief Commissioner of the Red Cross Society during the present war, accompanied by five surgeons for employment in alleviating the sufferings of the wounded and sick of both belligerents as he may deem most practicable. Mr. Young was specially employed in the China war, Abyssinian expedition, Franco German war, and on many occasions at the War Office; while, as member of the War Office Ambulance and Field Hospital Equipment Committees, his special knowledge of military hospital requirements and organisation has been found especially valuable. Should not such special services have obtained official recognition?

OBITUARY.

JOHN CRONYN, F.R.C.S.I., L.K.Q.C.P.I.

THIS gentleman died lately at his residence, 31, Molesworth Street, Dublin, aged 50. His death, which was not unexpected, was due, we understand, to heart-disease complicated with congestion of the lungs. Dr. Cronyn principally practised as an accoucheur, having formerly acted as Assistant-Physician to the Rotunda Lying-in Hospital, and resigned some time since the office of Examiner in Midwifery in the Royal College of Surgeons, on being appointed to the professorship of that branch of medicine in the College. He had also a seat on the Council of the same body, and was a member of Council of the Dublin Obstetrical Society. Among his contributions to the literature of the profession, were papers published in the *Dublin Journal of Medicine* on the Use of the Forceps and on a Case of Ruptured Uterus.

DANIEL MACRORIE, M.D.

ONE of the oldest members of our Association, and probably of the profession, the late Dr. David Macrorie, has recently passed away at the advanced age of 90; and, though the end, at the period of life he had reached, might in the course of nature be expected, the announcement of his death will be read with regret by all those who knew him, or who had been associated with him during his professional career.

The late Dr. Macrorie graduated in Edinburgh so far back as the year 1813, and practised for a short time in Fifeshire; but, desirous of obtaining a wider field for the exercise of his profession, he removed to Liverpool in 1815. His anticipations were fully realised by his success; he obtained a large practice, and continued to hold for many years the position of a leading physician in this town. He became a great favourite amongst his patients by his kindness and gentle manner at the bedside, whilst by his genial disposition he acquired a large circle of friends. As a practitioner, he was remarkable for his clear and ready perception of the nature of the case, and was decided, though cautious, in the application of remedies. He held for several years the office of honorary physician to the Liverpool Dispensaries; and subsequently was attached in the same capacity to the Liverpool Fever Hospital, and was noted in both these institutions for the conscientious manner in which he discharged his duties.

He retired from practice in 1857, and settled at Mount Vernon, near Stroud, where he died on June 17th. About seven years ago, his health began to fail, and he lost the sight of both eyes from cataract; but his mental faculties continued unimpaired, notwithstanding his great age; and he exhibited, until two or three weeks before his death, a vigour of intellect and retentive memory most unusual in even much younger persons. He continued to take great interest in professional subjects, and always listened with pleasure to the reports of societies, papers, etc., published in the *JOURNAL*, and was always glad of an opportunity of hearing from any medical friend an account of the modern views of disease and new modes of treatment. He lived to see his eldest son take a high position in the Colonial Church, as Bishop of Maritzburg in South Africa.

SOMERVILLE SCOTT ALISON, M.D., F.R.C.P., ETC.

WE regret to have to record the death, on June 11th, of this amiable and accomplished physician. He was born in Edinburgh in 1813, and was educated at the High School and the University. Before he commenced his medical education, he was placed as a pupil with Dr. James Begbie (afterwards Physician to the Queen in Scotland), by whom he was much regarded, and with whom he continued on terms of the closest friendship.

In 1832, while yet a student, he was selected as one of the medical officers attached to the Cholera Hospital, and was highly commended for the energy and ability which he displayed at that trying time. He graduated as Doctor of Medicine in 1833, and proceeded to London, and afterwards to Paris, with the view of continuing his professional studies at their schools.

On his return to Scotland, he commenced practice at Tranent, near Edinburgh, where he soon acquired a considerable practice, and where his cheering smile and kindly word won for him the respect and affection of a large circle of patients and friends. His visits to the poor were like gleams of sunshine, and there are some still living by whom he is held in grateful remembrance. During his residence at Tranent, he was selected to draw up a *Report on the Sanitary Condition of East Lothian*; and soon afterwards, at the request of Lord Ashley (now the

Earl of Shaftesbury), he wrote "An Account of the Diseases of Colliers", which was incorporated in the *Report of the Children's Employment Commission*. These were much appreciated, and were presented to both Houses of Parliament.

He settled in London in 1841, and devoted himself chiefly to the diseases of the heart and lungs. This led him to devise his "differential stethoscope", which is much valued by those who have had opportunities of testing its usefulness, and which, in affections of the heart in particular, has afforded the most satisfactory results. His sphygmoscope also contributed to the facilities of determining the synchronism or non-synchronism of the various motions of the heart and great vessels. He was a skilful diagnosis, and was remarkable for the accuracy with which he detected the early signs of phthisis and disease of the heart. He contributed largely to the *Proceedings* of the Royal Society and of the Royal Institution, and to the medical and scientific journals. He was, besides, the author of various practical treatises on the heart and lungs. The work, however, by which he is best known is the *Physical Examination of the Chest in Pulmonary Consumption and its Intercurrent Diseases*, which, both in a practical and scientific view, is a most learned and valuable contribution to medical literature. He was formerly Honorary Secretary to the Medical Society of London, and Physician to the Hospital for Consumption at Brompton. He was warm-hearted and unaffected, with a kind word and willing ear for all in suffering or distress; and by those who had the privilege of his intimate acquaintance he will be long deeply mourned and his memory cherished with affection.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF OXFORD.

MERTON COLLEGE POSTMASTERSHIP IN PHYSICAL SCIENCES.—An examination will begin at Merton College on Tuesday, October 2nd, for the purpose of electing one Physical Science Postmastership. The Postmastership is of the annual value of £80, and is tenable for five years from election, or so long as the holder does not accept any appointment incompatible with the pursuance of the full course of University studies. After two years of residence, the College will raise, by a sum not exceeding £20 *per annum*, the Postmasterships of such Postmasters as shall be recommended by the Tutors for their character, industry, and ability. Candidates, if members of the University, must not have exceeded, for the Physical Science Postmastership, six terms of University standing. Those who give in their names at Merton are requested to call on the Warden, with testimonials of character, and, if members of the University, with certificates of matriculation, between 4 and 6 P.M. on Monday, October 1st, or on Tuesday, October 2nd, between 9.30 and 10 A.M. The subjects of examination for the Physical Science Postmastership will be Chemistry and Physics. There will be a practical examination in Chemistry. Candidates will have opportunities of giving evidence of a knowledge of Biology; but in such cases the Examiners will look for evidence of an acquaintance with the principles of Chemistry and Physics equal in extent to that which is required in the Preliminary Honour Examination in the Physical Science School. A paper will be set in Algebra and Elementary Geometry, which, *ceteris paribus*, will be of weight in the election to the Postmastership. Further information may be obtained from the Tutor in Physical Science.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, June 28th, 1877.

Gristock, William, 26, Blandford Square
Johnson, William Henry, Hogsthorpe, Lincolnshire
Marriott, Frederick Thomas, Western General Dispensary
Marsh, Frank, Tillington, near Stafford
Oxley, Alfred James Richard, Conisbrough, Yorkshire

The following gentleman also on the same day passed his primary professional examination.

Burt, Alfred, Guy's Hospital

UNIVERSITY OF DURHAM.—The following gentlemen, having satisfied the examiners, had their degrees conferred on Tuesday, June 19th. The degree of M.D. for practitioners of fifteen years' standing.

Cassidy, James L.

Goldsmith, George P.

The degree of M.B.

Emmerson, John E.

Fenwick, Bedford

UNIVERSITY OF DUBLIN: SCHOOL OF PHYSIC IN IRELAND.—At the Trinity Term examination for the degree of Bachelor of Medicine, held on Monday and Tuesday, June 11th and 12th, 1877, the following candidates were successful.

Malet, Henry
O'Dwyer, Malachi
Patterson, John
Walsh, William B.
Mallins, Clement
Dobbs, Arthur F.
Crofts, Freeman W.

Barton, Travers B.
Hamilton, Thomas W.
Adams, John J.
Booker, William A.
Hall, James C.
Manning, George H.
Byrne, William

At the examination for the degree of Bachelor in Surgery, held on Monday and Tuesday, June 18th and 19th, the following candidates were successful.

Malet, Henry
Thompson, James E.
McCartie, Frederick F.
O'Dwyer, Malachi
Dobbs, Arthur F.
Hamilton, William
Byrne, William
Sheppard, Henry D.

Crofts, Freeman W.
Taylor, Sidney
Booker, William A.
Wrightson, Richard B.
Adams, John
McDermott, Rudolph J.
Hall, James C.
Conolly, John N.

The names in the foregoing lists are arranged in the order of merit of the candidates' answering.

Mr. Malet was recommended to obtain the degree of B.Ch. *stipendiis condonatis*, as he had won first place at both the Medical and the Surgical degree examinations.

MEDICAL VACANCIES.

The following vacancies are announced:—

- BATH UNION—Medical Officer for the Workhouse and First District.
CARRICK-ON-SUIR UNION—Medical Officer for the Carrick-on-Suir Dispensary District. Salary, £100 per annum as Medical Officer; £15 as Sanitary Officer for the Rural District; and £15 for the Urban District. Applications to be made on or before the 9th instant.
CUMBERLAND INFIRMARY—House-Surgeon.
FREEBRIDGE LYNN UNION—Medical Officer for the Workhouse and the Second Eastern District.
ISLE OF WIGHT UNION—Medical Officer for the Workhouse. Salary, £90 per annum, and fees. Applications to be made on or before 25th instant.
LEXDEN and WINSTREE UNION—Medical Officer for the Ninth District.
LISMORE UNION—Medical Officer for the Ballyjamesduff Dispensary District. Salary, £120 per annum, together with £17 as Sanitary officer, and fees. Applications to be made on or before the 14th instant.
ROYAL BERKS HOSPITAL, Reading—House-Surgeon. Salary, £90 per annum, with board, lodging, and washing. Applications to be made on or before the 14th instant.
ROYAL FREE HOSPITAL, Gray's Inn Road—Junior Resident Medical Officer. Applications to be made on or before the 11th instant.
SEAMEN'S HOSPITAL, Greenwich—House-Surgeon. Salary, £50 per annum, with board, furnished apartments, and attendance. Applications to be made on or before the 12th instant.
SLIGO UNION—Medical Officer for the Sligo Dispensary District. Salary, £100 per annum, and fees. Applications to be made on or before the 16th instant.
WARWICK COUNTY ASYLUM—Junior Assistant Medical Officer. Salary, £100 per annum, with furnished apartments, board, and attendance.
WEST KENT GENERAL HOSPITAL, Maidstone—Physician. Applications to be made on or before the 12th instant.
WILTS COUNTY ASYLUM—Medical Officer. Salary, £120 per annum, with board, residence, and attendance. Applications to be made on or before the 12th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

- HARRIS, Vincent, M.D., appointed an additional Assistant-Physician to the West London Hospital.
OTTLEY, Walter, M.B., appointed an additional Assistant-Surgeon to the West London Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The Surge for inserting announcements of Births, Marriages, and Deaths, is 2s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

- SPARROW.—At 1, Great Francis Street, Birmingham, the wife of W. W. B. Sparrow, M.R.C.S.Eng., etc., of a son.

MARRIAGES.

- UNDERHILL—FAITHORNE.—On June 14th, at St. John's, Perche, Ontario, by the Rev. Isaac Barr, Vicar, assisted by the Rev. Thomas Ellerby, *Francis William Underhill, Surgeon, of 363, Moseley Road, Birmingham, to Ellen Julia, second daughter of Colonel Faithorne, Royal Canadians, of East Range, Sarnia, Canada.

DEATHS.

- DAWSON.—On June 30th, at Hunmanby, Marthia, wife of *Dr. C. W. Dawson, aged 28 years.—No cards.
HANKS.—On June 26th, at 146, Mile End Road, Mary Ann Dinah, the wife of *Henry Hanks, L.R.C.P.Ed.(exam.), M.R.C.S.Eng., L.S.A., after eleven years' severe suffering, borne with extreme fortitude.
PAGE.—On Sunday, July 1st, aged 24 years, Mary Morgan, the dearly beloved wife of *Herbert Markant Page, M.R.C.S.Eng., L.S.A.Lond., of Redditch, Worcestershire.
TURNBULL.—At Tweed View, Coldstream, on June 28th, Sophia, wife of *Matthew James Turnbull, M.D., aged 51 years.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

A DISTINGUISHED CASE OF CHOLERA.

SIR,—In the interest of a long suffering patient, I write to ask for suggestions any member may offer for the relief of the following case, accurately reported by the patient himself, an otherwise healthy gentleman aged 26. He has consulted Sir W. Gull, Dr. Chambers, an eminent physician in Switzerland, and others. He has taken bromide of potassium and endless other drugs. He is very careful in his diet. I think I can safely say nothing has done him any permanent good.—Believe me, faithfully yours,
WM. THOS. BRISCOE.

Chippenham, June 16th, 1877.

"In the year 1860, for the first time, I had severe sneezing and discharge from the nostrils, which lasted during the whole of June and first week in July. It came on again about the middle of June the following year, but more severely, and each successive year till 1873, when I had it so badly as almost to keep me to the house. The sneezing became very violent indeed, and a continual discharge from the nostrils, so that I required nine or ten handkerchiefs daily. The violent sneezing also made my eyes very bloodshot and exceedingly irritable. I went to the seaside for a month, but nothing seemed to do it any good. It began to get better when the weather got cooler in September. In 1874, it again came on about the 10th of June. I now tried injections of quinine into the nostrils. This did no good, so was told to try an injection of diluted iodine. This produced very violent irritation and sneezing; and after persevering for ten days, was compelled to discontinue it. Nothing seemed to give any relief till the cooler weather arrived, when it gradually got better, but left me very weak. The year 1875 was only a repetition of the former. In the year 1876, I made up my mind to go to the higher and cooler regions of the mountainous parts of Switzerland, so soon as the first symptoms should appear; so started on June 6th, but had got no further than Brussels when it came on very badly. I hurried on to the Zermatt and the Riffelberg; but even in those high places, surrounded by snow, I suffered badly, though not quite so intensely, as in the lower regions. On the whole, the change of climate seemed to somewhat abate the disease, which, however, did not leave me till the usual time—viz., the arrival of the cooler weather. This year it has returned again quite as badly as ever. I dare not go into the sunshine, or near a hay-field, as that at once brings on the most distressing and violent sneezing. Each sneeze is like a prolonged roar, or like ten sneezes at one time, and shakes me so violently that I feel bruised all over; it almost makes my eyes start from my head, and they become so bloodshot that I can hardly see. It also brings on asthma, particularly at night, so that some nights I cannot lie down. The heart's action is also affected by it, which at times produces great faintness. As a rule, the sneezing disturbs me but little during the night, but is always very severe the moment I get out of bed. I now dare not leave the house at all whilst the sun is shining, though violent fits of sneezing continually come on without any apparent cause. The whole of the mucous membranes are exceedingly inflamed, and extremely painful and irritable."

SIR,—I am anxious to obtain an appointment as surgeon on board an emigrant ship bound for any of our Australian colonies about October next. I am twenty-four, "doubly qualified", and have good hospital experience. Can you or any of your numerous readers give me information on the following points, viz., 1. Whom shall I apply to? 2. What is the pay? 3. Are instruments, etc., supplied?—Faithfully yours,
L.R.C.S.I., L & L.M., K.Q.C.P.I.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

THE TITLE OF DOCTOR.

SIR,—Your correspondent "A Disgusted M.D.," seeing that "many licentiates of the College of Physicians affix on their door-plates before (*sic*) their names the title of "Dr.," without having the degree M.D. from any Universities" (*sic*), wishes to know "if the fact (*sic*) is creditable or legal"; and further, "if the title is to be tolerated, can the Medical Council institute proceedings to suppress such titles?" (*sic*). Will this disgusted M.D. permit me, before replying to questions expressed in language so lucid and elegant, to inquire from what University his degree was obtained? The question he must not consider irrelevant; for, apart from the fact that the knowledge will undoubtedly be of advantage to such men as have hitherto failed in obtaining any qualification whatever, and whose education has been from birth generally neglected, it must be held, in common justice, that the graduate of some obscure University, requiring for its worthless degree, as one is led to suppose from experience of its alumni, as little knowledge in the science of medicine as in the rudiments of the English language, who will affix to his name (or to his door-plate, as your correspondent has it) simply the letters M.D., without any indication of their humble origin, and who will thus attempt to lead the public into the belief that he not only obtained his degree from, but was educated at, an English University of high standing, has at least no right to complain of another's disregard of any moral obligation.—I am, sir, your obedient servant,
A.L.R.C.P., WHO NEITHER CLAIMS NOR DESIRES THE TITLE OF "DR."

SIR,—Some thirty years ago I became an extra-licentiate of the Royal College of Physicians, was styled "Dr." by the then Registrar, Dr. Francis Hawkins, when introduced by him to the examiners, and acknowledged as such by them. For thirty years I have been known as Dr. So-and-So by my friends and patients, and had the prefix of "Dr." engraved on my door-plate. Must I now, in consequence of a recent regulation of the College, exchange the title "Dr." for "Mr.," proclaiming myself an impostor? or am I entitled to keep the title that was bestowed upon me by the Royal College of Physicians, for which I was examined, and for which I paid?—I am, your obedient servant,
London, June 27th, 1877.

EXTRA-LICENTIATE.

SIR,—Your correspondent "A Disgusted M.D." remarks that "many licentiates of the Royal College of Physicians openly affix on their door-plates 'Dr.' before their names", and he wishes "to know if the fact be creditable or legal". Will you permit me to reply?

1. Every L.R.C.P. is legally and truly a physician: this is now acknowledged on all hands; and, indeed, as you, sir, have recently remarked in answers to a correspondent, "his diploma confers that title upon him" (see BRIT. MED. JOUR., March 31st, 1877). It has always been the custom to address physicians with the prefix "Dr." I have before me an old copy of the regulations of the London College of Physicians, dated December 22nd, 1838, and signed by Francis Hawkins, which states that the College "is prepared to regard in the same light, and address by the same appellation, all who have obtained its diploma, whether they have graduated elsewhere or not". This was forty years ago; but less than twenty years ago the Registrar of the General Medical Council used to give the title of Doctor to licentiates in the official receipt for their registration fee; and only two years ago the last official list of Fellows, members, and licentiates of the Edinburgh College was addressed to licentiates who had not "graduated elsewhere" with the prefix "Dr." Now, it cannot surely be otherwise than "creditable and legal" in the highest degree to adopt a custom which has been formally recommended by the London College of Physicians, and occasionally observed by the Edinburgh College, and even by the Registrar of the General Medical Council—the very latest and highest authority on matters of "education and registration". It is true the London College has altered its mind, and, in the face of a recommendation by its own committee, has recently declined to give the title to those who have not "graduated elsewhere"; but a physician settled in practice cannot be expected to suddenly abandon a title which he has been previously encouraged to assume.

2. The use of the prefix "Dr." is not intended to imply, as your correspondent suggests, that he who uses it is a M.D.: the title is far too vague to imply anything so definite as that. Even in the strictest academical usage of the title this is not necessarily implied, for it includes Doctors of Laws, Divinity, Philosophy, etc., whilst in the ordinary usage of polite society it includes all who are recognised as physicians; hence it is that Bachelors of Medicine are usually addressed as Doctors, not because they are University graduates—for no one would think of addressing a Bachelor of Laws as Dr.—but because they are physicians.

The custom of addressing a physician with the prefix "Dr." is a very ancient one; and the fact that "many" do now "openly" prefix this title to their names is evidence that the good old custom is not likely to die out.—I am, sir, your obedient servant,
DOCTOR.

SIR,—In answer to your correspondents, "A Disgusted M.D." and "Graduate", on the above vexed subject, I beg to make a few remarks in reply. Is a licentiate of a College of Physicians entitled to the title of "Doctor"? In the case of the College of Physicians of Ireland, I say Yes. The above College is incorporated with the University of Dublin, and formerly granted an M.D. This, however, was proved to be beyond their chartered powers, so they afterwards gave but the licence. I believe I am not wrong in stating that there is not a single practitioner in the United Kingdom who holds this diploma that does not use the title of "Doctor". "Graduate" says in his letter that licentiates "coolly assume the title of 'Doctor' in face of the disclaimers of the Colleges and the press". I most emphatically deny that assertion (with reference to the Irish College). I have been informed by the Registrar that holders of the licence are entitled to put "Doctor" on their door-plates. I am always styled "Doctor" in all communications from the College and by medical graduates, and also by the medical press. "Graduate" also states that "no subaltern in the army dare style himself 'Captain'". In answer to that, I may say that no licentiate of a College of Physicians or Surgeons dare (or would) style himself "M.D.", which would be illegal. If "Graduate" wish to distinguish himself from licentiates of Colleges of Physicians, he can do so by writing "M.D." after his name in the same way Fellows of the College of Surgeons distinguish themselves from members and licentiates. Both are surgeons; so with M.D.s and licentiates of the Colleges of Physicians; both are "Doctors" and "Physicians"; yet M.D., with his superior qualification, can affix that additional honour to his name. It is customary for University graduates to affix their titles; in fact, it is impossible to do otherwise with the following: B.A., M.A., B.D., M.S.,

M.C., LL.B., B.Sc., B.C.L., etc. Then, again, with reference to the L.R.C.P. of London, which is recognised as a double qualification. What are the L.R.C.P.s to write on their door-plates? They cannot call themselves surgeon, and to write "Mr. —, Physician", on their door-plate would not only be a puzzle to the general public, but would be condemned by the profession as an undignified means of obtaining public notoriety. The only alternative for an L.R.C.P. London is to write "Doctor" on his door-plate, or have a plate with his name on, and the word "surgery" on the window-blind, after the unqualified practitioner's style, and he would immediately be put down as belonging to that class of illegal practitioners. Perhaps such a degradation would satisfy "Graduate", who is, no doubt, practising in a neighbourhood where his M.D. is not sufficiently appreciated.—I am, sir, yours, etc., July 1877. L.K.Q.C.P. AND MEMBER.

SIR,—The worth of an M.D., and the propriety of conduct of those who adopt the title of Doctor without qualification and of those Universities which grant the degree to all comers, can best be judged by inquiring what it is that has been always understood of the title of M.D. Those who find it convenient to do so may quibble as to the ages and examinations necessary to make a Doctor of Medicine, but I submit that such considerations are beside the question. To both the profession and the public the letters M.D. have always, until recently, conveyed the idea that the holder of them was an University man—i.e., a man who had undergone academic training, and, therefore, might be assumed to possess special culture of mind. This has always been, and is still, the commonly accepted definition of an M.D.; he is supposed to be, in fact, a medical practitioner *plus* a graduate in arts. Therefore, to my mind, any man who calls himself a Doctor of Medicine without Arts qualification and any University which grants M.D.s without Arts training, ought to be discouraged.

Your correspondent of last week (A Graduate) challenges a former writer on the subject (Gamma) to produce an University in "which young men of twenty-one or twenty-two years of age are branded with the M.D. degree", and in which the M.D. curriculum is less than six years. I refer him to the Queen's University in Ireland, which makes no restriction as to the youth of candidates, grants its Doctorate nominally on four years of study, but really in two years and three-fourths, and requires no academic study or residence saving three months in a provincial town. If the M.D.Q.U.I., and the M.D.Durham be recognised as full Doctorates, I fail to see what professional advantage has accrued, from his four years of College residence, to your faithfuls, AN M.D. AND MASTER IN ARTS.

TREATMENT OF WOULD-BE SUICIDES FROM STARVATION.

SIR,—The case recorded in the BRITISH MEDICAL JOURNAL of June 15th, by Mr. Lingen was evidently one of suicidal mania, and very similar to one with which I met some years since, and which in one point possesses some interest as compared with Mr. Lingen's case. An old woman had for some time exhibited signs of mental derangement, and at last resolutely refused food. As she would not yield to my wishes, I told her that I should come the next day with the stomach-pump, and if she had then taken no food, I would certainly inject into her stomach a supply sufficient for the day. Accordingly, I went prepared; and as she had carried out her resolve, I determined to carry out mine; so, assisted by powerful persons, I got her mouth open, introduced the gag and passed the tube into the stomach, and injected a considerable quantity of gruel made with milk, three eggs, and two ounces of brandy, and left her, promising to return and repeat the dose if necessary. But, fortunately for both her and myself, she had altered her mind and partaken of food, which she continued to do (although she obstinately refused to hold any communication with me) until prevented by increasing disease, which issued in death in the course of two or three months.

It appears to me that this treatment should always be adopted in every case of a person trying to starve himself, and doubtless it would rarely require to be repeated.—Yours truly, JOHN EWENS.

MATERNAL IMPRESSIONS ON FŒTUS IN UTERO.

SIR,—In the JOURNAL for June 16th, you say that the above subject necessitates an accumulation of facts, in order to arrive at a truthful conclusion. In the *Glasgow Medical Journal* for July 1863, I wrote in support of my belief that some maternal impressions do take effect on the fœtus in utero, and I gave then some authentic instances. Since that time, I have seen a case of harelip ascribed by the mother to her having noticed a mason's upper lip accidentally split by a stone; but my attention was more particularly drawn to the subject three months ago, when, being called to see a child three years old, supposed to be ill with fever, I turned down the bedclothes to examine the skin, and observed a peculiar mark on the side of the child's left hip. The mark, which was slightly raised above the surrounding skin, was fully two inches long, and one inch and a half broad at the centre, tapering towards both extremities, and resembled in appearance and colour a snail—viz., dark on the back, and becoming lighter in colour towards the edges of the mark. On inquiry of the mother, she explained that when she was three months pregnant with this child she had, after carrying her husband's dinner to the field, sat down on the grass. On her rising to go away, the husband called her attention to a crushed snail sticking to her dress. "A quiver went through me", she said to me, "but after a week I thought nothing about it till the birth took place". The mark on the child is a fac-simile of the crushed snail, even to its "horns". The mother has three other children without any peculiarity. I offer no explanation of the localisation or fixation of black pigment which goes to make up this "snail", but simply record the fact. When the child once had measles, the mark shared in the desquamation of the scarf-skin.—Yours truly, W. WHITELAW.

PROFESSIONAL FEES.

SIR,—I shall feel obliged if you or any of my fellow Associates will inform me, through the JOURNAL, what is considered a fair sum to charge for the following services in a house where I am not the family medical attendant. Vaccination of baby, including two visits; and two visits (with medicine) a few days afterwards for a chest-ailment, not connected with vaccination. The patients are well-to-do merchants, occupying a house of about £100 rental in a provincial town. The vaccination was successful, but I was not allowed to take lymph away.

A second question I wish to ask is, is it usual to charge any addition to the ordinary fee when a patient's confinement does not occur for two, three, or four weeks after the time she names to her doctor? Such an occurrence always causes loss of time and disarrangement of routine, besides the probability of its causing the doctor to miss his chance of a few days' holiday.

I enclose my card for your private satisfaction, and am, sir, yours truly, June 1877. AN ASSOCIATE.

SIR,—Will you kindly say, in your answers to correspondents, if a medical man be justified in demanding a double fee in cases of twins?—Yours obediently, T. J. * * * Such a claim would not be in accordance with professional usage.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, twelve o'clock.

DIAGNOSIS OF THE GENERAL PARALYSIS OF THE INSANE.

SIR,—I see in the number of the BRITISH MEDICAL JOURNAL for July 16th the account of an interesting discussion that took place at the Edinburgh Medico-Chirurgical Society on an able paper read by Dr. Batty Tuke on the above heading, and I think both the author of the paper and those who took part in the discussion will be interested in reading the following apposite remarks, which I quote from such an authority as Dr. G. H. Savage, of the Bethlem Hospital, who, in a paper on "Considerations on the Cures in Insanity", published in the *Guy's Hospital Reports* of 1866, vol. xvi, p. 1, 2, 3, says:

"In general paralysis I have never seen a cure. I have seen a good many cases discharged as cured—so well, that one could detect no mental symptoms that required their detention in an asylum; but some tremulousness of the tongue or facial muscles, irregularity of pupils, loss of memory, or a mental buoyancy beyond the healthy standard, showed that the disease was only *masked*, not *cured*. The only difficulty that arises is from cases of drunkenness. The symptoms from drink and from general paralysis are alike; and now and again we give a bad prognosis, and then discover the true history of the case. It must be remembered, however, that drink also produces cases of general paralysis; and I have seen a man discharged well from a disease that was thought to be due to drink, readmitted suffering from true general paralysis."

And again, as to the second question raised incidentally by Mr. Bell, on page 106 Dr. Savage says:

"Among the most important physical complications we have to deal with is syphilis. In many cases, the prognosis is rather that of the syphilis than that of mental symptoms. For myself, I know no pathological changes of which I can say, 'These are changes in the nerve-tissues due to this disease, and found in none other.'"

These remarks bear so much on the questions discussed, and contain in them so much wise caution, that I trust you will find them a place in your paper.—I am, sir, yours obediently, CHAS. K. BROWN, M.D.

Beckenham House, Hastings, June 1877.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The York Herald; The Bridlington Quay Gazette; The Scarborough Daily Post; The Blyth Weekly News; The Glasgow Herald; The Malvern News; The Liverpool Porcupine; The Sheffield and Rotherham Independent; The Liverpool Mercury; The Carlisle Journal; The Merthyr Express; The Sussex Daily Post; The Sheffield Daily Telegraph; The Nottingham Journal; The Manchester Free Lance; The Belfast News Letter; The Manchester Courier; The Macclesfield Courier; The North Wales Chronicle; The Sunderland Daily Post; The Western Daily Mercury; The Sunderland Daily Times; The Sunderland Daily Echo; The Liverpool Daily Courier; The Farmer; The Living Age; The Metropolitan; The Glasgow Herald; The Redditch Indicator; The Eastbourne Standard; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Sieveking, London; Dr. G. H. B. Macleod, Glasgow; Dr. Madden, Dublin; Dr. George Johnson, London; Dr. J. W. Norris Mackay, Elgin; Dr. P. Maury Deas, Macclesfield; Mr. Walker, Clapham; Mr. Bartlett, Birmingham; Dr. J. W. Moore, Dublin; M.D.; Dr. W. Fairlie Clarke, Southborough; Dr. J. Milner Fothergill, London; Dr. Joseph Bell, Edinburgh; Mr. Howard Marsh, London; Dr. Bradbury, Cambridge; Mr. Wanklyn, London; Mr. H. Burdett, Greenwich; The Secretary of Apothecaries' Hall; Dr. Bucknill, London; Mr. N. A. Humphreys, London; Dr. Joseph Rogers, London; The Registrar-General of England; Mr. Sampson Gamage, Birmingham; Dr. Brown, Rochester; The Registrar-General of Ireland; Dr. W. Rutherford, Edinburgh; Dr. Braidwood, Birkenhead; Mr. Richard Davy, London; Dr. Tripe, Hackney; Our Paris Correspondent; Dr. C. Theodore Williams, London; Mr. Francis Mason, London; Dr. Warner, London; The Secretary of the Obstetrical Society; M.D. Ed.; Mr. G. Eastes, London; Dr. J. Hughlings Jackson, London; Mr. T. Holmes, London; Dr. Barwell, London; Dr. Bathurst Woodman, London; Dr. T. L. Brunton, London; Dr. Joseph Coats, Glasgow; Dr. Edis, London; W. W. E.; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. Barlow, London; Dr. G. H. Percival, Driffield; Mr. Lithgow, Wisbeach; Mr. C. Lowther Kemp, London; Dr. W. Sedgwick Saunders, London; X.; Dr. Shann, York; Mr. Henry Carr, Clapham; Dr. J. B. Pitt, Norwich; Mr. W. D. Hemming, London; M.R.C.S.; Mr. W. M. Banks, Liverpool; Dr. C. L. Drew, London; Dr. John Urquhart, Aberdeen; Dr. Alfred Sheen, Cardiff; Dr. A. S. Taylor, London; Messrs. Gellatly and Co., Wharton; Dr. Dudfield, London; An M.D. and Master in Arts, Dublin; Dr. William Bird, Edinburgh; Mr. W. P. Branson, London; Dr. Lombe Athill, Dublin; Our Edinburgh Correspondent; Dr. J. Dunbar Dickson, Aylesbury; Dr. Alexander Ogston, Aberdeen; Dr. Andrew Davies, Swansea; Dr. Leech, Manchester; Dr. R. J. Lee, London; Dr. Lory Marsh, London; Mr. Cotton, Kensington; Mr. T. L. Rogers, Rainhill; L.K.Q.C. and Member; Mr. B. Maskell, London; A Physician; Our Dublin Correspondent; The Secretary of the West London Hospital; Dr. J. Cameron, Liverpool; Dr. Sawyer, Birmingham; Dr. Parsons, Dover; Dr. Pavy, London; Mr. Husband, York; Mr. W. Smyth, Heavitree; Dr. F. A. Mahomed, London; Mr. Dillon Kelly, Mullingar; Dr. W. S. Greenfield, London; Mr. R. Draper, Thorne; Mr. N. A. Humphreys, London; Dr. Munro, London; Dr. Mackey, Birmingham; Mr. G. Okell, Winford; Dr. Macpherson, London; Mr. E. H. Robinson, London; Dr. Simps Manchester; Mr. Douglas Hemming London; Mr. D. Biddle, Kingston-on-Thames; etc.

LECTURES

ON THE

DIAGNOSIS AND TREATMENT OF HIP-DISEASE
IN CHILDREN.*Delivered at the Hospital for Sick Children.*

By HOWARD MARSH, F.R.C.S.,

Assistant-Surgeon to St. Bartholomew's Hospital, and to the Hospital for Sick Children, Great Ormond Street.

LECTURE I.

GENTLEMEN,—Formerly, hip-disease was so imperfectly understood, that it commonly drifted on into the appearance of an intractable disorder, for which there was very little to be done. But in the last twenty or twenty-five years it has been carefully studied both in this country and in America.* It can now be detected while it is still incipient, and means have been introduced by which its early forms may be cured, and even the more grave results of its later stages averted, so that the patients may recover with a serviceable limb. Thus the subject is one of considerable interest and importance, and one on which I hope it may be useful to give two or three lectures, if I make them practical by means of illustrative cases, apparatus, and diagrams. Some allusion must be made to the pathology of the affection, and what it is necessary to say on this point may be best introduced at once. Hip-disease is placed, both by its clinical history and its morbid anatomy, in the same class as a number of chronic inflammations of the bones and joints, which, until a comparatively recent date, were indiscriminately massed together as scrofulous or strumous. This is not the occasion for a long discussion of the nature and affinities of scrofula, yet the question cannot be wholly put aside. For the present purpose, scrofula may be described as a defective condition of the general health, predisposing to chronic and obstinate inflammations of the lymph-glands, bones, joints, mucous membranes, and skin. All are agreed that there are near affinities between scrofula and tuberculosis; that frequently the offspring of tuberculous persons are scrofulous; and that scrofulous parents have tuberculous children; and, again, that, while some children in a family are scrofulous, others die of tuberculous phthisis or meningitis; but, as to the pathological relationship of the two diseases, or the tissue-changes that are produced in scrofula, observers are not yet agreed. Some assert that, from the stand-point of morbid anatomy, a scrofulous gland is a tuberculous gland, and that scrofulous abscesses are lined with milium tubercles; while others maintain that in the diseases usually termed scrofulous there is no specific material whatever; nothing besides the products of ordinary chronic inflammation. Thus it is not yet possible to speak of scrofula with common consent in terms more exact than those which I have used above. Certainly, we have no generally accepted test by which to establish or exclude its presence in any given case.

In the search after some touchstone for scrofula, it used to be customary to fall back on the doctrine of temperaments, such as the leucophlegmatic, the melancholic, the sanguine, the serous, or the bilious, which were supposed to be declared by certain types of external appearance; and, if a child could be placed under any of these types, sentence was passed upon him. Thus, if he had light or red hair, blue or grey eyes, and a transparent skin, through which his superficial veins could be seen, and if he were lively and bright, he was called scrofulous in the sanguineous type. If he were short, thick-skinned, and dusky, he was held to be scrofulous in the phlegmatic or bilious type. Lately, however, these views about serous and bilious or melancholic children have been discarded, as being not only vague but misleading; indeed, the very terms themselves have happily died out, and now the only ground on which, by common consent, a disease—for example, of the hip or knee—can be called scrofulous is that of family history. If there be similar diseases in the patient's blood-relations, or if the latter be tuberculous, I think all surgeons would consider any chronic inflammatory joint-disease as probably scrofulous. But a large number of cases are met with in which family history is silent. Respecting such cases, a

* Much in these lectures has been learned from Mr. Holmes (*Surgical Diseases of Childhood*), Mr. Barwell (*Disease of Joints*), Dr. Lewis Sayre (*Orthopedic Surgery*; Churchill, London), Dr. Fayette Taylor (*Mechanical Treatment of Disease of the Hip-Joint*; New York), and Mr. Thomas (*Diseases of the Hip, Knee, and Ankle*; Dobb and Co., Gill Street, Liverpool).

wide difference of opinion still prevails. Some teach that, speaking generally, all chronic inflammations of bones and joints, or of the spine, especially if they result from slight injuries or have seemed to be spontaneous, are scrofulous; while others, upon the grounds that, in their morbid anatomy, these diseases are simple chronic inflammations with no specific products; that they occur in children who have no other traces of defective health; and that they can be cured by appropriate local treatment, without any of a constitutional kind—believe them to be merely aggravated local injuries in children who are free from constitutional taint; and they add that the feeble general health so often indicated by pallor, wasting, loss of appetite, etc., is the result, and not the cause, of the local disease. No doubt the truth lies between these two extremes of opinion; that the diseases I have mentioned are frequently scrofulous may be easily believed; they occur in tuberculous families or in families in which similar chronic diseases prevail; and, though they are treated with perfect rest from the very outset, they linger for months and are very prone to relapse. On the other hand, there can be little question that a number of cases are simply aggravated local injuries. They are found in healthy families; their progress towards cure, when proper means are used, is steady and fairly rapid, and there is no subsequent relapse.

But, although the pathology of many of these cases is thus obscure, the doubt is practically of very slight importance; for, in respect to treatment, whether they are scrofulous or whether they are not, one law must be rigidly observed—that is the law of absolute rest. Formerly, it was supposed that a scrofulous disease was amenable only to constitutional remedies, and that local means were both unnecessary and inoperative. The dogma was that a constitutional disease could be cured only by constitutional remedies. But opinion on this point has now become changed. Nothing seems more certain in surgery than that a scrofulous joint must be kept at complete rest. The more plainly scrofulous the disease, and therefore the more inveterate, the more urgent is the necessity for rest. Constitutional means, change of air, cod-liver oil, chemical food, etc., are often called for, and they will almost invariably do good; yet they need not be used as a mere matter of routine. Many children maintain apparently good general health all through the period of local disease; they eat, sleep, digest, and look quite well. Hence the safe plan will be to judge each case on its own merits: by its family history and by the appearance of the child; and to prescribe or withhold constitutional treatment, according to the result.

DIAGNOSIS.

In examining a child suspected to have hip-disease, be careful to place him on something firm and flat: a table covered with a blanket, a leather couch, or the floor. If you use a soft bed, he will sink into it, and you will perhaps overlook even a considerable deformity. Do not be content with anything short of a thorough examination. Do not pretend to say whether a child whom you have examined with his trousers on has or has not hip-disease. Let him be undressed, so that you can move his limbs without being hindered by his clothes. Girls past early childhood may be fully examined if you use a shawl or a loose sheet to cover them.

1. You must look for abnormal posture of the limb or of the pelvis.
2. For stiffness at the joint.
3. Observe whether the glutei or the muscles of the thigh are wasted, and whether any, especially the adductors, are rigid.
4. Or whether there is any swelling about the joint or in the thigh or the iliac fossa.
5. Notice the relation of the trochanter to the side of the pelvis as compared with that of the opposite side.
6. Look to the length of the limb as compared with that of its fellow.
7. See how the patient walks, if he be able to do so.
8. If he have pain, learn its situation and its character.

Abnormal Posture.—If there be any affection of the joint, however recent or slight this may be, there is usually, though not invariably, some fault in the child's posture; there is flexion of the thigh, forward arching of the lumbar spine (lordosis, as it is called), abduction, adduction, rotation of the limb, or slanting of the pelvis. In the later stages of disease, faulty posture, as you know, often depends on structural changes at the joint, on absorption of bone with displacement of the trochanter; but, in the earlier period, it is due to abnormal contraction of some of the surrounding muscles. Mr. Hilton, in his lectures on Rest and Pain, has explained how the rigidity of the muscles that surround an inflamed joint is produced. He has pointed out that the same nerves that supply the capsule and synovial membrane of the joint with sensory twigs send motor filaments to the adjacent muscles, and that, when the interior of the joint is inflamed, the

resulting irritation of the nerve-filaments distributed within it is conveyed to the spinal cord, and is thence reflected along the motor branches that supply the muscles, which are thus thrown into a condition of abnormal contraction.

Any set of muscles around the hip-joint may fall, either alone or in combination with other groups, under the sway of this reflex irritation, and be thrown into a condition of contraction, with the effect of holding the limb in some fixed posture. Flexion and abduction, often combined with slight external rotation, generally predominate in the early stages of this disease; but in rare cases you may find the limb extended or adducted. Thus, about two years ago, Mr. Callender showed me at St. Bartholomew's Hospital a boy aged 9 with recent hip-disease, in whom the limb was not only fully extended, but carried beyond this, so that its long axis, compared with that of the trunk, was downwards and distinctly, though slightly, backwards. This is the only instance in which I have seen a limb carried backwards past full extension. I cannot say that the position was due simply to muscular action; how it had been produced was not clear. I have seen another case in which extreme adduction of the limb followed fright. A young lady ten years old, while in the early stage of hip-disease—it had been in progress about three months, and had been attended with no severe symptoms—was terrified by her father, who, after joining the Volunteers, came into her room in the dusk of the evening in his uniform and playfully ran at her with his cocked hat. She screamed violently and buried her head under the bed-clothes, but was soon pacified, and, after about half an hour, fell quietly asleep. Next morning, the limb looked two inches and a half shorter than the opposite, and the pelvis was extremely twisted. (I shall presently show that this twisting of the pelvis, with apparent shortening, really depends on adduction of the limb.) The surgeon who was called in told her father that it would probably soon return to the nearly natural position in which it was before the fright. This, however, did not occur, and, when I saw her, two years afterwards, the deformity still remained.

Flexion.—Although this posture is in many cases so well marked that it is obvious at a glance, in others it is so slight that it is very apt to be overlooked. But you must take care that it does not escape your notice; for, as all who are familiar with hip-disease will tell you, slight flexion is not only a valuable symptom of early mischief, but it is often the only symptom besides slight stiffness of the joint that can be detected. And let me give you a further caution. When you have detected flexion, you are very likely to come to a false conclusion as to its degree. That the limb can be brought down into a horizontal posture, so that it is perfectly parallel with its fellow, is no proof at all that it is not flexed upon the pelvis. It may be thus brought down, and yet be flexed at an angle of 120 deg. with the trunk. The explanation of this circumstance—this seeming paradox—is very simple. In hip-disease, the joint is stiff, so that the femur and the pelvis are locked together and move as one piece. If you move one you move the other. When, therefore, you bring the femur down, it carries the pelvis with it by turning it on its transverse axis. The pelvis is easily thus rotated, because it is connected with the trunk through the medium of the flexible lumbar spine, which readily arches forwards.

And here a point is raised which must be considered, not only in relation to flexion, but also to other abnormal postures that result from hip-disease. When the joint is stiff, its lost movements are transferred to the lumbar spine, so that compensation is secured for deformities which otherwise would entirely disable the patient. Let me illustrate this by reminding you of what occurs under parallel circumstances at another part of the body. You know that the arm remains useful for many purposes after the humerus and scapula have become fixed to each other by ankylosis at the shoulder-joint; for movements lost here can be transferred to another "joint" in the neighbourhood—to that, namely, between the scapula and the trunk. A patient with a stiff hip has the same alternative. Movements lost at the hip can be performed at the lumbar spine. Compare for a moment the anatomy of the upper and lower extremities. Both these members consist of jointed levers arranged to act in a variety of combinations. These levers are connected with the trunk, not directly, but indirectly, by means of, in the one case, the scapula, in the other the pelvis, each of which constitutes a movable fulcrum. This arrangement necessitates a second joint contiguous to the first. Now, this mechanism of the skeleton—this double-jointing of the extremities to the spine—is an arrangement that adds largely to their functional endowments. Among other things, it provides that, if the joint by which most of the movements are usually performed be disabled, the patient can fall back on the vicarious action of the second. Imagine a patient who, along with a stiff shoulder-joint, should also have his scapula fixed upon his

trunk; or, what is equivalent, suppose that the arm were connected with the trunk by a single joint, and that this joint became stiff; his upper extremity thus fixed, like the branch of a tree, would be almost entirely useless. In the same way, were his spine stiff, if his lower limb became fixed in flexion on the pelvis, he could not bring his foot to the ground. He could only carry it in the air. But observe the resource he has in his movable lumbar spine. Since his pelvis and femur are locked together, any movement of his pelvis will be at once imparted to his femur. When, therefore, the direction of his femur has become oblique by its flexion on the pelvis, so that his foot is drawn off the ground, he is able, by curving his lumbar spine, to rotate his pelvis on its transverse horizontal axis, and so to make the femur vertical and bring his foot to the ground again. This curvature of the spine is merely assumed, merely vicarious. Even when it has existed for years, it can be immediately and completely removed, either as the patient stands or as he lies, if you will, by raising his femur, turn the pelvis back to its normal posture.

But to return to the examination of the patient: it will be obvious to you from what has just been said that, before you can tell whether the limb is flexed, you must see that the lumbar spine is straight, otherwise you may mistake curvature of the spine for extension of the thigh. The best method of proceeding is first to flex both limbs upon the trunk to an angle, say, of 120 deg., or till you find that the spine is flat; then, keeping the suspected limb still flexed, to bring down the sound limb into full extension; and, thirdly, having placed the fingers of the left hand between the spine and the couch, with the right hand to bring the suspected limb very gradually down. If, without disturbing the outline of the spine, you can bring it into the horizontal posture, so that its whole length is in contact with the couch, you may be sure there is no flexion; the long axis of the limb corresponds with that of the trunk. But if, as you bring down the limb, you find that the spine is assuming an anterior curvature, you will have come to a point at which the hip-joint is locked against further extension. If you go further, you will be mistaking a compensatory curve of the spine for movement at the hip. Having thus determined the question of flexion, see whether the pelvis is "square"; that is, whether, as the patient lies on his back, a line drawn through the two anterior superior iliac spines is horizontal, *i.e.*, at right angles to the long axis of the trunk (see A B in fig. 1), or whether the pelvis is oblique, or, to borrow an expressive term from mechanics, "cantered", so that the iliac spine of the affected side is either lower, so that the limb appears longer; or higher, so that it appears shorter than its fellow.

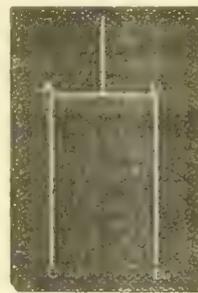


Fig. 1.

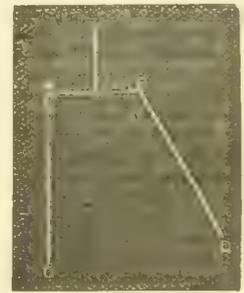


Fig. 2.

I have just explained the manner in which a patient whose limb is locked in a position of flexion can, by curving his spine, bring his foot to the ground. But suppose that his limb, instead of being flexed, is, by abnormal muscular action, either abducted or adducted. Both these are postures, equally with flexion, in which the foot, travelling at the circumference of an arc, recedes farther and farther from the ground, so that the patient can neither stand nor walk on his limb. What is his resource? It is to do now as he did when he had to meet the difficulty of flexion. Take, first, the case in which the thigh is fixed in a position of abduction, as represented in fig. 2 by the line B D (A C indicating the sound limb, and A B the line connecting the two anterior superior iliac spines). Having lost the power of moving the limb at the hip-joint, so as to bring it again towards the middle line, he transfers this lost movement to the lumbar spine. In other words, being unable to adduct the femur on the pelvis, he, so to speak, adducts the femur and pelvis together on the spine. To do this, he raises the pelvis on the *sound* side by means of muscles passing to it from the ribs and spine, with the result of bringing the affected side down and the femur back towards the middle line; so that the lines referred to in fig. 2 will now occupy the direction shown in fig. 3. To correct adduction, he raises the pelvis on the *affected* side, and so makes the

limb parallel with its fellow, and thus the lines A B and B D in Fig. 4 will have the position drawn in fig. 5. The movements, therefore, to counteract the results of abduction and adduction are very similar to



Fig. 3.



Fig. 4.

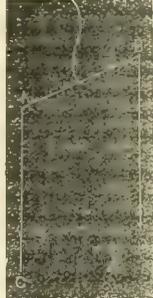


Fig. 5.

that for correcting flexion, except that the spine, instead of being curved forward, is curved laterally—towards the affected side to correct abduction, towards the sound side to correct adduction. You may easily prove that this is the case by examining patients with a twisted pelvis. You will invariably find they have also lateral curvature of the spine.

There are, then, two distinct forms of distortion resulting from hip-disease: first, those that are original; the direct result of abnormal muscular action produced by the disease—flexion, abduction, adduction, or some combination of them; these have their centre at the hip-joint; next, those that are secondary or compensatory, consisting of rotations of the pelvis by curvature of the lumbar spine, either antero-posterior or lateral. These latter belong to the almost numberless instances that might be given in which functions suspended or lost at one part or in one organ of the body are vicariously performed by some other part. In examining your patient, then, if you find the pelvis lower on the affected side, you must abduct the limb till the pelvis is square. If it be higher, you must adduct the limb. By so doing, you remove the secondary and develop the primary distortion, be it abduction or adduction, and are thus able to ascertain what is the real position into which the limb has been brought by the disease.

Stiffness of the Joint.—Next, see whether movement at the joint is impaired, whether the joint is in any degree stiff. And your examination must be of the most searching, though of the most gentle, kind; for what has been already said about flexion must be repeated now. Stiffness of the joint is one of the most valuable signs of hip-disease, one of the earliest; sometimes it is the only one that can be detected. It is valuable also in an altogether different and contrary sense; for, in many cases, as I must point out presently, diseases around the joint simulate hip-disease, and the absence of stiffness in the joint itself is the only sign by which a correct diagnosis can be made.

As the patient lies on his back, place the thumb of one hand on the anterior superior iliac spine and with the other hand slowly and gently flex and extend the limb, and observe whether the femur moves freely in the acetabulum while the pelvis remains at complete rest, or whether the pelvis and the femur move together, the femur carrying the pelvis with it. Remember that this test has not been so applied as to negative the presence of hip-disease till you have carried the limb first to its extreme degree of natural flexion, and then into the opposite position of complete extension. Not rarely, although the joint is diseased, movement of the femur will appear, to all but the most careful examination, free in all its middle range between flexion and extension. It is only at the two extremes, or even at one of them alone, that limitation of movement can be detected. And let me observe that you may sometimes have your suspicions aroused by finding that, as you flex the limb, it does not move straight up to the ribs, but that it gradually assumes a position in which abduction is combined with flexion, so that, when you have flexed it as far as the joint will permit, the limb has also become considerably abducted. This peculiarity of posture is rendered the more obvious if you compare it with the opposite limb. The latter you will find may be fully flexed and at the same time adducted, so that the knee crosses the umbilicus.

There is, however, another point of view from which limitations of movement must be studied. It must be remembered that affections in the neighbourhood of the hip-joint may produce rigidity of the limb, closely resembling the rigidity caused by disease of the joint itself. Thus, in cases of disease of the spine in which abscess has tracked its way down under the glutei, or in cases of disease—peritonitis, etc.—of the back of the pelvis, the limb cannot be completely

flexed; while, in other cases—disease of the spine with psoas or iliac abscess, or abscess within the pelvis—the limb is maintained in a flexed posture and cannot be extended. The diagnosis, however, is easily made, although, if the truth be told, errors are very commonly committed.

In many of these cases that simulate hip-disease, the mischief being confined either to the back or to the front of the joint, only one set of muscles (either the extensors or the flexors) are rigid; and, therefore, although movement in one direction is limited, in the opposite it is free. For instance, in cases of psoas or iliac abscess, although extension is interfered with, flexion is free, and the limb can be carried completely up to the trunk; while, in abscess under the glutei, though flexion is prevented, extension is unimpaired. Secondly, if you carry the limb into that position in which its movement is still free—in psoas-abscess flexion, in abscess behind the joint extending it—so that the affected parts are relaxed, and then, having flexed the leg on the thigh, you grasp the knee and rotate the femur in the acetabulum, you will find the movement of rotation perfectly free. This is a delicate test and must be carefully applied. If the child be alarmed, or if there be any suddenness or roughness in your manipulation, all the muscles will be roused into contraction and will hold the limb as rigid as if the joint were really stiff. But, if you will begin by rotating the limb gently, lightly turning it through an arc of less than a quarter of a circle, you may gradually go on to test it in its full natural range. Then, if the disease be outside the joint, this rotation-movement will be perfectly facile and smooth. It may happen, however, that, although the disease is entirely outside the joint, both flexion and extension are limited. Thus, a few weeks ago, a child was sent here from the country in whom an abscess had opened and was now discharging just over the great trochanter. He was said to have hip-disease. On moving the thigh either towards full flexion or full extension, the pelvis was carried with it, and so far the diagnosis of hip-disease seemed correct. But, when, as he lay on his back, the femur was placed midway between flexion and extension, so that both sets of muscles were, as far as they could be, relaxed, rotation of the femur in the acetabulum was found to be perfectly free. It was now clear that the joint was sound, and further examination showed that he had disease of the lumbar spine, and that the abscess at his trochanter, which, by the irritation it produced, had rendered the parts about the joint rigid, had burrowed down from this source.

I have seen many cases similar to this—cases in which it was unsafe to judge of the amount of movement at the joint by the degree to which you could flex and extend the thigh. To avoid error, you must also ascertain whether the femur is restricted in its rotation in the acetabulum; and remember that rotation is a better test of the state of the joint than flexion or extension. In other words, the hip is both an enarthrodial and a ginglymoid joint. The ginglymoid or hinge-movements are frequently interfered with by conditions external to the articulation, the enarthrodial, or ball-and-socket movements, much more rarely. A safe rule, therefore, is always to test both forms of movement. If you find the enarthrodial perfectly free, you may be sure the joint is healthy and that flexion and extension are limited by conditions not in, but around the joint.

Another method by which you should test the freedom of movement at the joint is by seeing whether, while the limb is semiflexed, complete abduction is free and can be performed without pain. In acute disease, even slight abduction frequently causes severe pain.

SELBY.—Dr. Parsons says that much has been done in the town of Selby for the public health during the last twenty years, so that the average annual death rate during successive periods has been reduced from 29.3, 25.0, to 22.6, per 1,000 inhabitants. During the last three years, it has been 22.7; but this increase has been caused by the excessive mortality in the last quarter of 1876, owing to as many as 99 deaths from scarlet fever. The drainage of the town had got out of order; but Dr. Parsons does not attribute much influence to this, as he believes the chief cause to have been the large number of children then alive who were susceptible to the disease, in consequence of the comparative rarity of cases during some years past. The population is estimated at 6,193. The number of births registered in 1876 was 216, and of deaths 153, which are equal to a birth-rate of 34.9 and a death-rate of 24.7 per 1,000 inhabitants. There were 37 deaths of children under one year, which afford a mortality of 17.1 per 100 births, which is very high; but this is accounted for by the fact that 16 out of the 37 were hand-fed, and 5 died soon after birth. This very large proportion of deaths amongst hand-fed children seems to indicate great neglect as well as want of proper food. The arrangements for the water-supply are not good, as the supply for the closets is drawn direct from the mains.

TWO CASES OF THORACIC ANEURISM IN WHICH GALVANO-PUNCTURE WAS USED.

By HENRY SIMPSON, M.D.Lond.,
Physician to the Manchester Royal Infirmary, etc.

CASE I.—In the spring of 1875, John Riley, aged 24 years, was admitted to the Manchester Infirmary under my care. He had worked as a collier for eleven years, had lived well, was muscular and active; his complexion was pale and his stature short. So far as could be ascertained, he had not had syphilis. He had fought sundry up-and-down fights, but there was no history of marked injury resulting. His family history was fair, and his own health good till March 1875, when his shoulder-blades began to ache, and he had a cough with some tickling in the throat. On admission, the chief signs were somewhat tumultuous action of the heart, with a systolic murmur. The notes taken at this period are unfortunately lost, but according to my recollection there was no marked increase in the cardiac dulness, nor was there any impulse apart from that of the heart itself. After a time, however, a prominence appeared in the second left interspace close to the sternum, where pulsation was evident both to touch and sight. He was kept quiet in bed and treated with large doses of iodide of potassium, but with no apparent good resulting. He was then put on Tufnell's diet. This was carried out on the whole well, but it is often difficult to get hospital patients to cooperate with you in treatment, and at times, in spite of watchfulness, he transgressed; e.g., on one occasion he was discovered indulging in black-puddings. Perfect quiet also in the horizontal position was of course enjoined, and fairly enforced. The prominence gradually enlarged, and distinct fluctuation was very evident for a long time; but towards the end of October 1875 it became much firmer, and there was scarcely any trace of fluctuation. His general condition was better, and he was comfortable, except that from time to time he was distressed with cough; indeed, he suffered more or less from bronchitis during the greater part of his illness. After the solidification of the superficial portion of the aneurism, a change gradually took place in its position. It sank lower down the sternum, leaving its original site resonant on percussion, and, passing somewhat under the sternum, eroded that bone and formed a pulsatile tumour nearer the middle line, and overriding a considerable portion of the heart. There was no dulness on percussion over the back. Both cardiac sounds were heard; the first being accompanied by a murmur.

In January 1876 it is noted that, "in front a prominent pulsatile eminence occupies the lower portion of the chest, extending from the level of the nipples to the ensiform cartilage. It rises gradually above the general surface, but at a point one inch to the left of the middle line and one inch below the level of the nipple is a small conical elevation, where a distinct sense of fluctuation is felt over a space of the size of a shilling. Around this there is a rigid edge, well marked, except at the outer side, whence fluctuation extends in a horizontal line for about two and a half inches. Heaving pulsation is felt over the whole of this prominence. Over the tumour the systole is felt without thrill. The diastole commences with thrill and is accompanied with a sense of shock to the hand. In the early stages of the case, the most prominent point was in the second left interspace, where the pulsatile impulse was also most marked. Now over this spot a resonant pulmonary note and respiratory murmur are distinctly heard. Very marked pulsation is now felt at the epigastrium, where a murmur synchronous with the diastole of the tumour can be traced upwards to the level of the third rib." About this time, the pulse was from ninety to one hundred: he had more or less cough, with expectoration often tinged with blood. His sufferings were not great, but he had pain in the chest and between the shoulder-blades.

On January 17th, he complained of pain and soreness over the prominent point of the tumour.

On January 22nd, it was noticed that the skin at this point was changing colour, and moistened tannin was applied.

On February 3rd, the swelling had increased considerably in size: it was broadly conical or almost globular in form, fluctuating distinctly at the summit, but firm on the sides. The physical signs were much as previously described, but the discoloration of the skin had gone, and the man said he felt very comfortable. The pupils acted well, but were rather widely dilated; the left more so than the right: the expectoration was abundant.

On February 5th, two needles connected with the positive pole of a Foveaux's battery were introduced into the tumour, and a weak current, first from five and then from eight cells, was passed through it for about a quarter of an hour. A sponge, connected with the negative pole, was

applied to the chest. This proceeding gave him no pain except from the passing of the needles through the skin, but it was not followed by any marked change in the condition of the aneurism.

On February 8th, three needles were introduced, and a current from the same number of cells was kept up for forty minutes: but though the tumour felt somewhat firmer after this, it must be confessed that no marked change was apparent.

On the 17th, wet sponges, connected with the battery, thirty and then thirty-five cells of which were in action, were applied laterally to the tumour, and the current passed through for three hours. This was not disagreeable, but seemed to soothe the patient till more than thirty cells were used; but no change was produced in the tumour. A little oozing of blood had taken place from one of the punctures the previous evening, and this occurred again on the 19th, but was easily checked by the application of the perchloride of iron.

On the 20th, two needles connected with the positive pole of the battery were inserted into the aneurism, and thirty-five cells set in action. The current was maintained for forty minutes. It gave no appreciable pain.

On the 24th, at 8.15 P.M., hæmorrhage to about five ounces took place from the punctures. The pulse rose from 108 to 125, and there was some difficulty in arresting the bleeding. Next day he was paler, and a good deal troubled to get rid of the greenish-grey offensive expectoration which had for some time been abundant. The notes say that the tumour was much enlarged, and that ice-bags were applied. The day after (26th) the increase of the aneurism is again mentioned; and he died at 6 A.M. on the morning of the 27th, from syncope after hæmorrhage to the extent of a few ounces.

The aneurism was found after death to be altogether within the pericardium, and to have attained a very large size for that situation. It must have held considerably over a pint of blood.

REMARKS.—This case was one not well suited for treatment by galvano-puncture, which, indeed, was tried as a sort of forlorn hope when the fatal termination of the case seemed rapidly approaching; and though little effect was produced on the tumour generally, there was, I think, some deposition of fibrine where pointing and rupture threatened. The current was not maintained for as long a period as I should now use it, and in the first two operations we were, I think, too cautious and timid as to the number of cells employed. His death resulted from hæmorrhage from the needle punctures, and yet, though it may seem paradoxical, I think his life was somewhat prolonged by the use of the battery; for the skin, which threatened to slough, certainly improved in condition after the first operations, perhaps from the diminution of tension.

CASE II.—The next case is that of Joseph Bowker aged 38, admitted to the Manchester Royal Infirmary, January 10th, 1876. He was a healthy-looking man, of rather short stature, who for the last twelve or thirteen years had worked as a platelayer. His health had been good; but, about midsummer 1861, he had an attack of rheumatic fever, which lasted three months. He had been a steady man, and never drank much till six months before admission, when he began to take several glasses of beer a day to relieve his pain. His family history was good; his parents were living and in good health, about sixty-eight years of age; and his five brothers and four sisters were all living and well. For some time before admission, he had felt his work, which often involved the lifting of heavy weights, to be too severe, and he had been losing flesh. There was no history of chancre. A swelling in his neck was first noticed in September 1875, but he had had pain in the left shoulder for about twelve months previously, and for the last three months it had been growing more severe, so that he had slept badly from the intense tingling pain in the left supra-clavicular region.

I will briefly mention only the more important physical signs in this case.

The apex-beat was not distinctly felt or seen, but the cardiac dulness commenced in the fifth interspace in the nipple line, where the heart-sounds were also most distinct. The dulness commenced above at the third left costal cartilage. A large pulsating swelling occupied the middle and left side of the neck, extending transversely from one inch to the right of middle line to the junction of the inner with the middle third of the left clavicle and upwards to the level of the upper border of thyroid cartilage, while below it was lost under the upper part of sternum and left clavicle. This swelling was firm and elastic, the pulsation was very distinctly expansile, and manipulation gave a well-marked feeling of fluctuation. Vertically it measured four and a half inches, and transversely five and a half inches. The larynx and trachea were pushed considerably to the right. The sterno-clavicular articulations and the upper bone of the sternum could not be distinctly made out on account of the swelling, and the left clavicle was displaced

forwards and downwards. The heart-sounds were normal at the apex. At the second right cartilage they were replaced by a double shock, which was felt rather than heard, the diastolic being the more forcible of the two. Over the tumour the impulse was strong, accompanied by a dull sound, and the diastole was marked by a sharp sense of shock. The right radial pulse was soft, weak, and easily compressible; the left fuller and stronger: the left temporal, and facial, and the left carotid, which was deeply placed behind the tumour, pulsated more forcibly than the corresponding right arteries. The left pupil was smaller than the right, but both contracted on exposure to light. Percussion over the back was normal, except in the left suprascapular fossa, where it was dull and the respiratory murmur feeble, as it was, indeed, over the whole of the left back. The chest was free from râles. This patient was put on half-drachm doses of iodide of potassium, and on a diet almost identical with that recommended by Mr. Tufnell in his brief but most important monograph on the treatment of aneurism. For breakfast, he had 2 ounces of milk, with 2 ounces of bread and butter; for dinner, 3 ounces of meat, 3 ounces of potatoes or bread, and 4 ounces of water; for supper, 2 ounces of milk or tea, and 2 ounces of bread and butter. The recumbent position was also carefully maintained.

On January 20th, it was noted that he had been kept awake for two nights by pain in the tumour, which presented at the anterior and lower part a spot of the size of a shilling, which was slightly prominent and tender on pressure. The patient said the skin felt too tight. He was restless after a draught of bromide of potassium and chloral, and half a drachm of nepoch was given, which suited him better. The next day, an ice-bag was applied to the tumour. His symptoms became much relieved, so that it was noted on February 3rd that he was easy and comfortable, and said he felt as if nothing ailed him. Shortly after this he had a severe attack of bronchitis; notwithstanding which, on February 14th, the tumour felt firmer and the impulse decidedly less marked than on admission.

On the 17th, his breathing was bad, and he had to be propped up in bed, and there were abundant râles over the whole chest.

The tumour was measured on February 21st, and was found to be larger than on admission. Vertically it was $4\frac{3}{4}$ inches, and transversely $6\frac{1}{4}$ inches, and there was slight œdema of the left arm, which on February 25th was much more swollen, and the left cheek was red from venous congestion. The patient was then in a worse state than on admission, mainly, I think, from the bronchitis; the aneurism enlarging rapidly and threatening before long to prove fatal.

On February 26th, three needles connected with the positive pole of a Foveaux's battery were passed into the most prominent part of the tumour about an inch asunder, and the negative pole was applied to the chest-wall by means of a sponge, which was moved about as the skin became reddened. We commenced with eight cells, and went up to twenty, at which the current was kept for fifteen minutes, and brought down to ten, and then to five for thirty-eight minutes. Altogether the current was passed for an hour and fifty-eight minutes.

By March 4th, the tumour was smaller; his bronchitis had left him, and he only complained of want of food.

On the 11th, it is said that the impulse was not nearly so marked.

March 22nd, The tumour was greatly diminished in size; its vertical measurement was $2\frac{1}{2}$ inches, while the transverse was 3 inches. The larynx and trachea had returned almost to the middle line. "He felt no such beating in tumour as before the operation." His general health was good: he had no pain during the operation or after, except just the introduction of the needles.

April 28th. The vertical measurement of the tumour was $1\frac{3}{4}$ inches; transverse, $2\frac{1}{2}$ inches.

He went on well during the summer, and on October 12th, the measurements were, vertical $1\frac{1}{4}$ inches, transverse $1\frac{3}{4}$ inches. The impulse over the tumour was distinct and heaving; little, if any, lateral expansion was to be felt. The upper half of the sternum and the adjacent cartilages were raised with each pulsation. Dulness at the left edge of the sternum extended to the lower margin of the second cartilage. The total transverse dulness was about 3 inches. He had no pain, dyspnoea, or cough, but felt perfectly comfortable: his general health was good: he had gained flesh.

So far, this patient had gone on wonderfully well. The diminution in size and the increased firmness of the aneurism, though not following immediately on the galvano-puncture, commenced so soon after it and proceeded with such marked rapidity, that it was impossible for those who watched the case to doubt that they stood in the relation of cause and effect. Unhappily, we were not content with doing well, and on October 18th, 1876, galvano-puncture was repeated. In consequence of the Foveaux's battery being out of order, Stöhrer's was used. Three needles were introduced into the tumour and connected with the posi-

tive pole. A sponge was connected with a negative pole, and moved about the chest as the skin was reddened. Six cells were set in action, and then ten cells. When twelve were tried for a minute or so, great pain was felt and the strength of the current at once reduced. After keeping up the current for an hour, it was stopped, when six cells only were in action.

Two days afterwards, the impulse was lessened, the tumour felt firm, and the sternum was less forcibly raised, but he had a sense of soreness in the aneurism. This passed off, and on the 23rd he "felt very well". The respirations were 24, and pulse 64.

On the 27th, the aneurism was firmer, and not so high above the sternal notch: the respirations were 20, and the pulse 64.

On November 2nd, however, a fortnight after the last puncture, there was some thickening of the tissues with a sensation of heat; and the next day redness and tenderness over the aneurism. This went on until an abscess formed, which seemed superficial, and which, we hoped, did not involve the sac.

On November 9th, it was punctured, and about a drachm of pus tinged with blood removed by the aspirator.

On the 14th, it discharged freely, and he improved for some time, the suppuration diminishing and things looking well; but on December 27th, a sudden gush of blood, estimated at two pints, shot from the aneurism, and the patient, who had raised himself up, fell back dead.

The following remarks are condensed from the full notes of the *post mortem* examination by Dr. Ross, pathologist to the Infirmary. The body generally was healthy. The opening on the surface led into the aneurismal cavity immediately behind the sternum, and the cellular tissue was intact. The tumour was globular, and rose half an inch above the sternal notch, its most prominent part being in contact with the sternum, which it had partially eroded, as well as the sternal end of the clavicles, which also were somewhat displaced. The diameters were 4 inches transversely, $3\frac{1}{2}$ inches vertically, and $3\frac{1}{4}$ inches antero-posteriorly. The aneurism involved the innominate and the transverse arch as far as the left carotid. This vessel was flattened by the tumour for the first inch of its course, but did not form part of the sac, as was likewise the left subclavian. There was no pressure on the pneumogastric or on the recurrent laryngeal nerves, as we anticipated from the absence of any paralysis of the vocal cords. The trachea was pushed to the right and somewhat flattened from before backwards. On inspecting the interior of the aneurism, the whole of the anterior and superior half was found covered by a fibrinous layer, an inch in thickness, of dense consistence, whitish colour, and formed of thin superimposed layers. The posterior inferior half was free from any deposit in its interior. The true wall of the aneurism was destroyed opposite the first piece of the sternum, forming a circular patch an inch in diameter, where the fibrinous layer in the interior came in contact with the bone. The cavity formed at this point contained pus, which had dissected its way between the dense fibrinous deposit and the true wall of the sac for a considerable distance; but there was no communication with the interior at this point. This was effected at the superior posterior border, where an opening about the size of a goose-quill passed through the fibrinous wall to the fluid contents.

REMARKS.—The fatal issue of this case was a great disappointment, not only to myself but to many who had watched the case. The cause of the suppuration is not clear. I was disposed to blame the battery we used at the second operation, the elements of which are much larger than those of Foveaux's. On October 20th, two days after the last operation, he complained of some soreness in the aneurism, but this passed off by the 23rd, when he said he felt very well; and it was not till November 2nd some thickening of the tissues is noticed and a sensation of heat felt by the patient. But for the occurrence of the suppuration, which melted down, as it were, the barrier we had been trying to build up, it is probable that the man's life might have been very greatly prolonged, and it is certain that but for the first galvano-puncture he would have died many months earlier. It seems fair to conclude that it added six or seven months to his life, and it certainly gave him freedom from pain and discomfort.

Though this narrative is too long already, there are many points lightly touched or omitted; but I may, perhaps, refer to the direction in which these aneurisms pointed. That which was wholly intrapericardial first approached the surface in the second interspace to the left of the sternum; the second case involved the innominate and the transverse arch; but the tumour, escaping from the thorax, extended up the left side of the neck as high as the upper border of the thyroid cartilage, so that it was taken by some for an aneurism of the left carotid. The whole of this cervical tumour disappeared in consequence, I think, of the galvano-puncture, and the position of the dense fibrinous deposit in the sac points to this likewise as its cause.

ON THE PATHOLOGY OF URÆMIA AND THE SO-CALLED URÆMIC CONVULSIONS.*

By F. A. MAHOMED, M.D.,

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THAT Bright's disease is the most frequent cause of cerebral hæmorrhage is, perhaps, one of the most universally admitted pathological facts; but the statement is usually made with regard to the grosser hæmorrhages, which cause death from apoplexy. It is also generally admitted that small capillary hæmorrhages frequently accompany and are seen on the outskirts of the grosser lesions; but that such minute hæmorrhages occur alone, and without association with the larger ones, though under the same conditions, does not appear very generally recognised, and certainly the symptoms to which they give rise are altogether overlooked. All pathologists mention such conditions as occurring, usually in connection with disease of the vessels and other conditions to be considered hereafter, but very few attempt to associate them with any symptoms.

Wilks and Moxon, speaking of them, say: "This condition of the brain denotes a diseased state of the blood or the vessels generally, and is found in purpura, in idiopathic anæmia, and sometimes in fever. We think it interesting in connection with paralysis which may come on in cases of fever shortly before death; we have then found this state of capillary apoplexy to exist. It is often present also after the *convulsive attacks* occasionally observed in typhus."

Dr. Hughlings Jackson, in his admirable article on Apoplexy, in Reynolds's *System of Medicine*, comes nearer the truth. While discussing the frequent association of Bright's disease with apoplexy, he mentions capillary hæmorrhages, which, he states, are sometimes found, and he thinks often occur in this disease; concerning them, he speaks thus: "We have, unfortunately, very little precise information about the symptoms they produce, as they do not cause death."

Rindfleisch describes these capillary hæmorrhages more accurately than any other pathologist, and altogether places them in a more important position, though chiefly using them as types of cerebral hæmorrhage, which are serviceable for microscopic demonstration of the minute changes produced by hæmorrhage into the brain-tissue. He mentions their association with grosser hæmorrhages in Bright's disease; and indicates that, in this condition, hæmorrhages various in extent may occur and clots of various sizes result. He, moreover, divides them into two classes: punctiform hæmorrhages, the results of "diapedesis" or simple exudation, as in purpura, etc.; and those the result of absolute rupture of walls of vessels, such as occur in Bright's disease, the result of degeneration of the walls of the vessel by endarteritis or periarteritis, and of the increased tension within them. He, moreover, points out that the extent of the hæmorrhage depends upon this amount of arterial tension.

Niemeyer suggests that these capillary hæmorrhages give rise to the so-called "warnings" preceding an attack of apoplexy.

To form an opinion, first, as to the question what evidence there is that these punctiform hæmorrhages may give rise to convulsions such as we meet with in so-called uræmia, let us examine the pathological conditions under which it occurs and the symptoms associated with them. On examining that admirably arranged storehouse of facts the *post mortem* records at Guy's Hospital, limiting my inquiries to the last six years, the conditions in which punctiform hæmorrhages have been found in the brain may be tabulated with some from other sources as follows.

- I. Hæmorrhages from simple exudation, due to altered blood: hæmorrhages by "diapedesis".
 1. Purpura.
 2. Leukæmia.
 3. Malaria.
- II. From bruising, due to laceration of vessels: hæmorrhages by "æchymosis".
 1. Injuries to skull and lacerations of brain, from blows, etc.
- III. From inflammations or congestions.
 1. Cerebritis, including also
 - a. Red softening;
 - b. Invasion of cortex by meningitis.
 2. Embolism.
 3. Fevers.
 4. Sunstroke.
 5. Occasionally the vicinity of tumours, aneurisms, hydatids, etc.

IV. From diseases of vessels, permitting rupture by blood-pressure.

1. The psychoses (Rindfleisch). General paralysis.
2. Bright's disease:
 - a. In the neighbourhood of larger clots;
 - b. Alone, in deaths from uræmia in which convulsions have been present during life.

In considering this table especially in relation to the question of convulsions accompanying the diseases mentioned, the results are, I think, most striking and important. In the first class, in which blood exudes passively and without any increase of pressure upon or laceration of the cerebral substance, convulsions are not present, or, if ever, very rarely. In the second class, due to injuries, all symptoms are masked by those of concussion and paralysis. Moreover, in them the pressure on the cerebral tissue is not increased. In the last two classes, which are characterised by hæmorrhages with increased blood-pressure, convulsions are most common, in many of them almost invariable; and, inasmuch as hæmorrhages do not occur in *all* these cases, it would not be too much to say, I think, as there is some evidence to support it, that those cases in which convulsions occur are those in which these capillary hæmorrhages are present, though not to such a degree as to cause absolute paralysis, which it appears equally certain that they may do if very numerous.

But it may be said, Why, if these hæmorrhages be the cause of uræmic convulsions, are they not more frequently found in the deadhouse associated with Bright's disease? I think there are sufficient reasons to answer this question satisfactorily. First, such small hæmorrhages as these would be rapidly absorbed; and, if the convulsions had not occurred within a few days of death, they would not be found. Secondly, cases dying in this manner, though not unusual, are not so very common. Thirdly, the head is sometimes not examined at all; and, if examined, it may be done without very great care. Fourthly, it is impossible to examine the grey matter of each convolution minutely, so that such small hæmorrhages might easily be overlooked even by a most careful pathologist. Now, however, thanks to our ability to localise the disease more accurately, we may hope to discover them with greater ease.

It is of interest also to note, as bearing upon the question of these hæmorrhages, that uræmic convulsions are more common in acute Bright's disease; while larger hæmorrhages, causing death from apoplexy, occur more frequently in the chronic form and in more advanced life. The reason for this is very evident. It is not difficult to rupture the capillaries by increased blood-tension, owing to the thinness of their walls, as seen in the kidney when bloody urine is produced, this being undoubtedly due to rupture of capillaries; while in the chronic disease the larger vessels have had time to undergo degeneration, so that they become equally, if not more, liable to rupture.

Another question may be put, and one which bears strongly upon this subject, and indeed forms part of it. Supposing these hæmorrhages are the cause of uræmic convulsions, how do you account for the other symptoms of uræmia? To this I would answer: By œdema of the brain-tissue. I know that the occurrence of such a thing as œdema of the brain has been denied by many eminent pathologists; but, on the other hand, it has been supported by others. Of late years, I think, many new facts have been obtained in relation to this question and very strongly supporting such a view. The most important of these is the hyaline exudation found by Sir William Gull and Dr. Sutton around capillaries in nervous tissues: this they have found, if I remember rightly, in acute Bright's disease associated with dropsy elsewhere. I know that it was under conditions of increased vascular tension. This hyaline exudation is, moreover, also described by Rindfleisch, and by Cornil and Ranvier. It is of the same nature as œdema of the brain, only the exudation has been highly fibrinous and has coagulated, thus forming the only condition under which it could be examined microscopically. Another fact of a somewhat similar nature is the extreme hyperæmia, accompanied by transudation of leucocytes through the walls of the vessels, found in hydrophobia by Dr. Coats, Dr. Gowers, and others. Moreover, accepting the mechanical theory of the production of dropsy, which now-a-days must surely be almost universally admitted, I can see no reason why the greatly increased blood-pressure in Bright's disease should not cause transudation of serum through the walls of the cerebral capillaries, which are among the most delicate in the body, as through those of other parts. Of course, owing to the density of the structure surrounding them, and the intracranial pressure, we should expect it to be the last place in which it occurred; but so indeed it usually is, as evidenced by the symptoms produced. But we also know that there are times at which the pressure in the blood-vessels in the brain exceeds the pressure outside them, as must necessarily be the case in all hæmorrhages; when this occurs in the capillaries, what more probable than

exudation of serum or rupture and punctiform hæmorrhages, according to the degree of intensity of blood-pressure? If, then, œdema be admitted as possible, the other symptoms of uræmia—the coma, drowsiness, and typhoid state—are completely accounted for by compression of the brain-tissue.

It may be objected to this, that uræmia occurs in chronic Bright's disease in which there is no dropsy. I have before pointed out a probable reason for the absence of dropsy in this condition; namely, the insidious nature of the disease, the gradual increase of the blood-tension, and the accompanying gradual thickening of the capillaries, which are thus enabled to withstand the increased blood-pressure. But, when this is still further suddenly increased, as by the supervention of an acute attack on the chronic disease, dropsy does occur, and so does uræmia; but, apart from this, the occurrence of a great increase of tension, causing distension of capillaries without exudation, would, by increased pressure on the nervous structures, produce some of the slighter symptoms of uræmia, such as the characteristic headache of Bright's disease.

To return, however, to the convulsions, other grave objections may be raised to my theory of their production.

1. Experimental evidence may be adduced to show that the grey matter of the cortex may be cut, bruised, burnt by caustics, and irritated by various methods, without the production of convulsions. But, on the other hand, besides its irritation by electricity, Nothnagel produced convulsions by the injection of a solution of chromic acid into the grey matter of the cortex. But, more than that—for experimental evidence, unless supported by pathological facts, is worth but little—I think I have already adduced sufficiently strong evidence of the association between punctiform hæmorrhages and convulsions to be found in the deadhouse.

2. It may be said that the convulsions produced the hæmorrhage, and not the hæmorrhage the convulsions; but the entire weight of pathological evidence is the other way. People dying of epilepsy do not usually present these hæmorrhages; in fact, all authorities on this disease emphasise greatly the fact of their great rarity. While in the deadhouse it is common to see ecchymoses below the skin, serous and mucous membranes, the result of impeded venous circulation, as in death by asphyxia from any cause, it is extremely rare to see these hæmorrhages in the brain-tissue under these conditions: though they will occur beneath the arachnoid, I have never seen them, nor can I find any record of their occurrence, in the substance of the brain, from this cause.

3. Epilepsy may be quoted as a fact against my theory, for not only are these hæmorrhages not found in epileptics, but epilepsy is believed by many eminent authorities to be associated with anæmia of the brain rather than hyperæmia; but this view is at least open to question. It would be impossible to discuss this subject here; but however strong the evidence of anæmia of the brain in epilepsy may be, the side of hyperæmia is almost equally strong. If Kussmaul and Tenner think they have proved *experimentally* that anæmia of the brain produces convulsions, so also Schroeder van der Kolk has beyond doubt, I think, proved that dilatation of the capillaries occurs as the result of hyperæmia in epileptics; and this, be it remembered, not generally throughout the brain, which might be the result of general turgescence owing to impeded venous return, but in that centre in the medulla to which he refers the irritation producing the convulsions. He is even able to divide his cases into two classes: tongue-biters, in which the capillaries of the hypoglossal nucleus are especially affected; and those who do not bite the tongue, in which those of the pneumogastric nucleus are alone dilated.

While suggesting capillary hæmorrhage as a cause for convulsions, let it be clearly understood that my remarks are confined to those occurring in conditions of high arterial tension, as in Bright's disease, pregnancy, and other conditions in which so-called uræmia occurs. The convulsions of epilepsy are probably due to some hyperæsthetic or irritable condition of nerve-cells, which may be due to a local hyperæmia, or to some other cause, but certainly not to capillary hæmorrhage.

4. Dr. Hughlings Jackson's theory of spasm of cerebral arteries as a cause for uræmic convulsions remains to be contested: it must stand or fall in great measure with the anæmic theory of epilepsy; but, even admitting that to be true, it appears to me difficult to conceive such severe spasm of cerebral arteries as to so completely cut off all blood-supply to the brain, as Kussmaul and Tenner's experiments seem to indicate as necessary for the production of epilepsy; for, according to them, if but one vessel out of the four large arteries supplying the brain be left uncompresssed, the convulsions did not ensue.

5. Dr. George Johnson's theory of "stopcock action" of arterioles, and Dr. Gowers' recent ophthalmoscopic observations in support of this, may also perhaps be adduced as reasons against the hæmorrhagic

theory of convulsions. To take the latter observations first, I think they are open to error. Any one who has used the sphygmograph extensively, will recognise the fact that arterial tension may be high—that is, the tidal wave sustained—even with a relaxed condition of at least the larger vessels, while in other cases the arterial system throughout is contracted; every degree, from great relaxation to tight cord-like contraction of the vessels, may accompany increased arterial tension. In all alike, cerebral hæmorrhages are liable to occur. I think Dr. Gowers' observations can only show this contracted state of the vessels generally or their relaxation, but I do not think that they are any test of arterial tension.

If Dr. Johnson's view of the stopcock action of the arterioles be true, then the tension in the capillaries must surely be low, or not increased, owing to the defending contraction of the arterioles; and it is this fact chiefly that makes me unable to accept his otherwise ingenious theory, for, without admitting that the high tension extends to the capillaries, I cannot see how to explain bloody urine and dropsy in acute Bright's disease, and the hyaline thickening around capillaries and absence of dropsy in chronic Bright's disease.

These, then, are the reasons for and against this theory of the *vascular cause* of what are known as uræmic symptoms, as far as they occur to me. I think they would be better described as the symptoms of high tension in the cerebral capillaries, or, more shortly, as those of *cerebral œdema* or hæmorrhage. They must always be regarded as a precursor of apoplexy, if they occur in a person advanced in life or with degenerate vessels. Should my view prove to be the correct one, the indications it affords for treatment by rapidly diminishing the blood-pressure are of the utmost importance for the safety of the patient.

REPLIES TO DR. C. J. B. WILLIAMS AND TO DR. BROADBENT ON THE MECHANISM OF THE HEART-SOUNDS.

By ARTHUR LEARED, M.D., F.R.C.P.,
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It is a matter of regret to me that the omission of a word in quoting from Dr. Williams's paper afforded him the occasion of making some sweeping and hardly justifiable assertions.* He says that my "misunderstandings and misquotations are something unusual; for example, he (Dr. Leared) quotes me as saying: 'The case is one of striking through a space at a tight barrier', etc.; whereas my expression was: 'The case is *not* one of striking through a space at a tight barrier', etc. This reversal of the sense makes nonsense, which he proceeds to deal with accordingly." In another part of the paper, the matter is again taken up. Dr. Williams says: "His omission of the word 'not' in the passage before quoted naturally throws Dr. Leared into a state of confusion, and it may be well to restate the argument in other terms." It is difficult to conceive why Dr. Williams could have allowed himself to make such a statement. But I am at the same time glad that he has put forward certain points of my theory with his own comments. To these I shall have occasion to return. First, let me dispose of the omission of a word and of its alleged effect upon my whole train of reasoning.

It is a remarkable circumstance that the insertion of the missing "not" in its place, instead of throwing me into "a state of confusion", strengthens my argument. I was combating Dr. Williams's assertion "that the whole movement is one of quiet displacement"; and I ask, has he "forgotten the force with which blood issued from the punctured aorta in his vivisection experiments? The force of the adult left ventricle was estimated by Valentin as sufficient to overcome a pressure of four pounds." Now, it is plain that, when I quoted Dr. Williams as saying the case was one of striking, instead of *not* striking, as it should have been, against a tight barrier, the force of my subsequent statement about the power of the ventricle was weakened by the omission of the word. Nevertheless, the mistake was unfortunate, and a cause of unnecessary trouble in this discussion.

Again, Dr. Williams says, in reference to the opinion of Dr. Stone, that "any person, whatever his scientific position, who declares the impossibility of sounds being produced in fluid alone, states a fallacy". "Either Dr. Leared misquoted, or his oracle misunderstood, my words, which were: 'I conclude, then, that the sounds of the heart are not produced by any motions or collisions of the blood, because I find that no such sounds can be produced in fluids alone.'" But, in the paragraph

* Dr. Williams's paper appeared in the BRITISH MEDICAL JOURNAL, February 3rd, 1877. In Dr. Leared's absence from town, and from pressure of space, the insertion of this paper has been unavoidably delayed.

in my reply to Dr. Williams, in which this last sentence is quoted (BRITISH MEDICAL JOURNAL, December 2nd, 1876), the following sentence (also a quotation from Dr. Williams) goes immediately before: "The whole idea of noisy collision of fluids without air or solids is a mistake." This omission, when supplied, disposes of the qualified expression in the sentence put forward by him, and gives due force to the statement made by Dr. Stone.

It is quite clear, therefore, that, in this instance, the charge of either misquoting or misunderstanding is untenable, and that the context of the sentence quoted by Dr. Williams shows he did say more than he appears to have wished to say.

The points which require comment in the restatement of my theory, which Dr. Williams has been good enough to make, are contained in the following extract: "He (Dr. Leared) made the experiment of forcibly squeezing water from an India-rubber bottle through the side of a reservoir containing water; the result was a bellows-murmur at the orifice. On substituting glycerine for water, the bellows-sound was not heard, and there was difficulty in producing any sound" (I wrote that there was "a comparative difficulty in producing sound"); "but, when the India-rubber bottle was compressed very strongly, a faint sound, resembling the first sound of the heart, was heard near the mouth of the tube; when, however, the moving column was allowed to strike the stethoscope, a louder sound, exactly resembling the heart's first sound, was heard." Upon this, Dr. Williams remarks: "The experiment with glycerine proves my statement of the difficulty of producing sounds in liquids, especially in those that are viscid; but, when the moving column struck against a solid (the stethoscope), the sound was loud enough."

Now, I wish here to observe that the circumstance of the sound formed in water—current-sound—and that formed in glycerine—shock-sound—having been intensified respectively by the contact of the moving fluid with the stethoscope, does not in the least invalidate my views. What I proved was, that sounds of very different quality are capable of being produced in two liquids, one being possessed of viscosity and the other being free from viscosity. But I have never denied the influence of solids in modifying, intensifying, or conveying sounds so formed. Dr. Williams may argue that the sounds in the cases in question were caused by contact between the liquids and the stethoscope. Even if this be granted, the results remain to be explained; namely, that, in the one case, the sound was a current-sound, in the other, a shock-sound. The bearing of this upon my theory, that shock-sounds and current-sounds merge into each other, is obvious. Is it not a pathological fact that the practised ear finds it difficult at times to decide whether a prolonged first sound or a low-pitched murmur is heard? Does it not

* At this part of Dr. Williams's paper there is a foot-note, which, to say the least, is not characterised by good taste: and it so happens that two other notes are placed immediately under the first mentioned, each being marked, somewhat after the sort of method, by an increased deficiency of the particular in question. In note No. 1, Dr. Williams says, "Dr. Leared seems not to be very successful in his experiments." He says (page 11, note) "I have laboured hard to produce an artificial circulation, which should fulfil all the requisite conditions for the formation of sounds like those of the heart by means of an India-rubber apparatus, but hitherto without success as regards the first sound." The final sentence, "The delicacy and nicety of adjustment necessary in the valves form the great difficulty," is omitted by Dr. Williams. Any one may see from a letter of mine in the *Medical Times and Gazette* of April 7th, 1866, how I was thwarted in my efforts to get such an apparatus manufactured, and how, after expecting it for several months, I was coolly informed that it was not practicable. Soon after this, a caoutchouc instrument, to which the name of the serpent's heart enema-apparatus was given, in which not only was the principle of my intended apparatus followed, but the very shape of the heart-propeller closely copied, was brought out by the firm in question. This instrument, ever since in extensive use, was the result of the act now briefly explained. So much for my unsuccessful experiments.

In note No. 2, speaking of a proposed experiment of mine, Dr. Williams allows himself to write: "I venture to prophesy that this will prove another of his unsuccessful experiments." If the prophet in this instance be inspired, it is to be feared that the inspiration is not of the best quality.

In note No. 3 it is said, "Disregarding my expression 'momentary separation,' Dr. Leared erroneously supposes me to mean that palpable or permanent air is evolved, and proceeds to attack this man of straw." Dr. Williams's words were: "This implies a slight tendency to a vacuum, and momentary separation of the surfaces by gas or vapour." Now, if not "permanent," "palpable" gas or vapour is here implied; and there is, therefore, something more to be attacked than "a man of straw."

"It is unnecessary to follow him through his mistaken argument" (proceeds Dr. Williams), "but it may be remarked that his statement, that the presence of air in the arteries destroys the second sound, is readily explained by its interfering with the action of the semilunar valve, which is adapted for liquids only. It is thus that injection of air into blood-vessels destroys life." I question the statement that, even supposing the second sound to be strictly due to valve-vibration, the presence of air would destroy these vibrations.

The subject of mistakes suggests that this is a good opportunity for bringing one of Dr. Williams's own making under his notice. He says "liquids being more sluggish than air, are less susceptible of the sudden motions which constitute sonorous vibrations." Now, so much is this contrary to fact, that, according to Biot and others, the velocity of sound-propagation in water is more than four times more rapid than in air.

happen that the first observable change preceding the development of a murmur is sometimes prolongation of the first sound?

Dr. Williams admits that sounds of very different qualities are formed in the blood-vessels, not only by obstructions in these vessels, but by alterations in the blood; but he says: "I repeat, the normal sounds of the heart are totally distinct from murmurs." He admits that sound exists potentially in the blood propelled from the ventricles "during the mighty systole", to use his own expression, because not only are murmurs formed by obstruction to the outflow, but also when, without obstruction, the blood is thinner than natural. So far, we agree, and the point of difference between us lies in this. I maintain that not only is thin blood, when forcibly driven against thin blood, capable of being sonorous, but that thick blood, when forcibly driven against thick blood, is not silent, but produces sound of a different quality. In the one case, the facility for friction between the opposed fluids gives rise to a current-sound; in the other case, the interference with friction is the cause of a shock-sound. Nothing, I submit, which Dr. Williams has advanced has shaken this fundamental part of my argument or destroyed the evidence afforded by repeated experiments. I cannot even accept his brief but forcible summing-up of the matter, when he says, "Having negatived the liquid solution of the question", as conclusive.

In reference to the analogy between the noise made by turning a tap through which water is flowing and the second sound of the heart, Dr. Williams writes: "As he (Dr. Leared) has quite misunderstood the too concise explanation which I gave, I think it necessary to compare the two cases more fully." I have carefully read what I wrote, and am quite unable to find any evidence of misconception, unless it be that difference of opinion be taken as synonymous with misconception. However, Dr. Williams explains his views in detail. He endeavours to show that there is no analogy between the two cases, because the noise in the case of the water-tap is only heard when the pipe is several feet in length, and there can be no such pressure in the circulation. But there is considerable pressure and the question of sound becomes one of degree, a comparatively small pressure sufficing to produce a sound only as loud as that of the heart's second sound.

In my former reply to Dr. Williams, I confined myself as much as possible, as I intend to do at present, to his criticisms of, and objections to, my views. I was unwilling to discuss the merits of his theories, both on account of his seniority and the undoubted value of some of his researches. I hoped that he would in the same friendly spirit discuss the subject with the sole aim of arriving at truth. It did not occur to me that he would treat the matter as one finally closed, and his decisions as such against which there could be no appeal. I was myself familiar with the merits of the controversy between himself and Dr. Hope. But I felt that the affair was so long gone by, that this was not the case with the great majority of the profession. Certain unqualified expressions used by Dr. Broadbent make it certain that he was in this position. But a Nemesis has arisen in an unexpected quarter. In an article founded upon the present discussion in the pages of a contemporary (*The Doctor*, March 1st), in which my theory is not supported, several of Dr. Williams's statements are questioned, and his claims to originality in the matter of the heart-sounds in general are treated with an unsparring hand. Dr. Williams lays much stress upon his invention of terms, etc., and, as he found the terms "shock-sound" and "current-sound" employed by me useful in his explanations, he takes care to inform the reader that I borrowed these terms from French writers. Shock-sound was adopted from Gendrin; but I beg to assure Dr. Williams that current-sound, which conveys the idea derived from my theory that the sound is formed in and by the blood itself, is altogether my own. Dr. Williams thus begins what is intended to be crushing.

"But the most conclusive proof that the walls of the ventricle, and not the blood, are the seat of the systolic sound is found in those observations in which the sound was heard when the heart contained no blood." Here it will be convenient to meet the statements of Dr. Broadbent on the same subject; * for the latter is quoted by Dr. Williams in support of his position. To both observers, I have to say that we are still totally at variance on the question of fact. Notwithstanding Dr. Broadbent's clever badinage about the thing being "only absolutely impossible to me", I still maintain the impossibility of deciding whether the feeble sound heard on the application of a stethoscope to the empty but still contracting heart is not due to friction between the heart and the instrument. "But", says Dr. Broadbent, "Dr. Sibson found...that there is a point on the anterior aspect of the heart...which is itself almost motionless. It was here that the stethoscope, which was flexible and had a small cap, was applied." There is much virtue in an *if*, and so, in the above sentence, is there much

* Vide Dr. Broadbent's reply, BRITISH MEDICAL JOURNAL, February 10th, 1877.

virtue in *almost*. Let the reader experiment with a flexible or a rigid stethoscope; let him moisten the bell end as suggested; let him contract the muscles of his abdomen, of his arm, or of his hand; and let him do this so carefully, that the surface to which the instrument is applied is *almost motionless*, and I will answer for it that a sound or an impulse will be conveyed to his ear. And I will further answer for it that a similar sound would be produced by the contracting empty heart, and that, under the influence of a foregone conclusion, this would be regarded as the expiring remnant of the true first sound of the heart.

Dr. Broadbent writes in reference to this matter: "The statement which he quotes from Dr. Halford, 'that neither first nor second sound was heard', is beside the question. Dr. Leared must have heard sound under these conditions, as I have, or his assertion about it was simply unmeaning. Had he come to the same conclusion as Dr. Halford, I should probably never have written my remarks at all." There is some confusion in this statement. I quoted Dr. Halford's assertion that, in the contracting empty heart, "neither first nor second sound was heard" with the conviction that this involuntary testimony of a man who was supporting a theory differing both from Dr. Williams's and my own was very much to the question. If, under the circumstances mentioned, sound was heard by Dr. Halford, he presumably attributed it to friction, because he distinctly says no sound of the heart was heard. What is intended to be conveyed in the statement about this experiment of Dr. Halford, that I must have heard sound under these conditions, or my assertion about it was unmeaning, I really cannot unravel. Then follows the strange assertion that, had I come to the same conclusion as Dr. Halford, his (Dr. Broadbent's) remarks would probably never have been written. Now, if "the same conclusion" refer to the origin of the sound in the empty heart, that has just been disposed of. If it refer to the valvular theory as advocated by Dr. Halford, it is "beside the question". It can hardly be supposed that Dr. Broadbent means that he would be *equally* satisfied with the muscular or the valvular theory, provided only my theory be excluded. A special question raised by Dr. Broadbent is the following:—"If we deny to the valves any share in the production of the sounds, we must positively explain their silence. I tried in vain to obtain Dr. Leared's attention to this." It will give a fair idea of the unnecessarily strong language in which my friend has constantly indulged in the discussion to quote the only statement of his to which this allegation can be referred. "I do not understand Dr. Leared to deny that sudden tension of membranous valves and tendinous cords must be attended with the production of sound." I passed this over only because there was so much to be discussed, and because it seemed of little importance, far less, for instance, than Cruveilhier's case and other things about which I failed to elicit any opinion from Dr. Broadbent. I hasten, however, to make good the omission in as few words as possible, although much could be said on the subject.

The reason, then, why the valves do not yield the essential portions of the heart-sounds is this. When in action, they are equally supported at both sides, not being adapted for the rough work implied by the theory of comparatively loud sound-producing vibrations. Such valves are well known in the arts by the name of equilibrium valves. It is observable that, in their zeal for the muscular theory of the first sound, no stress is laid by Dr. Williams on the valvular theory and very little by Dr. Broadbent. It is now and then spoken of as an accessory and in what may be termed a "permissive" manner. And yet this valvular theory so ably advocated by Dr. Billing, compared with the muscular theory, has the great recommendation of making the cause of both sounds identical in kind.

Here I take the opportunity of saying that I have never denied the possibility of *some* sound being produced by muscle and valve. In this matter, I follow the rule *de minimis lex non curat*. What I maintain is, that the body or essential part of the heart's sounds is not caused by one or both of these factors.

Some of the objections raised by Dr. Broadbent in the form of questions (BRITISH MEDICAL JOURNAL, December 23rd, 1876) have been commented upon by Dr. Williams. "If", he says, "the large arteries are the principal seat of sound, the sound would be increased by a hypertrophied heart and diminished by a dilated heart; whereas the contrary is the fact. Also that, when arterial pressure is increased, the first as well as the second sound ought to be louder, according to my views." These points have been considered in my former reply to Dr. Broadbent, which Dr. Williams had evidently not seen when his last paper was written.

In reference to my remarks on the difficulty connected with deductions resting solely upon position of sounds, Dr. Broadbent writes: "I see no end to the discussion, if we must cease to accept the recognised methods of localising the source of a sound whenever this is re-

quired by the exigencies of Dr. Leared's theory. Errors arising from the conduction of sound do not prevent us from forming a confident diagnosis in disease." The statement in the first of these sentences is uncalled for by anything I have written as to that in the second. I have only to observe that Dr. Broadbent is lucky if he have not, in common with the best auscultators, been now and then betrayed, as determined after death, into a too confident diagnosis when founded on the localisation of murmurs alone. The new theory of anæmic murmurs of Dr. G. Balfour, founded on conduction alone, was mentioned by me, which Dr. Broadbent would probably not endorse; at all events, he passed it over without remark.

The last but most important thing to be considered is what is said about my question, Why is it that, in anæmia, *the first sound of the heart only*, and the second never, becomes replaced by a murmur? Dr. Broadbent reiterates his previous argument, in which he is followed by Dr. Williams almost *totidem verbis*. That argument is, that the normal first sound is not replaced by, but is accompanied by a basic murmur. It was Dr. Broadbent who made the *supposed* discovery. "To this my objection admitted by Dr. Leared was fatal." "When (Dr. Broadbent writes just previously) he has restated the proposition put by him as a *crux* which I challenged, with the modifications required by his admission that the murmur accompanies instead of replacing the sound, I will again consider it." There is more smartness than logic in much that Dr. Broadbent writes. There is no necessity for any restatement of my proposition. Dazzled by the imaginary brilliancy of the discovery, he was unable to see the real bearings of the case, and my frankness only tended to increase his difficulty. My question is put in terms sufficiently definite for all practical purposes. It is affirmed of the second sound alone that it is never replaced by a murmur, and of the first that it only is liable to be changed into a murmur. I do not know that it is stated by any standard authority that, in some instances, this murmur is accompanied by a shock-sound. Now, with regard to this shock-sound, I agree with Dr. Broadbent that the relative loudness of sounds is not a simple and definite matter for discussion. If it were, I should join issue with him on this subject. Perhaps some of his "exceptional cases would be an interesting clinical study". This was said by him in reference to my statement (to which I still adhere), that instances occur in which the first sound of the heart is louder at the base than at the apex. But *de sonitibus (like de gustibus) nil disputandum*; at all events, about such sounds and on paper.

If I had written, "Why is it that, in *some* cases of anæmia, the first sound of the heart alone undergoes the change in question?" Dr. Broadbent's objection would have had no more point than as the case stands; for I deny the universality of his statement that the anæmic systolic murmur is always accompanied by a shock-sound. If, then, it be a fact, as I maintain it to be, that the normal basic first sound is sometimes replaced by a low-pitched anæmic murmur, not drowned by a loud rasping murmur, such as is common in organic affections, my position is safe.

The coexistence of a shock-sound with an anæmic murmur is capable of explanation in various ways. It is possible that the sound produced by the blood issuing from the ventricles may sometimes be split into normal and abnormal sounds. More probable is the occurrence of the persistence of the normal sound at the outlet of one great vessel, while it has degenerated into a murmur in the other; and that the normal and abnormal sounds are heard together. Finally, there is the possible agency of other sources of sound, which I have never repudiated.

Dr. Williams says "that, in some cases of anæmia, I have found a short murmur preceding the second sound". As a matter of fact, I do not question the accuracy of the observation, although I believe it to be peculiarly his own. The sound described by Dr. Williams is pre-diastolic, precedes the second sound, and does not either replace or accompany that sound, and, therefore, does not interfere with my statement that the second sound is never replaced by a murmur in anæmia.* Nothing, I maintain, has shaken the significance of the solid fact stated in my original proposition. It would, indeed, be a different matter if the converse of the proposition could be proved; namely, that, while the first sound always remained a shock-sound in anæmia, the second sound was sometimes changed to a murmur; for my argument is, that, if a thin fluid like water circulated in the body, there would be no first sound such as is formed by the circulation of healthy blood, but, instead of it, there would invariably be a murmur; but that, under the same circumstances, the second sound would still be a normal shock-sound. A shock-sound is sometimes, not always, heard along with the anæmic cardiac murmur. As there is sometimes no sound heard but the murmur, *this must be a substituted sound and virtually proves my*

* On this point Dr. Walsh says: "I have never observed the pre-diastolic murmur of aortic blood murmur diastolic in time." (*Practical Treatise on the Diseases of the Heart and Great Vessels*, London, 1873, p. 378).

case. If more or less hoel sound be heard with the murmur, this does not disprove my case. The questions, then, arise, What is the source of this shock sound? Is it the true heart-sound, or is it only an appendage to the murmur which has replaced the normal sound? The present theory does not rest in support on the advocacy of its author. It has many adherents, and amongst them such eminent men as Dr. Waisher. His published works and his well earned reputation as one of the ablest and most accurate observers with regard to everything that concerns auscultation and physical diagnosis that this country has produced, makes his testimony of special value. I may be pardoned, therefore, for giving the following extract from his last work. After having considered the merits of the muscular theory of the first sound as well as several others, including my own, he says: "In fine, the theory advocated by Dr. Leared appears more in accordance with the principles of physics and better reconcilable with numerous facts of clinical experience (many of which will appear in the sequel) than any of its rivals."*

Considering the turn which this discussion has taken, I have no wish to prolong it; but that matter does not rest with myself alone, and, if necessary, I shall be again ready to maintain what I believe to be the true theory of the sounds of the heart. The rule observed throughout has been to meet fairly every objection brought forward.

SURGICAL MEMORANDA.

DISLOCATION OF THE TIBIA FORWARD.

HAVING noticed in the JOURNAL for May 5th the record of some cases of rare dislocation by Mr. Bradley of Manchester, I am induced to communicate the details of the following case, in the belief that they will be of interest to him, and perhaps to the profession generally.

On March 31st, 1875, while in practice in Cape Colony, I was requested to proceed to a farm distant about three hours' ride from the village in which I resided, to see a man who, four and a half days previously, had been kicked by an ox. I found the patient suffering intense pain, lying in a hut near which he had been working when the accident occurred. In the region of the left knee joint, there was extreme deformity, evidently due to displacement of the bones of the leg forward; the tibia was riding on the front of the lower end of the femur, while the latter appeared to be rotated inwards, as the internal condyle was pressing strongly on the skin in the popliteal space. A circular spot of skin, black, hard, and dry, was adherent to this condyle, and followed it when reduction was accomplished. The leg was shortened to the extent of three inches. The foot and leg were œdematous, but much less so than might have been expected. There were several large bullæ, full of bloody serum, on the outer and posterior aspects of the joint; the largest of these being on the spot at which the blow had taken effect—immediately behind the head of the fibula. By extension and manipulation, the dislocation was readily reduced without the aid of chloroform. The parts behind the joint were dressed with a watery solution of carbolic acid, and the limb put up in an improvised long splint, without extension.

I left the colony immediately afterwards, and saw this man no more; but he ultimately did well, as a friend, writing to me three months later, stated that — had repeatedly sent for more lotion, and was last seen hobbling about leaning on a stick.

ALEXANDER NAPIER, M.D., Crosshill, Glasgow.

THERAPEUTIC MEMORANDA.

THE EMPLOYMENT OF LIQUOR AMMONIÆ ACETATIS IN DYSMENORRHOEA.

THE following case may prove interesting, as affording additional evidence of the usefulness of liquor ammoniæ acetatis in painful menstruation.

On June 22nd, at 6 A.M., I was called to see M. C., aged 19, who was stated to be in great pain. On arrival, I found the patient writhing in agony, her face pale, and the body covered with profuse perspiration. She is a healthy-looking and well nourished girl, but not of a marked plethoric habit; and I was informed that, with the exception of the dysmenorrhœa, her health had always been good. Since menstruation commenced, four years ago, she has always suffered more or less at her periods, but never so much as on the present

occasion. I was told that menstruation had come on some little time before I was called, and that a slight "show" had appeared. I prescribed a drachm of liquor ammoniæ acetatis with a little spirit of chloroform every hour until relieved. On visiting the patient again in the course of a few hours, I was informed that she had taken two or three doses of the medicine with the most satisfactory results, and she now expressed herself as quite free from pain.

In the afternoon of the same day, the pain returned slightly, but was again relieved by the medicine, and since then there has been no recurrence.

I find that the same satisfactory results have been obtained by my brother, Mr. C. W. Drew, previously in the same patient, and also in other similar cases where everything else has failed. How the liquor ammoniæ acetatis effects this result is not quite clear, but certainly, in some cases, it seems to act as a specific. It may be that the same influence is exerted on the uterine surfaces as on the cutaneous, increasing secretion, making the flow more free, and thus lessening the tension of the engorged vessels.

CLIFFORD L. DREW, M.B.

REPORTS

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

ST. THOMAS'S HOSPITAL: MR. MAC CORMAC'S WARD.

Excision of Hip-joint.—A boy, delicate-looking but playful and free from pain, had undergone excision of the hip-joint a few weeks before. Previously to the operation, he suffered great pain, and hypodermic injections of morphia were needed daily. General constitutional disturbance had been marked, and signs of commencing phthisical changes were found in both lungs. Immediately after the operation, pain ceased and his general health improved. Another little boy had just been admitted for hip-joint disease, with suppuration. There was considerable shortening of the limb; the head of the femur appeared to have been absorbed and sinuses existed. On examining the pelvis through the abdominal walls, much inflammatory thickening could be felt on its inner surface opposite the acetabulum; evidently the inflammation, and probably the suppuration, extended through into the pelvis. Mr. Mac Cormac remarked that, in such cases, it is usually the junction of the three portions of the innominate bone at the acetabulum that gives way; the pus then enters the pelvis, and, as it accumulates there, tends to strip up the periosteum from the bone. Hence this swelling in the pelvis is an indication for excision rather than against it, as is often taught. After excision, there will be free exit for the pus; removal of the dead bone will, it is hoped, lessen the discharge, and the sections of healthy bone may produce fibrous union. Directions were given for a careful examination of the lungs and urine to be made previously to a final decision on operative procedure.

Hæmophilia.—A man aged 42 had received a blow on the cheek, and dangerous hæmorrhage resulted from the socket of the last molar tooth. On admission, the blood welled up continuously, but not in large quantities. Various styptics were used without success during the first week. The loss of blood amounted to about half a pint a day, and threatened life. Another plan was then tried. A piece of India-rubber was rendered soft in hot water, placed over the bleeding jaw, and the mouth firmly closed upon it; it was then moulded so as to form a case over the bleeding point; pressure was thus effectually made, and the bleeding has not recurred during the last week. Ergot has been given internally, and ergotine by hypodermic injection. The patient has five brothers, of whom three are "bleeders"; his two sisters are not so. Neither his father nor mother are thus afflicted, but his mother's father, uncles, and aunts were "bleeders". Such conditions seem to be transmitted to children by the mother rather than by the father, and a mother may transmit the tendency without appearing unhealthy herself.

Cicatrix after a Burn.—A boy was admitted with a very extensive granulating surface on the right side of his chest, passing up to the axilla, as the result of a burn. There was as yet no cicatrix, but it was certain that such would form and tie down the arm. A month ago, Mr. Mac Cormac dissected a long flap of skin from the dorsal region, and brought it horizontally forward under the arm on to the granulating surface, leaving its upper extremity at the spine. A part of this flap

has sloughed, but the greater portion is healthy and growing on its new site.

Scoliosis. Deformity of the Femur in Puberty.—In a girl, the femur was bent at right angles to itself in the middle of the shaft, and this had resulted in shortening of the bone by two inches. The growth of the leg had also been arrested, producing a shortening of three inches in addition to the two inches shortening in the femur. The femur was divided at its bend by the chisel and mallet, oil-dressing was applied, and the whole limb put up in a plaster of Paris case with a long side splint, which not only kept the leg in place, but helped to straighten the distorted spine. Very little constitutional disturbance followed, and the femur united in a good position, leaving in place of the original five inches of shortening only the three inches due to the arrested development of the leg. In such operations, the chisel produces less disturbance of soft parts than the saw and avoids sawdust, and the wound need not be longer than the width of the chisel.

Plaster and Flannel Splints are largely used by Mr. MacCormac for putting up fractures. Coarse flannel is used, well wetted and wrung out, and then dipped in a cream-like mixture of plaster of Paris. When dry, these cases are slit down on each side of the limb, thus forming anterior and posterior splints.

Terebene Oil.—A mixture of equal parts of olive oil and terebene is being much used as a dressing. A case of gangrene of the foot had been previously treated with charcoal poultices, which failed to keep it sweet. A dressing of pure terebene produced much pain, but terebene oil removed all offensiveness without discomfort.

DR. MURCHISON'S WARDS.

Hæmatemesis.—A man forty-eight years of age was admitted on account of having thrown up about a pint of dark clotted blood a few days before. He had never had such an attack previously, and since this attack the motions had always been very dark, indicating continued bleeding into the bowels. On inquiry, it appeared that the vomiting of blood had been preceded by dyspeptic symptoms, with occasional vomiting. He has suffered from hæmorrhoids, suggesting portal obstruction, and, during the last few years, he has lost weight. On physical examination, no sign of renal disease was found. The liver was of normal dimensions, or perhaps slightly enlarged; no jaundice. Over the base of the heart, a loud systolic *bruit* was heard, probably due to the great anæmia, there being no indications of organic valvular disease. The anæmia was much greater than would be expected from the amount of blood thrown up by the mouth; and this, in conjunction with the presence of black stools, gave strong evidence of bleeding from the bowel. The lungs presented no physical signs of disease, and there were no symptoms attributable to lung-disease. The conditions which might produce hæmatemesis were enumerated, such as simple ulcer of the stomach or duodenum, purpura, or other blood-disease. The group of exanthemata, amyloid disease, renal disease, etc.—the signs of simple ulcer—were not here present; and the history of previous attacks of jaundice, the bleeding piles, and the recurring hæmorrhage from the bowel pointed to cirrhosis of the liver as the most probable cause of the hæmatemesis. A milk-diet was ordered. A saline aperient draught to be taken each morning, and a mixture, containing drachm-doses of liquid extract of ergot, was ordered to be taken every four hours.

Hæmoptysis.—A man was admitted having thrown up blood. The sputum seen was of a bright red colour, frothy, and mixed with air, showing no signs of being mixed with food, and not dark and grumous-looking, as if it had come from the stomach. The patient gave a history of ill-health and cough during the last three months, with night-sweats and some emaciation, also slight hæmoptysis a month ago. The expectoration lately thrown up has been darker than that first ejected and less red, this being due to the blood poured out having already undergone change in the lung. When admitted, it was considered inadvisable to disturb the patient by a prolonged physical examination; but, on listening over the front of the chest, crepitation was heard, indicating lung-disease as the probable origin of the bleeding. The temperature ranged from 100 deg. to 101 deg. Fahr., but subsequently fell to 99 deg. Fahr. He has been kept absolutely quiet; all food has been cold. A mixture of gallic acid, opium, and turpentine was given, with hypodermic injections of ergotine.

Cerebral Atrophy after Enteric Fever.—A girl, sixteen years of age was in the fifth week of enteric fever. The fever had subsided, but had left her quite silly in manner, so that, though not unconscious, she constantly did very odd things. One day, she began to complain of pain in her right leg, which became swollen and painful; this would appear to be due to local cellulitis or thrombus of a vein. The cerebral condition preceded the trouble in the leg, and appeared to be in-

dependent of it, arising from wasting of the brain, due to ill-nourishment of its substance during fever. After various acute fevers, cerebral atrophy may result and lead to imbecility or mania. Plenty of sleep and good feeding are essential in such cases. She was ordered a mixture of iron and quinine, with *nux vomica*.

Brain's Disease: Post-Mortem Examination by Dr. GREENFIELD.—The man was admitted six days before his death, too ill to give a clear account of himself. He complained of great head-pain; there were general anasarca and coma, becoming gradually more intense. There were signs of cardiac enlargement; there was a systolic *bruit* at the apex, and the circulation was very feeble. The man had been a heavy drinker, and the onset of illness had been gradual during the last fortnight. There was almost complete suppression of urine; what was passed was loaded with albumen. After other treatment, jaborandi was given in drachm-doses of the powder once a day; profuse sweating followed. At the necropsy, there was slight effusion in all the serous cavities. The heart weighed seventeen ounces, the curtains of the mitral valve were thickened, and the muscular substance which had been hypertrophied was friable and degenerate. The kidneys were rather large, weighing together twelve ounces and a half. The capsule was adherent, the surface granular; the small arteries divided in the section standing out and thickened, indicating chronic degeneration. Numerous small ecchymoses were scattered throughout the kidneys. The renal substance was pale and irregularly mottled with yellow points of inflammatory material. The cortex was much wasted and studded throughout with small cysts. Apparently, acute disease had occurred in kidneys previously wasted.

QUEEN'S HOSPITAL, BIRMINGHAM.

CASES UNDER THE CARE OF DR. SAWYER.

Camphor Vapour-Baths in Bright's Disease.—A man aged 30 was admitted on May 9th. He had drunk heavily, and his body had lately begun to swell. His urine was scanty, loaded with albumen, and presented granular tube-casts. His legs and scrotum were much swollen, and the lower lobes of the lungs were œdematous. He was ordered to take a mixture of perchloride of iron thrice daily, and a dose of compound jalap powder every alternate night. A bath of camphor-vapour was administered every night, and produced copious perspiration. The bath was given in the following manner. The patient was seated upon a cane-bottomed chair, with a large blanket pinned round his neck. Half an ounce of camphor was placed upon a tin plate under the chair and above the flame of a small spirit-lamp, by the heat of which the camphor was slowly vaporised. The condition of the urine steadily improved and the œdema steadily diminished. On June 6th, the man was discharged; all the œdema had gone; the urine showed no casts, and contained only a trace of albumen. Dr. Sawyer also employs camphor fumigation in some cases of convalescence from acute or subacute rheumatism, where the action of the skin is defective, and where there remain some pain and stiffness of the joints.

Salicylate of Soda.—Dr. Sawyer has treated several cases of acute rheumatism by giving fifteen grains of salicylate of soda in one ounce of water every three hours. In three or four days, the pains disappear, rarely to return, and the patient becomes convalescent. The salicylate can be readily found in the urine; a few drops of tincture of perchloride of iron give a purplish brown precipitate.

Menière's Disease.—A collier aged 41 suffers from frequent and severe and sudden attacks of vertigo, in which he staggers and falls, always pitching to his right side, without the least impairment of consciousness. The hearing of the right ear is defective. There has been very great improvement under the free use of bromide of potassium.

Insomnia.—Ordinary cases of insomnia may be divided into three classes—senile, toxic, and psychical. In the senile form of the affection, the disorder depends upon degeneration of the cerebral arteries, and is difficult of cure; in the toxic, upon abuse of alcohol, tea, or tobacco, and ceases upon the removal of the cause; in the psychical, it arises from continued and excessive mental strain, grief, anxiety, worry, etc., and is usually successfully treated by full doses of bromides conjoined with tincture of ergot and cod-liver oil. If the insomnia be serious, it must be stopped at once by hypnotics, preferably by opium.

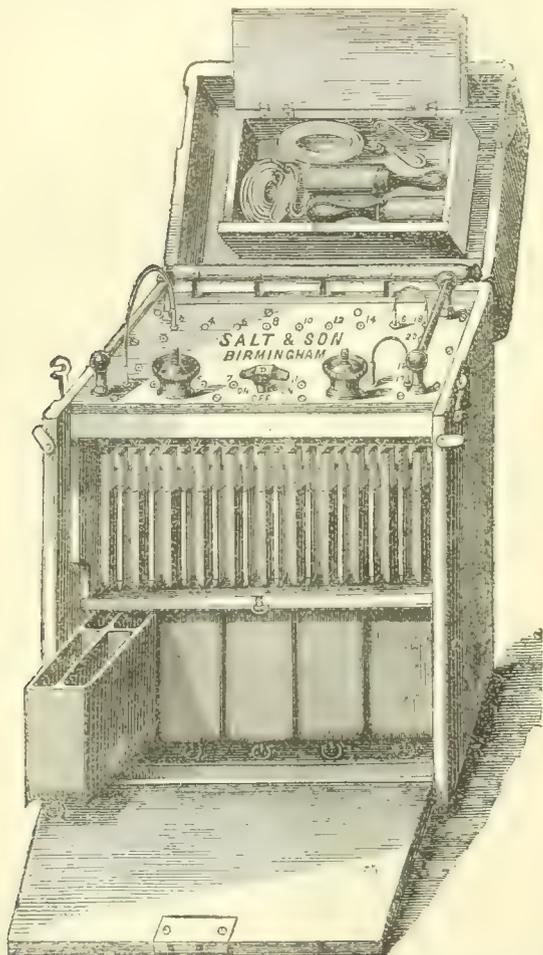
Phthisical Laryngitis.—The laryngitis of phthisis may be divided into four stages: the anæmic, the œdematous, the ulcerative, and the necrotic. A man suffering from the disorder in its second stage has derived great benefit from the inhalation of iron—fifteen minims of the tincture of the perchloride in an ounce and a half of water applied by means of Corby's throat-spray.

REPORTS AND ANALYSES

DESCRIPTIONS OF NEW INVENTIONS
IN MEDICINE, SURGERY, DIETETICS, AND THE
ALLIED SCIENCES.

SALT'S NEW MEDICAL BATTERY.

MESSRS. SALT AND SON of Birmingham have brought under our notice a new form of constant battery, which has many and great advantages of arrangement, especially in respect to improvements in safety and transport, in renewing the charge to the cells, and in facilitating access to all parts of the battery for the purpose of inspection or repair. Thus the front of the case, as will be seen in the drawing, falls down, completely exposing to view all the cells and parts of the battery. The cells are arranged in sets of four and can be turned out for filling, so that that process is now easily effected without risk to any part of the battery. To prevent the spilling of the fluid when the



battery is being carried about, a rubber-faced board slides between the plates and the cells, while the cells are pressed against it by a spring bottom, to which the pressure is removed as desired by pressing on a brass rod near the hinge. In all other respects, the battery combines a variety of the latest improvements for varying the number of the cells in action, and utilising different currents in the various ways required for medical purposes. The improvements in this battery are of a very practical kind, and seem to meet the requirements of ordinary practice.

REPORTS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, MAY 2ND, 1877.

J. MATTHEWS DUNCAN, M.D., Vice-President, in the Chair.

Excision of Clavicle for Tumour.—Mr. CHIENE showed the inner two-thirds of a clavicle removed from a young man aged 26. A sarcomatous tumour had existed in this part of the bone for about six months. The outer part of the clavicle was left, so that the coracoclavicular ligaments were intact, and the movements of the arm unimpaired. Catgut drains were used, and dropped off on the twelfth day; the patient returning home on the seventeenth day.

Hydronephrosis.—Dr. JAMES read a paper on this subject. Most cases of hydronephrosis could be explained by the occurrence of some mechanical obstruction to the entrance of the urine into the bladder. There were, however, still some cases where no evident mechanical obstruction could be found, and it was to three such cases that he wished now to direct attention. In almost all of them, there were contracted prepuce, frequent micturition, and nocturnal enuresis. In all, death occurred with uræmic symptoms. On *post mortem* examination in one case, the bladder was found contracted and rough from hypertrophy, the ureters dilated, and the kidneys hydronephrotic. By experimental investigation of the pressure under which the urine was secreted, and also of the amount of pressure necessary to prevent micturition, it was found that the former was much less than the latter. In the cases given, therefore, there had been frequent contraction of the bladder, almost becoming tonic, and therefore compressing the oblique entrance of the ureters into the bladder. In this way, he believed, the hydronephrosis in such cases was caused.—Dr. WYLLIE had been greatly pleased with Dr. James's paper. He was not, however, prepared to accede to all his conclusions. The theory given as to the low *specific gravity* of the urine was suggestive and correct, he believed; but the views on the pathogeny of hydronephrosis were doubtful. Dr. James evidently thought that, when the bladder expelled its contents, it remained contracted. It most probably, however, relaxed, and therefore opposed no obstruction to the inflow of urine. A more feasible explanation was that the obstruction was due to the thickened condition of the ureters and bladder from an inflammatory state of the mucous membrane. In the gall ducts, catarrhal inflammation obstructed the flow of the bile; while, after death, it was possible to pass a probe up that duct which was so obstructed during life. By this condition, or by a plug of mucus, the lower extremity of the ureter was narrow and oblique; and, therefore, when there was slight catarrhal inflammation, the inflow of urine was obstructed. Cases of vesical calculus favoured this view. Contrary to what Dr. James had said, the calculus probably caused no obstruction, but set up a cystitis, which passed up the ureter.—Dr. JAMES explained that he held that a vesical calculus opposed the entrance of urine only indirectly.—Dr. DUNCAN pointed out that Dr. James had not in this paper said that the bladder remained contracted after micturition.—Mr. CHIENE would refer to a point which had for some time occupied his attention, *viz.*, unrest in the bladder causing disease. The first case to which he would allude was one of urinary fistula, where almost all the urine came the wrong way. The great difficulty was that the edges of the fistula could not be kept dry. The treatment he finally adopted was to pare the edges of the fistula, and keep a gum-elastic catheter constantly in the bladder. A piece of tubing passed from the proximal end of the catheter, and dipped under carbolic-lotion. Thus, by a siphon arrangement, the bladder was kept continually empty. The next point was as to the treatment of cystitis. The bladder was like the heart in having a systole and diastole, the former occurring normally about four times in the twenty-four hours. In cystitis, however, this systole might occur one hundred times in the same period. Now, in such case, if they kept the bladder perfectly empty by constantly draining away its contents, they would, by thus giving the bladder complete rest, cure the cystitis, unless due to putrefaction.—Dr. MATTHEWS DUNCAN pointed out that Dr. Wyllie and Dr. James were quite at one in giving an explanation of hydronephrosis as a mechanical disease. Any one who knew the history of medicine, even from the times of Borelli and Harvey, would see that the greatest progress had been made by applying the principles of mechanics to it. This, however, might go too far; as in pathology, for instance, where hypertrophy of the heart or bladder was held to be due simply to the action of these organs. This was a thesis he denied, as could be seen from a consideration of the uterus, where muscular hypertrophy did not express action alone. There were other things

besides mechanics to be considered in such questions. He thought that Dr. James was not so confident as he ought to have been in his explanations. They ought to know the theory of urination. The bladder was quite as big when empty as when full. To diagnose disease of the bladder, they should measure it, and it was of no importance when this was done, whether before or after urination. He referred, of course, to measurement by passing a rod, and not to cubical capacity. Before Dr. James's views were adopted, they required to know the amount of force necessary to stop the flow of urine. The fact that a pressure of less than half an inch of mercury was sufficient to do this was of incredible importance in physiology and pathology. They also needed to find out the force requisite to dilate the ureters and pelvis of the kidney. Any knowledge he had confirmed the views of Dr. Wyllie and Dr. James, viz., that the pressure needed was very small, and, as Dr. Wyllie had suggested, a plug of mucus might do it. He had formerly experimented on the force necessary to distend the uterus by a growing ovum. The amount was very small indeed, and was a little more for the internal os, which corresponded with the facts on this subject.—Dr. JAMES, in reply, expressed his gratification at the reception given to his paper. In his cases, he had been unable to find any inflammatory thickening sufficient to explain the hydronephrosis, as he was able to pass a fine probe up the ureter; and, in addition, in some cases, there was no inflammation at all.

The Surgical Use of the Omentum.—Dr. KENNETH McLEOD, from his experience in India, gave an account of a large number of cases of penetrating wounds of the abdomen where the omentum protruded. Consideration of such instances led to the belief that this was a special provision by which the intestines or other abdominal viscera were prevented from protruding in such penetrating wounds. After a detailed analysis of the cases, Dr. McLeod then went on to consider the anatomy of the omentum, the natural history of such cases, and the treatment. The omentum might be washed and reduced under antiseptic precautions, or it might be left unreduced. Ablation of the recently protruded mass was both unnecessary and dangerous; but, if irreducible, some advised a previous enlargement of the wound, and then reduction.—Mr. CHENE said that, from a consideration of Braune's plates, and from what Dr. McLeod had told the members, he would be inclined to leave the omentum alone. When a hollow viscus—*e. g.*, small intestine, protruded, the protrusion went on until almost all the abdominal contents came out. Special thanks were due to Dr. McLeod, as the subject was neglected in the standard works of this country.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, APRIL 14th, 1877.

THOMAS HAYDEN, F.R.C.S.P., President, in the Chair.

Destruction of the Left Third Frontal Convolution of the Brain and its Secondary Lesions.—Dr. ROBERT McDONNELL presented the brain, with a series of illustrative photographs and microscopic sections, of a man aged 64, who became the subject of partial right hemiplegia, with recurrent aphasic attacks, lasting from five to twenty minutes. At last, complete right hemiplegia and sudden aphasia of the most marked kind occurred. In process of time, the paralysis was partially recovered from, but the aphasia persisted until death. The only articulate sound the patient could make was "Ti-ti-ti-ti-ti". He could whistle and sing, and was fairly intelligent. The motions of the tongue, larynx, and pharynx were perfect; nor was there a trace of facial paralysis. After death, the left third frontal convolution could scarcely be distinguished—the only remains of it being *débris*, granular degeneration cells, and connective tissue of the pia mater. The arteries of the brain generally were atheromatous; but the branch of the left Sylvian artery, supplying Broca's convolution, was completely blocked up. The secondary degenerations of the brain, medulla oblongata, and spinal cord were particularly well marked. Thus, transverse sections showed that the longitudinal fibres of the pons Varolii were much atrophied on the left side. The left pyramids and olive in the medulla oblongata were similarly affected; but the degeneration of the cord was on the right side below the decussation of the nerve fibres in the medulla. Dr. McDonnell, in connection with the present case, referred to Ludwig Turk's observations on the effects of areas of encephalitis in the left corpus striatum (*Sitzungsberichte der Math.-Natur. Classe, 1851, page 288*), and to Augustus Waller's communication on the Tropic Influence of Nerve-centres on Peripheral Nerves.

Acute General Miliary Tuberculosis.—The PRESIDENT showed the viscera of a girl aged 14, who was admitted to hospital on the fourteenth day of what was considered an attack of general bronchitis. Her illness had set in with a harsh dry cough, which soon became

softer and was accompanied by copious purulent expectoration. There was extreme dyspnoea, and she was cyanosed. Fever ran high, and loud metallic râles were heard over the apices of the lungs. These facts, with others, led to the diagnosis of acute tuberculosis. She sank in three days. The lungs were universally studded with tubercles, some as large as a pea. Near the apices, the tubercles were undergoing caseation and even liquefaction. The upper surface of the diaphragm was honeycombed. Flakes of false membrane were found on the upper surface of the liver, while its under surface was studded with isolated tubercles. None were observed on section. The spleen was also undergoing tubercularisation. One Peyer's patch near the ileo-cæcal valve was ulcerated. The history of the case was no doubt one of old-standing latent tubercularisation of the apices of the lungs, which had been fanned into a flame by the recent attack of cold and bronchitis.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT.

MAY 24th, 1877.

J. B. SHEPPARD, Esq., in the Chair.

Post Partum Hæmorrhage.—Mr. WACHER read notes of two cases of *post partum hæmorrhage* treated with the perchloride of iron. The first case was one of secondary hæmorrhage occurring on the fourth day in a primipara, who, owing to a tedious labour, had been delivered by forceps. A weak solution of one to twelve was first tried, but was not found effectual. A stronger, of one part to six, completely arrested the hæmorrhage. The second case occurred in a sixth confinement, which was a rapid one. Severe hæmorrhage came on a few hours after delivery, and was effectually stopped by sponging out the uterus with a sponge saturated with a solution of perchloride in the proportion of one to six. Of the two modes of applying the perchloride, Mr. Wacher preferred the latter as being quite as efficacious as the injection, more easy, and attended with less risk of peritonitis.—Mr. TYSON related two cases where he had used the perchloride successfully.—Mr. REID spoke of the advantage that he had found in the use of Barnes's bag for plugging the cervix in cases of hæmorrhage connected with abortions.—Mr. SHEPPARD, Dr. LOVEGROVE, and Mr. RIGDEN joined in the discussion.

Small-pox. Mr. RAVEN read a paper on a recent epidemic of variola. After some general remarks on the character of the epidemic and the virulent type of disease which was found, it was shown that the spread of the malady was by contagion alone, and that it was only epidemic in the sense of its progress being favoured by atmospheric influences, whatever they may happen to be. The village of St. Peter's, Thanet, where the outbreak occurred, is closely interlaced with the watering-place of Broadstairs, and not a single case occurred in Broadstairs. Had the disease been epidemic in the sense in which the term is applied to influenza, Broadstairs could not have escaped. Vaccination was found to be only partially protective, but revaccination completely so. Every unvaccinated patient died. The period of incubation in eight adults was shown with certainty to have lasted from sixteen to nineteen days. Attention was drawn to three cases of malignant small-pox. A scarlet rash, subsequently turning purple, appeared, followed by hæmorrhage from various mucous surfaces, death resulting in three or four days after the appearance of the rash. It was found that all of these patients were vaccinated persons, and that two of them were previously in excellent health and of temperate habits. A few instances of *variola sine variolis* were adduced—cases where, after exposure to contagion, there was sharp constitutional disturbance, but no eruption could be found, or, at the most, two or three small ill-defined vesicles; no serious symptoms presented themselves, and all the subjects of this form of variola were vaccinated persons. The effect of vaccination or revaccination during the period of incubation was alluded to, and cited cases seemed to point to the conclusion that small-pox is in no way modified by it unless the vaccine vesicles (primary or secondary) be matured—*i. e.*, have attained to the eighth day of development before the patient sickens.—Mr. REID stated his belief that variola and vaccinia were of the same nature, the latter only being a modification of the former.—Mr. WOODMAN objected to the term black small-pox being applied to those cases where there was no eruption, but simply a rash. He also disagreed from the opinion of Mr. Reid and Mr. Raven that vaccinia and variola were the same disease; he had been taught and always held that they were distinct from each other.—Mr. WACHER and other members joined in the discussion.

MR. GLADSTONE and Mr. W. P. ADAM, the whip of the Liberal party, voted with the minority in favour of Earl Percy's motion for an inquiry into the practice of vaccination.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 14TH, 1877.

MEDICAL PROMOTION.

OUR attention has again been called to the question of promotion to administrative rank in the medical department of the army, by a letter under the signature of "Fair Play", in our contemporary the *Broad Arrow*. We purpose, once more, in as few words as possible, to explain the real merits of this case, which have been a good deal obscured by *ex parte* statements on both sides.

The grievance is this: some surgeons-major of merit, one in particular who has made himself conspicuous by the boldness and pertinacity with which he has defended what he believes, and not without good reason, to be his rights in this matter, have had their promotion to the rank of deputy surgeon-general arrested, on the ground that they have not completed a certain amount of service in the executive grades in India. Now, the fact is indisputable that for a long time the Government of India has insisted on this rule. It has so happened, however, that some surgeons-major serving at home, and in some Colonial commands, have, without the above qualification, been promoted to fill vacancies in the administrative rank which have taken place out of India. In the course of service, some of the officers so promoted have been sent thither, a cause of complaint to the Indian authorities, whose rule was thus set aside, and to many surgeons-major whose promotion had been refused on the ground of want of compliance with this very rule. Representations made to the home authorities led to the consideration of the abolition of the rule, but to this the Government of India would not consent; and it was then determined, to prevent the possibility of a return to the fast and loose system of the past, to make the rule absolute in every case. Where the authorities were blamable was, in not making this generally known to the service at once, and so obviating the injustice of which some highly meritorious officers complain, of being taken by surprise by the application of the rule to them when their time for promotion came. Had this been done, much heartburning would have been spared, and the services of some officers might have been secured to the State to fill positions for which they are well qualified, and to whom injustice has been done by driving them into enforced retirement at a time when, perhaps—as Colonel North said in the House a few evenings ago—their services may be most required. The War Office authorities and the chief of the Department in Whitehall Yard must divide the blame of this great omission between them.

The above, we have every reason to believe, is a true statement of the facts of this case. It is not calculated to allay the bitterness of feeling excited in the minds of those who have suffered. We wish we could hold out any hope that justice would even now, at the eleventh hour, be done in the matter: but we fear the authorities have spoken their last words, and have no intention of acknowledging themselves in the wrong. All we can say is this, and we wish that Mr. Hardy and his advisers would lay it to heart, injustice of this kind will do more to keep back recruits such as the medical profession wish to see enter the department, than all the exertions of that busy surgeon-major of whom Mr. Hardy spoke so bitterly in the House, as one who has devoted his life to prevent candidates from seeking commissions in the medical department of the army.

QUEEN CHARLOTTE'S LYING-IN HOSPITAL.

AT the half-yearly meeting of governors held on the 9th instant, the report issued by the Committee of Management, which we noted in the JOURNAL of June 30th, was received, approved, and adopted. It seems to have been the unanimous feeling of the governors that the contest, which had been carried on with much energy by some subscribers of only one year's standing and an honorary governor, should cease. A pamphlet issued on the eve of the meeting was strongly disapproved of; its object was to revert to the old system, which has resulted, after a twenty years' trial, in a mortality of one in thirty-five, and which, during the short period of its reintroduction last October and November, necessitated a closure of the hospital in two months with a mortality of one in eleven. No changes, however beneficial, are ever introduced without some heart-burnings on each side. In this instance, judging from the assigned reasons, we cannot too strongly condemn the opposition raised against the medical staff, and the determined endeavour to remove them from the Committee of Management. The charges brought against them were, that they were too powerful on the Committee of Management, and had introduced changes in the internal management. The changes which they recommended were for the benefit of the patients, and for reducing, if possible, the great mortality which has existed for twenty years. We think that, if any charge could be brought against them, it is that they did not effect greater reforms and abolish sooner the pernicious system of nursing, the delivery of patients by monthly pupil nurses, etc. Judging from the moderate amount of reform introduced by them, we should say that, instead of being all-powerful, they were the reverse. Had it not been so, we cannot conceive how they could have worked the hospital as long as they did under so defective a system. The moment they secured a majority amongst the governors through the instrumentality of Dr. Gream, they radically reformed it; conclusively showing that they were fully aware of its shortcomings, but were evidently unable previously to effect improvement.

We are not surprised at the strong condemnation which the pamphlet to which we have referred received from the governors. It virtually pitted the matron against the staff—a paid servant against honorary officers. The internal evidence leads to the conclusion that the ideas contained within it originated within the walls of the hospital, the writers merely stereotyping them. On comparing it with a copy of the laws, there can be no doubt as to its containing erroneous statements.

The mortality of our lying-in hospitals is a disgrace. They are necessary and beneficial institutions, but their internal management is evidently gravely defective. Queen Charlotte's is a peculiarly dangerous one, through its admitting a large proportion of primiparæ (two-thirds being in single women). It must always have a high rate of mortality on this account, and compare unfavourably with the others; still there is a vast room for improvement.

SHALL WE HAVE A GENERAL AT WHITEHALL
YARD?

THE present state of the Army Medical Department is now generally admitted to be so unsatisfactory, and its probable influence on the future condition of the service must be so gravely detrimental, as to render us disposed to consider with special care any well digested plan for reconstruction. It will be within the recollection of our readers, that we placed before them some months ago an elaborate and ingenious system, prepared by a very experienced surgeon, in which the proposal was made to replace the present Director-General by a general officer, who should hold rank with the other chiefs of the staff. The *Globe*, which has often espoused the cause of the Department with good effect, quite recently reproduced this idea, and argued in its

favour from data supplied by some of the hasty and ill-considered expressions made use of by the Secretary at War. There can be little doubt that, by enlisting the more direct aid of the combatant branch, many useful reforms might be carried with ease, and more courtesy and consideration shown to individual officers; but we cannot resist the conviction that the principle involved in so sweeping a change is essentially wrong, and must strike a fatal blow at the independence of the Department.

We have always contended that medical officers should be supreme within their own limits of responsibility, and that the charge of hospitals should be absolutely under their own control. The virtual annihilation, therefore, of all the power and influence of Whitehall Yard would be unsatisfactory, as surrendering to the purely military element a supremacy which they have always coveted, and as depriving the profession of its principal prize. We cannot absolutely accept Mr. Hardy's statement, that the Medical Department is entirely responsible for the disasters and failures of recent years; for we are in a position to state that those who have exercised its chief authority have protested in vain against many of the more unsatisfactory innovations, and have seen, with a concern which they could not express, the ship under their nominal control drifting on to certain destruction.

We fear that a Medical Adjutant-General would only play more effectually into the hands of his own immediate superiors, and more absolutely stifle the appeal for redress which the Department raises from time to time. An institution must be desperately bad when reform necessarily implies supercession of its powers; and we cannot think so ill of our own profession as to deny its members all administrative ability. Possibly, over-zeal may more effectively be laid at their door, and zeal which has unfortunately not been tempered with that courtesy and consideration which medical officers have a right to expect from their departmental heads.

Instead of looking to Whitehall Yard for aid and counsel under difficulties, the junior officer shuns its gloomy portals, and only presents himself for audience under the direst stimulus of necessity, knowing full well how little consideration he can expect to find there; and this it is which has given some plausible ground for argument in favour of a general officer in supreme command, who might hope to bridge over more effectually than at present the gap which seems almost inevitable between the combatant and medical branches of the service. But we have not quite lost faith in Whitehall Yard. We should regret to see this practical supercession of its powers, and can only warn it that, if it do not take a little more pains to soften and conciliate, public opinion may imperatively demand some radical change.

THE FACTORY BILL.

A DEPUTATION from the Glasgow School Board has lately waited on Mr. Cross on the subject of the Factories and Workshops Bill now before Parliament; and, in an account of their interview which has found its way into the daily papers, we find some interesting and noteworthy intelligence. Its members strongly urged upon him the importance of completing the work that he has therein taken in hand, and which, so far as it goes, has been received with general approval. They pointed out that a very large number of children would be left altogether unprotected by any provisions in the Bill, and amongst them precisely that class of children which needed protection most. They asserted—and the assertion has since been embodied in a petition to the House of Commons—that many of these were employed "for lengthened periods daily, and at untimely hours, without regulation and without control, and.....that in the opinion of your petitioners such undue labour interferes most seriously with the education of such children, besides being detrimental to their physical and moral improvement." The Home Secretary is reported to have fully admitted

the force of the appeal, "as well as the desirability, and even the necessity, for such legislation". It may be hoped, therefore, that the great opportunity now created for dealing with the whole question of protective labour legislation on a wide and permanent basis will not be allowed to escape or frittered away in unequal, and therefore unjust, remedial measures of a merely partial character. We have always cordially welcomed every well-considered effort in the direction of improved education and increased leisure to supply the means of self-culture for the rising generation of the working classes. We must only insist, however, that it should be clearly recognised that, hand in hand with the attempt to produce the sound mind, the efforts to secure the healthy body should proceed also; that the one cannot ever be really successful without the other, for in the union of the two is the best security for the advancement of either. Mr. Cross has now an opportunity of conferring a lasting benefit upon his countrymen, such as has fallen to the lot of few ministers of any Government in any country.

DR. F. A. MAHOMED is appointed Medical Registrar at Guy's Hospital.

A REUTER'S telegram from Teheran, under date July 10th, announces that the plague has disappeared from Bagdad.

THE order for the second reading of the Habitual Drunkards Bill was discharged on Wednesday, on the motion of Dr. Cameron.

SURGEON-MAJOR ELKINGTON of the Grenadiers, and Assistant-Surgeon Pocklington, of the 11th Surrey Volunteers, are in charge of the Field Hospital at the Volunteer Camp at Wimbledon.

DR. FRANKLAND reports that during June the Southwark Company supplied water which was turbid from inefficient filtration, the suspended matter being full of "moving organisms".

PRINCE MILAN has conferred the Gold Cross of the Takovo Order upon Mr. William Collingridge, in acknowledgment of services rendered during the Turco-Servian war. Mr. Collingridge was the first English surgeon upon the Servian field.

A COURT of inquiry into the conduct of a medical officer of some standing has lately been held at Nusseerabad. The circumstances attending the death of a child while under treatment are said to be the matter under investigation.

SMALL-POX is declining rapidly in London. The fatal cases in the last three weeks were 78, 44, and 23 respectively. At the same time, the numbers in the hospitals were 966, 664, and 641.

MR. JAMES ATKINSON, M.R.C.S., was on July 9th elected an alderman and the first mayor of the newly constituted borough of Crewe.

THE distribution of prizes to the students of St. Thomas's Hospital by the Bishop of London will take place on Monday, July 16th, at 4 o'clock, in the Governors' Hall.

THE annual general meeting of the St. John's House and Sisterhood was held at the Institution, in Norfolk Street, on the 9th instant; the Bishop of London in the chair. Lord Hatherley, in moving the adoption of the report, pointed out that, although the organisation was in a flourishing condition, it required the constant efforts of its friends to promote its interests.

THE sums received at the Mansion House on account of this year's Hospital Sunday collection have amounted to upwards of £24,200. With one exception, this does not include the collections at the Jewish Synagogues, from which liberal amounts have been received each year since the establishment of the fund. There are many of the collections at churches and chapels not yet handed in.

THE distribution of prizes at the London Hospital Medical College by the Right Hon. W. E. Forster, M.P., will take place on Wednesday, July 18th, at 4 o'clock P.M.

A CONVALESCENT Home has been erected at a munificent expenditure, by Mr. H. W. Ripley, M.P., in a prominent position, overlooking the valley of the Aire, at Rawdon, near Leeds; and the Marquis of Salisbury has undertaken to perform the opening ceremony in October next.

THE Faculty of Medicine of Paris has applied to the Prefecture of Police for authorisation to carry out a Course of Legal Medicine at the Morgue, utilising for the purpose bodies which are unclaimed, or those for which previous authorisation has been obtained from the members of the family.

THE Committee of Council of the British Medical Association resolved unanimously, on Wednesday last, on the motion of Dr. Sieveking and Mr. Callender, that a special gold medal be presented to Mr. H. N. Davies, and silver medals to some of his medical coadjutors, for their honourable and devoted services during and after the rescue of the imprisoned miners at Pontypridd.

IN connection with the late colliery accident at Pontypridd and the heroic efforts by which the imprisoned miners were rescued, the Mansion House Committee entrusted with public funds for distribution have, in their final awards, resolved that plate to the value of £100, suitably inscribed, be presented both to Mr. Wales, Her Majesty's Inspector, and Mr. H. N. Davies, whose services throughout the disaster merited much praise; and testimonials varying in value were allotted to seven of the medical men engaged.

At a meeting of the Council of the Royal College of Surgeons, on the 12th instant, the recently elected members—Mr. J. E. Erichsen, F.R.S., Surgeon to University College Hospital; Mr. W. S. Savory, F.R.S., Surgeon to St. Bartholomew's Hospital; and Mr. Timothy Holmes, Surgeon to St. George's Hospital—were introduced, and took their seats at the Council.—Mr. G. A. Wright has been appointed Anatomical Assistant in the Museum of the College in the vacancy occasioned by the resignation of Dr. Goodhart.

IN order to extend and improve the elementary teaching of physiology and the laws of health in elementary schools, the National Health Society, 44, Berners Street, has placed at the disposal of the London School Board, in addition to a sum of £100 previously offered, a further sum of £25 annually for four years, for premiums to teachers and children who pass the best examinations in these subjects.

AT the weekly meeting of the School Board for London held on the 11th instant, Sir Charles Reed presiding, the adjourned debate on the Sunday opening of the school playgrounds was resumed and concluded. The result was the rejection of Mr. Sydney Buxton's amendment in favour of Sunday opening by two votes to one, and the adoption of the original motion for the opening of the playgrounds during certain hours after school every week day.

ON Wednesday evening, the President of the Metropolitan Counties Branch, Mr. Jonathan Hutchinson, received the members of the Branch at a brilliant *conversazione* at his house in Caverdish Square. Several hundred members were present, and, in addition to the metropolitan guests, Dr. De Bartolomé of Sheffield, the President of the Association; Mr. Arthur Jackson of Sheffield, the General Secretary of the last annual meeting; Dr. Eason Wilkinson, the President-elect; Dr. Leech of Manchester, the Secretary of the forthcoming meeting; Dr. Falconer, President of Council; Mr. Husband, Treasurer; Dr. Clifford Allbutt of Leeds, Mr. Nicholson of Hull, Dr. Parsons of Dover, Dr. Lewis A. Sayre of New York, Dr. Tripiet of Lyons, and other provincial and foreign visitors.

DR. HARDWICKE, in commenting on the case of a boy five years of age who was run over by a cab in Theobald's Road, Holborn, said this was one of a very large class of accidents traceable to the want of playgrounds for children. The throwing open of the playgrounds belonging to Board schools in the evenings and on Saturdays as general recreation-grounds would be a great boon. If some of the squares could be similarly thrown open, it would prove advantageous. Red Lion Square, which was now a place of business, might safely be thrown open in the evenings for recreative purposes for children. The jury acquiesced.

A SPECIAL general meeting of the Governors of the Royal Medical Benevolent College has been summoned for Wednesday, July 25th, as will be seen on reference to our advertisement columns, for the consideration of resolutions abolishing the practice of canvassing for votes. We have already, on more than one occasion, stated the reasons which lead us to entertain the hope that these resolutions may be carried, and that this cruel uncertain method of collection will be abandoned for this medical charity. The experience of our two other medical funds shows that no such thing is required to stimulate the benevolence of the medical profession, or to secure the prosperity of their charities. It is well known that, as a method of selection, the process of canvassing fails altogether to secure the benefits of the charity to the most deserving cases, and imposes a heavy tax and much humiliation upon the candidates.

LAST week was opened, with great ceremony, by the Lord-Lieutenant, the Lord Mayor of London, and other functionaries, together with a very numerous party of guests and friends, a new Marina for St. Lawrence-on-Sea, Ramsgate, in connection with the Granville Hotel. The improvement which has thus been effected by the enterprise and at the sole cost of the proprietor of the Granville Hotel is one of vast benefit to the town. The beautiful sands are now accessible by an easily sloping road leading down from the Granville Terrace and the East Cliff. What was formerly an inaccessible and barren walk is made attractive and adorned with places of shelter and amusement. The great attractions of St. Lawrence-on-Sea as a healthy resort have been largely enhanced by this act of liberal enterprise.

THE physicians of the Department of Algiers, considering that complete freedom in the practice of medicine would destroy the *prestige* with which bone-setters and quacks are at the present moment invested when prosecuted, and thus considered as martyrs, have demanded of the Extra-Parliamentary Commission of Physicians and Senators of France a reform of the law relating to the practice of medicine in this sense. They have expressed a desire that, in case freedom of practice in medicine be accorded, the laws protecting the practice of medicine may be rendered more repressive, inasmuch as the laws are to a considerable extent illusory, and their result is contrary to the end which they propose to attain. It would not be impossible to make an application of the complaint of the physicians of Algiers to the actual state of things in this country. The Medical Act is very far from according the complete protection which it assumes to afford to the public; and it is doubtful whether we should not do better without any sort of protection than with the illusory protection which is at present afforded.

BOARDING-OUT.

CURIOSLY enough, no one seems yet to have drawn the obvious moral from the results of the investigations into the recent cases of abuse of children "boarded-out". It is that the Local Government bodies should afford to the children boarded-out within their own unions the same protection, as to visitation and school attendance, that is afforded under Mr. Goschen's Poor-law Order to children boarded-out beyond the union limits. That order has worked with the happiest effects, and the reports of the state and progress of the children who thus receive the blessings of home-life are most satisfactory.

MADLLE. TIETJENS.

THE present state of Madlle. Tietjens is leading to so much general anxiety that we find it necessary to correct some mistakes which have been prevalent. It is not correct to say that any large tumour has been removed. Her life was in imminent peril from symptoms due to chronic peritonitis, with strangulated intestine, when, seven weeks ago, Mr. Spencer Wells, after consultation with Sir W. Jenner, opened the peritoneal cavity, removed eighteen pints of fluid, and released a portion of intestine which was compressed by adhesion. The recovery was perfect for a time. Then, after some shaking in a railway journey to Worthing, and a cold, a recurrence of the symptoms of peritonitis led to increased suffering, but without any further signs of obstructed intestine. It is expected that Madlle. Tietjens will return to London in a few days; and we believe that preliminary arrangements are being made for her appearance at the Opera on the 26th, and at a great benefit concert at the Albert Hall on Saturday, the 28th.

A LESSON FROM THE WINDSOR REVIEW.

THE occasional occurrence of heavy field-days and prolonged military manoeuvres at the hottest period of our brief summer, naturally brings back an old topic for reflection, and induces us to ask whether our troops are clothed with suitable comfort, or whether some of the old martinet-like traditions do not still linger round our tailors' shops. Warm weather is not sufficiently severe or prolonged with us to render a complete change of outfit necessary, but we cannot view without concern the unfortunate men who make up the rank and file of our army staggering along under the accumulated mass of material which they are expected to carry in heavy marching order. What, for instance, can be conceived more thoroughly ill-adapted to the almost tropical rays of a mid-day sun than the bearskin of the Guards, light though it may be (1½ lb.) in proportion to its size? Although the tight stock so dear to Sir George Brown, has now, happily, been replaced by a mere leather lappet, the same excessive zeal for smartness still prevails as in former years, and the tunic must fit in every part without crease or wrinkle. The large hook, whose injurious influence on the circulation has been demonstrated by Mr. Myers, still triumphantly holds its place, and the general interference with the action of the heart and lungs is amply demonstrated by the large number of men falling-out on all occasions of extra exertion. Summer trousers are now usually worn; but the boots, on which all the comfort of locomotion depends, are never provided by measurement in the Line, and only occasionally in the Guards, and we can only refer to the experience of medical officers as to the large number of men who break down primarily in the feet. Military authorities in this country are proverbially slow to move, and adjutants and commanding officers have been taught to like the smooth backs and well-padded fronts produced by accurately fitting tunics, and in this preference they are seconded by the men themselves, who prefer tight collars as giving them a ruddy and apparently fresh complexion. But all this tells in the end, as our invaliding lists can show; and we are convinced that some relaxation in the constricting nature of our present military clothing would add in no small degree to the general efficiency of the service.

THE NECESSITY FOR INQUESTS.

THE last weekly return of the Registrar-General records the fact that, during the first week of July, the death of the inmate of the White-chapel Workhouse was registered, the cause of which was certified by the medical officer of that institution to be "hæmorrhage from an incision in the throat". Making due allowance for the present glorious uncertainty as to whether, under certain circumstances, an inquest will or will not be held, it cannot but be a subject for astonishment that the death of an inmate of a workhouse from "an incision in the throat" should not have been deemed a fitting case for an inquest. The Registrar-General comments upon the case as an unusual one. There is little room for doubt that the death should have been the subject of an inquest, and it would be instructive to know how a contrary decision was arrived at. In the first place, in accordance with the

opinion we expressed last week, we think it was undesirable for the medical officer to give a certificate in such a case, unless he were aware that the case had been referred to the coroner, and that he had decided not to hold an inquest. Secondly, the registrar has strict instructions, as we pointed out last week, to refer every case of violence to the coroner previously to registering the death, even though a medical certificate of the cause of the death may be produced to him. It is evident, therefore, that, if the case were referred to the coroner, as it should have been, some explanation is needed of the grounds upon which the coroner decided that an inquest was not necessary. On the other hand, if the coroner had no notice of the death, the registrar must have acted in distinct contravention of his instructions, and there is still more reason to regret that the medical officer should have taken upon himself the responsibility of giving a certificate without an assurance that the case had been referred to the coroner, and that he had decided not to hold an inquest.

POISONOUS DISINFECTANTS.

ONCE more the public papers announce an inquest in the case of a patient dying from the administration, by misadventure, of a poisonous disinfectant—carbolic acid. Dr. Hardwicke held an inquest at the St. Pancras Coroner's Court concerning the death of John Page, aged 77. The evidence showed that the deceased, an inmate of the infirm ward at St. Pancras Workhouse, on Thursday morning asked one of the helpers (Kate Connolly) to give him some louse-medicine, upon which she went to a cupboard and took therefrom a bottle and poured out a glassful, which Page took and drank off at a draught. He immediately found that there had been a mistake, and that, instead of medicine, carbolic acid had been given him. Although everything was done for the deceased, he expired in five minutes. It was clearly shown that it was against the rules of the house for any one except the paid nurses to give any one medicines, and that the bottles were of a similar kind. The jury returned a verdict of "Death from misadventure". It is not very long since cases of a similar kind were reported from St. George's Hospital and from one of the Metropolitan Asylums. Carbolic acid has many deaths to answer for; and it seems probable that it might in many cases be advantageously replaced by some one or other of several innocuous disinfectants, such as the fluid terebene of Dr. Bond, of which Mr. Waddy lately wrote in our columns; or the new fluid "sanitas", a solution of peroxide of hydrogen introduced to notice by Mr. Kingzett, which is likely to prove of great value; or the colourless and odourless powder known as Langston Jones's "universal disinfecting powder", which has been for some time in use, we believe, at the Metropolitan Asylums, and rather extensively by medical officers of health. We hear also of a "neutral solution of chloride of zinc", which is likely to be a valuable disinfectant fluid.

PUBLIC HEALTH (METROPOLIS) BILL.

ANY doubt that remained as to the position of the Local Government Board in regard to this Bill ought to be dispersed by the reply given by Mr. Sclater-Booth to Mr. Holms on Thursday last, to the effect that, under its provisions, substantially there is no modification of the powers vested in the local authorities, except to increase them, because all the powers of the Secretary of State and the Privy Council, under the Acts consolidated in the Bill, were transferred to the Local Government Board by the Act of 1871. The President of the Board also said that he had issued a circular to the vestries and boards, respecting hospital accommodation under one of the Acts now proposed to be consolidated, and no exception was taken to the circular. The council of medical officers of health have issued a report on the Bill, chiefly on its new clauses. They, however, rather fully consider clauses 49-55, which are transferred from the Diseases Prevention Act, 1855, and would give power to the Local Government Board to issue regulations for the isolation and treatment of persons affected with epidemic, endemic, or infectious disease, such as small-pox, whereas the Act of 1855 was passed for the prevention of cholera, etc.; and they, therefore, suggest that the words cholera, yellow fever, or plague be inserted

instead of those just mentioned. As regards the clauses 56-64, which refer to the provision of hospital accommodation, the Council reproduce their opinions that adequate provision does not exist in London for the treatment and isolation of infectious diseases; that such provision can be best made by a central authority; but that the hospitals should be completely severed from any relation with pauperism. They also consider that the clause giving power to charge a patient admitted to a hospital should be limited to those who can afford to pay, and who shall not be removed for the public benefit, *i.e.*, for preventing the spread of disease; also that admission into, and treatment in, one of these hospitals is not to constitute pauper relief. These are important modifications, as many persons object to go into the Asylum Board's hospitals, because they are sent by the relieving officers, and are thereby pauperised. The Council also express an opinion that the clause forbidding building on rubbish-foundations should be extended to enable the Metropolitan Board of Works to prevent dampness of foundations and walls of houses, and to cause drains running under, or by the side of, houses to be embedded in concrete; also that the local authorities should be empowered to carry out any by-laws that may be made by the Metropolitan Board for the regulation of cowsheds and dairies. There has also been a conference of delegates from the vestries and boards at the Shoreditch Town Hall respecting the Bill; but the session is already so far advanced, and the business so backward, that there is little probability of its passing this year.

DEATHS FROM STARVATION IN 1876.

THE return for 1876 of deaths in the metropolitan district upon which coroners' juries have returned verdicts of death from starvation or death accelerated by privation is published in a parliamentary paper. The total number of such cases which occurred during the year was forty-four, of which twenty were in the central division of Middlesex, nineteen in the eastern division, three in the western division, one in the City of London and borough of Southwark, and one in the city and liberty of Westminster.

THE EARLSWOOD ASYLUM.

THE foundation-stone of the infirmary of the Earlswood Asylum was laid on Wednesday by Prince Leopold, the ceremony being followed by the usual summer *fête* and a grand bazaar. His Royal Highness, who was attended by his equerry, the Hon. Alexander Yorke, and his medical adviser, Dr. Royle, arrived about noon; and in the course of the proceedings bore emphatic testimony to the excellent services rendered by this institution in improving the physical and mental condition of a helpless class. The new infirmary will contain forty-two beds in four large wards and three smaller wards, the whole of the arrangements being in accordance with the most modern system of infirmary building. There is also a large convalescent or day-room opening directly on the grounds, nurses' rooms and dormitories, kitchen, disinfecting apparatus, and every appliance for the necessary work of the infirmary. The architects are Messrs. Lamb and Church, South Place, Finsbury. Of the forty-two beds required, twenty have been already presented, including one from the Bishop of Guildford, one from the Mayor of Reigate, and one from Prince Leopold.

REFORMS AT THE GENERAL HOSPITAL, BIRMINGHAM.

THIS institution has a character for conservatism; but when it does decide upon a change, it is usually thoroughly considered and ably carried out. Up to the present time, the hospital has had no special departments, and its honorary physicians and surgeons have not only attended in and out-patients, but have, like their predecessors, undertaken uterine, ophthalmic, dental, medical, and surgical work with equal impartiality. At length, though not without much opposition, a very important resolution has been carried in committee, and is to be shortly laid before a general meeting: it recommends the appointment of an obstetric, an ophthalmic, and a dental surgeon, and also of two assistant physicians and two assistant surgeons for the charge of

out-patients only, each of these assistant officers to receive £100 a year. Further, the election of these and of future officers is to be made by a committee, instead of as formerly by the whole body of nearly 2,000 governors, involving, as we have known, in a contested election, an expenditure of £700 or £800. In these wise proposals the General Hospital has embodied the best experience and most generally approved reforms in modern hospital legislation, and we trust that they will be unanimously ratified and very soon carried into execution.

THE INFANT LIFE PROTECTION ACT.

AT Clerkenwell, this week, Margaret Owen, of Draper's Place, Burton Crescent, appeared before Mr. Hosack to answer a complaint made by the Metropolitan Board of Works under the Infant Life Protection Act, that she retained and received for hire more than one infant for the purpose of nursing and maintaining them apart from their parents, she not being licensed to do so. Mr. Napier, who supported the summons, said that he had seen the house occupied by the defendant, and, if the defendant had applied for a licence, it would not have been granted, owing to the wretched condition of the place. Inspector Whiting, A Division, deposed that on June 14th he visited the house, and found two children under the age of one year. He visited the house on the 18th again, and saw the same two children. The kitchen was used as a nursery, and was wholly unfitted for the purpose. The defendant admitted to him that one of the children had been in her care from the age of three weeks, and the other child for the past three months. She received five shillings a week for each. The house was not registered under the Act. Mr. S. L. Smith, Medical Officer of St. Pancras, said that a child called Charles Compton was brought to him on June 14th and on a subsequent occasion. It had been evidently much neglected and imperfectly nourished. Mr. Napier said that this was only the second case under the Act, and he did not press for a severe penalty. Mr. Hosack fined the defendant 40s. and 23s. costs. In default of payment, the defendant was sent to gaol for a month. We are glad to see that the Metropolitan Board of Works are beginning to be a little more active in enforcing the provisions of this Act.

DEMONSTRATION BY DR. SAYRE OF HIS MODE OF TREATMENT OF DISEASES OF THE SPINE.

DR. LEWIS A. SAYRE, of the Bellevue Hospital, New York, is at present in London for the purpose of demonstrating practically his mode of treatment of Pott's disease of the spine and lateral curvature. At the invitation of the surgical staff of University College Hospital, he gave a practical demonstration of his method before a numerous professional audience. Among the early symptoms of spinal disease, much stress was laid upon such signs as slight irritative cough, numbness and tingling of the extremities, digestive disturbance, etc; these signs of peripheral nerve-disturbance often being the earliest indications of the spinal disease. Among the plans of treatment hitherto used, Dr. Sayre considers the only one of any use to be the continuous maintenance of the prone position on an inclined plane; all forms of extension-apparatus having a tendency, while separating the diseased surfaces, to cause such an approximation of the transverse processes as must press upon the vertebral arteries. To illustrate his modes of treatment practically, two children were brought into the theatre. A girl eight years old, with angular curvature in the mid-dorsal region, was submitted to treatment. Her shirt being removed, a thin closely woven vest without armlets was put on next the skin; and a large pad was placed over the abdomen under the vest. The child then stood under a tripod stand, to the apex of which was attached a block-and-fall arrangement carrying a horizontal iron bar; a padded collar was then buckled round the head and chin, while padded stirrups passed under the arms; straps were then passed separately from the collar and arm-stirrups to the iron bar above. By adjusting these straps, the relative tension upon the head and arms was adjusted with nicety, till

the little patient, when suspended by the pulleys, said she felt "better". The indication that the proper amount of extension has been made with the pulleys is the comfort experienced by the patient. When thus suspended, the spine became much straighter; the ears were lifted from the shoulders, and the diseased surfaces of the vertebræ were thus prevented from pressing upon one another. The patient was now directed to take a few deep inspirations. Plaster of Paris bandages were carefully applied round the body from the pelvis to the arms; and strips of thin perforated tin were placed by the sides of the spine, and a second layer of plaster bandages passed round the whole. The straps being now removed, the child was laid upon a mattress. As soon as the case was dry, the abdominal pad was withdrawn; and the patient, when erect, was found to be one inch taller. She was comfortable and free from all pain. In cases of caries of the cervical region, a head-piece is adjusted to the body-case, by means of which the spine may be relieved of the weight of the head. A girl aged 15 was the subject of great lateral distortion. Suspension was here made from the head only, the patient herself drawing upon the pulley-cord till her feet were off the ground. The plaster case was applied as before. In this instance, the child's height was increased by an inch and a quarter. In both forms of disease, after treatment by suspension and fixation, Dr. Sayre allows free exercise. In cases of lateral distortion, self-suspension is to be practised twice daily. After two or three months, the case may be slit down the front and fastened with eyelets. After such treatment, it is commonly seen that respiration becomes easy and the circulation free, while symptoms due to irritation of nerves subside. Dr. Sayre strongly insisted on the importance of practical details, such as the use of loose-textured bandages and suitable plaster, a closely fitting elastic shirt, and, above all, securing a perfect adaptation of the case; which details were carefully pointed out in the course of the demonstration. Further details as to Dr. Sayre's practice will be found in his *Orthopædic Surgery*, 1876; *Medical Journal of Richmond and Louisville*, May 1877; and the *American Practitioner*, June 1877. Those surgeons who are interested in this subject will have the opportunity of attending other demonstrations at other of the metropolitan hospitals; and Dr. Sayre will read a paper on the subject at the forthcoming meeting of the Association in Manchester. The apparatus used were constructed by Messrs. Krohne and Sesemann.

THE STAFFORD HOUSE COMMITTEE.

At the meeting of this Committee, held on Friday, July 6th, four surgeons—Mr. T. L. Attwood, Mr. Hume, Mr. Sandwith, and Mr. Edmunds—were appointed to proceed at once to the seat of war, and it was arranged that they should start immediately.

BOARDING-OUT.

THE gross abuse of two pauper children "boarded out", recently reported, is likely to lead to a strong reaction against the system, which has been thus perverted to a bad purpose. It will be well, however, very carefully to consider all the facts before this impulse is allowed to govern any subsequent line of conduct. Sir C. S. Trevelyan has, in a few well-considered and timely words, pointed out this week a few considerations which should induce people to pause before they reject the boarding-out in favour of the aggregate system. Boarding out, as hitherto conducted in England, has been of two kinds: first, boarding out within the union, which has not been controlled by any general regulations; and, secondly, boarding out outside the union, which was carefully regulated by Mr. Goschen's order of 1870. So far as Sir C. S. Trevelyan is aware, there has not been a single instance of abuse of the system as conducted under Mr. Goschen's order, while volumes might be filled with the cases in which orphans have been happily engrafted into family life. In Scotland, boarding out of every kind is properly regulated and inspected; and the result is, that they have neither workhouse nor district schools, and all their pauper children are depauperised and absorbed into the mass of the population. Those who care to see the details of this experience of a neigh-

bouring and kindred people would do well to read *The Boarding Out of Pauper Children in Scotland*, by Mr. Skelton, Secretary to the Poor-law Board.

METROPOLITAN WATER-SUPPLY.

FROM the return of the Registrar-General we learn that Dr. Frankland reports, as the result of his analysis of the waters supplied to the metropolis and some of its suburbs during June, that taking unity to represent the average amount of organic impurity in a given volume of the Kent Company's water during the last nine years, the proportional amount of such impurity in an equal volume of water supplied by each of the other companies, and by the Tottenham Local Board was: Tottenham 0.4, Colne Valley 0.6, New River 1.3, Kent 1.4, Grand Junction 2.5, West Middlesex 2.6, East London 2.9, Lambeth 3.1, Chelsea 3.5, and Southwark 4.1. All the metropolitan companies drawing their supplies from the Thames and Lea, delivered efficiently filtered water, except the Southwark Company, whose water was slightly turbid from inefficient filtration, the suspended matter being "full of moving organisms"; the Southwark water also contained an excessive proportion of organic impurity. The deep well waters, delivered by the Kent and Colne Valley Companies, and by the Tottenham Local Board, were of the usual excellent quality. The Colne Valley water was softened previously to delivery. Dr. Hill reports that the water supplied by the Corporation to Birmingham showed a larger amount of organic impurity, and owing to imperfect filtration was turbid, and contained vegetable fibres. The Loch Katrine water supplied to Glasgow is reported by Dr. Mills to have contained muddy particles and fibres, insect life, and traces of iron.

PLAGUE IN PERSIA.

A TELEGRAM from Teheran, under date July 7th, announces that a very general exodus is proceeding from Resht, in consequence of the prevalence of the plague at that place. No official statistics have been issued; but the number of cases is believed to be from twenty to thirty daily.

ABUSE OF HOSPITALS: ANOTHER CASE IN POINT.

THE *Charity Organisation Reporter* of July 5th, says:—The White-chapel Committee has recently had before them a glaring case of abuse of a medical charity. The attention of the medical officer of one of the largest endowed hospitals having been drawn to an out-patient, he caused inquiry to be made through the society. It was found that the woman in question was the wife of the proprietor of a tavern in a most favourable situation, who was doing a good business, and appeared to be "very well off". A local medical man, who had at various times visited the out-patient in question, stated that, in his opinion, the people were perfectly able to pay for the services even of a physician, if they chose to employ one.

ALLEGED FRAUDS ON THE PHARMACEUTICAL SOCIETY.

AT Bow Street, on July 6th, Andrew Ritchie Hunter was charged before Mr. Vaughan with having defrauded the Pharmaceutical Society. The defendant had, for fees of two or three guineas, personated other young men who had applied for registration and had failed to pass the requisite examination. Two of the young men had already been committed for trial, but the prisoner had hitherto escaped apprehension. He was taken into custody at Wolverhampton, and pleaded that he had only acted in a spirit of friendship, and without any suspicion that he was committing an illegal offence. His employer gave him an excellent character. He was remanded for further examination, it having been intimated by Mr. Straight, who conducted the prosecution, that the Society intended to proceed in a third case. George Frederick Webb, who had been remanded on the charge of having allowed Hunter to assume his name and pass an examination by Mr. Hayward, a pharmaceutical chemist at Reading, was committed for trial. His employers gave him an excellent character, and he was admitted to bail.

ST. BARTHOLOMEW'S HOSPITAL.

A MEETING of the governors of this hospital, called by the treasurer, Sir Sydney H. Waterlow, M.P., was held on July 5th for the purpose of considering, among other matters, two highly important recommendations. One was a proposed compromise of a lawsuit which has been long pending between the governors of the hospital as plaintiffs and the inhabitants of Christ Church, Newgate Street, as defendants. The plaintiffs are entitled, under their charter of Henry VIII, to the great tithes at the rate of 2s. 6d. in the pound, but have never enforced payment of anything like that sum. Five or six years ago, however, a few energetic governors determined to test the right of the hospital to the full payment. Sir Sydney Waterlow has from the commencement been most anxious to settle the suit by compromise, and, after many conferences with the inhabitants, has succeeded in obtaining their consent to an undertaking to pay to the hospital the sum of £1,200 a year for the next five years, £1,800 a year for the following five years, and £2,400 a year for ever, commencing at the end of ten years. This compromise, having received the almost unanimous assent of the parishioners, was on Thursday unanimously confirmed by the governors of the hospital. The next subject for discussion was the rebuilding of the medical school. It is intended to reconstruct the theatre, museum, and library, and to provide at the same time accommodation for the education and instruction of the students. The proposal will involve an expenditure of nearly £50,000, towards which the lecturers and teachers in the medical school are to contribute £750 *per annum* out of the school fees. The whole question has been brought before the Charity Commissioners, who, replying to the governors, have stated "that, having regard to the great development of the School of Surgery and Medicine, and the rapid augmentation of the number of students in recent years, which is apparently due to the position and other advantages possessed by the hospital, the Commissioners think that their sanction may justly be given to the erection of the new theatres, library, museum, and other buildings devoted to instructional purposes". After hearing the letter read, the governors gave their unanimous consent to the proposal. The proceedings, which were throughout of a most unanimous character, concluded by a special vote of thanks to Sir Sydney and the Almoners for the time and trouble they had devoted to bringing these important matters to a satisfactory conclusion.

THE INDIAN FAMINE.

DR. CUNNINGHAM, Assistant Sanitary Commissioner, who was deputed to investigate the peculiar forms of disease among the famine-stricken people, has, we read, submitted to the Indian Government an interesting report. He was unable, he says, to discover any form of fever which could in any way be ascribed to the influence of want. In spite of the high degree of mortality among people in the relief camps, he found that fevers of any kind practically did not exist, deaths being almost entirely due to diarrhoea and dysentery. On the other hand, the general results of his researches confirm the belief that morbid conditions exist which may with propriety be termed famine diarrhoea and famine dysentery. Pathological changes characterising these diseases consist in softening and subsequent atrophy of the mucous membrane of the intestinal canal, due apparently to a process of fatty degeneration of the tissues, and leading to the destruction of the apparatus provided for absorbing nutritive material. Dr. Cunningham thus accounts for the failure of curative measures in these diseases, as no diet can avail when the means are destroyed by which alone it can be appropriated to the necessities of the body.

CHOLERA IN BOMBAY.

THE *Times of India* of June 15th says:—"We regret to say that cholera is still very prevalent in some parts of the native town, and also at Mazagon and Colaba. At both the latter places, the Goanese Christians have held special services in their churches, while a body of natives, more or less disorderly, have paraded the streets to conciliate

the cholera god. But the same people adopt every opportunity of making a noisy demonstration. The following return shows the number of cases, both in town and harbour, from the 8th to the 11th instant, inclusive:—June 8th, 38 cases, 21 deaths; June 9th, 36 cases, 21 deaths; June 10th, 49 cases, 26 deaths; June 11th, 52 cases, 26 deaths. The cholera is of a mild type; for the ordinary ratio of deaths to attacks is about 70 per cent. It has, too, no appearance of an epidemic; for the cases occur singly at scattered intervals, and have found no regular and infested centres. Perhaps the most reassuring fact to Bombay citizens is, that the disease is almost entirely confined to strangers who have come into the town within the last few months, and whose wretched condition, and the inferior food on which they have to subsist, predisposes them to attack. For instance, out of the 26 deaths on the 11th instant, all but three occurred among the immigrants. Still this attack is another cause why we should desire an early and heavy monsoon, which will happily wash the last traces of the disease away. In the meantime, the health-officer and his assistants are doing all that lie in their power by constant inspection and the free use of disinfectants. Cholera has appeared amongst the shipping in the harbour. During the last three or four days, a number of cases have occurred, some terminating fatally. We hear that on board one steamer there were no less than nine seizures, four of which proved fatal."

THE MORTALITY OF MADRAS.

A CORRESPONDENT of the *Times* of July 9th, writes as follows:—"The mortality bills of the town of Madras, calculated on the population returns of the last census, showed something like 150 deaths per 1,000 for the month of March, and for April and May there has been a slight decrease, but the rate is still over 130 per 1,000. As I have said before, the population is abnormally large, owing to the influx of immigrants, so that these proportions are not so high as the figures would indicate; but there can be no doubt that the mortality is most distressingly high among the poorer residents, but especially so among the starved immigrants from other districts. Every hospital in the town and every relief camp is full to overflowing of sickly and diseased creatures who have been laid low by sheer want of the necessaries of life; and while this steady set of sickly and diseased objects towards Madras continues, your Registrar-General must not be surprised to find the mortality of Madras topping that of all other "foreign cities" included in his weekly bills of health.

THE WOUNDED IN THE EASTERN WAR.

THE arrangements for the care of the wounded appear to be as complete on the Russian side as on the Turkish side they are barbarously incomplete. From the Russian side we read:

"Wounded men are daily arriving at Bucharest by the Giurgevo railway line. They come from Simnitcha. An American surgeon who is inspecting the hospital arrangements at Bucharest pronounces them all that could be desired, and expresses his surprise to find all the modern improvements for caring for sick and wounded men in full operation here in the East. The Russian field ambulance-trains are very extensive, and contain complete arrangements for the comfort of the wounded."

A correspondent at Shumla reports:

"There are eighty-eight wounded in Rustchuk, and the English doctors are not allowed to attend them. All are packed off, with broken legs and arms, without being dressed, in a dreadful state, for Constantinople. Soldiers implore the English doctors to extract bullets; but they are helpless, as twenty-eight cases of medical stores sent by the Stafford House Committee have been seized by the Turkish doctor-in-chief at Rustchuk, in spite of the protest of the English doctors. They have not been distributed, and are practically useless. Battalions are marched off without medical stores, while this man keeps everything under lock and key. All stores should be consigned to the English doctors."

Mr. Kennet has since arrived there to represent the National Aid Society. The Hon. Auberon Herbert and Dr. Humphry Sandwith ask if the National Aid Society for the Sick and Wounded in War have

sent any assistance to Montenegro, and, if they have not, what is the reason of their failure?

"If the National Aid Society are unwilling to undertake this work, which should have been done long ago by them, they at least owe it to the public to inform them of the fact, so that they may not stand in the way of other efforts being made. We would add that so much uncertainty exists as to what the Society are doing, and so much suspicion—we wish to believe quite undeservedly—as to the impartiality with which the wounded of the two sides are receiving relief, that the public should at once be put in possession of a full statement of the present operations of the Society."

COFFEE-TAVERNS.

AN addition has been made to the number of "Coffee Palaces" open to the public in London, by the conversion of a public-house in a thickly populated neighbourhood near the Latimer Road Station of the Metropolitan Railway. The Lord Chancellor, who took part in the opening of the new establishment on Saturday, remarked that those who simply sought by legislation to prevent men from resorting to public-houses and indulging in intoxicating liquors had not attended sufficiently to the necessity of providing attractive substitutes.

ALCOHOL IN WORKHOUSES.

A FEW sessions ago, an elaborate parliamentary paper was issued showing the quantity and cost of alcoholic drinks supplied at the expense of the rates to paupers in every union in England. The more useful parts of that document have been called for afresh, and are now published as a return to the House of Lords, presented on the motion of Lord Cottesloe. They are thus summarised by the *Pall Mall Gazette*. In 1871, the aggregate quantity of ale—including under that term every description of beer—wines, and spirits consumed by the paupers was 10,125,050 pints; according to the statement just out, the quantity consumed in 1876 was 6,964,005 pints: thus disclosing a decrease in five years of 3,161,045 pints, or 31 per cent. To what extent each kind of alcoholic drink was reduced in quantity, is shown hereunder:

	Year ended Michaelmas, 1871.	Year ended Michaelmas, 1876.	Decrease in 1876
Consumed by in-door paupers:	Pints.	Pints.	Pints.
Ale	8,675,337	6,268,769	2,406,568
Wine	1,200	11,000	9,800
Spirits	1,250	2,236	986
Consumed by out-door paupers:			
Ale	780,799	714,711	536,006
Wine	1,000	2,000	1,000
Spirits	1,000	2,000	1,000
Total	10,125,050	6,964,005	3,161,045

This gives the absolute decrease, irrespective of the number of paupers whose demand for stimulants had to be supplied by the guardians in 1871 and in 1876. Taking the mean of the number of paupers enumerated at midwinter and midsummer of each of the years ended with Michaelmas, the figures were respectively 1,029,628 and 730,131. The quantity per head in 1871 was therefore 9 8-10 pints and 9 5-10 pints in 1876: that was a decrease of 3-10ths of a pint per pauper. The diminution in cost was upwards of £38,000; the outlay for each kind of drink was this:

	1871.	1876.	Decrease.
Beer	£70,000	£38,867	£31,133
Wine	1,000	10,305	9,305
Spirits	1,000	27,617	26,617
Total	£72,000	£76,789	£4,789

The cost per pauper in 1871 was 2s. 3d., and in 1876 it was 2s. 1¼, hence the saving has been equal to 1¼ per head. Several of the metropolitan workhouses have heavy yearly bills for ale, wine, and spirits, supplied to their pauper inmates. These are some of the more conspicuous charges for 1876:—Bethnal Green, £676; St. George's, £1,205; Holborn, £1,214; City of London, £2,066; Marylebone,

£1,789; St. Pancras, £1,868; Strand, £1,021; Camberwell, £915; and St. Saviour's, £1,158. On the whole, the practice of supplying stimulative drinks to the paupers has but slightly diminished since 1871.

THE DINNER OF THE FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

THIS annual dinner took place on Thursday, July 5th, at the Albion Tavern, when about eighty fellows were present. The chairman of the evening was Mr. E. L. Hussey, of Oxford; and amongst the visitors present we noticed the Presidents of the Royal Colleges of Physicians and Surgeons; the Master of the Apothecaries' Company, Sir Joseph Fayrer, C.B.; Dr. Howard of New York; Professor Parker of the Royal College of Surgeons; Mr. Trimmer; and Mr. T. M. Stone. The usual loyal and professional toasts were proposed and responded to. The honorary secretary, Mr. Allingham, to whom great credit was due for the excellence of the arrangements, in responding to the toast of the "Honorary Secretary", which had been felicitously proposed by the chairman, took occasion to remark that the funds now in hand exceeded £57, and that after four years of office he was about to resign. He also announced that Mr. B. T. Lowne had been appointed his successor by the Committee of Stewards. The company separated at about 10.30 P.M., after a pleasant evening.

CREMATION.

THE Paris Municipality have agreed, on the recommendation of a committee, to petition for a law permitting cremation, though one member argued that the practice, not being forbidden, was already lawful. The Prefect objected to a second recommendation of prizes of 25,000 francs, 15,000 francs, and 10,000 francs for the best plan of carrying out cremation, considering the sums too large; and this was referred back to the committee.—A correspondent of the *Globe* reminds us, *à propos* of this recommendation, that the idea of cremation, started in the seventh year of the Republic, but allowed to remain in abeyance owing to the opposition offered to such a project by the masses, has again been resumed by men who find that the Voltairian theories are accepted by a generation which regards with favour civil interments as a public protest against the rites offered by the Church. When the Reign of Terror had peopled every cemetery, and the victims of the Revolution could no longer find a place of sepulchre, Citizen Cambry, a student of Greek history, who remembered the vengeance of Sylla in burning, under the pretence of honouring, the body of Marius, proposed that the funeral pile should replace the superstitious customs the Church had introduced into a country which had become sufficiently enlightened to emancipate itself and found a republic. In the public library in the Rue Colbert, may be found the plans of the new cemetery which Citizen Cambry and his friends proposed to construct at Montmartre. A large furnace, something between a lime-kiln and the baking-stove in a pottery, was to be erected for the use of the public. Four large monumental depositories were to be built and dedicated to the manes of infancy, youth, manhood, and old age. The dead were to be burned, unless previous to decease any person had expressed a wish to be laid in the bosom of mother earth. The ashes were to be carefully gathered up and placed in an urn, to be provided by the relatives at a minimum cost of eighteenpence, and the urn was to be carefully stored up in the charnel-house of that category to which the dead person by his age belonged. The unclaimed dead, who had neither friends nor relatives, when reduced to ashes, were to be placed in one common receptacle to be provided at the cost of the State. The process of incineration was to be carried on publicly, and permission was to be given to friends or relations of the deceased persons to gather up and remove the ashes, conveying them to their own homes and enclosing them within costly gold or silver urns. The idea was very favourably received by the Government, but met with great opposition from the middle classes, who at that moment were no longer afraid to show that they had some respect for the teachings of the Church, after having essayed and condemned the licentious doctrines of the Age of Reason. Money could

not be obtained to carry out the scheme. The Montmartre Cemetery was purchased as the property of the municipality, but the funds required to build the furnace and construct the monuments in which the urns were to be stored up, were refused by the Directory.

DEATH OF DR. BATHURST WOODMAN.

By the sudden and untimely death of Dr. Bathurst Woodman, the London Hospital has sustained a loss which is deeply felt. He was much esteemed by his colleagues in the Hospital and Medical School as a physician and clinical teacher; and his courteous and considerate manner won for him the esteem and regard of all who knew him. With a well cultivated mind, he had bestowed much attention upon professional and general literature; he was the translator and editor of Wunderlich's *Medical Thermometry* for the New Sydenham Society; had contributed an article on Chorea and Pregnancy to the *Transactions of the Obstetrical Society*; and a paper on Ammonia in the Urine in the *Proceedings of the Royal Society*. His recent labour in bringing out a new edition of *A Handbook of Forensic Medicine*, in conjunction with Dr. Tidy, had, among other causes, produced a great strain upon his mental powers, often totally preventing sleep. Dr. Woodman, besides holding the position of Physician to the London Hospital, was also Physician to the North-Eastern Children's Hospital, and an Examiner at the Apothecaries' Hall. He was recently made a Fellow of the Royal College of Physicians in London. It is understood that prolonged domestic anxieties had deeply preyed upon his mind; and these combined causes, acting upon an extremely sensitive disposition, led to an insupportable condition of mental distress which culminated in his untimely death.

SUICIDE OF A PUPIL AT CHRIST'S HOSPITAL.

AN inquest was held last week on a boy named William Arthur Gibbs, twelve years of age. It appeared from evidence that the deceased had been several years at the Hertford School, and had been removed to London after the Easter vacation. Since then, he had twice run away, and is said to have felt himself so much aggrieved by the treatment he received from one of the monitors as to have expressed his determination to hang himself. Major Brackenbury, the Warden of the school, said the boy was habitually troublesome, and of a stubborn and perverse disposition; complaints had also been made of his untidy habits. When brought back to school, he received a flogging and was placed in the infirmary, where he was afterwards found hanging by a cord attached to a ventilator in the window. It would appear that his mental distress had driven him to this desperate act. Mr. Alder Smith, surgeon to the school, gave evidence that the cause of death was strangulation by hanging. As the matter has already attracted attention in Parliament, we refrain for the present from commenting upon the school system under which such results have occurred until fuller information can be obtained. We understand that the Rev. Charles A. Lee has already made a written statement on the subject to the Home Secretary.

A PRIVILEGE ABUSED.

THE editor of the *Home Chronicle* boasts, in the last number, that he appended a certain memorandum to his voting-paper, at the recent election of members of Council of the Royal College of Surgeons, expressing his opposition to Mr. Erichsen on the ground that he is a supporter of vivisection. Not to speak of the extremely bad taste of such a statement, it would appear to be contrary to all the rules of balloting, and ought certainly to be brought under the notice of the Council of the College. It is unnecessary to discuss the general merits of such a proceeding; but it is interesting to note that, on the one hand, Mr. Erichsen's vivisections were performed for the Royal Humane Society, with the view to discover the best means of preventing asphyxia in drowning, and recovering suspended animation in drowned persons; and, on the other hand, it would certainly have been impossible for this gentleman to record a vote on behalf of any member of the

Council, or any candidate for its membership, who was not a supporter of the practice of the investigation by experiments on living animals, to the same extent and for similar purposes to those which have been held in view in Mr. Erichsen's important and valuable researches.

THE ETIOLOGY OF PLEUROPNEUMONIA.

THE Professor-Superintendent of the Brown Institution, Dr. Burdon-Sanderson, in a report to the Committee of that valuable establishment, gives an interesting account (which we find in the *Farmer*) of experiments made by him on several animals, by introducing the liquid from pleuropneumonia-infected lungs into the body of healthy animals by subcutaneous puncture or injection into the blood-stream. From these trials, two new and important facts have been learnt, namely: that the introduction into the subcutaneous tissue of the exudation liquid of pleuropneumonia, when the necessary precautions are used against septic infection, is not attended with any of the dangerous effects usually attributed to it, and that the liquid may even be mixed with the circulating blood without risk; and secondly, that the constitutional disturbance occasioned by the last-mentioned procedure is of extreme mildness, and exhibits none of the characteristic features of the formidable and fatal malady with which it is identified by its origin. The consideration of these facts, which Dr. Burdon Sanderson admits were as surprising to himself as they were opposed to received beliefs on the subject, at once suggested the question whether the trivial effects produced by injection may not, notwithstanding their apparent mildness, be associated with an internal constitutional change sufficient to render the animal incapable of future infection by the ordinary means, *i.e.*, by cohabitation with diseased animals. If it were possible to answer this question in the affirmative, he says, it is easy to see that consequences would arise, which in their relation to the prevention of pleuropneumonia might be compared with those which attended the discovery of vaccination; for we should become possessed of a means of conferring immunity from the disease which would be free from those drawbacks which have hitherto thrown deserved discredit on the employment of prophylactic inoculation. He does not as yet venture to express the hope that such fruits as are here indicated will actually accrue from their efforts. It is obvious, he says, that the question is one which can only be settled by the further experiments which they are now preparing to carry out, *viz.*, by subjecting those animals of which the blood and tissues have been already impregnated with the specific virus to circumstances which will thoroughly test their immunity. For this purpose, it is intended to place them one by one in stables occupied by diseased animals.

THE PUBLIC HEALTH.

DURING the week ending Saturday, July 7th, 5,506 births and 3,064 deaths were registered in London and twenty-two other large towns of the United Kingdom. The natural increase of population was 2,442. The mortality from all causes was at the average rate of 20 deaths annually in every 1,000 persons living. The annual death-rate was 18 per 1,000 in Edinburgh, 22 in Glasgow, and 20 in Dublin. The annual rates of mortality per 1,000 last week in the twenty English towns, ranged in order from the lowest, were as follows: Brighton 9, Norwich 14, Portsmouth 14, Sunderland 17, Leicester 17, Nottingham 17, Sheffield 17, Bristol 17, Bradford 18, Leeds 19, London 20, Hull 20, Wolverhampton 20, Birmingham 21, Newcastle-upon-Tyne 21, Liverpool 22, Plymouth 22, Manchester 22, Oldham 23, and Salford 25. The annual death-rate from the seven principal zymotic diseases averaged 3.5 per 1,000 in the twenty towns, and ranged from 0.6 and 0.9 in Nottingham and Leicester to 5.7 and 6.7 in Wolverhampton and Salford. The deaths from small-pox in the twenty towns, which had steadily declined from 92 to 54 in the eight preceding weeks, further fell to 29 last week, of which 23 occurred in London, 5 in Liverpool, and 1 in Salford. In London, 2,220 births and 1,322 deaths were registered. Allowing for increase of population, the births were 40 and the deaths 72 below the average numbers in the corre-

spending week of the last ten years. The annual death-rate from all causes, which in the two preceding weeks had been equal to 18.8 and 19.2 per 1,000, further rose last week to 19.5. The 1,322 deaths included 23 from small-pox, 41 from measles, 18 from scarlet fever, 0 from diphtheria, 35 from whooping-cough, 19 from different forms of fever, and 96 from diarrhoea. These 244 deaths were 73 below the corrected average number from the same diseases in the corresponding week of the last ten years. Notwithstanding the recent cool temperature, the fatal cases of diarrhoea, which in the five previous weeks had risen from 13 to 50, further increased to 96 last week, of which 80 were of infants under one year of age; this number, however, was 34 below the corrected average number in the corresponding week of the last ten years. In greater London, 2,682 births and 1,528 deaths were registered, equal to annual rates of 32.0 and 18.3 per 1,000 of the population. In the outer ring, 3 fatal cases of small-pox were registered in West Ham, 2 in Croydon, 1 in Stratford, and 1 in Edmonton. Eleven deaths were referred to diarrhoea. At the Royal Observatory, Greenwich, the duration of registered sunshine in the week was 46.0 hours out of the 114.9 hours that the sun was above the horizon.

SCOTLAND.

THE town of Dunfermline has resolved to present the freedom of the town upon Mr. Andrew Carnegie of New York, in recognition of his gift of £5,000 to the Corporation for the erection of public baths.

THE fortnightly report of the Edinburgh Water Trust shows that the present supply in store is 630,000,000 gallons. The delivery in the city is equal to 27.70 gallons per head per day to a population of 286,600. The rainfall at Glencorse, from January 1st to July 3rd, has been 25.85 gallons as compared with 21.55 gallons in 1876, and 14.60 in 1875.

WE understand that Mr. Charles Barry, President of the Royal Institute of British Architects, has been in Edinburgh during last week, engaged, at the instance of the managers of the Royal Infirmary, in making a thorough examination of the new Infirmary buildings. His investigations lasted two or three days, and his report is expected in about a fortnight.

TWO very severe thunderstorms occurred in Scotland last week. By one, on Tuesday, in Aberdeenshire, a boy was killed, and another boy and a woman rendered unconscious. In the second, which burst over Edinburgh, a seagull, flying over the town, was struck by the lightning, and fell dead in the street.

DURING the quarter ending June 30th, there were registered in the parish of Crieff 40 births and 19 deaths, the age of one of the deceased persons being 97. There was no marriage recorded, a very unusual circumstance in so large a parish.

ACTION FOR SLANDER OF A MEDICAL MAN.

AN action was recently decided in the Scottish law-courts, in which the pursuer sued for £2,000 damages in respect of an alleged slander of a very peculiar nature. The pursuer, Mr. J. W. Reid, holds the degrees of M.B. and C.M. of Glasgow University, and is a medical practitioner in the parish of Erie, Orkney; and the defender, the Rev. A. Leslie, is the minister of the united parishes of Erie and Rendall. The pursuer charged the defender with having made false and calumnious statements, to the effect that he (pursuer) was a drunkard and an immoral man, and about his having been a party to inducing abortion in a girl in a neighbouring parish, and that he was for these reasons dismissed from the office of parish surgeon. The defender made a general denial of these charges, and pleaded that the only statements he had made were in answer to persons interested in the parochial boards of these parishes, who wished to know the reasons which led the Board to dismiss the pursuer. He had legitimate call to do this,

and any statements which he made were in discharge of his duty. His statements being privileged and without malice, he was entitled to a verdict. The case resulted in an arrangement between the parties. The defender put in a minute in which he retracted all the imputations which he had made on the pursuer's character, expressed his regret for having made such statements, and apologised for them, and tendered the pursuer £100 in name of damages and expenses. The pursuer accepted this minute and tender, which was read at the bar, and his lordship decreed in its terms in favour of the pursuer.

THE HEALTH OF EDINBURGH.

THE report of the Medical Officer of Health for Edinburgh for the month of June showed that the deaths during the month had numbered 362, equal to an annual death-rate of 20.54 per 1,000. This was slightly higher than the death-rate for the corresponding month of last year, owing chiefly to numerous deaths from chest-disease and whooping-cough, but was lower than that of 1874 and 1875. Otherwise, the town was reported to be comparatively free from disease.

IRELAND.

MR. RICHARD G. O'FLAHERTY has been elected Medical Officer to the No. 1 Kingstown Dispensary District, in succession to his father, Mr. Jeremiah O'Flaherty, who, after having filled the office for many years, has resigned in consequence of impaired health.

THE Bellanagh (Cavan Union) and Sligo Dispensary districts are vacant. By the recent death of Dr. Martin at Lisdoonvara, the post of Medical Officer to the Celbridge Union and Fever Hospital becomes vacant.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

THE election of members of council to fill up three vacancies caused by the deaths of Mr. Wilson and Dr. Cronyn and by the resignation of Dr. Jacob, took place on Monday last. There were seven candidates. The gentlemen elected were Dr. A. H. Corley, Mr. W. Stokes, and Dr. B. F. McDowell. Mr. Corley, who is Surgeon to the Richmond Hospital, and Lecturer on Surgery in the Carmichael School of Medicine, polled forty-four votes. Mr. Stokes, who has been previously a member of council, is Senior Surgeon to the Richmond Hospital, and Professor of Surgery in the Royal College of Surgeons' School, and he polled forty-two votes. Dr. McDowell is one of the Surgeons of Mercer's and of the Lock Hospitals, and Lecturer on Materia Medica in the Ledwith School; the number of votes polled by him was forty-one. Over eighty Fellows voted.

HEALTH OF DUBLIN.

THE death-rate of Dublin continues abnormally high. It was 30.9 per 1,000 in the week ending June 30th, while that of London was but 19.2. The epidemic of measles still rages, and there can be little doubt that many of the deaths referred to bronchitis and pneumonia, twenty-eight in all, were, in reality, due to measles. The zymotic death-rate in the North City district for the past ten weeks rose to 8.2; the number of deaths from measles in this district for that period being 59. At the last meeting of the Executive Committee of the Dublin Sanitary Association, it was stated that two cases of typhus and a case of cerebro-spinal meningitis were under treatment at present from a house which was reported by the Association to the Public Health Committee of the Corporation in July 1873, as being unfit for human habitation, having always been a hotbed of disease. It was severely visited by cholera in the year 1866, furnished three cases of fever to hospital in 1869-70, seven cases of smallpox in 1871-2, and at that time (1873), had two cases of enteric fever. Three members of the Public Health Committee then visited the house and reported that the complaint of the Association was unwarranted by facts. Notwithstanding, it is still allowed to remain; although once, unfortunately, it narrowly escaped being burned down—a plague-spot in the city and

a disgrace to its sanitary authorities. Two deaths from smallpox were reported during the week; one was that of a girl aged two and a half years, who had not been vaccinated, and the other that of a constabulary recruit, aged 22 years. In the latter case, the return affords no information as to vaccination.

HOSPITAL FEES.

THE adjourned meeting of the Physicians and Surgeons of the Dublin Clinical Hospitals, to consider the propriety of increasing the hospital fees, was held in the King and Queen's College of Physicians last week. About two-and-twenty gentlemen, representing, with a few exceptions, the various hospitals concerned, attended the meeting. The Committee appointed at the previous meeting had prepared a table of the fees for hospital practice in the principal London and provincial English clinical hospitals, which was laid on the table. A resolution to the following effect was proposed, and seconded. That the hospital clinical fees, from the 1st October next, be raised as follows: For the winter six months, eight guineas; for the summer three months, four guineas; and for the winter and summer sessions, or nine months, twelve guineas; the fee for perpetual pupils to be thirty guineas; such increase in the fees not to be retrospective. After some discussion, the motion was put from the chair, and carried with one dissentient voice. The representative of one of the hospitals, on the part of its medical staff, objected to the proposed increase in the fees, as being at present premature, in view of the anticipated changes in the students' curriculum. Copies of the resolution were directed to be sent to the medical boards of each of the clinical hospitals. Although the general feeling of those present at the meeting was manifestly favourable to the proposed scheme, we doubt whether such a desirable result as an uniform scale of increased fees will be accepted. At present, there is no such uniformity. The fee in Sir Patrick Dun's Hospital, for nine months' attendance, was a few years ago reduced from twelve to nine guineas. The latter is the present fee in some of the Dublin hospitals, while in others it is eight guineas for the same period; and we are aware that, in some cases, reductions are made in these charges.

COFFEE-HOUSE FOR DUNGANNON.

A CONFERENCE, consisting of a number of the local clergy, gentry, and others, was held at Dungannon last week, to consider what steps should be taken to supply a want long felt, viz., the establishment of a coffee-house for this town. After considerable discussion, it was resolved that an executive committee should be appointed to obtain full information, and report to a general meeting to be held on a future day. The plan proposed is to have a coffee-house on the principle of those adopted in Dublin, Belfast, and other places, where refreshments can be obtained at a moderate price, and where no intoxicating liquors will be vendid. As an important adjunct in counteracting intemperance, we wish the project every success.

THE EMPEROR OF BRAZIL.

THE Emperor of Brazil arrived in Dublin on Saturday evening, and left for Killarney on the following day. The active habits of his Majesty are well-known, and on this occasion the number of various manufactures, institutions, public buildings, etc., which were inspected during his flying visit of twenty-four hours, showed his indomitable energy and perseverance. On Saturday evening, after arriving from Belfast, he inspected a distillery and Guinness's Brewery; and the next day visited the North Dublin Union, Botanical Gardens, Glasnevin Cemetery, Nelson's Monument, Exhibition Palace, Royal Dublin Society, College of Surgeons, Royal Irish Academy, City Hall, Trinity College, etc.

MANY of our associates will have seen with great regret the announcement of the death of Mrs. Watkin Williams, the wife of the former General Secretary of the Association, and who, as is well known, took an active part in assisting him in the work while he held that difficult and responsible position.

SCIENTIFIC GRANTS.

WE beg to call the attention of our associates and of the profession generally to the advertisements which have appeared during the last three weeks from the Scientific Grants Committee, inviting applications for the grants of the Association towards Researches in Aid of Medicine and the Collateral Sciences. Such applications should be made not later than the 20th July next.

HARVEY TRICENTENARY MEMORIAL FUND.

A MEETING of the subscribers to the above fund will, by permission of the President of the Royal College of Physicians, be held at the College, Pall Mall East, on Wednesday next, July 18th, at 5 P.M. The business of the meeting will be the following:—1. To elect Honorary Treasurers to the fund. Sir G. Burrows, Bart., M.D., and Prescott Hewett, Esq., will be proposed for this office. 2. To receive the Honorary Secretaries' report of the progress of the fund, and a statement of accounts. 3. To elect two auditors. 4. To discuss and adopt measures for promoting the success of the object contemplated. The attendance of all subscribers at this meeting is earnestly requested.

THE HUNTERIAN MUSEUM.

THE exigencies of the examinations of the College of Surgeons have not allowed the annual exhibition of the new preparations and additions to the Hunterian Museum during the year to be kept open in the theatre so long as heretofore. This is much to be regretted, for on no former occasion have they been more interesting, and rarely so numerous. The additions to the Pathological Collection—enumerated in the Annual Report of the Conservator, Mr. W. H. Flower, to the Museum Committee—include the splendid collection of specimens illustrating heart-diseases and malformations presented by Dr. Peacock, of which we have already given an account. These are now in position on the shelves of the museum, and constitute, together with the series already in the possession of the College, an extremely valuable collection. They have been remounted, and the catalogue has been revised and arranged. A large series of "store-preparations" have been presented by Dr. Arthur Farre, illustrating the physiology of gestation and of foetal development. Among the miscellaneous specimens added, we may particularise an extremely interesting specimen of human twins of unequal size united at the head, presented by Dr. Playfair (138 A), of great teratological interest, especially when seen in its place in the museum by the side of a somewhat similar specimen of rare value which has long been one of the treasures of the College; a very valuable specimen, presented by Mr. Carr Jackson, of a "spine twenty-seven years after fracture of the upper lumbar region", showing repair. The patient was one of whose surgical history Mr. Jackson had cognisance at the time; and this very valuable specimen was secured by him at the cost of much perseverance, for he kept the subject in view for a long series of years. Mr. C. Heath's preparation (1596 C) of an aneurism of the aorta, for which the left common carotid had been tied four and a half years before death, has a well-known surgical importance. We are glad to see that Dr. Lediard, the Medical Superintendent of the Central London Sick Asylum, has made many valuable contributions to the museum. The superintendents of great medical establishments such as these, where there is no school and little temptation to create a museum, can hardly do better than contribute rare and important selections from their *post mortem* results to the great Hunterian national museum. Considerable additions have also been made to the physiological series.

The museum is now so richly filled that its space is beginning to be very crowded. It would not be impossible, we think, greatly to enlarge the space by widening the galleries and erecting transversely projecting rays of shelves opening on both sides, by which an almost indefinite further space might be created. Meantime, it is impossible not to observe with satisfaction how much the enlightened and assiduous care of the conservator (Mr. Flower) has done to improve the arrangement of the museum, to foster liberal contributions to its treasures, and to make them available for study. The more practical nature of modern examinations and the growth of biological studies give yearly increasing importance to these fine collections; and, during the year 1876, the visitors' book was signed by 7,936 persons, being 1,443 in excess of the previous year. The strictly scientific and thoroughly practical manner in which these collections are administered

makes the Hunterian Museum a great centre of attraction to all biological students; and everything which unfeigned courtesy and sincere sympathy with all real scientific aspirations can do to make them serviceable, is done.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

ON Tuesday, the 3rd instant, the annual general meeting of this Association took place at 3, Bolt Court, Fleet Street, under the presidency of Dr. JOSEPH ROGERS. There were also present seventeen members. Mr. Wickham Barnes, the Secretary, read letters from a number of gentlemen expressing their inability to be present. The Chairman also read a letter from Sir Trevor Lawrence regretting too many other engagements would prevent him from attending the meeting.

Dr. ROGERS then commented at length upon the work which the Association had achieved during the past year. At the last meeting, it was stated that Dr. Lush had moved for a parliamentary return respecting the supply of expensive medicines to provincial unions. From that return it appeared that, of a total of six hundred and twenty provincial unions in England and Wales, two hundred and ninety complied with the recommendation of the Select Committee; one hundred and seventy-seven utterly failed to comply with the recommendation, among which were included Weymouth and Cambridge. The latter was in marked contrast with the sister university town of Oxford, where all drugs and medical appliances had been found for both the indoor and outdoor poor for the last twenty years. Seventy-three unions found cod-liver oil and quinine; two quinine only. Eighty-five unions in England and eight in Wales provided medicines entirely. He had for years advocated that it would be expedient and economical if guardians were compelled to supply all medicines. Although it was said by some, and thought by more, that the Association had done no good, it could not be denied that they had succeeded in getting the entire supply of medicines in some places, among them the metropolis, together with an augmentation of the medical officers' salaries. The amount spent on medical relief in the metropolis in 1865 was nominally £27,093 : 19. He said nominally, because in St. Pancras and other places the cost of wine and other articles was included in the total. In 1875, it had gone up to £41,585, making thus a clear gain to the medical officers of £17,000 *per annum*; for that was exclusive of salaries and drugs for the hospitals of the Metropolitan Asylums Board, and was the result of the labours initiated in 1865. Since the Association had commenced operations, it had secured the passing of the Superannuation Act, which, permissive as it was, had been the means of putting hundreds of pounds yearly into the pockets of their aged medical brethren. Soon after the meeting of last year, the Horsham Board of Guardians, alarmed at the cost of expensive medicines, appointed a Committee to investigate the question, who suggested that the supply should be cancelled, two of the guardians voting for this being medical men; but, owing to the comments made upon that action in the BRITISH MEDICAL JOURNAL, which were copied into the Sussex papers, at the board meeting of December 2nd, 1876, the guardians were induced to rescind their resolution. The Association had rendered, in December last, assistance to Mr. Fenton, one of the district medical officers of the St. George's (Hanover Square) Union, in getting over his differences with some of the guardians. They had rendered a similar service to Dr. Luce of Stratford-on-Avon. In February, at the Durham Assizes, Lord Chief Justice Coleridge thought fit to severely censure Mr. Taylor, a Poor-law medical officer of Sunderland, and report him to the Local Government Board. By articles, which were copied into north-country papers, the Association aided him in evoking sympathy in the district where he had practised for thirty years, and so saved his reputation and position. They appealed, at about the same date, to the Local Government Board in the matter of the difference between Mr. Ashburner, a Poor-law medical officer of Horsham, and Dr. Kelly, the medical officer of health, with so good a result that the Board wrote a letter to the guardians, condemning the conduct of Dr. Kelly and defining the positions of the two officers. In the last two months, the Gravesend Board of Guardians, owing to the smallness of the remuneration offered, experienced a difficulty in obtaining a district medical officer. The aid of the press was again obtained, and it was satisfactory to learn that not only was the salary agreed upon by the profession as sufficient eventually carried, but the salary of the medical officer of the other district had been raised to a like amount. The conduct of the Epsom guardians in giving a fee of £2 : 2 to a gentleman for helping to perform an operation had induced them to enter into a correspondence with the Local Government Board on the question of the revision of the scale of extras and the payment of qualified assistants at important

operations and the administration of chloroform. Letters were every week received from all parts of the United Kingdom, from members of their body, asking advice and assistance. He then drew the attention of the meeting to the correspondence carried on in the BRITISH MEDICAL JOURNAL on the question of making workhouse infirmaries into police stations. He had yet to learn whether the Commissioners had any statutory powers whereby they could so dispose of drunken prisoners; and alluded to the hardship inflicted upon the medical officers of metropolitan and large urban provincial workhouses, who were called out of their beds to attend drunken people without fee or reward. He suggested that they should appeal to the Home Secretary for a remedy. As regarded the superannuation of medical officers, he could not see any way then to make the granting of the allowances compulsory upon boards of guardians, but advised co-operation between themselves and kindred bodies. He concluded by pointing out the difficulty experienced in getting country medical officers to take an active part in the proceedings of the Association, and urged that they would increase the number of their successes if there were more practical unanimity among the members of the Association.

The meeting then proceeded to consider the case of Dr. and Mr. Beckingsale of the Newport (Isle of Wight) Workhouse.

Mr. PORTER explained that an idiot lad aged 20, brought up by his mother, was by order of the guardians sent into the workhouse. There he pined for the mother, who had tended him, and died some months after admission. An inquest was held; and, as the evidence showed that there was no food in the stomach, a verdict of "Death from starvation" was returned. A Local Government Board inquiry following resulting in the dismissal of Mr. Beckingsale from his office; and he and his son were rendered incapable of thereafter holding any Poor-law appointment. He (Mr. Porter) believed that the lad died in the ordinary way of such cases, and that the verdict should have been "Death from inanition". There was no one on whom the blame could be fixed.—Mr. BALDING suggested that the coroner should be asked for a copy of his depositions.—The CHAIRMAN advised reference of the matter to the Council of the Association.—Dr. THOMAS said they should, if possible, get fresh evidence.—Mr. CORNWALL would have the Association apply to the Court of Queen's Bench for a *mandamus* to quash the decision of the coroner's jury. He subsequently moved, however, at the suggestion of the chairman, as follows: "At the annual general meeting of the Poor-law Officers' Association, the case of Mr. Beckingsale was discussed at considerable length, and it was the unanimous opinion of the gentlemen assembled that the decision of your Board was arrived at on imperfect data. The Association trusts, therefore, that your Board will reopen the question, with the view to taking further evidence in the matter; and pending such further inquiry, your Board are requested to allow your decision to remain in abeyance."—Dr. ROBERTS seconded the motion, which was carried, and forwarded to the Local Government Board.

Mr. BARNES read a letter from Mr. George Jackson of Plymouth, stating that, after the strong remonstrance of the medical press, Mr. J. F. Eycle had taken a district there which was notoriously underpaid and overworked, and had departed from a verbal agreement made as to prices to be charged for clubs, etc. The other medical men withdrew their assistance from him, in the shape of acting as his deputy, etc., but the guardians permitted him to go on without one, contrary to the orders of the Local Government Board.—Two members of the Association said they had been without deputies, one for five years and another up to the date of the meeting.—It was generally expressed that the question was one in which the medical men of the district rather than the Association should move in, and the Secretary was directed to reply to that effect.—Mr. FLOWER, speaking on the same subject, said that at Wilton, at the death of one of the medical officers, a medical man, before any action was taken by the guardians, offered to take the office at twenty or twenty-five per cent. below the ordinary stipend.

A conversation took place on the matter of fees paid by guardians for operations.—The CHAIRMAN said it was quite discretionary with boards of guardians, who could give any sum they liked.—Mr. CORNWALL said his board had paid him £10 for one operation.

The CHAIRMAN asked that some action should be taken with regard to a grievance to which he had alluded in his address; that of metropolitan and large urban provincial workhouse medical officers having to attend cases of drunkenness, sent in by the police at night, without a fee.—Dr. YARROW contended, as a divisional surgeon, that if any advantage was reaped it was by the workhouse medical officers. They ought to consider the difficulties of the position of the police surgeon. The majority of cases that had died in the police-cells or on their way to workhouses were both drunk and dying; in most cases, apoplexy

accompanied drunkenness, but would not be received into the hospitals.—The meeting declined to pass a resolution on the subject, preferring that it should go to the Council for consideration.

The final matter of discussion was that of superannuation allowances.—Mr. PORTER urged that a medical officer should retire after twenty years' service, but, before finally leaving service, should be required for five years to supervise his successor, and assist him with his advice. This intraining would, he thought, effect a great improvement.—Mr. FLOWER said they would be in a better position if they were paid by a central authority.—Mr. BARNES reminded the meeting that Mr. Sclater-Booth had pointed out to them that the Poor-law medical officers were in a different position from civil servants, in having other opportunities of earning money.—Mr. BALDING, who held that a medical officer should not have a superannuation allowance unless incapacitated for work, urged that it should then be compulsory on the guardians to grant them one on a scale to be fixed upon.—The question was left in the hands of the Council.

The President, Dr. Lush, and officers of the Association, were re-elected; and the business of the meeting was concluded.

CORRESPONDENCE.

REMOVAL OF THE HEAD OF THE FEMUR.

SIR,—I have just been presented by Mr. Adams with a reprint of his inaugural address delivered at the Medical Society of London on Monday, October 16th, 1876, in which I find that quite an important error has been made as to my method of removing the head of the femur, which, with the kind permission of Mr. Adams, I would like to have publicly corrected.

In describing the operation which I had the privilege of performing before the Centennial Medical Congress in Philadelphia, and in which case Mr. Adams and Professor Lister were both kind enough to give me the benefit of their valuable opinions in consultation, Mr. Adams says:—"The joint was at once reached by a semilunar incision, and, after separating the periosteum from the neck, the head of the bone, which was still in the acetabulum, was detached *in situ* by cutting through the neck with a strong knife. No saw was used, nor was the head of the bone turned out of the socket previous to its separation. The separated head was with a little trouble removed from the acetabulum, which was then found to be in a carious condition, and its roughened surface was removed with the gouge," etc.

The bone was removed with a narrow saw, which Mr. Adams, at the distance he was sitting, mistook for a knife; and it was removed in the shaft just above the trochanter minor, and not in the neck, as Mr. Adams has stated. On page 285 of my *Book on Diseases of the Joints* (J. and A. Churchill) will be found the minutest details of my method of excising the hip-joint, and the complications which may sometimes be encountered. In this case, on account of the thickened involucrum, I was compelled to separate the head and neck from the shaft before removing the head from the acetabulum; but it was done with a saw; and I have asked Mr. Adams to kindly allow me to correct this error, fearing that some one else might attempt the operation with a knife on my authority, and, unless the bone were very soft, they would most signally fail, and I should be held accountable for the error.—I am, etc.,

LEWIS A. SAYRE, M.D., of New York.

Brunswick Hotel, Jermyn Street, July 7th, 1877.

THE ORGANISATION OF CHARITY IN HOSPITALS.

IV.

SIR,—In continuing the discussion of the evidence respecting the abuse of hospital out-patient relief, I think it well to remark, in the first instance, that the estimates which I have already quoted with regard to the number of persons who annually receive gratuitous medical relief in the metropolis, are supported by other calculations, which can scarcely be affected by any prejudice against the existing hospital authorities or their system.

The House-Committee on the out-patient department of the London Hospital has remarked, in its report, dated July 28th, 1874, that "the accuracy of the statistics, which assert that one-fourth of the entire population of the metropolis is in the almost continuous receipt of gratuitous medical relief, may possibly be open to question"; and nearly all the hospitals whose reports I have perused, or to which I have applied for information, adopt a similarly palliative tone respecting the extent and abuse of out-patient relief. It may, therefore, be worth while to mention that, according to a list which has been compiled

chiefly from the *Medical Directory*, the annual total of out-patients at the London hospitals has reached 911,483, out of which number fifteen general hospitals were credited with no fewer than 685,202. Also, according to the figures given in the classified *Directory* to metropolitan charities, 1876, the number of out-patients at the same fifteen hospitals, as published in their annual reports at the close of 1874, had only been reduced at that date to 592,280, in spite of the unprecedented care which had been taken at some of these hospitals to avoid any erroneous modes of enumeration, by which their out-patient lists might previously have been artificially swelled.

Even the last and lowest of these totals must, as I have already pointed out, be in the highest degree alarming to those who know how subtle and rapid is the contagion of pauperism and improvidence, and how serious a risk of demoralisation attends the bestowal of charitable aid, even administered upon the most judicious methods, and confined to those who both deserve and urgently require it. But, if we are rightly to appreciate the injurious results of medical charity, we must bear in mind that it is precisely the form of eleemosynary assistance which forms the easiest and commonest introduction to a systematic life of dependence. Medical remedies and advice are, sooner or later, a necessity in the lives of nearly all the poor; and the first downward step is in few things more fatal than in the acceptance or solicitation, from strangers or from the general public, of any ordinary necessary of life. It is certain that hospital advice is constantly resorted to by persons who hitherto have accepted alms in no other form, and would have shrunk from doing so as from a disgrace; while the ease with which this particular kind of public charity may be obtained, and the evidently prosperous circumstances and creditable social position of those who are seen to be in receipt of it, suffice, in innumerable cases, to overcome the hesitation of the more high-spirited and industrious poor. It was truly remarked in the report of the Berners Street Committee, to which I alluded in a former letter, that "the workman has too often learned at the hospital the first lesson of dependence. He begins by taking physic, and then food, from charity". Not only does the out-patient system encourage the grosser forms of fraud and deception—not only is it ascertained that expensive medicines are applied for merely that they may be sold—not only are governors' letters, in the first instance, used for begging purposes, and afterwards disposed of for whatever they will fetch—not only do numbers of persons frequent the hospitals in order to obtain certificates of their inability to work, or of their need of costly nourishment and stimulants—but also, it is the painful experience of hospital physicians and surgeons, that numbers of patients, who are widely removed from either the fraudulent or the mendicant classes of poor, and who at their first application display considerable reluctance and timidity, apologise for coming at all, and even show by their explanations that they have sincerely endeavoured to preserve their independence, become shortly so demoralised by habit and example that they "evinced a comfortable self-assurance and consciousness of being entitled to the medical aid they ask, which could scarcely be more pronounced if they had paid a guinea on the occasion of each visit". There are, however, some persons who, if we may judge by their ordinary methods of almsgiving, would probably be reconciled to this moral deterioration if the material help afforded were thoroughly good of its kind, and were such as could be obtained in no other way. Whether this is actually the case may, however, be to some extent judged from the following facts. At a recent date, at St. Bartholomew's Hospital, ten physicians were considered necessary for 6,000 in-patients, yet thirteen were expected to attend to no fewer than 100,000 out-patients. Similarly, at Guy's Hospital, there were ten physicians and surgeons for 5,000 in-patients, and the same number for 85,000 out-patients; while, at St. Thomas's, there were ten physicians and surgeons for 6,000 in-patients, and the same number for 66,000 out-patients. If, therefore, we group these three hospitals together, we find that each in-patient physician or surgeon attended on an average 567 patients annually, while each out-patient physician or surgeon attended, on an average, 7,606 patients annually. At King's College Hospital, it has been the practice to admit patients to the consulting-rooms in batches of twenty at a time. At St. Bartholomew's, especially on Monday mornings, out-patients have not unfrequently numbered 1,000; and of these, large numbers have been summarily referred to a centre table in the large waiting-room, where six different mixtures, ready prepared in as many brown jugs, were, together with some lotions, gargles, and pills, dispensed by two of the nurses. At the same hospital, surgical cases are attended partly by students, and were formerly attended partly by the dressers of the in-patients; and, at Guy's Hospital, the surgical casualty patients have been usually attended by the junior house-surgeon, assisted by eight of the students; and the medical casualty patients by the house-physician for out-patients, with a similar staff of students.

When we find that, out of forty-eight hospitals, interrogated by the Hospital Out-patient Reform Association, only nine were able to state that their out-patients were never prescribed for by unqualified students; when we learn that, in one of our largest hospitals, one hundred and twenty cases can be "cleared off" in seventy minutes (though it has been asserted, on good authority, that "the busiest doctors cannot see private patients at the rate of ten per hour"), we cannot doubt that any truthful chronicle of out-patient departments would be fertile in tragic incidents. The amount of harm done and of good left undone, through mistaken or imperfect treatment, is, at all times, most difficult to estimate; and cases of such treatment, among out-patients, are little likely to achieve notoriety; yet already some instances, sufficiently painful and suggestive, have, on undeniable authority, been placed before the public. A half-grain dose of opium has been given by a student to an infant nine months' old. A child's arm has required re-setting under chloroform, after having been kept in splints for more than three weeks, at the end of which time the case was dismissed as cured. Blindness has ensued from mistaken diagnosis and treatment during the earlier stages of a disease in the eyes; and a boy has died from caries of the cervical vertebrae, within twenty-four hours of his dismissal from a hospital as a case too trivial for admission to the wards. In these, and in cognate cases that have actually occurred, the author of *Great St. Benedict's* has lately found sufficient material for the construction of a highly picturesque and pathetic tale, directed against out-patient abuses. Even in the absence of any recorded instances, this incredibly hasty prescribing by persons who, at best, are unqualified, suggests melancholy probabilities of failure and maltreatment; of ill-health confirmed or permitted for want of a moderate amount of timely and attentive care; of diseases unrecognised till the period of possible cure had passed, or misunderstood in their most important crises; and of suffering and weakness entailed through needless, ill-timed, or hasty operating. Moreover, the physical evils which result from excessive and indiscriminate out-patient relief cannot all be included under the head of rapid or unskilful treatment. It is found that numbers of poor people, and more particularly of sickly women, are encouraged to resort to a chronic system of tonic and other medicines, instead of making any endeavour to remedy the various unsanitary conditions which are apparent in their homes and lives; while many others, whose diseases are such that no amount of medical skill could, in their case, compensate for the injurious effect of fatigue or exposure, are induced to tramp about, for long distances and in the most unfavourable weather, first perhaps in search of governors' letters, and afterwards to the hospitals themselves, whereas, by means of a provident dispensary, they could be promptly attended in their homes. Nor are their hardships at an end when they have arrived at the hospital selected. They are to be seen waiting for hours in crowded rooms, where diseases may easily be communicated, and where the sights and sounds are highly injurious to nervous patients. Their chance of care and attention is proportioned rather to the clinical interest than to the urgency and destitution of their cases. They are compelled too often to wait in patience, while persons belonging to a class for which the charity was never designed obtain precedence of them, by feigning the porters and nurses; and, lastly, they may, week after week, be dismissed without examination, and after an hour or two of anxious waiting, on the plea of want of time. In my own extremely limited experience, and of an excessive number of cases, I have met with the case of a woman, suffering apparently from serious symptoms of heart-disease, who, when I last saw her, had just made with great difficulty, and at much inconvenience, her fourth unavailing visit to one of our largest endowed hospitals; and I have also known of an instance in which a man, who was compelled to keep his bed from asthma and chronic rheumatism, used to get up and dress himself once a week, in order to crawl miserably to a hospital through the snow and fog of the beginning of the year 1874.

The evils which result from an excessive number of out-patients do not end with themselves. Not only has it been repeatedly urged, that the proximity of out-patient departments has a serious effect on the health of those in the in-patient wards, but it is also evident that the enormous expense of the out-patient departments is, in a great degree, responsible for the present unfortunate necessity of habitually discharging the in-patients before their cure is complete, and when the utmost benefit might be hoped for a prolongation of their treatment.

Lastly, be it remembered that, for relief of the kind I have described, so often injurious both to themselves and others, out-patients are expected to make the worst and most demoralising payment which can possibly be exacted from the poor, since they can scarcely make a single visit to the hospital without the sacrifice of a whole day's work and wages.

And if it be objected that such actual benefit as may, in spite of all

these drawbacks, be attainable, is a benefit which could be secured by no other means, let it be remembered that this gigantic and ill-regulated system of medical charity has rather created a demand than met one which already existed. In the original charters of most of the large hospitals, no mention was made of any but in-patient cases; and at St. Thomas's no others were received till 1834. Moreover, if Poor-law dispensaries were improved, and provident dispensaries were extended, as much as they might easily be were a clear field left open to them, it is scarcely too much to say that there would be no out-patient cases requiring hospital advice, excepting those which, from their exceptional gravity and complexity, might be advantageously referred to the hospitals from dispensaries of either kind.

Truly, in the matter of medical charity, institutional conservatism has much to answer for.—I am, sir, yours obediently,

A MEMBER OF THE CHARITY ORGANISATION SOCIETY.

EVIDENCE IN CASE OF WOUNDING.

SIR,—I have no disposition to reply at any length to your remarks upon my evidence in a recent case of wounding, and will content myself by merely stating a few particulars, in the hope that they may induce you to modify your opinions with respect to my conduct in the matter.

The wound was seen by me within half an hour of its infliction, and, on the same day, I gave evidence before the magistrates supporting the possibility of its having been caused by a sharp instrument. A day or two afterwards, I observed some ecchymosis in its vicinity, especially of the eyelid, and, therefore, considered it was more likely caused by a sharp blow from a blunt instrument. I have found it difficult, in some cases of wounds of the head, to say offhand that they were caused by sharp or blunt instruments.

When a medical man changes his opinion, he might be credited with some honest reason for doing so, and be permitted to explain his reason, instead of having permission refused him and being censured besides. To prove guilt in unlawfully wounding, it is not necessary to show that a weapon was used.—Yours faithfully,

Portsmouth, July 10th, 1877.

S. STICKLAND.

* * * The reason which Mr. Stickland assigns for giving such conflicting evidence as that reported is by no means satisfactory. In his deposition before the magistrates, he stated that a knife might have caused the wound. At the trial, he said that a blow with the fist might have more probably produced it. In his letter, he states that, a day or two after the assault, owing to the presence of some ecchymosis, he thought a blunt instrument had been used. The question is not whether a sharp or blunt instrument was used by the prisoner, but whether he had used any instrument or weapon at all; in other words, whether a blow with the fist could have produced the serious amount of injury which he so minutely described. Mr. Stickland adduces no sound reason for this sudden change of opinion. We infer from his letter that, within a day or two after the occurrence, he had arrived at the conclusion that what he had stated to the magistrates was entirely wrong. It was then his duty to send at once a written retraction of his evidence to the committing magistrates through their clerk, with the reasons for such a sudden change of views. This would at least have shown that he was acting *bonâ fide*. In a charge of unlawful wounding, the crime is always visited with a much more severe punishment when "a blunt or a sharp instrument" is used than when the assailant simply employs his fist. A medical man, therefore, should not play fast and loose, and assign the injury at one time to a weapon and at another time to the fist.

ASSOCIATION INTELLIGENCE.

METROPOLITAN COUNTIES BRANCH.

THE twenty-fifth annual meeting of this Branch will be held at the Alexandra Palace, on Tuesday, July 24th, at 4 P.M. President: JONATHAN HUTCHINSON, Esq., F.R.C.S. President-elect: SEPTIMUS W. SIBLEY, Esq., F.R.C.S.

Dinner at 5.30 precisely. Tickets, 15s. each, exclusive of wine.

Further particulars in circulars.

ALEXANDER HENRY, M.D. } *Honorary Secretaries.*
ROBERT FARQUHARSON, M.D. }

London, June 18th, 1877.

BRITISH MEDICAL ASSOCIATION: FORTY-FIFTH ANNUAL MEETING.

THE Forty-Fifth Annual Meeting of the British Medical Association will be held in the Owens College, Manchester, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1877.

President.—M. M. DE BARTOLOMÉ, M.D., Senior Physician to the Sheffield General Infirmary.

President-elect.—M. A. EASON WILKINSON, M.D., Senior Physician to the Manchester Royal Infirmary.

An Address in Medicine will be given by WILLIAM ROBERTS, M.D., F.R.S., Manchester.

An Address in Surgery will be given by T. SPENCER WELLS, F.R.C.S., London.

An Address in Obstetric Medicine will be given by ROBERT BARNES, M.D., F.R.C.P., London.

The business of the Association will be transacted in Six Sections, viz. :—

SECTION A. MEDICINE.—*President:* Sir William Jenner, Bart., M.D., K.C.B., F.R.S. *Vice-Presidents:* Samuel Crompton, M.D.; Wilson Fox, M.D., F.R.S.; Henry Simpson, M.D. *Secretaries:* Julius Dreschfeld, M.D., 292, Oxford Road, Manchester; F. T. Roberts, M.D., F.R.C.P., 53, Harley Street, London, W.

SECTION B. SURGERY.—*President:* Edward Lund, F.R.C.S. *Vice-Presidents:* W. Adams, F.R.C.S.; F. A. Heath, M.R.C.S. *Secretaries:* S. M. Bradley, F.R.C.S., 272, Oxford Road, Manchester; Henry Morris, F.R.C.S., 2, Mansfield Street, London, W.

SECTION C. OBSTETRIC MEDICINE.—*President:* W. O. Priestley, M.D., F.R.C.P. *Vice-Presidents:* A. H. McClintock, M.D., LL.D.; James Whitehead, M.D. *Secretaries:* David Lloyd Roberts, M.D., 23, St. John Street, Manchester; John Thorburn, M.D., 333, Oxford Road, Manchester.

SECTION D. PUBLIC MEDICINE.—*President:* Surgeon-Major F. S. B. De Chaumont, M.D., *Vice-Presidents:* Alfred Aspland, F.R.C.S.; W. H. Corfield, M.D., F.R.C.P. *Secretaries:* William Armistead, M.B., Station Road, Cambridge; John Haddon, M.D., Monk's Hall, Eccles, Manchester.

SECTION E. PHYSIOLOGY.—*President:* Arthur Gamgee, M.D., F.R.S. *Vice-Presidents:* John Cleland, M.D., F.R.S.; Thos. Lauder Buntton, M.D., F.R.S. *Secretaries:* Joseph Coats, M.D., 33, Elmbank Street, Glasgow; William Stirling, M.D., University, Edinburgh.

SECTION F. PSYCHOLOGY.—*President:* J. C. Bucknill, M.D., F.R.S. *Vice-Presidents:* H. Rooke Ley, M.R.C.S.; G. W. Mould, M.R.C.S. *Secretaries:* P. M. Deas, M.B., County Asylum, Macclesfield; T. Claye Shaw, M.D., Middlesex County Asylum, Banstead.

Local Secretaries.—
Dr. LEECH, 96, Mosley Street, Manchester.
C. J. CULLINGWORTH, Esq., 260, Oxford Street, Manchester.
Dr. HARDIE, St. Ann's Place, Manchester.

Tuesday, August 7th.

11 A.M.—Service at the Cathedral: Sermon by the Lord Bishop of Manchester.

12.30 P.M.—Meeting of Committee of Council.

2 P.M.—Meeting of Council, 1875-76.

3 P.M.—General Meeting.—President's Address.—Annual Report of Council, and other business.

9 P.M.—President's Reception and Soirée.

Wednesday, August 8th.

9.30 A.M.—Meeting of Council, 1876-77.

11.30 A.M.—Second General Meeting.

11.30 A.M.—Address in Medicine.

2 to 5 P.M.—Sectional Meetings.

9 P.M.—Soirée by the Mayor and Corporation of Manchester, at the Town Hall.

Thursday, August 9th.

9 A.M.—Meeting of the Committee of Council.

10 A.M.—Third General Meeting.—Reports of Committees.

11 A.M.—Address in Surgery.

2 to 5 P.M.—Sectional Meetings.

6.30 P.M.—Public Dinner of Association in the Assize Court Hall.

Friday, August 10th.

10 A.M.—Address in Obstetric Medicine.

11 A.M.—Sectional Meetings.

1.30 P.M.—Concluding General Meeting, Reports of Committees, etc.

4 P.M.—Garden Party by President and Reception Committee at Manley Hall.

SPECIAL DISCUSSIONS.—It is intended to hold discussions on certain special subjects in several of the Sections, as follows.

Medicine.—Aortic Aneurism; the Treatment of Pleuritic Effusion.

Surgery.—Antiseptic Surgery; Excision of the Knee; Treatment of Stricture of the Urethra.

Obstetric Medicine.—Transfusion of Blood.

Public Medicine.—It is proposed to arrange the subjects in this Section as follows. *First day, August 8th.* Papers and Discussion on Infection: its essence, origin, modes of propagation, duration, incubation, and periods of activity in diseases which are infectious, together with papers on the best means of preventing its development and spread.—*Second day, August 9th.* Water-Supply, including such questions as: 1. What are the best tests? 2. Are the tests of purity reliable? 3. How can the pollution and scarcity of water-supply in rural districts be remedied?—*Third day, August 10th.* Miscellaneous papers, including Registration of Diseases, the Weather as a Cause of Disease, or as favouring particular Diseases, etc.

PAPERS.—The following papers have been promised.

ADAMS, William, F.R.C.S. On the Treatment of Hip-Joint Disease by Extension with Mutilation, as practised by the American Surgeons, instead of Long continued Rest and Immobility.

ALLBUTT, T. Clifford, M.D. The Treatment of Pleuritic Effusion.

ARMISTEAD, William, M.B. Influences affecting the Propagation of Diphtheria.

ATKINS, RINGROSE, M.D. 1. Pathological Illustrations of the Localisation of Brain-Function.—2. The Morbid Histology of the Spinal Cord in Five Cases of Insanity.

ATKINSON, E., M.R.C.S. Stricture of the Urethra, with Special Reference to Urethrotomy.

ATTHILL, Lombe, M.D. Treatment of Chronic Endometritis.

AVELING, J. H., M.D. Coagulation during Transfusion.

BAKER, J. W., M.R.C.S. Treatment of Placenta Prævia.

BARLOW, Thomas, M.D. 1. Case of Cirrhosis of the Liver in a Child 18 months old.

—2. On a Case of Ascites in a Child treated by Resin of Copaiba.

BARLOW, Thomas, M.D., and PARKER, R. W., F.R.C.S. Notes on Pleuritic Effusion in Childhood.

BARNES, H., M.D. The Value of Paracentesis of the Chest in the Treatment of Pleuritic Effusion.

BERNARD, W., L.K.Q.C.P. A Form of Uterine Hand-spray Apparatus.

BERRY, William, M.R.C.S. The Treatment of Spina Biſida.

BRIDLEY, S. M., F.R.C.S. 1. Evolution of Cancer.—2. Alveolar Sarcoma.

BRAMWELL, Byrom, M.D. 1. Abstract of Case of Aneurism treated by Iodide of Potassium.—2. Abstract of Seven Cases of Pernicious Anæmia.—3. Abstract of Cases of Cerebral Tumour.

BROWNE, Lennox, F.R.C.S. Edin. 1. Illustrative Cases of the Value of the Galvano-Cautery in Diseases of the Throat, Nose, and Ear; with Description of a Convenient Battery.—2. On Objective Causes of Globus Hystericus and other Allied Conditions.

BURDETT, Henry C., Esq. Home Hospitals: their Scope, Object, and Management.

CHAMBERS, Thomas, F.R.C.P. Ed. The Treatment of Uterine Flexions by the Intra-uterine Stem: with Cases.

CHIENE, John, F.R.C.S. Ed.

COPLAND, Sidney, M.D., and MORRIS, Henry, M.B. Cases of Intestinal Obstruction, with Remarks on Diagnosis and Treatment.

CULLINGWORTH, Charles, M.R.C.S. A Case of Cancer of the Stomach in an Infant five weeks old.

DAY, W. H., M.D. Observations on Renal Affections in Children.

DEAS, P. Maury, M.B. Some Notes on General Paralysis of the Insane.

DRESCHFELD, Julius, M.D. On Spinal Hæmorrhage.

DRYSDALE, C. R., M.D. 1. Pigmentary Syphilide in Females.—2. Overpopulation and Health.—3. Syphilitic Aphasia.

DUNCAN, J. Matthews, M.D. Treatment of Post Partum Septicæmia by Internal Manipulations.

DURHAM, Arthur E., F.R.C.S. On Internal Urethrotomy by Aid of a New Urethrotome.

ELAM, Charles, M.D. Observations on Certain Forms of Paralysis.

ELLIOTT, John, M.B. Statistics of the Waterford Lying-in Hospital.

EVANS, R. W., L.R.C.P. Ed. On Skin-Grafting.

FARQUHARSON, Robert, M.D. Some Points in the Art of Prescribing for Children.

FOSTER, Balthazar, M.D. On Sudden Death in Diabetes Mellitus.

FOTHERGILL, J. Milner, M.D. When not to give Iron.

FOX, Cornelius, M.D. A Comparison between the Frankland and Armstrong Process and the Wanklyn, Chapman, and Smith Process of Water-Analysis.

FOX, E. Long, M.D. On a Case of Paralysis of the Diaphragm, with peculiar Laryngeal Symptoms.

FOX, Wilson, M.D., F.R.S. Paracentesis in Pleurisy.

GAIRDNER, William T., M.D. A Case of Premature Sleep with Choric Movements: Sequel to a Paper read at the Meeting of the Association in Edinburgh in 1875.

GOODHART, James F., M.D. Paracentesis in Pleurisy.

GOWERS, W. R., M.D. On some Points in the Symptomatology of Chorea.

GRIFFITH, G. de Gorreque, L.R.C.P. On Reflex, Eccentric, or Irritative Albuminuria, especially as bearing on Women.

GROSHOLZ, F. H. V., L.K.Q.C.P. Obstetrics in the Country.

HADDON, John, M.D. 1. On Pleural Effusions, their Diagnosis and Proper Treatment.—2. The Incubation and Duration of Infection.

HARDIE, James, M.D. 1. Some Cases of Rhinoplasty.—2. On Amputation of the Thigh by Oblique Circular Incision.—3. On the Treatment of the Earlier Stage of Hip-Disease by Incision of the Capsular Ligament.

HARDY, H. Nelson, F.R.C.S. Ed. Hospital Out-Patient Reform: its Helpers, its Hinderers, and its Passers by.

HARRISON, J. Bower, M.D. On Laryngismus Stridulus.

HARRISON, Reginald, F.R.C.S. Surgical Cases.

HEATH, F. A., M.R.C.S. Cases in Surgery.

HEWITT, Graily, M.D. Abnormal Softness of the Multiparous Uterus as a Factor in the Etiology of Uterine Distortion, and as a Cause of Impairment of Power of Locomotion.

HIGGINS, Charles, L.R.C.P. Clinical Remarks on Cases of Tumour of the Orbit.

HILL, Berkeley, F.R.C.S. Surgical Cases.

JESSON, T. R., F.R.C.S. Antiseptic Surgery.

JONES, T., F.R.C.S. Notes of a Case of Multiple Exostosis in a Boy Nine Years of Age.

KERR, Norman, M.D. Habitual Drunkards: what shall we do with them?

LEECH, D. J., M.B. Abstract of Cases of Pleurisy treated by Paracentesis.

MCCLEINTOCK, A. H., M.D. Fœtal Therapeutics.

MADDEN, T. More, M.D. The Constitutional Treatment of Certain Uterine and Ovarian Diseases.

MAHOMED, F. A., M.D. Some Indications for the Diagnosis and Treatment of Aortic Aneurism.

MAPOR, Herbert C., M.D. The Histology of the Brain of Apes.

MANN, J. D., L.K.Q.C.P. On Current-Measurements in Electrotherapeutics.

MERSON, John, M.D. The Use of Chloral-Hydrate in Convulsions.

MOULD, George W., M.R.C.S. The Best Mode of Treating and Dealing with Habitual Drunkards.

PARSONS, Francis H., M.D. The Highlands of Hastings and St. Leonard's as a Health-Resort: with Notes on the Chalybeate Water of St. Andrew's Spa.

PHILIPSON, G. H., M.D. Two Cases of Abdominal Aneurism: one cured by Compression, the other by Iodide of Potassium.

REYNOLDS, J. Russell, M.D., F.R.S. Some Affections of the Nervous System dependent upon a Gouty Habit.

ROBERTS, D. Lloyd, M.D. Transfusion.

ROBERTS, F. T., M.D. Notes from Cases illustrating the Diagnosis and Treatment of Internal Aneurism.

ROBERTS, John, M.D. Gangrene of the Ascending Colon.

ROSS, James, M.D. On a Case of Posthemiplegic Chorea.

SAVAGE, George H., M.D. Hysteria and Insanity.

SHUTTLEWORTH, George E., M.D. Intemperance as a Cause of Idiocy.

SIMPSON, Henry, M.D. 1. The Treatment of Aortic Aneurism.—2. Abstract of Laryngeal Cases.

SQUIRE, William, M.D. On Infantile Pneumonia.

TAYLOR, Charles, Bell, M.D. 1. Internal Syphilitic Ophthalmia.—2. On certain cases of apparently hopeless Blindness in which Sight was restored by Treatment.

TEEVAN, W. F., F.R.C.S. Internal Urethrotomy.

THORNTON, John, M.D. Latent Gonorrhœa as an Impediment to Marriage.

TIBBITS, Edward T., M.D. On the Hygienic and Therapeutic Influence of Habits and Character in Medical Men.

TIBBITS, Herbert, M.R.C.P.Ed. Medical Electricity: its Scope and its Limitations as a Remedy.

VACHER, Francis, L.R.C.P.Ed. A Villa-Hospital.

WADDY, H. E., M.R.C.S. Terebene and Seab-dressing.

WAHLRUCH, A., M.D. Cases of Asthma Nervosum successfully and permanently treated by Arterial Inhalations and Galvanisation of the Pneumogastric Nerve.

WALKER, G. E., F.R.C.S. Sympathetic Ophthalmia.

WARTEBERG, V. A., M.R.C.S. On the After-Treatment of Excision of the Knee.

WHITCOMBE, Edmund B., M.R.C.S. On the Frequency and Causes of Meningeal Hemorrhage in the Insane.

WHITEHEAD, W., F.R.C.S.Ed. Use of the Speculum Clamp in Disease of the Rectum.

WILLIAMS, William, M.D. A Case of Paralysis occurring on the same side as the Lesion in the Brain.

WOAKES, Edward, M.D. Noises in the Head: their Diagnostic and Therapeutic Value.

WOOD, T. Outterson, M.R.C.P.Ed. On a Case of Aneurism of the Middle Cerebral Artery.

YEO, I. Burney, M.D. Pleurisy of the Apex.

EXCURSIONS, ETC.

On Saturday, August 11th, excursions will be made to the following places.

Lancaster.—The medical men of Lancaster have notified to the Reception Committee that they will be glad to entertain fifty members of the Association. The County Lunatic Asylum will first be visited, and then the Royal Albert Asylum for Idiots and Imbeciles, where a luncheon will be provided. The visitors will afterwards be conducted over the Ripley Institute, St. Mary's Church, and Lancaster Castle.

Southport.—The medical men of Southport invite one hundred members of the Association to visit them on the 11th of August. The Aquarium, Winter Gardens, Pier, Glaciarium, and the New Sewage Works, are the principal objects of interest here; and the Local Committee are making every arrangement to give a hearty welcome to those members who may visit Southport on this occasion.

Blackpool.—The Mayor and Corporation of this town have most kindly offered to entertain as many members of the Association as may like to visit Blackpool.

Woodhead Water-Works.—These are probably the largest artificial water-works in the world. The reservoirs cover about five hundred acres, and supply a population of about one million in the valleys of the Irwell and Mersey, besides the numerous works situated therein. Those who visit Woodhead will also have the opportunity of seeing some dye-works belonging to Mr. Potter of Manchester, at which there is a special and most interesting plan of purifying water in operation. The works themselves are amongst the finest of the kind in Lancashire.

Northwich.—An excursion will be made to visit the salt-mines at Northwich. One of these mines will be illuminated for the occasion.

Castleton.—Professor Boyd Dawkins has undertaken to conduct an excursion to Castleton, in Derbyshire. Peak Cavern, Peak Castle, the Winnel, and other interesting places in this locality will be explored;

and a special visit will be paid to the recently discovered cave-deposits containing remains of prehistoric times. Professor Boyd Dawkins will give a short address, and explain the nature of the deposits.

Arrangements are being made for a visit to one of the coal-mines near Manchester.

SOIRÉES.

On Tuesday, the first day of the Meeting, there will be an exhibition of Medical and Dietetic Plants at the Botanical Gardens; and the President of the Association and the Council and Senate of the Owens College will give a reception and soirée in the evening.

An extremely interesting feature of this *soirée* will be a collection arranged by Professor Boyd Dawkins, illustrating the history of man in Britain from the pleistocene to the historic period. There will also be a series of fossils, illustrating the ancient carboniferous flora of Lancashire.

A detailed account of the arrangements will be published before the Meeting.

The Mayor and Corporation have intimated their intention of inviting the Association on Wednesday to a *soirée*, which they will give at the Town Hall. This building, which has been in course of construction for the past eight years, and has cost nearly a million, is just completed. It is probably the finest building of the kind in the world; and its splendid architectural proportions and magnificent decorations will, doubtless, be highly appreciated by all who visit Manchester.

The owners of all the most important warehouses, cotton mills, and other works in and round Manchester, have most kindly signified their intention of allowing members of the Association to visit their various places. Several of those which are not usually open to visitors will be shown at the time of the Association Meeting to members.

GENERAL ARRANGEMENTS.

The Council of the Owens College have most kindly granted the use of the College as a place of meeting for the sections, and for all other purposes of the Association. The School of Medicine, which forms one of the blocks constituting the College, will be used as a Museum, and will make a most excellent place for the exhibition of all kinds of preparations, instruments, etc.

The Physiological Laboratory will be devoted to the use of physiological instruments, of which there will be a very fine collection.

One of the rooms will be set apart for the exhibition of microscopical specimens, and this will form a special feature in this year's Museum. At no previous Meeting, probably, has such an excellent series of rooms been at the disposal of the Museum Committee.

The Museum of the Sanitary Association will be situated in the College grounds, and thus the whole work of the Association will be carried on in one place.

There will be two Reception Rooms, one at Owens College and one in the town. This arrangement has been made to enable members to obtain full information of what is going on, without obliging them to go to the College, which is situated above a mile from the centre of the town. The two Reception Rooms will be in direct connection by messengers or telegraph. A large building, the Concert Hall, has been taken for the Town Reception Rooms, and it is probable that the Business meetings on the first day will be held in this building.

ANNUAL MUSEUM.

THE Subcommittee appointed to superintend the collection and arrangement of objects for exhibition at the forthcoming meeting will be glad to receive—1. Pathological specimens (wet or dry); 2. Drawings or diagrams illustrative of disease; 3. Casts and models; 4. Surgical instruments and appliances; 5. Microscopic preparations; 6. Microscopes, thermometers, and other instruments of investigation; Preparations, diagrams, etc., relating to investigations in anatomy and physiology.

The work of forming a careful catalogue will be greatly facilitated if intending exhibitors will kindly bear in mind the following points: 1. That it is impossible that descriptions, etc., can be included in the catalogue, unless sent in early; and 2. That the descriptions should be written on one side of the paper only, so that they can be forwarded at once to the printer.

Specimens may be addressed to "THE SECRETARIES OF THE MUSEUM SUBCOMMITTEE, OWENS COLLEGE, MANCHESTER"; or, if for special reasons they cannot safely be sent direct, any of the gentlemen named in the subjoined list of the Museum Subcommittee will be happy to receive and take charge of them. All articles must be sent during the first fortnight in July, unless by special understanding with the Secretaries.

The following is a list of the Museum Subcommittee; to any mem-

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 1 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.

FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

THE COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN JUNE 1877.

The following are the returns made by Dr. C. Meymott Tidy to the Society of Medical Officers of Health.

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, per Gallon.	Nitrogen		Ammonia.		Hardness. (Clarke's Scale.)	
			As Nitrates, &c	Saline.	Organic	Before Boiling.	After Boiling.	
	Grains.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.	
Grand Junction ..	17.40	0.050	0.129	0.001	0.008	11.0	4.2	
West Middlesex ..	17.70	0.054	0.127	0.000	0.007	12.6	3.3	
Southwark and Vauxhall	17.70	0.064	0.153	0.001	0.009	12.6	3.0	
Chelsea	18.80	0.076	0.090	0.002	0.009	13.2	3.1	
Lambeth	17.70	0.074	0.150	0.000	0.008	13.2	3.7	
Metropolitan	28.70	0.003	0.450	0.000	0.002	1.4	7.0	
New River	18.20	0.033	0.150	0.000	0.006	12.7	3.0	
East London	17.70	0.047	0.090	0.000	0.007	12.0	3.0	

Note.—The amount of oxygen required to oxidise the organic matter, nitrites, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters, the quantity of organic matter is about eight times the amount of oxygen required by it. The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid—namely, in that of the Grand Junction, Southwark and Vauxhall, and the Lambeth Companies.

BAILEY'S ABDOMINAL BELTS.

Messrs. W. H. BAILEY AND SON, 16, Oxford Street, have introduced an excellent abdominal belt, which has many advantages, and is ingeniously constructed, so as to afford very complete and equal abdominal support, without constraint of the figure, and so arranged as to avoid the creasing, rucking, and riding up. The hips are left free, and thus it can be worn with much ease and comfort.

THE TITLE OF DOCTOR.

SIR,—The letter of a "Graduate" in your impression of the 30th ult. demands from me a reply; and, whilst admitting the extreme severity of the examinations and regulations for obtaining the degree of M.D., I maintain that these have only kept increasing with the advancement of science, the increased facilities for teaching, and the ever growing demands of the Medical Council; but the requirements of the Colleges and the other licensing bodies have *pari passu* become equally severe. This, however, was not the main cause of complaint, but rather the collateral conditions of two years' residence, and the age with which such regulations are inseparably connected. The age regulations practically confine the candidates for such degrees to the two extreme and strange periods of life—that which is little more than the first childhood, on the one hand, or, on the other (St. Andrew's), that which is closely bordering upon the second ("second childishness and mere oblivion"), fifty years of age; whilst candidates of every position or standing at all in middle life are hopelessly shut out. At twenty-one years of age, men may leave the Queen's University in Ireland, taking away with them the M.D. degree; at Dublin and the four Scotch Universities, they may leave at twenty-one, and take away with them the M.B. degree. Two or three years in any practice will complete the rest of the curriculum; and if the age be twenty-four, it is little in advance of the time formerly stated. Formerly, the degree of M.D. was almost the exclusive mark of the teacher of medicine and the consulting physician, and it was properly kept to its legitimate uses; now it has become a licence for general practice. Swarms of young men holding it are entering into the already too full field of competition, and openly vie with general practitioners in open shops, club, dispensary, and provident work at a price of remuneration which some respectable tradesmen would despise, and even assume, by reason of the possession of these degrees, airs of superiority over their older and riper brethren which neither the practical knowings which any University can bestow have been placed upon such youthful and inexperienced recipients chiefly and unconditionally because they have resided for two years at some University far remote from the best metropolitan and provincial schools, at a time of life when, as already shown, time can be of little value—eighteen to twenty-one years of age, a period, probably, when such youths would have a great difficulty in earning the wages of a good mechanic, say £100 *per annum*. But for the power possessed in granting these degrees, these Universities would probably be nearly abandoned by students in the severe competition with the better metropolitan and other schools. But as bad or even worse is the fate of the successful general practitioner. After ten or twenty years' hard work, he would like to have a degree as a pledge to the public and his friends that he had kept pace with science, that he had faithfully worked and become a ripened scholar and finished workman. He turns to the Universities, if weak enough; is treated with coldness and contempt, and told to reside with them for one or two years. Such residence would involve his ruin; he must abandon his practice, and find it gone upon his return. His time is probably worth £400 to £1000 *per annum*. This he must lose, and probably he has neither capital, work, nor energy enough to regain it. If the value of a degree may be, for illustration, taken at £200 at twenty-one years of age, by the time that a man is forty, half the period of his professional life having passed away, the value of the degree becomes but £100, and at fifty probably £50. From the very moment of a man's possessing it, it has a gradually decreasing value from the lapse of time; and the general deterioration which all degrees are undergoing in this commercial age by their abundance, by the foreign competition, and by the want of protection of those who possess them from those who assume them. The degree for which so much has been sacrificed is to the holder thereof unprotected. Any one may assume it practically and with impunity, if the assumer be in the *Medical Register*, say with the L.S.A. qualification. Herein is the *font et origo mali*; the cruel and fraudulent price placed upon the degree, the false and irresponsible assumption of it by unauthorised persons, and its consequent degradation and threadbareness. What would happen in

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

SIR,—On Tuesday evening, the 3rd inst, Earl Percy moved "That it is expedient that inquiry should be instituted into the practice of vaccination, for the purpose of ascertaining whether it cannot be conducted in a more satisfactory manner than at present". Several members of the House took part in the debate which followed; but it is only to the concluding sentence of Mr. Sclater-Booth's speech that I wish to draw attention. If correctly reported, he there says: "As to the complaints about the lymph, in the great majority of cases these arose from that used in private practice." Having, during the fifteen years in which I have been engaged in private practice, vaccinated several hundred persons of all ages, I beg to say that I am not aware of a single instance in which the vaccination has been followed by small-pox or by any ill effect whatever. The simple precautions I take are to use a clean lancet for each fresh patient, and never to take lymph which has accidentally

vantage of vaccinating directly from the arm, and I seldom have any difficulty in getting them to attend at a stated time; but where the distance is great, we cannot expect this. Vaccinating upwards of sixty in the year, I can generally maintain an unbroken chain from week to week; but occasionally, from some cause or other, there is a lack of lymph, and I have to send to the National Vaccine Establishment for a fresh supply. It is but justice to observe that no ill effects have ever in my experience followed the use of this lymph. But I think many practitioners will bear me out in saying that, although the quantity sent is lavish in the extreme, it is, as regards potency, lamentably deficient.—I am, sir, yours faithfully,
July 4th, 1877. ESPRIT DE CORPS.

THE EFFECTS OF MATERNAL IMPRESSIONS ON THE FŒTUS

SIR,—Two cases illustrative of the above, recorded in the JOURNAL of June 30th, remind me of the following one, which came under my notice in February last, in London.

I was called to examine a woman who had been struck by a bull. When examining it, I observed a mark on the outer side of the left leg, about five inches in extent, of a brownish colour, unaffected by pressure, and which bore a most striking resemblance to the profile of a bull—the eye, ear, and mouth being remarkably distinct. On questioning the mother, she informed me that, when about seven months pregnant, she was knocked down in the street by a bull, and in the fall she hurt her right leg against a box. She fainted, and was carried home in that condition. On recovery, and for some days subsequently, her leg, at the seat of injury, was very painful. When the child was born she noticed the mark. This woman, as I had several opportunities of observing, was of an extremely nervous disposition.—I am, etc.,
Wm. SMYTH.

MEDICAL ETIQUETTE.

SIR,—I am surgeon to the Railway Provident Society in this district, and one of the members whom I attended some months back in an illness has lately been again taken poorly, and called in, I hear, a neighbouring medical man. Does professional etiquette allow this practitioner to attend such a patient without first notifying me of the patient's wish and obtaining my sanction?—Yours, etc.,
July 1877. ENQUIRER.

* * It is not ethically binding in a practitioner, in every case where a new patient comes to him, to notify the fact to the previous medical attendant.

any other calling of life? Vind a thing at a fair and reasonable price, commensurate with its intrinsic value and worth to the purchaser, protect the patentee, and a certain demand may be raised upon; but put a fraudulent price upon the article, allow the patent to be infringed with impunity, and the natural result ensues—people either do without it altogether, or obtain it from an illicit source. The whole trade and reputation are injured: so it is with degrees. The price to the general practitioner is fraudulent in collateral conditions; scarcely one in his senses would pay it, and so the degree is assumed upon the possession of the L.R.C.P.; and, whether rightly or wrongly, it can be done with impunity if the person be upon the *Medical Register*. Other medical men finding the possession of a degree desirable, are going in annually increasing numbers to the Continent to obtain it; and, emanating from such a source, it has to many increased charms and recommendations. Thousands of pounds are annually lost by the Universities at home, and, like the iron manufacturers and contractors, they find that their extortionate prices are fast driving trade to foreign shores: professional morality is lowered; persons are almost proud to assume titles, or procure them abroad, and the reputation of medical men is being injured, and the general tone of morality lowered. Hence the present scandal of the false assumption of titles. The F.R.C.S. Eng. and M.R.C.P. Lond. require no residence beyond that at any recognised medical school; and why the M.D., which certainly occupies a lower grade, should do so, is a puzzle to hundreds of well educated men. During my connection with the profession, now twenty-seven years, I have found some of the worst men in it amongst the M.D.s, as well as the most unsuccessful in life. I have known graduates of the London and British Universities starving, bankrupt, and erased from the *Medical Register* for "infamous conduct". Giessen and other foreign graduates I have known eminent, skillful, successful, and wealthy; and there are now eminent and accomplished men who have been driven abroad by cruelty and extortion at home. And since "Graduate" has introduced the personal aspect of the question, I may tell him that I am no so "clamorous" as he imagines. I am nearly forty-five years of age; I have long made a position which no degree would improve. I could obtain a British degree, but should certainly refuse to sacrifice a position which to me is worth more than all the degrees in the United Kingdom; neither should I stoop, after twenty-five years lapse of time, to students' benches again, or wait until over fifty for St. Andrew's.

I write more in the interest of hundreds of my professional brethren than of myself. So far as my *clientèle* and the public are concerned, I could get on well all my life without any qualification at all; but the law demands at least one. Twenty years ago, when doubly qualified, many judicious and far-seeing friends told me that a degree of M.D. was not worth the fees paid for it, to say nothing of the trouble of obtaining it. Then it could be got by any qualified man without residence; and if it were known then, it must be still more true now.

Finally, I should like to know what law gives the M.D. the right of the title of "Dr." So far as I know or can find out, it is merely a matter of custom or courtesy, the same as the L.R.C.P. There is no law, I believe, to enforce it. Constantly in the *Times* I see the name of some eminent London physician "Mr. So-and-So, M.D." And if a registered medical man possess the M.D. of a foreign power—a title which, by the way, seems current throughout the civilised world—what law will take it away or prevent him using it? If the M.D. be required by young men of twenty-one to twenty-four years of age as an apothecary's licence and a qualification for practice, by all means enforce two years' residence as now; but if, as registered men of five or ten years' standing qualified in medicine or surgery, want it as an honorary thing—and to him it can possibly be no more—by all means throw it open; strip it of every vexatious collateral condition of residence, age, etc.; let it depend upon examinations alone; protect the recipients in the use of it, and the present abuse and scandal will cease: every one will be benefited, no one injured.—I am, sir, your obedient servant,
GAMMA.

SIR,—Why this M.D. mania, except that young M.D.s (chiefly Edin.) object to physicians using the prefix "Dr."? They mention the higher class examinations and extra study: may I ask which is the easier qualification to get, the M.D. of any University (except London) or the M.R.C.P. Lond.? Now, sir, though I have the misfortune to be only M.R.C.P.I., if it should be my good fortune to attain such an exalted position in my profession as F.R.C.P. Lond., I shall feel proud than having any M.D. after my name. Would it not be better if men devoted their spare time to studying disease rather than in picking holes in their brethren's qualifications?—I am, sir,
PHYSICIAN.

FRIENDLY SOCIETIES AND THEIR MEDICAL OFFICERS.

SIR,—Having just noticed a Letter in your impression of the 16th of June last, under the *Nom de plume* of "Look before you Leap", Whenever a personal attack is made, either on a particular Society or individual, it needs a reply; and, although our friend seems to be ashamed of his name, we must treat him as *Ens rationis*. In the first place, he states that certain Societies are Advertising for Medical Officers at (all told) nothing superior to Railway Drivers. Now Northampton is estimated to be worth nearly £300 *per Annum*. Can he inform me in what part of England they Average £300? and if they did they would not be overpaid, as it is a Business of great responsibility. I am quite aware that a great many of the profession are very much underpaid; for we often find men of great ability have to plod a country District, perhaps a circuit of twenty or thirty miles, for less Sum than these despised Societies pay and find Medicines into the bargain. He next pretends to give advice gratis to the whole of the profession by warning them not to have anything to do with Club Unions, as they will lose caste by so doing. Here our friend's reason seems to be fading. He will have to preach that dogma a long time before taking effect, as the profession well know that in Club practice the money is sure; no long Bills, which too often fade away and become useless; and, to show his error, I may say that, in the appointment of a Medical Officer, I have had as many as eighty applications, many of them from Men of great Eminence in the profession. His concluding remarks I consider are a great insult to the members of the profession, which I will leave them to deal with, trusting that our friend, on the next occasion, will think deeply before he Leaps into print, and that he will gain courage and be able to spell his own name.—Yours faithfully,
GEORGE KNIGHT,
Secretary Friendly Societies' Medical Institute, Northampton.

BRANCH MEETINGS.

SIR,—I forward you by this post a copy of the *Cornish Telegraph*, containing an account of the proceedings of the Branch Medical Association for Penzance, held on Wednesday evening, June 27th, 1877. Such proceedings, when published in a paper having one of the largest circulations among the people, seem to me against the ordinary custom of the profession, and resemble more an advertisement than anything else.—I remain, sir, yours faithfully,
C. K. HERAPATH H.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

SALINE TRANSFUSION IN HÆMORRHAGE.

SIR,—Some time in June 1870, when a successful case of transfusion of blood-serum in a case, I believe, of *post partum* hæmorrhage had made some noise amongst the profession in Dublin, I addressed a short note to the editor of the *Medical Press and Circular*, who kindly inserted it, relating what I had seen occur in 1832 after transfusion of a saline solution into the veins in cases of algide cholera, and suggesting that in cases of extreme hæmorrhage the use of a similar fluid would answer all the purposes of either blood or serum.

Consideration of the subject convinces me that, although the direct transmission of living blood may exert a more powerful influence than that of any other fluid, no particular advantage can be derived from the use of defibrinated serum. It appears to me that the danger to be met in such cases is the stasis of the heart, and that, if you supply it with a *point d'appui* and the stimulus of distension, its action will be resumed and life maintained long enough to allow of a fresh supply of nutrient matter to be provided for the wants of the system. The difficulty of obtaining a supply of fresh blood when required for direct transfusion, and the difficulties of the operation are serious. I know that skill and practice will do much to avoid the latter, and the heroism of our medical students diminish the former; still, if such difficulties need not be encountered, it is all the better.

Those who have witnessed the transfusion of saline fluid in cases of cholera will bear out what I have stated in my note to the *Medical Press and Circular* as to the wonderful results attained, although too many of the cases finally succumbed to the virulence of the disease.

The saline fluid consisted of bicarbonate of soda and muriate of soda dissolved in tepid water, but I have not by me the actual proportions; I think, however, they are given in Sir Thomas Watson's *Practice of Medicine*, which I have not by me at this moment.

Woodview, Portlaw, July 1877.

JAMES MARTIN.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; etc.

We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Mr. Francis Mason, London; Dr. Wm. Rutherford, Edinburgh; Mr. Samuel Berry, Birmingham; Dr. George Johnson, London; Mr. Alfred Baker, Birmingham; Dr. Drew, Taunton; Mr. Hugh Robinson, Preston; Mr. Howard Marsh, London; Dr. Munro, Battersea; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. J. Milner Fothergill, London; Dr. J. W. Moore, Dublin; Dr. Bradbury, Cambridge; Dr. Joseph Bell, Edinburgh; Messrs. Salt and Son, Birmingham; Mr. Page, Redditch; Mr. H. M. Sampson, Painswick; Dr. Hearn, Dublin; An Associate; Dr. Holman, Reigate; Mr. W. Story, Linslade; H. M. M.; The Secretary of Apothecaries' Hall; Dr. W. Fairlie Clarke, Southborough; Bee; Dr. Arlidge, Stoke-upon-Trent; The Registrar-General of England; Mr. W. H. Collingridge, London; Dr. Warner, London; Mr. Chavasse, Edinburgh; The Registrar-General of Ireland; F.R.C.S. Ed.; Mr. W. J. Wilson, Claycross; An Occasional Correspondent; Dr. Meymott Tidy, London; Mr. T. Clark, Dunster; Dr. Tripe, Hackney; Dr. T. E. Clark, Clifton; Dr. T. A. Hay, Philadelphia; M. Budin, Paris; Dr. Robert Saundby, Birmingham; Dr. Glynn Whittle, Oxford; Mr. N. A. Humphreys, London; Our Edinburgh Correspondent; Mr. R. A. Gibbons, Ipswich; Forage; Dr. Procter, York; Dr. Duncan Bulkley, New York; Dr. Llewellyn Thomas, London; Mr. Samuel Cockburn, Glasgow; Mr. G. Andrews, London; Dr. A. Napier, Glasgow; Dr. J. Burdon Sanderson, London; Dr. Bristowe, London; Dr. Styrap, Shrewsbury; Dr. Rabagliati, Bradford; Mr. Reeves, London; Dr. P. Boerner, Berlin; Mr. T. M. Stone, London; Our Dublin Correspondent; Dr. Andrew Davis, Swansea; Mr. J. H. Wathen, Fishguard; Mr. Ernest Carr Jackson, London; Dr. Alfred Carpenter, Croydon; Dr. L. A. Sayre, New York; Mr. S. Stickland, Portsmouth; A Plain "College and Hall" Man; Dr. Elliot, Carlisle; Dr. Lionel Smith, Oldham; Mr. Berkeley Hill, London; Mr. James Atkinson, Crewe; Dr. Josiah Williams, Constantinople; Dr. Urquhart, Aberdeen; Dr. Farquharson, London; Mr. Lowndes, Liverpool; A.; Dr. Russell, Birmingham; Dr. Fergus, Glasgow; Dr. W. A. Satchell, Groombridge; Dr. Morell Mackenzie, London; Mr. G. Knight, Northampton; Mr. C. K. Herapath, St. Ives; Dr. George Hoggan, London; Mr. Whitcombe, Birmingham; Dr. Wardell, Tunbridge Wells; etc.

BOOKS, ETC., RECEIVED.

The Hunterian Oration, delivered in the presence of H.R.H. the Prince of Wales at the Royal College of Surgeons of England on February 13th, 1877. By Sir Jas. Paget, Bart., F.R.S. London: Longmans, Green, and Co.
The Student's Manual of Venereal Disease; being a concise description of those affections, and of their treatment. By Berkeley Hill and Arthur Cooper. London: Smith, Elder, and Co. 1877.
Transfusion of Human Blood by the Method of J. Roussel (of Geneva); with Preface, by Sir James Paget. Translated from the French and German, by C. H. C. Guinness. 1877.

LECTURES

ON THE

DIAGNOSIS AND TREATMENT OF HIP-DISEASE
IN CHILDREN.*Delivered at the Hospital for Sick Children.*

By HOWARD MARSH, F.R.C.S.,

Assistant-Surgeon to St. Bartholomew's Hospital, and to the Hospital for Sick Children, Great Ormond Street.

LECTURE II.

Condition of the Muscles.—Now, observe the condition of the muscles around the joint and in the thigh. Look for (a) wasting, (b) rigidity. You are all familiar with wasting of the glutei, and consequent flattening of the nates and loss of the fold between the nates and the thigh: changes that make the hip look flatter and transversely wider, and give it, instead of its natural rounded outline, an oblique plane surface between the sacrum and the trochanter. Do not forget that similar wasting frequently involves other groups of muscles around the joint and in the thigh, so that they become shrunken and flabby. Sir James Paget remarks (*Clinical Lectures and Essays*, page 203): "This wasting occurs quickly in nearly all acute inflammations of joints, more slowly in the chronic inflammations. In the chronic, it may be from disuse alone; in the acute, it is not so." He adds: "You may hold that generally the wasting of the muscles about a suspected joint adds to the suspicion that it is inflamed." As to the cause of this state of the muscles, Sir James Paget says:—"This process of wasting is one of singular interest in pathology. I wish I could explain it better than by calling it reflex atrophy. It seems dependent on disordered nervous influence, and often appears proportionate to the coincident pain, as if it were due to the disturbance of some nutritive nervous centre irritated by the painful state of the sensitive nerve-fibres." I have recently seen a case in which, after ten days of acute inflammation of the hip, all the muscles of the hip and thigh were much wasted. But notice that muscular wasting must be carefully considered, before you conclude that it has been produced by mischief at the hip-joint. It may be found, as Sir James Paget points out, as well marked in some nervous affections as it is in acute joint-disease. Often cases are sent to the hospital in which, after a too superficial examination, infantile paralysis has been mistaken for hip-disease. But, for want of space, I must not follow this subject further.

Muscular Rigidity.—Not unfrequently you will find that some of the superficial muscles around the joint are either tonically contracted, so that they are to be seen and felt tense through the skin, or become firmly contracted whenever the limb is disturbed. Those most often seen thus irritable are the adductors, particularly the adductor longus; and the tendon of the latter muscle often forming a distinct ridge just below its origin from the front of the body of the pubes. I do not recommend this symptom to you as one of chief importance. Bear it in mind, however, for it is frequently met with as a very early symptom of disease, and early symptoms always deserve attention. Besides, it has some value as an indication of the spasmodic condition of other muscles too deeply placed to be felt. In connection with this state of the muscles, I must mention the "night-screams" that are often so distressing; they are the expression of the severe suffering that is felt whenever, by the contraction of the muscles, the femur is pressed firmly and suddenly against the acetabulum. During the day, and while the joint is at rest, the child, by an effort of the will, can usually restrain reflex action; but, whenever he falls asleep, reflex irritation escapes control, the limb starts and quivers, and he cries out with pain. I have known several cases in which the parents of children with hip-disease have been driven from their lodgings, because these night-screams were so frequent and so piercing that other people in the house could not sleep. In severe disease, other symptoms will plainly indicate the meaning of the child's distress; but, in the early stage of slighter cases, these screams, when they occur only once or twice in the night, may be mistaken for "night-terrors" depending on painful dentition, or some derangement of the alimentary canal. In describing "night-terrors", Dr. West says: "The child wakes once or more often in the night with a sudden shrill cry, and remains terrified and apparently still in a dream until he screams himself to sleep again." Parents are apt to regard the night-screamings of hip-disease as common night-terrors; but you must be on your guard against such an error. The diagnosis between them must depend on collateral symptoms, and, with care, it is always easily made. As evidence of the mere presence of hip-disease, these screams

are of comparatively small account. Their value lies in the information they convey as to the degree in which the disease whose presence you ascertain by other signs is still acute or is subsiding under treatment.

Pain.—As pain is one of the most usual and familiar symptoms of hip-disease, and as it is often so intense, that your first duty to your patient is to find him a remedy for it, it naturally claims full consideration. But there is a special ground on which you must carefully study it. It is a symptom that is very apt to lead you astray. For many people, it is enough that a child is lame and has pain in his hip or at his knee: they at once jump to the conclusion that he has hip-disease; perhaps he has; yet these guesses at diagnosis are likely to be very wide of the mark. Let me advise you not to make them.

There are three principal situations in which pain may be felt in hip-disease: in and around the hip-itself; at the knee; at the middle of the inner part of the thigh.

Pain at the Hip.—You know that, in adults, pain cannot always be exactly localised in any of the structures or parts which enter into the formation of a joint; for all the large joints have a complicated nerve-supply. Several branches from contiguous trunks pierce their capsule at various points and ramify throughout the synovial membrane. Thus the hip is supplied by several branches from the obturator, entering at different points; by the anterior crural; and by offsets from the sacral plexus. Hence, when inflammation—which, wherever it may commence, usually soon involves the synovial membrane and ligaments—occurs, all these minute twigs are irritated and pain becomes general. And this difficulty of localising pain is constantly met with in children. Ask a child where he has pain, and generally he will pass his hand vaguely about his hip, touching no particular part. If you place your finger at different points and question him as to pain, very often his second answer contradicts his first. You can get no farther than that "his hip hurts". In cases of subgluteal abscess and of disease about the pelvis, the child usually makes much the same complaint. Hence, you cannot derive much help in diagnosis from the particular situation of pain at the hip. And the degree of pain at the hip varies extremely in different cases. In some, pain is very marked at the hip, while in many it is altogether absent from the hip, though at the knee it is severe. Thus you will see that pain at the hip is not likely, either by its precise situation or by its constancy or degree, to help you much in the diagnosis of obscure cases.

Pain at the Knee.—In the *London Medical and Surgical Journal* for 1834 is a paper by Mr. Alexander Thompson, entitled "Discovery of the True Distribution of the Obturator Nerve". In this essay, the writer claims for this nerve a very remarkable set of ramifications through the thigh and leg. 1. He confirms Meckel's statement that some twigs entering the hip-joint through the cotyloid notch are distributed to the ligamentum teres; 2. He traces one which, after supplying the psoas, and the sacro-iliac synchondrosis, "plunges into the anterior part of the capsular ligament and is lost in the synovial membrane"; 3. Branches supplying the adductors; 4. Numerous muscular twigs accompanying branches of the femoral artery; 5. Branches to the knee; these consist of (a) twigs accompanying all the articular branches of the popliteal artery, (b) some that perforate the posterior ligament and are spent in the synovial membrane; 6. A cutaneous branch that runs down on the inner side of the leg as far as the middle of the calf. Later writers have in the main confirmed these observations, and no one, so far as I know, has called them in question. Thus Mr. Hilton is disposed to think that the obturator supplies the sacro-iliac joint, and he agrees that it supplies the capsule of the hip, the ligamentum teres, the interior of the knee-joint, and the skin of the inner part of the leg. Quain and Ellis are less minute, but they appear to adopt Thompson's account. Ellis further describes (7) a branch that joins the plexus in the skin at the middle of the inner part of the thigh formed by the internal saphenous and the internal cutaneous nerves. Now, you will find that all these ramifications of the obturator have severally an important bearing on the symptoms of hip-disease. Let me digress for a few moments to show how this is the case. (a.) I mentioned above that, in consequence of the manner in which nerves are distributed to the joints, namely, in wide ramifications through the synovial membrane and other structures, pain cannot be precisely located. If pain were distinctly circumscribed to the area known to belong to a single nerve, the situation of pain might enable us to settle a question long under discussion, though not of much clinical importance, after all; viz., Where does hip-disease usually begin? Mr. Aston Key held that it usually begins in the ligamentum teres, and Mr. Hilton adopts this view, and, in support of it, appeals, among other arguments, to the occurrence of pain in the knee, which pain, he says, depends on irritation of the obturator twig to the ligamentum teres. But, since the obturator also sends branches to the synovial membrane, pain at the knee might be equally well invoked to show that disease begins in the

synovial membrane. Probably it begins sometimes in the bones, sometimes in the ligaments, and sometimes in the synovial membrane. (b.) Mr. Hilton has pointed out that pain at the knee may depend on disease of the sacro-iliac symphysis, and such pain is easily explained by the distribution of a branch of the obturator to this joint. I have within the last few days seen a case which clearly confirmed this statement. With sacro-iliac disease, the patient complained of a severe pain at the back of the knee-joint. (c.) I need only, for completeness, remind you that the abnormal contraction of the adductors commonly seen in hip-disease depends on the distribution of the obturator to them, and their reflex irritation through the twigs ramifying in the joint. (d.) Muscular wasting, which has been already mentioned, and which Sir James Paget refers to "reflex atrophy", may, so far as the muscles of the thigh are concerned, be brought about by the agency of the obturator nerve in its ramifications with the muscular branches of the femoral artery.

But to return to pain at the knee: familiar as this symptom is, it is worth a little close attention, because it is by no means rarely misconstrued. You know that the fact of pain at the knee in hip-disease is thus explained. The impression, produced by irritation of the obturator nerve at the hip, as it passes up to the brain is not confined to the original articular twig, but is transferred to the trunk of the nerve; and the brain, on receiving it, refers it (as is the case in numerous other instances) to the periphery of a longer branch—that distributed to the knee. 1. In studying this pain at the knee, the first point to notice is, that, as the obturator nerve is extensively distributed to the interior of the knee and also sends a branch to the integuments on the inner side of the joint, it is not likely that pain at the knee depending on hip-disease would be uniformly located in any particular situation. This probability accords with the fact. The pain is "at or about the knee"; sometimes at the inner side, sometimes apparently under the patella; often it seems vaguely "in the joint". Hence no help in diagnosis can be had from the precise place in which pain is felt. 2. Pain is not always referred to the knee, but sometimes to the situation of some of the other peripheries of the obturator. I have seen cases in which patients complained of the inner side of the thigh, where, as Mr. Ellis points out, terminal twigs of the obturator join the long saphenous and the internal cutaneous nerves; and others in which pain extended down the inner side of the calf, where also branches of the obturator are found. 3. Pain, as I have already said, may be referred to the knee, not only in hip-disease, but in several other affections; in other words, pain referred to the knee is by no means pathognomonic of hip-mischief. It may be induced by many conditions that produce irritation of the upper part either of the obturator itself or of any of its branches. This is a very important fact to bear in mind, and Mr. Hilton has drawn particular attention to it. He has met with pain in the knee in cases of disease of the lumbar spine, the sacro-iliac joint, and the colon (malignant disease causing pressure on the nerve). I can, by several cases I have met with, confirm these observations of Mr. Hilton in respect to disease of the spine and sacro-iliac joint. I have also seen cases of pain at the knee in psoas abscess, in deep-seated abscess in the thigh, and in aneurism in Scarpa's triangle. And observe that pain thus referred to the knee may concern not only the obturator, but the great sciatic or the anterior crural nerve; for several of the articular nerves to the knee, or the integument around, are derived from these trunks. One further remark before I leave the subject of pain. It is a common practice to try whether the joint is tender or painful on pressure applied either directly in the groin or over or behind the great trochanter, or on concussion of the articular surfaces produced by a slight blow suddenly struck on the trochanter, the bent knee, or the heel when the limb is extended. Let me advise you not to use these tests, for they are very fallacious. Of course, you may see at once if you really hurt a child. I have often seen a child thrown into an agony, and all the muscles about the joint roused into violent spasmodic action, by jarring the femur. But you are not at liberty to go to this length. You must not do more than produce some slight uneasiness. But a child's expressions of slight pain are quite untrustworthy. If he be afraid of your examination, he will say that everything you do hurts him, and so you may mistake his fears for his pains. And these tests often give negative results in cases in which it is quite certain that real disease is present. There is another test that I will mention, merely that I may take leave strongly to condemn it. I mean the rubbing of the articular surfaces together to learn whether they grate. You have always much better means for diagnosis than such a barbarity as this.

Heat.—In children, whose maladies must often be diagnosed entirely by objective symptoms, heat is a valuable evidence of the existence and precise locality of inflammatory mischief. Inflammation of the knee or elbow, of the carpus or tarsus, of injured subcutaneous soft parts,

may, even in its subacute forms, often be detected by the increased heat of the structures involved; for all these parts are superficial. But, in hip-disease, the parts whose vascularity is increased, be they the head of the femur, the synovial membrane, or the round ligament, are all deeply seated and covered by bulky surrounding soft parts; so that any increased heat, which, in any case where the diagnosis is doubtful, is only slight, is lost before it can reach the surface. Thus, although heat is frequently a very valuable symptom of local inflammation, it will seldom help you to diagnose inflammation at the hip.

Swelling.—Swelling may be found either in the groin, just below Poupart's ligament; at the back of the joint, behind the trochanter; or beneath the tensor fasciæ femoris. In the latter stages of the disease, it may sometimes be detected in the iliac fossa above Poupart's ligament; or it may be felt, by the finger introduced into the rectum, between the inner aspect of the pelvic wall and the pelvic fascia, in which latter situation it indicates perforation, or at least serious mischief in the floor of the acetabulum.

Alteration in the Length of the Limb.—It was formerly a very common belief that the limb is really lengthened in the early stage of hip-disease, and some high surgical authorities still hold this view. Now, I will not undertake to say that real lengthening is *never* met with; but I am quite sure I am within the mark when I say that it does not exist once in five hundred cases. I remember seeing, fifteen years ago, two cases in which the limb, on repeated measurement by others besides myself, seemed lengthened. But, with these exceptions, if such they were, I have never found true elongation, or seen others prove it. The lengthening that many have believed real is, in fact, as Mr. Holmes, Mr. Barwell, and others, have long taught, only apparent, and is due to lowering of the pelvis, to compensate for abduction (see above). To explain real lengthening, the theory has been, that it is due to effusion into the capsule, acting so as to drive the head of the femur downwards. Mr. Barwell, however, who has worked very carefully at this subject, has shown that the effect of fluid in the capsule would be, if anything, to drive the head of the bone outwards, and that it cannot drive it downwards.

Another cause has been supposed to produce real lengthening. It is well known that in childhood the bones, if their blood-supply be increased by inflammatory action in their neighbourhood, may grow longer than natural. A case was lately under treatment in which, as the result of increased blood-supply to their epiphyses in the course of knee-disease, both the tibia and the femur had grown so as to make the limb two inches too long to match its fellow. It has been said that, in hip-disease, the neck of the femur may occasionally grow thus abnormally; but I know of no specimen that would prove this. Thus, while real lengthening may be admitted as a possibility, it is safe to declare it to be extremely rare.

But, though the limb is almost never longer, it is frequently shorter than natural. 1. True shortening may depend on absorption of bone at the joint, either of the articular extremity of the femur, or the upper rim of the acetabulum, or of both, and drawing up of the trochanter by the surrounding muscles. In museums, you will find specimens in which the head and neck of the femur have completely disappeared. In some instances, the upper border of the acetabulum travels upwards, so to speak; that is, new bone is formed at a higher level on the dorsum ilii, so that the depth of the cavity is preserved, though its area is much enlarged. Thus, although the trochanter is drawn up, there is no true dislocation; for the upper end of the femur is still contained in the acetabulum. 2. Yet true dislocation may undoubtedly, however rarely, occur. I remember a child, admitted into the hospital in 1864, under the care of Mr. Holmes, in whom the head of the femur was dislocated on the dorsum ilii; it could be felt to be very little, if at all, altered in shape or size. It was easily reduced under chloroform, but, a day or two later, it slipped out again, and was then again reduced. 3. Shortening may also depend on diminished growth of the limb. This is seen chiefly in cases of long standing, but it may be found in instances of severe disease of not more than four or six months' duration.

It is important to have some good method for determining the length of the limb. The common practice is to compare on the two sides the distance from the anterior superior iliac spine to one of the malleoli, usually the outer, or, as some prefer, to the upper border of the patella. This method, however, is open to several chances of error, and it must, therefore, always be used with minute care. The anterior superior iliac spine is not the centre of the arc which the femur describes as it travels between flexion and extension. It is a long way from this point (which is at the acetabulum), and is so placed that it is nearer to that segment of the arc which corresponds with flexion than that which corresponds with extension; and, therefore, if the limb be drawn up, however little, it will have a deceptive appearance of short-

ening, as compared with the sound limb, when the latter is fully extended; and there would be a similar fallacy if the limb were adducted. To avoid error, when the limb does not allow full extension, it is best, while the child lies on his back, to raise both limbs to the same height and support them on a pillow, so that both may be at the same angle of flexion while you measure them. If adduction be present, do not attempt this measurement, for it can hardly be correctly made, owing to the difficulty of placing the two limbs, while you measure them, in precisely the same degree of adduction. The iliac spine is not a good point to measure from; it is too rounded and the skin too easily slides under the finger. Those who have most frequently had occasion to use this measurement from the iliac spine to the malleolus are the most ready to distrust it. At a consultation at St. Bartholomew's Hospital some time ago, on a case of lameness, one limb seemed an inch and a half longer than its fellow. Several members of the staff carefully measured it, and the tape indicated that the lengthening really existed. However, no one believed the result, and, after the two limbs had been very carefully placed in the same posture, the appearance of lengthening was proved to be wholly illusory.

Let me recommend you always to check this measurement by some other test. I believe that with practice you may make your eye a safer guide than the tape. First see that the anterior iliac spines are level, and then, bringing the heels together, and flexing the limbs on the trunk, if necessary, as before, compare the relative position of the two internal malleoli. If you can trust your eye to tell whether a picture is hanging straight, you may trust it also here. But how can you ascertain whether any shortening you detect is due to absorption of bone or to arrested growth of the limb, or in part to one of these causes and in part to the other? Any shortening that is due to absorption of bone will be indicated by displacement upwards, or upwards and backwards, of the trochanter. Look to this point first. Place your thumbs on the two iliac spines and the tips of your index-fingers on the tops of the trochanters, and see if the relation of parts is the same on the two sides, or whether the trochanter lies higher on the diseased than on the sound side; or use Nélaton's test. He has shown that, if a line be drawn from the anterior iliac spine to the prominent upper part of the tuberosity of the ischium, the summit of the trochanter, in the natural state of parts, will just touch, but will not extend above this line. If you find the trochanter below this line, no absorption has occurred; if it be above it, the extent by which it exceeds it, will show the amount of its ascent. This test is a good one, if you observe certain conditions. The tuberosity of the ischium is too rounded and too deeply placed to be a satisfactory landmark; but you must be careful to draw your line to its upper part: and remember that the position of the trochanter depends to a great extent on the direction of the neck of the femur: the greater the angle at which the neck meets the shaft—*i.e.*, the more nearly the neck approaches the perpendicular—the lower will be the trochanter; while the more nearly the neck is horizontal, the higher will the trochanter be placed. Now, in rickets, the neck may be found at a right angle with the shaft, as it is in many old people; and in these cases the trochanter lies distinctly above Nélaton's line. Therefore, before you conclude, from the high position of the trochanter, that bone-absorption has occurred, you should compare the two sides. If you find the trochanters are equally high and in the same position at the sides of the pelvis, you will acquit the suspected side as far as this test is concerned. Having, by either of the methods I have described, ascertained how much the limb is shortened by absorption of bone, you can easily tell how much it has lost by diminished growth. You have, of course, only to deduct the loss by absorption from the total loss. Thus, suppose the trochanter lies half an inch above Nélaton's line, and the limb is shortened an inch and a half, then the amount of shortening due to diminished growth will be one inch. It is important to distinguish between these two causes of shortening, as I shall show further on.

Lameness.—Although lameness is almost invariably present, and grows more and more marked as the disease advances towards its later stages, and is thus one of the most familiar symptoms of hip-disease, it must, nevertheless, be carefully studied before you can safely use it for diagnosis. You often see a child walking "on his toe" with the knee bent and the hip thrown out backwards. If you examine this attitude in detail, you will find that it is a complicated "compensation posture", in which the lumbar spine, the leg, and the foot have all been utilised to counteract the effect of flexion of the thigh upon the trunk.

It has been explained already that lordosis (curvature of the lumbar spine forward) is a posture adopted to bring the thigh into a more vertical position; but, where flexion is considerable, lordosis would not suffice to bring the foot to the ground if the leg remained extended and the foot remained at a right angle with the leg. Therefore, the patient flexes the leg on the thigh and points his

toe, so as to throw his limb into a zigzag, the long axis of which is vertical and transmits the weight of the body to the ground. Now, it follows that this posture is by no means limited to hip-disease, but will be developed whenever a patient tries to walk with his thigh considerably bent upon his trunk. It is seen in some cases in which the psoas muscle is rendered tense by abscess occurring in spinal disease. It is seen in the patient now before you, who has contraction of his groin from a deep burn. You will observe that this child walks precisely as if he had old hip-disease. In its slighter degrees, the same posture in walking exists even in some cases of inflammation of the glands in the groin. Hence you must not be led to any conclusion as to the existence of hip-disease merely by the posture you observe in your patient, even when it seems characteristic of advanced disease. Much less may you depend on slight lameness. No doubt, surgeons who are constantly seeing cases of lameness can in many instances tell by its characters what it depends upon. But let me press upon you not to be content till you have carefully examined your patient as to any other symptoms he may present. Take lameness, in short, as a sign that there is something wrong: what that something is, find out by further means.

I have now mentioned the various signs of hip-disease in the order in which it would be convenient to look for them in the examination of a patient; and I think you will have observed that one of them stands upon a separate footing, and possesses a different value from the rest. This symptom is stiffness of the joint. All the remainder are common to disease of the hip and of some other part or parts. Thus, for example, flexion of the thigh on the trunk may depend, among other things, on psoas abscess; obliquity of the pelvis, on lateral curvature of the spine; muscular wasting, on infantile paralysis; swelling about the thigh, either in front or behind the joint, on matter burrowing down from the spine; displacement of the trochanter, on congenital dislocation of the femur; lameness, on spinal disease, psoas abscess, etc.; pain referred to the knee, on disease of the spine or the sacro-iliac symphysis, etc. But stiffness of the joint affords direct evidence of hip-disease, so that, in speaking of the vast majority of cases, you may say, as an aphorism, that, if it be present, the joint is (or has been) affected; while, if it be absent, the joint is sound. I have described with what studious care this symptom must be investigated; but, if such care be used, mistakes may easily be avoided.

In dwelling thus particularly on stiffness of the joint, I must not seem to make light of the other symptoms that have been mentioned. All of them deserve close attention; for, when they are detected, they each add to our knowledge of the case and help in the diagnosis; but they are principally useful as indicating the stage which the disease has reached, and in showing the different complications that have arisen in its course.

OBSTETRIC MEMORANDA.

ERYSIPELAS IN CONNECTION WITH THE PUERPERAL STATE.

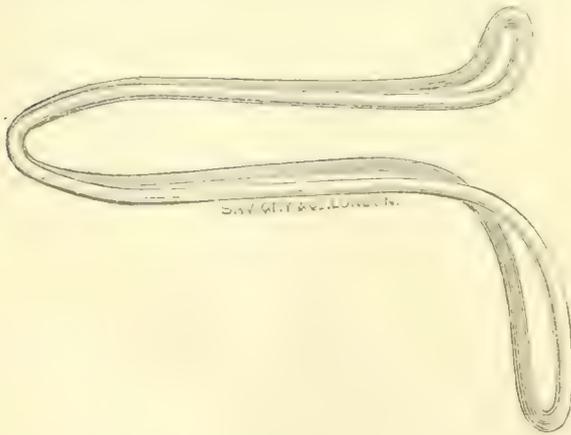
MRS. M., aged 30, had for some weeks been under my care, suffering from neuralgia, which was thought to be due to her pregnant state. She was a strong well-nourished woman, the mother of four healthy children, and believed herself to be about seven months pregnant. The neuralgia being persistent and the appetite failing, it was considered whether it would not be advisable to induce premature labour, when, on June 10th, erysipelas of the left side of the face supervened, and rapidly involved the whole of the head and neck; the temperature during the following three days being about 103 deg. Fahr., and the pulse 140. On the evening of the 13th, within two hours of the onset of labour pains, an almost full-time female child was born, with scarcely any effort on the patient's part, and without anything having been done to induce labour. The patient rapidly convalesced, and was up and practically well at the end of a month. For twenty-one days the child was fed with the bottle; but as both the mother and grandmother expressed a wish that the infant should be suckled, the breasts were kept secreting milk, by the use of the breast-reliever, until ten days had elapsed from the disappearance of the erysipelas. This case is of interest as almost exactly resembling, both in character and result, a case reported in the JOURNAL of June 2nd. A question which I should like to have answered, but which is not touched on in any book in my possession, is this: For how long it is advisable to keep the child from the breast; or, in other words, for how long, after the disappearance of the erysipelas, is the milk likely to be impure?

J. FARRANT FRY, L.R.C.P. Lond., Swansea.

CLINICAL LECTURE ON RECTAL EXAMINATIONS.

BY RICHARD DAVY, F.R.C.S.,
Surgeon to the Westminster Hospital.

GENTLEMEN. Within the past month we have had a series of cases illustrating features of surgical interest in connection with the rectum. I shall first direct your attention to some anatomical facts, and then offer clinical remarks on the treatment of fistula *in recto*, fissured anus, pendulous skin-tags around the anus, piles, and lastly, on the introduction of the surgeon's hand and arm *per rectum* for left renal examination. Hilton, in his classic work, *On Rest and Pain*, draws attention to a white line of demarcation between the external and internal sphincters; the former I have been in the habit of describing as the sphincter ani, the latter, as the sphincter recti. They both act as janitors, but the anal sphincter specially guards against intrusion from without, whilst the rectal sphincter, on receiving the order from his superior officer, carries out the final expulsion of fæces. I apprehend that nature has erected Houston's folds on very much the same principle that barriers are erected in public places, viz., to prevent overcrowding, and to give supportive protection to and from "the residual element". The common iliac arteries may be felt pulsating right and left of the rectal column; I have lately utilised this anatomical fact for the restraint of hæmorrhage during amputation at the hip joint; the position of the internal iliac arteries also with regard to the pelvic wall suggests that the mechanical pressure of the foetal head and body during parturition may assist in checking flooding in cases of placenta prævia. The healthy anus is an even, tight, depressed ring of tissue, dilating easily to a diameter of one inch and a quarter, sensitively resenting intrusion from without both of solids and liquid, whereas the rectum may be distended to a diameter of four inches, and is tolerant of manipulation. Here you may examine the simple yet very effective speculum for the rectum that I am in the habit of using; it is preferable



to Hilton's window speculum, because it is larger, cheaper, and exhibits the whole of the rectal walls at a glance; the instrument itself occupying the minimum of space.

Before speaking on the treatment of some diseases of the rectum and anus, let me remind you that the public recognises specialities in our profession; your intelligent Britisher swallows advertised sherry, homœopathic surgeons, throat, skin, and anus-doctors; the last bracket is infelicitously equivocal, for one meaning of "anus" is *an old woman*. General hospital surgeons do not receive the same amount of patronage that specialists do; patients will ask highly qualified men after specialists. Sir Thomas Watson has been asked to recommend a good general physician. A stockbroker lately asked me, "Who is a good man for the gravel?" I replied, Scotchmanlike, "Who is a good broker for an investment in Russian bonds?" I trust that the time is not far distant when the Local Government Board shall recognise substantially the grand service done by general hospital staffs to the community, instead of perpetuating the present competition between the great unpaid general hospital men and the overpaid specialists. I have so far digressed to direct your ambition towards becoming "good

all-round surgeons", and in order that you may study and practise surgery as an integral and not a fractional quantity.

Let me now draw attention to the common complaint called fistula *in recto*. In your text-books, and even in Bryant's *Surgery*, this complaint is erroneously called fistula *in ano*; the anus is but a linear entity, length without breadth, the mouth of the sewer. If two apertures exist, one is in the skin around the anus, the other in the lower part of the rectum. In all operations on the rectum, attend to the following hints: 1. That the bladder be empty; 2. That the banks of the sewage-canal be well washed previously with tepid soap and water; 3. That your own hand be oiled, the nails cut short, and the semilunar folds around the nails filled with soapy smears; 4. That suitable lavatory accommodation (with disinfectants) be ready for your own ablation. Divide the fistulous track accurately; retraction of the sphincters results; the floor of the sinus is free from friction, and granulations adhere from the floor towards the circumference of the anus. Administer opium *per rectum* or by the mouth as occasion seems fit, so as to quiet the intestinal tract. Nitrous oxide gas may well be used for these short operations, because sickness is a very aggravating occurrence as a sequence. In fissured anus, where exquisite sensibility occurs, and the patient carries the aspect that Professor Miller indicated as *mens conscia recti*, divide the nervous filaments in the sulcus, as explained by Hilton.

In considering the treatment of hæmorrhoids, bear in mind this standard rule, that whatever you remove as *bonâ fide* integument may safely be done by a curved pair of scissors; whatever is removed as *bonâ fide* mucous membrane must be done by clamp and cautery, or by ligature. In the out-patient department, I constantly cut off cutaneous tags around the anus with scissors, and treated the owners of them as out-patients; but never did one venture so to handle hæmorrhoids. Patients with piles require careful rest and attention prior to operating. Mr. Henry Smith has introduced a pair of forceps for holding these slippery customers, and then burns them off; my own experience inclines me to hold that the whole curative credit is due to the cautery. At this hospital we use a much stronger clamp than Smith's, and more after the St. George's Hospital pattern, because the grip is much firmer and cannot slip. (The instrument is on the operating-table.) The cautery I now use is this very ingenious and practical platinum cautery invented by Dr. Paquelin; after heating the platinum-tube over a spirit-lamp, the vapour of benzoline driven over this heated surface maintains its temperature as a cauterising agent. The late Mr. Bruce devised an arrangement for utilising common gas for cautery purposes, but benzoline is more portable than gas. No modern invention has succeeded so well in neutralising the apparent brutality of the hot iron as this of M. le Docteur Paquelin. These rectal wounds must all be treated by consummate cleanliness, and require no other dressing. You will find the steam-spray very grateful, and a soft hog's bristle brush an useful adjunct.

I have yet time to bring before your notice a case of renal phthisis, in which I introduced my right hand and forearm *per rectum*, so as to examine the left kidney for suspected calculus. T. B., aged 35, a painter, was admitted into Mark ward, on January 17th, 1877. Mr. Peacock of Lincoln (under whose care T. B. was originally), states that the man had been treated for lumbago, and subsequently required baths at frequent intervals. His wife, to whom he had always been reticent, determined to know why he required baths (apparently an unusual demand on the part of the British workman), and she discovered that his "purse" and left testicle were swollen. In 1876, hæmaturia, especially at night, occurred off and on with symptoms of cystitis. Mr. Peacock treated him with the bicarbonate of potash and henbane, perchloride of iron, and triticum repens. On admission, the patient stated that he was supposed to be suffering from stone, either in the kidney or bladder. In 1867, he fell eighty feet, while painting the roof of St. Andrew's Church, Derby. In October 1874, after exposure to cold, he complained of pain in his left loin; he had a fall in his shop at this time, and so frequent were these falls in his career that I nicknamed him "Tumbling Tom". In 1876, he suffered from hypogastric pain, especially on passing urine, with an excruciatingly crushing pain in his left testicle. The catheter was passed for him now on fourteen different occasions; blood in his urine appeared, but gave him relief. For the last four months he had been in the Lincoln Hospital, and the treatment pursued had been directed to his genito-urinary tract. His father died, aged 64, of gravel; and the patient had been married for fourteen years without any family. His nervous, respiratory, circulatory, integumentary, and alimentary symptoms were apparently normal.

On admission, he complained of the gravest torment in his loins, especially on his left side; this agonising pain was persistent, and passed forward to the hypogastrium. His left circumflex ilii vein

was dilated, and so were the venous radicles around the upper and outer side of the left thigh. The pain was referred down the branches of the left external cutaneous, and both genito-crural nerves. His left testicle was supremely irritable and sensitive; and a distinct induration was to be felt at each globus minor of the epididymis. Neither testicle was retracted. He wet his bed every night, and had a frequent desire to micturate by day; the urine was very faintly acid or quite neutral, rapidly becoming alkaline, of specific gravity 1030; it contained blood, pus, and mucus, and stank (as he said) like the smell of a dead body. No fragments of stone had been seen. Albumen was inconstant. He had oedema of the ankles after standing. He was ordered a grain of opium twice a day, daily four ounces of port, four pints of milk, two pints of beef-tea (double strength), two eggs, and toast and water. No urethral stricture nor calculus in the bladder was found; and, feeling that there was considerable diagnostic doubt, after a consultation with my colleague Dr. Basham, I proposed to introduce my hand *per rectum*, and ascertain whether or not a renal calculus could be felt by this manipulation.

January 30th, 1877.—He first had a free enema of warm soap and water. Under the influence of chloroform, I injected about half a pint of sweet oil into the rectum; cut my nails, soaped my right hand, and by a screw-like movement inserted my hand as a cone into the rectum; the sphincter ani was felt to split, and slight oozing of blood followed. The promontory of the sacrum was felt, the common iliacs, and the aorta as a pulsating column. The sigmoid flexure was then carefully traversed; the transverse processes of the lower lumbar vertebrae were felt; and lastly the lower fourth of the kidney as a rounded tumour. Beyond this my hand would not pass, but impinged upon the velvety wall of the colon. The capacity for using the hand as an independent tactile agent was not great, yet as a counter-resistant with external manipulation it was capable of receiving tactile impressions. On the inferior surface of the kidney were two elongated nodules, which did not pulsate. The *post mortem* examination proved these to be a knuckle of contracted large intestine (descending colon). The hand was gently and gradually allowed to be forced down by the colon and rectum; it was slightly smeared with blood, and somewhat cramped, reminding one of having performed version in a parturient woman. The anus collapsed to about the diameter of a crown-piece; and the whole procedure occupied ten minutes. Before removing my hand, the posterior wall of the bladder was supported by the hand: the sound was passed *per urethram*, but no stone was detected. The man was put into a warm bed, and a grain of opium given twice a day.

January 31st.—Two grains of opium were given extra, because the man had such grievous pain in his back and left loin. He said that his back must break. The urine was slightly tinged with blood. No fæces passed.—4 P.M. Sickness (of food) came on, with profuse perspiration. The two grains of opium gave the man relief by making him drowsy. He had ice to suck.

February 1st.—Since 9 A.M. the sickness had ceased, but nausea continued: the pain was not so severe; he took his fluid nourishment eagerly. At 4 P.M. sickness recommenced, and ceased at 8 P.M.

February 2nd.—He slept a little: the pain was not so severe: he could now lie on his back, whereas previously he was compelled to lie on his right side.

February 3rd.—Motion was passed involuntarily.

February 5th.—The anus was of the size of a half-crown piece: fæces were passed involuntarily; the pain was lessening: the urine was clear, slightly alkaline, and of a faint sickening smell. Dr. Basham saw the man; he considered the case as one of pyelitis, and advised *pareira brava*.

February 6th.—Great pain was complained of over the left crest of the ilium: the man's tongue was clean, and he passed a good night: the testis was retracted. He was ordered to have fish and eight eggs daily.

February 11th.—The symptoms continued the same; some days the urine was clear and healthy, at others turbulent and bloody (neutral to test-paper). I thought it right to send for his wife to-day, because he was not improving, and also to cut off his opium, as the drug might mask his progress. His right testis was especially sore to-day; neither was retracted.

February 17th.—The symptoms continued the same, but on the whole the man was weaker, and his face was pinched.

February 24th.—Continence of fæces was regained for the first time since January 30th.

February 27th, 2.30 P.M.—He complained of very great pain over the lower part of his belly, corresponding to the hypogastric region: sloughy shreds passed: and he fancied he passed urine *per anum*. At 3 P.M. he was partially dressed, and sat up for twenty minutes; then he had to go to bed again, because he felt tired: the pain in the

back and belly gradually increased, and he had presentiment of death at 5 P.M.

February 28th.—He had excruciating pain in his back: he begged to be placed on his face, which was done, and he died in this posture at 3.20 A.M.

POST MORTEM EXAMINATION on February 28th, at 3.30 P.M. The body was well nourished. *Post mortem* rigidity was present. The head was not examined. The thoracic viscera were healthy, excepting emphysema at the edges of both lungs. On opening his abdomen, there was no evidence of any peritonitis; the small intestine was irregularly and abruptly contracted for about two and a half inches at the commencement of the ileum, and the large intestine was also contracted to a minimum at the junction of the ascending with the transverse colon, and also from the descending colon to the rectum: the bowel was not adherent to either kidney.—*Kidneys*: The right was hypertrophied, and had two small serous cysts on its periphery; its envelope stripped off easily, and on section healthy structure was exposed: its weight was six ounces.—*Left Kidney*: Only a fibrous capsule remained, and this was nodulated as if twenty small white marbles had been squeezed when in a soft state into the fibrous bag: each tubercular deposit was pultaceous, and like white soft mortar: each marble had its fibrous investment, which led towards the pelvis of the kidney. At the lower part of the organ a collection of pus (four ounces) was found, and after the matter had been washed out this remnant of a kidney weighed four ounces: it was contracted to half the normal size: the pus was faintly fetid.—*Ureters*: The right ureter was a double one, leading up to two pelves: these two ureters joined after leaving the two pelves at a distance of three inches from the kidney: their structure was healthy. The left ureter was shortened, stiffened, and of variable size from the more or less tuberculous deposit in and around its walls: at the point where it crossed the left common iliac artery its coat had given way, pus and tuberculous debris and blood had gravitated downwards behind the rectal column, and had reopened into the rectum by a small ragged opening on the posterior wall of the sewer. The apertures of the ureters in the bladder were dilated.—*Suprarenal capsules*: The right was healthy, the left much atrophied.—*Bladder*: The coats were thin, but otherwise normal: no deposit was noticed.—*Testes*: Both testes were normal in size, and glandular structure unaltered to the naked eye: no spermatozoa were found; the globus minor of each epididymis held a yellow tuberculous patch of the shape of a pea; and both vasa deferentia and vesicular seminales were choked with yellowish-green tuberculous paint: this stuff could be squeezed along the vasa into the urethra. The urethra was normal: there was no stricture. The upper three-fourths of the rectum, the sigmoid flexure, and descending colon, were healthy. The anus was patent to the size of a shilling, and the sphincteric structures were thickened, apparently from organised lymph: some fæcal matters were found in the rectum.

Mr. Thomas Smith has carefully recorded six cases of this kind in vol. viii, page 95, of the *St. Bartholomew's Hospital Reports*, and his simile is apt in placing the disease on a parallel with phthisis pulmonalis. Frequent micturition, hæmaturia by night (*i.e.* after the day's fatigue), intermittency of subjective symptoms, pus, and mucus in the urine closely pictured the features of renal or vesical calculus; the rectal aperture explained the man's sensations on the day before his death; while the starting points of this train of pathological results may be assumed to have been three in number, *viz.*, from the left kidney and the two epididymides. The man's sterility is obvious. The engorgement of the left circumflex ilii vein is accounted for by the direct pressure on the left ascending lumbar veins. The relief gained by passing the catheter was probably mental, or divertent; but the surgeon's power for good in phthisis renalis (so far as drugs are concerned) seems to be of a most limited nature.

The introduction of the whole hand into the rectum was practised by Mr. Maunder in the year 1866, for pelvic diagnosis and for strictured large bowel: in Holden's *Landmarks* (1876), page 70, there are some remarks by Mr. Walsham, demonstrator of anatomy at St. Bartholomew's Hospital, on rectal palpation. He has introduced his hand into the rectum for the diagnosis of strictured sigmoid flexure with doubtful result. Mr. Walsham's hand measures in circumference about seven and a quarter inches; my own measures eight inches. I consider that the introduction of four fingers into the rectum is a valuable method of diagnosis, say, for stone, or uterine ailments, or for strictured intestine; that the insertion of the whole hand and forearm is a possible but severe procedure; that occasionally it may aid diagnosis (in my own case it enabled me to exclude stone in the bladder or kidney or ureter from consideration). This mode of examination can never be available for general practice, because the information thereby gained is not equivalent to the incurred distress; and let me add, that once on the *post mortem* table my hand ruptured the superior portion

of the rectum. The surgeon's hand through the rectal tube has been used in the most examinations for the abstraction of the kidneys and other small viscera: I mention this only to express my regret that any such underhand examination has been necessitated, by reason of friends negating an essential but disagreeable duty of our profession in the pursuit of truth.

REMARKS ON THE TREATMENT OF TINEA TONSURANS.

By ROBERT J. LEE, M.D., F.R.C.P.,

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THERE are numerous agents which seem to have more or less active influence in the treatment of ringworm; some being advocated by some practitioners as superior to others, while these again have their own supporters. The spores of the trichophyton appear to resemble the microspores lately examined by Professor Tyndall in their obstinate resistance to destruction; and the successful treatment of cases of tinea tonsurans clearly depends on determining whether it is possible to destroy these spores, or whether, by preventing their germination for a certain period, the disease practically cures itself. The observation of some troublesome cases of ringworm which had been under various kinds of treatment without much benefit, suggested a plan of treatment which excluded the possibility of destroying the trichophyton spores, and only had for its object the arrest of proliferation of the germs. The question of the destruction of microspores is one which perhaps does not present itself as quite a different question from the prevention of their development. An example will illustrate what is meant. If we take a solution containing bacteria, such, for instance, as that in which bladders are prepared for museum purposes, the odour of which is singularly powerful, and add to it a certain quantity of carbolic acid solution of the strength of 1 in 40, we shall find that the active living organisms which exist in the former will be instantly destroyed and the odour removed. If we do the same thing with a solution of salicylic acid of full strength (water absorbs only about 1 in 400) the organisms are not destroyed and the odour is not removed; that is to say, salicylic acid will not destroy well-developed bacteria. But salicylic acid will prevent them from developing, as is proved by the fact that we may preserve animal or vegetable matter from decomposition by treating it with solution of the acid. We thus see the importance of distinguishing between agents which destroy bacteria and microspores, and those which simply prevent their development; and there is no doubt that those who have been studying this most interesting subject by clinical, microscopical, or physical methods are well aware of the importance of ascertaining the conditions which favour or arrest the development of different species of germs; clearly a stage in the inquiry beyond that of the extent to which the germs may be destroyed by various agents.

As it is well known that some of the remedies used for ringworm are less liable to produce inflammation of the skin than others, it is most desirable to give a preference to the former, the production of inflammatory changes seeming rather to retard than promote the action of a remedy. On this principle I have, during the last twelve months, used carbolic acid, the most certain agent for the prevention of the development as well as for the destruction of microspores, with decidedly better results than were observed when iodine, tincture of the sesquichloride of iron, or any other agents had been employed, including Goa powder, which has lately been recommended as superior to most others. There is one important point which must be attended to under any circumstances; and this is, the necessity of much more frequent application of any remedy than is usually considered requisite, for the reason that most species of microspores require only a few hours to advance from one stage of development to another, and that, in order to prevent any increase in the number of the spores, though we may not be able to destroy them, it is absolutely necessary to apply the remedy at intervals of not less than six hours. The best preparation for this purpose is a combination of sulphur and olive-oil in equal parts, to which carbolic acid in the proportion of two grains to the drachm is added. To prevent the contact of the fingers of the person who applies it, and who is liable, without caution, to take hold of a child by the neck or shoulders, and thus produce the disease on other parts, a small sponge or brush should be used. This must be done every four or six hours, the head being washed with Castile soap and warm water night and morning before the application of the carbolised oil. If a stronger solution of the acid be used, as, for instance, in the proportion of 1 to 10, it will be

found that a certain amount of inflammation is produced, and the frequent application of such a mixture cannot long be pursued. After making various experiments of this kind, I have found the preparation given above most satisfactory, and believe that the treatment of ringworm with carbolised sulphur oil may be recommended as superior to any other in common use.

As a matter of experiment, there is no doubt as to the fact that no agent with which we are acquainted is to be compared to carbolic acid for the destruction of organic life without destruction of organic matter, and that no agent is so useful in treating parasitic diseases of the skin, from the fact that, in proportion to its destructive action on the organisms which produce them, it is the least injurious to the cutaneous tissue.

Attention to details is of such importance in the treatment of tinea tonsurans, that it is necessary to add to the above directions the remark that the hair should be cut close with scissors, and that the oil should be rubbed into the skin for a few minutes. The treatment should be continued for at least a fortnight after the disease has apparently been cured. Either of the following prescriptions may be used. The first has the advantage of not becoming thick or dry from evaporation, while the second is cleaner and cheaper.

R Sulphuris precipitati, zinci oxidi, aa ʒj; olei olivæ f. ʒj; acidi carbolicæ gr. xvi.

R Sulphuris precipitati, zinci oxidi, aa ʒij; glycerini, aquæ, aa f. ʒij; acidi carbolicæ gr. xvi.

REPORT OF A CASE OF PARAPLEGIA DEPENDENT UPON SOFTENING OF THE SPINAL CORD.*

By G. H. PHILIPSON, M.A., M.D. Cantab., F.R.C.P. Lond.,

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WILLIAM M., aged 42, single, an itinerant newseller, residing in Newcastle-upon-Tyne, was admitted into the Newcastle Infirmary, under my care, November 18th, 1875. He stated that for three weeks he had been unable to pursue his occupation, in consequence of numbness and a prickling feeling of the lower extremities, and from increasing inability to walk, the right leg being weaker than the left; also, that he had suffered from a dull pain in the lumbar and sacral regions of the spine, accompanied with a tight feeling in the abdomen, and at times from cramp of the calves of both legs. He had been much exposed to the vicissitudes of the weather, having to gain his livelihood by attending upon a stall placed in the streets, and in consequence had suffered greatly from coldness of the extremities, especially the lower.

Upon examination, it was found that his spine was curved, convexo-concave in form, the convexity being situated at the dorsal region and the concavity at the lumbar; the convexity being directed backwards and the concavity forwards. The curvature had existed since he was ten years of age. Upon percussion of the spines of the lower dorsal vertebrae, especially the tenth, there was distinct tenderness. When a sponge dipped in warm water was applied to the spine, a burning sensation was complained of about the tenth dorsal vertebra, with a natural sense of heat in the vertebrae above. The passage of a piece of ice over the vertebral column produced a sensation of cold everywhere, except at the level of the tenth dorsal vertebra, at which spot a feeling of heat was experienced. He was able to raise both his legs from the bed, but there was a great tendency to crossing of the legs one over the other, especially the left over the right. When the soles of the feet were tickled, the legs were suddenly jerked from the bed, the right more suddenly and more forcibly than the left. When assisted out of bed, he would have fallen to the ground if he had not been supported, and he was quite unable to move the legs as in the act of progression. The sensation of both feet and legs, as also the temperature, was equal. Both legs were wasted, and the muscles were very flabby. He had full control over the bladder and rectum. The urine was normal in colour, slightly alkaline in reaction, of specific gravity 1028, was free from albumen, but contained an excess of phosphates.

He was ordered to take twenty minims of the liquid extract of ergot, in water, three times each day; and, as the skin over the convexity of the spine and the sacrum was inflamed, he was placed upon air-cushions.

November 29th. He expressed himself as having more power in the legs, also said that the extremities were less numb, but still complained of pain in the lower part of the spine and the tight feeling in the abdomen.

* Read before the North of England Branch.

The ergot was increased to thirty minims. The bowels were relieved by enemata.

December 11th. Voluntarily, he stated that he was continuing to improve, both in power of moving the legs and in feeling. The bowels were acting naturally. The urine was voided without difficulty, and was slightly acid. He was allowed to be placed in an arm-chair at the side of the fire.

January 12th, 1876. During the last two weeks, he had been stationary; had very little complaint of pain, but still the feeling of abdominal tightness. No gain in muscularity. He was ordered to take five grains of the iodide of potassium, ten grains of the bromide of potassium, and one ounce of the decoction of cinchona, three times each day; and in addition to the ordinary full diet, he was allowed four ounces of port-wine daily. Peripheral galvanisation, by means of the interrupted current, was to be employed every alternate day.

January 29th. There was evidence of slight improvement; he was better able to bear the weight of his body when assisted from the bed to the chair. The iodide was increased to seven grains and the bromide to fifteen grains, and the galvanism was to be repeated every day.

February 16th. The iodide was increased to ten grains and the bromide to twenty grains.

February 26th. As very little improvement had been effected, and as his strength and nutrition appeared to be diminished, he was ordered a grain of sulphate of quinine, ten minims of the tincture of the perchloride of iron, and ten minims of the tincture of nux vomica, in water, three times each day.

March 4th. He appeared to be gaining strength.

March 11th. After a sudden change in the weather, from mild to extreme cold, he complained of catarrh, which developed into bronchitis, for which he was given stimulant expectorants.

March 16th. He was coughing up large quantities of tenacious mucus; and upon auscultation of the chest, loud sonorous and sibilant rhonchi were heard, especially over the sternum and sides of the chest, so loud that the sounds of the heart could not be distinguished.

March 19th. He became gradually weaker, and died at 2 P.M.

NECROPSY, thirty-six hours after death.—Considerable difficulty was experienced in opening the spinal canal, in consequence of the curvature of the spine, and of the lower dorsal and lumbar vertebrae having become ankylosed. After dividing the spinal dura mater, the meningeal vessels, more especially at the lower dorsal region, were noted as more visible than usual. At this situation also the spinal cord was bulged, and was so much softened as to give way in the removal. The softened portion was fully one inch in length, corresponded with the tenth dorsal vertebra, was of a creamy-white colour, and at one spot near its centre was changed into a mere pulp, and when submitted to a stream of water was carried away in the current, the surrounding portion being of a pasty putty-like consistence. Upon microscopical examination, the nervous tissue was seen to be broken up and mixed with a number of bodies, known as granule masses, principally composed of fat. Besides these bodies, decaying tubes and the fatty remains of blood-vessels were distinctly recognised. The pericardium was distended with serosity. The heart was covered with lymph, the result of recent pericarditis. The valves of the heart were healthy. The lungs, more especially the right, at their apices were adherent to the chest wall, and were puckered; and, upon section, cretaceous masses were displayed, the remnant of tubercle. The lungs throughout were congested. The bronchial tubes were filled with frothy glairy mucus. The other organs presented nothing abnormal.

REMARKS.—This case has been recorded, not on account of any peculiarity or rarity, but because of the symptoms and sequence of events being characteristic, first, of hyperæmia of the spinal meninges and spinal medulla, and afterwards of organic lesion of the spinal medulla (softening), such being verified by the examination obtained after death; it being believed that in myelitis there is no abundant interstitial exudation, but that the nerve-elements undergo inflammatory disturbances of nutrition, and finally break down.

Respecting the diagnosis of hyperæmia, this was arrived at from the evidence of impairment of the functions of the spinal marrow, and the indications of irritation; namely, of the motor nerve-fibres by the cramps and twitchings of the sensitive nerve-fibres by the pricking pains and the abnormal sensations, and of the vaso-motor or nutritive nerve-fibres by the wasting of the muscles. It was further surmised that the paralyzing lesion was seated in the portion of the cord corresponding to the lower dorsal vertebrae, from the paralysis being limited to the lower extremities, and not implicating the sphincters.

Having in regard the pathology and the diagnosis, the chief indication in the treatment was the diminution of the blood circulating in the spinal canal, and with this design ergot of rye was prescribed;

according to Brown-Séquad, no other agent being so efficacious. When the symptoms of irritation, inferred to be dependent upon the hyperæmia, had subsided, and upon the supposition that, as a consequence of the hyperæmia, some serosity or lymph might have been effused, it was deemed expedient to give absorbent remedies.

Later, with the view of maintaining the strength and the nutrition of the system, and of obviating the effect of rest on the paralysed nerves and muscles, tonics were administered, a nourishing diet was allowed, and galvanism was employed; the chief aim being to improve the quality of the blood, and in such manner the vital properties of the nerve-centre.

ON THE USE OF THE TREPHINE IN DEPRESSED FRACTURES OF THE SKULL.*

By ROBERT S. HUDSON, M.D., M.Ch., Redruth.

THERE is no subject in surgical literature which seems to have created more divergence of opinion than the employment of the trephine in depressed fractures of the cranium. It is now about one hundred years since Percival Pott so modified the shape of the instrument as to render it safe and manageable; there has been no change in its form since his day; and there can be no more instructive commentary on the ever-changing fashions which exist even in surgery, than to read his essay on Injuries of the Head, and compare his conclusions with the practice of our large hospitals at the present time.

In his celebrated essay, Pott betrays neither doubt nor hesitation; firm belief in the efficacy of the trephine is evidenced on almost every page; results are narrated which vie in brilliancy with any of the triumphs of modern surgery; yet the same methods for arriving at the truth exist now as then. The astonishing strides made by physics and chemistry during the interval have little bearing on the point at issue; careful observation, truthful description, and logical deduction can alone help us. How, then, can we explain the revolution involved in the statement that in St. Bartholomew's Hospital, to which Pott's genius added lustre and renown, his views have been discarded, and, for the six years previous to 1867, the trephine had not been once employed in an injury of the head? (*Bryant's Manual of Surgery*, 1st edition, page 77). The *post mortem* records of our large hospitals are more accurate than at any former period, and observations have certainly accumulated; but do these records, when fairly criticised, encourage the dread of the trephine now fashionable, and which almost condemns it to the limbo of forgotten barbarisms? Of late, there have been many indications of a change in surgical opinion on this question; a fatal issue is not now an invariable result; and the addresses at our annual meetings, with the "hospital notes" in our JOURNAL, give abundant evidence that trephines may be employed with benefit, and have some other use than filling up a vacant space in those orthodox boxes of velvet and mahogany in which our instrument-makers delight.

I am well aware that you have come for a holiday, so I do not propose inflicting on you a dry narration of cases in which the trephine has been successfully employed, nor an analysis of cases in which it should be used or avoided; I merely wish to bring before you an account of what is thought of it in the mining districts of Cornwall, and ask you to look on the surgical practice of these districts as an important factor in enabling you to arrive at a conclusion as to its employment.

Around Redruth and Camborne, Pott's principles still prevail; taught by Pott himself to the great grandfathers of the present generation of surgeons—the Pryces, Lanyons, Vincents, and Michells—these principles of surgical interference in head-injuries have been handed down from father to son, from master to pupil, and their utility has been illustrated in numerous cases. I may be pardoned tracing, so far as Redruth is concerned, the chain of connection which links Pott's days with ours. Before 1815, no examinations had to be passed by medical men previously to practice, and few country practitioners voluntarily undertook the labour involved in obtaining the diploma of the College of Surgeons. The apprenticeship system was the ordinary passport to the profession, and those learned in the "art and mystery" of an apothecary had charge of the health of nine-tenths of the people of this kingdom. Those of you who have paid any attention to the antiquities, literature, or history of the county of Cornwall, are aware that we are indebted to Pryce's *Mineralogia Cornubiensis* and Pryce's *Cornish Vocabulary* for a great deal of the knowledge which we now possess. According to the late Mr. W. J. Henwood, F.R.S. (*Transactions, Royal Institution of Cornwall*, vol. 51), the learned author of these

* Read before the South-Western Branch.

books—William Pryce, M.D.Ed.—practised at Redruth between 1760 and 1790. When Pryce was a student, Pott was in the zenith of his fame, and it is not unreasonable to suppose that Pryce adopted the views strongly inculcated by the greatest surgeon of that time. Of this we are certain, that Pryce's son, grandson, and great-grandsons adhered to the practice, and so with the numerous surgeons who were, at one time or another, apprenticed to various members of that family.

Talleyrand, it is said, observed that the philosophy of a previous generation might be gathered from the common people of the existing one, and it is so in this case. On the occurrence of a head-injury, the first question asked by the "comrades" of a wounded miner almost invariably is: "Is his skull broken?" and, if a reply be given in the affirmative, the next: "When are you going to bore 'un?" It should be remembered that tin and copper mining, with its narrow shafts, is prolific of that species of local depressed compound fracture in which most authorities would use the trephine. Although the miners' heads are protected by a hard hat, made from felt saturated with shellac—similar in material to the poroplastic splints—stones occasionally fall from the sides of a shaft or the roof of a level, and the head is most likely to receive the blow. Thirty or forty years ago, the trephine was much more frequently employed than at present, or, more correctly, injuries of the head were of more frequent occurrence. One surgeon (Mr. G. A. Michell, F.R.C.S. and J.P.) now living, tells me that, during his pupilage, a week rarely passed without one or two trephine operations; he has known three to occur on the same day, all done in the surgery, and the patients afterwards walking home. Many of the accidents at that time were due to blasting. It was before the invention of Bickford's safety-fuse, and charges were fired by trains of gun-powder laid in goosequills, or straws, or empty rushes.

When first told about the frequency of these operations, I was quite incredulous; but I understand that the late Mr. Skey was shown, by a Redruth surgeon, sixty-four specimens of trephined bones, each in its little box, with name and date of operation. Another surgeon remembers between forty and fifty such boxes in his father's surgery, collected mainly during his pupilage. Without much trouble, more than a score of men could be seen at any time, in the immediate neighbourhood of Redruth and Camborne, whose skulls, to use the popular phrase, "had been bored". I may add, that a very large percentage of these cases recover; that, if death ensue, there are generally obvious causes to account for it, such as diffused injury, with laceration of brain-substance or fractured base; that, in our opinion, success mainly depends on an early operation, as soon after the accident as convenient; and that we place the operation in the same category as herniotomy, viz., harmless in itself if skilfully performed, but in most cases useless if delayed until the appearance of symptoms.

Too much stress cannot be laid on one circumstance, which tells greatly in our favour when we contrast our results with those given in the reports of our large hospitals. I refer to the purity of our atmosphere, or rather its freedom from the common septic ferment. The whole district is daily swept by the Atlantic breezes; and if our sanitary authorities were wise and energetic, zymotic disease would be unknown. Practically, when proposing an operation of any kind, we never take into account the absorption of putrid matter, pyæmia or its allies, and we have no reason to fear them. But Lister and his school have shown that, even in old hospitals, these enemies of the operating surgeon need not be dreaded as formerly, if the antiseptic system be carried out in the spirit of its apostle. Surely, if a knee-joint can be opened without risk, elevation of depressed bone in a compound fracture of the cranium need not be looked upon as a "serious and in itself dangerous operation" (Le Gros Clark, *Lectures on Surgical Diagnosis*, page 89); and should we not, even in pyæmic atmospheres, resort to the principles maintained with such energy by Pott, and avert the fatal mischief which supervenes from inflammation and suppuration between the dura mater and the bone?

On the Continent, the pointed trepan worked by a brace is still in use, although condemned by Pott as dangerous. This may explain the caution of Stromeyer, who, in his address to the St. Thomas's Hospital students three years ago, advised the fragments of a compound comminuted fracture of the cranium to be loosened by suppuration before attempting to remove them.

I have consulted hospital reports to ascertain the most recent practice of the schools on this point, and I find that in Guy's Hospital, from 1861 to 1868 (seven years), they had fifty-one operations in which the trephine and elevator were used, and thirty-nine deaths, or a mortality of 76.5 per cent.—higher than after any other operation, including tracheotomy and ovariectomy. In Guy's, from 1871 to 1876 (five years), they had sixteen operations and twelve deaths. In St. Thomas's Hospital, from 1866 to 1870 (four years), they had three

operations, all died. In St. George's Hospital, from 1870 to 1877, they had sixteen operations with thirteen deaths.

As illustrative of the septic atmosphere with which hospital surgeons have to deal, I may mention that in St. George's Hospital, during 1868 (*St. George's Hospital Reports*, vol. iv, page 316), they had twenty-two cases of pyæmia, commencing in the house and with a fatal termination. In 1869 (*St. George's Hospital Reports*, vol. v, page 273), they had fourteen such cases, commencing in the house, all of which proved fatal.

To sum up: 1. Surgeons practising in the mining districts around Redruth and Camborne have had, especially in former times, unusual opportunities for the study of head-injuries.

2. In compound fractures of the cranium, it has been the invariable practice of the most experienced to elevate depressed bone by means of the trephine or Hey's saw, without waiting for symptoms of compression or irritation.

3. It is believed by those surgeons that no danger whatever attaches to the operation *per se*; pyæmic risks are unknown; and recovery is the rule after trephining operations.

4. So firm is popular belief in the efficacy of the trephine, that a surgeon who hesitated to employ it, under the plea of waiting for symptoms, would assuredly suffer in reputation, if, in the event of death, he were not put on his trial for manslaughter.

5. Hospital statistics place herniotomy among the most dangerous operations; but the statistics of hospital surgeons, in their private practice, show to a demonstration that an operation for the reduction of strangulated hernia is practically harmless, even when it is necessary to open the peritoneal sac, and that the risk is directly proportionate to the length of the ignorant delay which has been allowed to exist previous to the operation. (*Holmes's System of Surgery*, vol. iv, page 692). Although the parallel is not in every respect a complete one, we employ the trephine at the earliest possible period, and aim at preventing mischief by removing all sources of irritation.

6. No matter how deeply prejudiced against the trephine our young surgeons may be when fresh from the schools, a few years' experience generally dispels the illusion; they become converts to the practice of the district, and cease to look on its employment as antiquated surgery.

P.S.—Since writing the above, the current volume of *Guy's Hospital Reports* (1877) has been delivered. Mr. Davies-Colley contributes two interesting cases in which the trephine was successfully employed; his concluding remarks are quite refreshing, and I take the liberty of quoting them:

"These two cases support the rule, which most of our text-books either omit or fail to impress, that, in punctured fractures of the skull, it is the surgeon's duty to trephine at once, without waiting for symptoms of compression or irritation."

CLINICAL MEMORANDA.

AFFECTIONS OF THE EPIGLOTTIS.

DR. MARCET'S paper on Affections of the Epiglottis is well worthy of the most careful consideration, as he throws out many valuable hints on the examination of a part of the human frame which is overlooked very frequently, owing to the difficulty in correctly exploring it. Reported obstruction and pain in swallowing are often put down to hysteria or fancy, if nothing is to be seen in the fauces, or if an examination with a probang indicate no stricture or tender spot; yet a laryngoscopic examination may very easily be made to disclose some possibly remediable disease of the epiglottis. In cases of great pain in swallowing, with no visible clue or emaciation, I have frequently discovered a small syphilitic ulcer or ulcers on the free edge or on the lingual aspect of the base of the epiglottis, which were readily healed by a few applications of nitrate of silver. Chronic congestion of the epiglottis, however, attended by a varicose condition of the vessels, is a much more difficult matter to relieve. The epiglottis may be extensively destroyed by syphilis, without the evidence remaining of disease in the interior of the larynx or in the palate. I can fully bear out Dr. Marcet in his views that tubercular disease may commence in the epiglottis without its being manifest in the lungs or vocal cords.

A young man was admitted under my care in the Central Throat and Ear Hospital with a raised granular ulceration of the epiglottis, which could be distinctly seen, without the aid of the laryngoscope, by depressing the tongue and causing a slight attempt at vomiting. The cords were not affected, though there were hoarseness and great pain in swallowing. I hoped at first that the ulceration might be due to syphilis, as no disease could be discovered in the lungs beyond a slight

harshness of breathing in one spot. The case was, at my request, repeatedly examined stethoscopically by several visitors to the hospital. The man, however, became emaciated, the cords suddenly became ulcerated, and I sent him to the seaside. After a few weeks' absence, he returned to London, and his regular medical attendant informed me that both lungs became completely disorganised, and he died within ten weeks of the first examination.

I do not agree with the application of nitrate of silver in laryngeal phthisis, whether in solution or solid, as it produces great pain and frequently terrible spasm, though a very weak application of chloride of zinc certainly diminishes pain. Anodyne inhalations are also very grateful to the patient.

LEWELYN THOMAS, M.D.,
Physician to the Royal Academy of Music.

REPORTS

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

UNIVERSITY COLLEGE HOSPITAL: MR. CHRISTOPHER HEATH'S
WARDS.

Popliteal Aneurism.—A strongly built and well developed man, an engine-driver, thirty-six years of age, was admitted as the subject of popliteal aneurism on the right side. He complained of much throbbing pain in the leg, and had observed a swelling in the ham during the last two months. On examination, a tumour was found in the ham about two and a half inches in length, presenting all the usual characters of an aneurism; and, on applying a stethoscope over it, a loud *bruit* was heard. There was no œdema of the leg. The superficial arteries were rather tortuous, but not hard to the touch, and there was no evidence of any disease of the heart. There were scars in one groin, but no other evidence of syphilis, and there was no history of any definite strain or accident; but the man, as an engine-driver travelling on a locomotive eight hours a day, had been necessarily exposed to constant vibratory movement. The patient was placed in bed, the leg bandaged, and two Carte's tourniquets applied, one over the artery below the groin, the other so as to compress the artery against the middle of the femur. These were tightened alternately; as one became painful it was eased, the other being tightened up; pulsation in the aneurism was thus arrested, hypodermic injections of morphia being used to lessen the pain and uneasiness. The next day, Esmarch's bandage was applied from the foot to the level of the aneurism; the man then standing upright, so that the sac might become full, another elastic bandage was applied above the aneurism, leaving it uncovered; the elastic cord was then passed round the thigh, and all pulsation in the aneurism ceased. This was left on six hours, chloroform being administered constantly. On removing the bandages, pulsation returned. The methods of constant flexion and constant extension have since been tried, but without success.

Epithelioma of the Tongue.—In September 1875, Mr. Heath removed an epitheliomatous growth from a man aged 52. The cancer involved the tongue, the gums in the region of the lower incisors, and the adjacent glands, the skin not being affected. By dividing the skin in the middle line, and then sawing the jaw through on each side, the tongue and all the sublingual tissues were removed by means of the galvanic *écraseur*, together with three inches of the bone. This was done nearly two years ago, and there is as yet no sign of return of the disease, and the man is able to speak so as to make himself understood. The case is published in the *Pathological Transactions*.

A Thorn removed from the Knee-joint.—A boy had been sent up from the country for the result of injury to the knee-joint. The lad had complained of pain in walking, ever since an accident in which the knee had been struck. When the joint was examined, there appeared to be a spiculum of bone movable within the joint, as if it had been chipped off from the head of the tibia. An incision was made at the side of the patella down to this body, with antiseptic precautions. A little fluid escaped, evidently not synovia, and the body when extracted proved to be a long thorn.

Strumous Disease of the Knee-joint had been treated by free incisions into the joint, no diseased tissue being removed; the limb was then put up as after excision. The wound soon began to heal in a healthy manner, and the child's health and strength rapidly improved.

Fracture of the Femur.—A little boy had sustained a fracture of his femur. This had been put up in a plaster of Paris case, and then the child was sent home. Through the carelessness of the mother, the bone was bent before it was firmly united. When he was again brought to the hospital, the thigh was straightened and put up in a Hamilton's splint. This arrangement consists of a long splint to each side of the body, connected by a crossbar under the feet and back; the body and each leg being bandaged to this splint, the child could be lifted, turned over, or carried about.

DR. BASTIAN'S WARDS.

Aortic Aneurism.—In a man aged 45, an aortic aneurism was found approaching the surface at the second right intercostal space. It appeared to be idiopathic in origin, and, as is often found in the clinical history of these cases, there were no indications of syphilis. There was a double *bruit* at the base of the heart, with well marked signs of cardiac hypertrophy, indicating disease of the aortic valves. Aconite had been ordered to depress the force of the heart, and hypodermic injections of morphia were used to lessen the pain. There were no certain signs that the aneurism had reached the surface, but Dr. Bastian proposed to use galvano-puncture as soon as there was evidence that the aneurism had come through the ribs under the skin. In two cases where this method had been successful, the aneurism distinctly protruded from the chest; in one case, galvano-puncture caused partial consolidation, relieved pain, and lessened the uneasiness of the patient, enabling him to procure rest.

Double Pleurisy and Pericarditis.—A boy had been ill eight to ten days. On admission to hospital, his temperature was found to vary from 102 to 104 deg. Fahr. There were signs of mitral incompetence, a to-and-fro sound was heard over the base of the heart, and a distinct fremitus was felt by the hand; there was also pleural effusion on each side. The urine was loaded with lithates. There was no arthritis, and it was not clear what was the origin of these inflammatory lesions. On cross-examination, it appeared that three months ago he had an illness characterised by headache, slight pain and swelling of joints, and pain in the precordial region, accompanied by a dry cough, thus indicating a probable rheumatic temperament. The chest had been poulticed, and a mixture given containing diffusible stimulants; subsequently, a saline mixture containing iron had been ordered.

Locomotor Ataxy.—A woman aged 49 presented the signs of locomotor ataxy in a typical form. Nine years ago, she was attacked with paraplegia accompanied with anæsthesia; from this she had so far recovered as to be able to walk about. Later, locomotor ataxy had developed, a condition but rarely seen in women. In walking, the legs were kept widely apart, and the woman kept her eyes constantly fixed on the ground before her, and there was total inability to stand with the eyes shut. Lancing pains in the legs were much complained of; there was no affection of the joints such as is sometimes met with in cases of this disease; the anæsthesia had remained since the original attack of paraplegia. Dr. Bastian considered it probable that the old lesion of the cord had caused an ascending sclerosis affecting the posterior column, thus causing the development of the ataxic symptoms. She has been treated with hypophosphite of lime.

Cross Paralysis.—An old man, while walking in the street, was seen to stagger; and being unable to speak, he was brought to the hospital. It was ascertained that he had had two hemiplegic attacks during the last two years. The left side of his face and the right arm and leg were completely paralysed; he could not move his tongue or swallow; and his manner was very stupid. Slight improvement occurred at first, but subsequently there was great restlessness, passing on to deep coma, so that it was impossible to ascertain the condition of sensation. The pupils were sluggish, and it was found impracticable to make an ophthalmoscopic examination. There was no *bruit* over the heart, but the arteries were hard and tortuous. There was no albuminuria. Dr. Bastian thought it probable that a lesion would be found in the pons Varolii, either a hæmorrhage, or softening due to plugging of the basilar artery.

Early Development of Rheumatoid Arthritis.—A girl aged 14 was completely crippled by chronic rheumatoid arthritis, affecting principally both legs and the left hand. This condition has come on gradually, and has steadily progressed during the last six years; it followed an attack of rheumatic fever.

Growing Consumption: Post mortem Examination.—A girl, aged about 18, of delicate constitution, but not giving a family history of consumption, attributed her illness to catching cold last November. While in hospital, there had been a considerable amount of fever, 102 deg. to 104 deg. Fahr., complete loss of appetite and strength, and signs of rapidly advancing consolidation of lung; there was also a

troublesome looseness of the bowels, and just before death the temperature ran up to 106 deg. Fahr. On *post mortem* examination, one lung presented a large ragged cavity in its upper lobe, the lung-tissue left being in a condition of lobular pneumonia in various stages, passing into "cheesy deposits", and breaking down. Contrary to what is usually found in acute phthisis, the other lung was scarcely at all affected. The larynx was ulcerated at several points. On opening the abdomen, the parietal peritoneum presented a "sticky appearance", the early stage of peritonitis; and the intestines were in many places matted together by adhesions apposite to ulcers. These ulcers were most numerous in the lower portion of the ileum, but a few were found in the colon; their position was markedly transverse to the axis of the bowel, thus presenting a characteristic difference between the tubercular ulceration of the intestines and the typhoid ulcer, which, running along a Peyer's patch, is placed parallel to the axis of the bowel. The transverse position of the tubercular ulcer accounts for the intestinal obstruction not unfrequently following the healing of such lesions. Many of the ulcerated patches were very vascular, and some were surrounded by the so-called miliary tubercles on the peritoneal surface, these granulations being probably simply an overgrowth of the adenoid tissue, which exists in abundance in the normal peritoneum. All the mesenteric glands were much swollen, and many had suppurated and broken down into abscesses; possibly this unusual and extensive suppuration of glands resulted from the long-continued high temperature of the body. The liver and kidneys were fatty, the brain healthy.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE
ALLIED SCIENCES.

NOTE ON A POCKET URINARY TEST-CASE.

By GEORGE JOHNSON, M.D., F.R.S., Professor of Clinical Medicine in King's College; Senior Physician to King's College Hospital.

IN the JOURNAL of June 9th, p. 711, there is a description of Dr. Alexander's pocket clinical urine-case. I have one of these cases; and, while I thank Dr. Alexander for his persevering and successful endeavours to supply us with a portable test-case, I believe that I have improved upon his apparatus in one important particular. The chief difficulty in the fitting up of a case for urinary tests has always been to prevent the escape of the corroding fumes of nitric acid. In Dr. Alexander's case, the acid is contained in hermetically sealed capillary tubes. I have found serious practical difficulties in the use of these tubes. If they be very small and thin, they are liable to break by being shaken against each other in the case, and thus the corroding fumes escape. If they be large and thick, they are not easily broken when required for use, and in breaking them the operator's hands may be wounded. But the most serious objection is, that a single tube often does not contain sufficient acid to form a satisfactory test. It is well known that, if to albuminous urine a quantity of nitric acid be added insufficient to coagulate the albumen, the acid forms with the albumen a compound which is not coagulable by heat; and I have found, by experiment upon small quantities of several specimens of albuminous urine, that the acid contents of a single tube, while insufficient to coagulate the albumen when added to the cold urine, prevented coagulation by heat. It is evident, therefore, that the use of these capillary tubes may be seriously misleading, and it is practically essential to have the means of adding an excess of nitric acid when testing for albumen. Mr. Hawksley, therefore, has made for me a modification of Dr. Alexander's case, in which I have substituted for the capillary tubes a small nitric acid bottle with an accurately fitting stopper and a glass cap over the stopper. Then, in order more effectually to prevent the escape of the acid fumes, the bottle is packed in a cylindrical ebonite box with a closely fitting screw-lid. I have had this case in daily use for several weeks, and I find it extremely useful and convenient.

JUJUBES OF HYDROBROMIC ACID.

MR. BYATT WALKER, of 22, Clapham Road, has, at the suggestion of a medical man, prepared a jujube of hydrobromic acid, each section of which contains five drops. After the interesting paper on the subject of the use of hydrobromic acid in medicine by Dr. Woakes, which we lately published, it is probable that this patent will attract some

attention amongst practitioners; and we believe that the profession will recognise in these jujubes a most convenient vehicle for the administration of that valuable remedial agent.

SELECTIONS FROM JOURNALS.

SURGERY.

TUBERCULAR ULCER OF THE TONGUE.—M. Nedopil in the *Archiv für Klinische Chirurgie*, Band xx, remarks that the diagnosis of secondary tubercular ulcer of the tongue is generally not difficult, in the presence of other indications of tuberculosis. On the other hand, primary tubercular ulcer can often be scarcely distinguished from cancer unless a microscopic examination be made; while the failure of anti-syphilitic remedies denotes that the affection is not a syphilitic ulcer, which often has a similar appearance. The tubercular ulcer of the tongue runs a course resembling that of cancer. A small hard nodule on the edge or upper surface of the tongue, which is often overlooked, at last falls off and leaves a dirty ulcer with an indurated base, which generally spreads more slowly than a cancerous ulcer. A cure can be produced only by early extirpation, which perhaps may arrest the development of general tuberculosis. The author has observed four cases in Billroth's clinic; two of the individuals were thirty-two years of age, the others sixty-eight and seventy. In three cases the ulcer was extirpated, and healing took place in a few days. In the excised pieces, the tissue around the ulcer was studded with miliary tubercles, mostly towards the free surface. The morbid process appears to commence with a general transformation of the muscular tissue into a homogeneous slightly granular plasma, containing proliferating muscle-nuclei. Later, the primary deposits become confluent, and giant-cells are formed from the obstructed portions of the blood-vessels; in some of these Nedopil found cavities filled with brown pigment. The growth of the tubercle appears to take place partly through proliferation of nuclei (without cell-formation) in the interior, partly through metamorphosis of the neighbouring tissue.

MATERIA MEDICA.

ON THE INTERNAL USE OF GLYCERINE ASSOCIATED WITH CINCHONA AND WITH IRON SALTS.—M. A. Catillon (*Repert. de Pharm.*, June 10th, 1876) says that glycerine preserves iodide of iron from the alteration it invariably undergoes by exposure to the air, and M. Vezu takes advantage of this fact in proposing to substitute glycerine for water in the solution (1-2) used in pharmacies for the extemporaneous preparation of the syrup. Hitherto, says the author, no one has, to our knowledge, drawn attention to the remarkable property possessed by glycerine of preventing the action of cinchona bark on iron. This property is possessed by glycerine to such an extent that cinchona and the iodide of iron even (perhaps the most susceptible of the iron salts employed in medicine) may be associated without decomposition. It is well known that when iodide of iron is added to the syrup or wine of cinchona the liquid first becomes turbid, and speedily assumes an inky appearance, and there is deposited at the end of some days a blackish powder, which contains the iron as tannate. If the usual liquid be replaced by glycerine, the reaction is not observed, and the two (previously) incompatibles remain mixed without either the limpidity or colour of the cinchona preparation being affected. In addition to this, glycerine exerts on cinchona a solvent power comparable to that of alcohol, and which permits the retention of all its principles. Thus, it dissolves entirely the alcoholic extract, which contains them all, and the complex substance designated resin of cinchona, which contains a notable proportion of them. According to Soubeiran, this resin retains, in combination with the derivatives of cincho-tannic acid, known collectively as insoluble cinchona red, a proportion of alkaloid equal in value to one-fourth its weight of sulphate of quinine. The vehicles employed in the ordinary preparations of cinchona precipitate all this active part of the drug.—*Chemist and Druggist*.

ALL Madras medical officers at home on furlough, on private affairs, who cannot produce a medical certificate, showing that the state of their health forbids their immediate return to India, have been ordered to return to render assistance in connection with the prevalent distress and sickness in the Madras Presidency. There are ten officers who have received the summons, and three of these have already arrived in Madras. Their passage-money outwards has been defrayed by Government.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W. C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 21ST, 1877.

VIVISECTION AND ANTI-VIVISECTION.

THE Cruelty to Animals Act has been the subject of remark by two distinguished speakers this week, by Professor Huxley at Birmingham, and the Right Honourable W. E. Forster at the distribution of prizes at the London Hospital. According to the report before us, Professor Huxley, referring to the passing of the Vivisection Act, remarked that so industriously had some reports been circulated, that it might be thought that in a certain elementary text-book he directly or indirectly encouraged experimental teaching in those schools and places where elementary instruction in physiology was given. The statements to that effect were utterly false and devoid of any foundation; and that was the first and last notice he had taken or should take of those industrious circulators of calumnies. He had had a great deal to do with a very disagreeable discussion which had taken place, and might consider himself informed as to what happened upon a certain Royal Commission engaged for many months discussing the question of vivisection. He thought he knew the conclusions at which the Commissioners arrived, and what were the practical results and practical recommendations of all those Commissioners, very much opposed to each other in their general views. They did not intend—and he said it deliberately—to bring about such a state of the law as the present, which permitted a boy to troll for pike or set lines with live frog bait for idle amusement, and, at the same time, laid the teacher of that boy open to fine and imprisonment if he used the same animal for the purpose of exhibiting one of the most beautiful and instructive of physiological spectacles, the circulation in the web of a frog. Not being a frog, he could not tell what the animal suffered by having its leg tied up, but were he web-footed he should not mind submitting to the operation. It came to this, that in the year of grace 1877 two persons might be charged with cruelty to animals. One had impaled a frog and suffered the creature to writhe about in that condition for hours; the other had pained the animal no more than a human being would be pained by tying strings round his fingers and keeping him in the position of a hydropathic patient. The first offender said, "I did it because I find fishing very amusing," and the magistrate bade him depart in peace. The second said, "I wanted to impress a scientific truth, with a distinctness attainable in no other way, on the minds of my scholars," and the magistrate fined him five pounds. He did not think this a satisfactory state of things.

Mr. Forster, speaking on the same subject, is reported to have said, in reference to his connection with the Vivisection Act, that "he must confess he had a good deal of sympathy with the physiologist. There had been gross exaggerations as to the experiments which were made in this country; and the Commission found that the statements of reckless cruelty being practised were almost absolutely unfounded. Then, too, there had been a misconception as to the motives of surgeons. Medical men, in striving for knowledge, were carrying on a desperate war against a desperate enemy, and they had to wrest out the secrets of disease and the secrets of life as best they could. Those

who opposed the physiologists did not come into court with the cleanest of hands, and he could readily understand why the physiologists would be impatient at opposition to medical experiments coming from persons who shot birds and practised experiments upon hares and foxes. He had taken a part in getting the Act passed, and he believed it was necessary to place restrictions upon the practice, and to have it under proper control—views, he believed, which were accepted by the profession. In conclusion, he dwelt upon the high character of the medical profession, the benevolence which was widely spread amongst its members, and upon the devotion which was ever shown by medical men to their duties under all circumstances."

It is rather an interesting comment upon the statements of Mr. Forster and Professor Huxley that, when Lord Carnarvon's Bill was first introduced, and before it had been subjected to any modification, those who opposed its passing in that shape were assured that the Bill, as introduced, had been read over to Professor Huxley, and approved by him as it then stood—that is to say, in a form very much more restrictive than it ultimately assumed; on the other hand, that particular clause which has thrown the protection of the whole machinery of the Act over the frog, and which makes it technically necessary, as Professor Huxley says, that a twofold license and two sets of certificates should be obtained before the web of a frog's foot can be pricked, or the circulation in its mesentery shown, was retained, in spite of an express promise of the Government to the contrary, by reason, it has been alleged, of the determined stand made by Mr. Forster at the last moment in the House of Commons on behalf of the frog. So curious a commentary on legislative facts sometimes is afforded by the words of statesmen. There can be no doubt that the present effect of the Vivisection Act as it is administered, in defiance, as we believe, of the spirit if not of the letter of the law, is to practically arrest the scientific movement in this country, and very nearly to annihilate the reasonable prospect that England can, or will, under such a régime, maintain her place among the living forces of scientific progress in Europe. Licences have been refused by Mr. Cross, on his sole responsibility, and in spite of the certificates of eminent professors according to the form and spirit of the law, for the performance of researches of the highest value to the treatment and cure of disease, and towards which grants have been made by the British Medical and other Associations. Among the researches so prohibited, is the continuance of the valuable researches on the action of various drugs upon the secretion of bile, commenced some years since in virtue of a special resolution and by a special subscription at an annual general meeting of the British Medical Association, and since carried on by Professor Rutherford and M. Vignal at Edinburgh. Since the passing of this Act, Mr. Cross has taken upon himself the grave responsibility of prohibiting the continuance of that research in this country; that most astounding and lamentable decision has led to the transference of the research to Paris, where it was continued for a time by M. Vignal, whose illness for the present moment has, however, suspended its prosecution.

PROFESSOR HUMPHRY AND THE VICE-PRESIDENCY
OF THE COLLEGE OF SURGEONS.

AT the meeting of the Council of the College of Surgeons on Thursday week, Professor Humphry, who stood next in order of seniority to the Vice-Presidents, stated that, although there were many reasons to induce him to come forward for the vice-presidency, and in due time for the presidency, such as, first, the desire not to appear to shrink without sufficient reason from any duty which, as a member of the Council, he owed to the College; secondly, the consciousness that it would be agreeable to the Fellows and Members of the College resident in the provinces that one of their number should hold the highest offices in the College; thirdly, the desire to promote a closer union between his University, as a representative of literature and general science, and

the profession; and the feeling that it would be gratifying to the members of the University that one of its body should hold the honourable offices of Vice-President and President of the College of Surgeons; and, fourthly, the ambition—the honourable ambition—felt by himself in common with all members of the Council and Fellows of the College to occupy positions which place those who fill them at the head of the profession of surgery and afford them the opportunity to do good work for the College and the profession,—still, before and above all these considerations he was bound to place the interests of the College, and to reflect whether he could fulfil in a satisfactory manner the duties of the office of Vice-President, and more particularly of President, without neglecting the duties which devolved upon him as Professor of Anatomy at Cambridge. This, he was forced to conclude, it could not be in his power to do. The duties of the presidency are extremely onerous, requiring an almost daily attendance at the College for the transaction of business, an attendance at numerous committees, and an intimate acquaintance with the affairs and administration of the College, which it was scarcely possible for him to possess. These duties had doubtless been increased by the zeal and assiduity in promoting the interests of the College which had been displayed by those who had recently held the office of President; but he should regret that an era of diminished zeal and lessened effort in such a cause should be inaugurated by himself. His labours at Cambridge as Professor of Anatomy and Surgeon to the Hospital were very considerable, and were necessarily increased by the increasing number of students of medicine at the University, and were quite incompatible with that frequent attendance at the College which would be requisite for the efficient performance of the duties of the presidency. He therefore felt sure that the Council and the Fellows of the College would agree that he was acting in the manner most conducive to the interests of the College in allowing the office of Vice-President to pass on to one who would be able to discharge its functions far better than it was possible for him to do.

The course which Professor Humphry has taken is one which cannot fail to excite admiration for the disinterested and self-sacrificing manner in which he has put aside his fair succession to the highest honours of the College, which are by many eagerly desired, and must by all be accepted as the most dignified official professional positions within the reach of a practising surgeon. On the other hand, there are very many who will regret it: first, because Professor Humphry is a man of the quiet, thoughtful, cultured type, by no means too common in the ranks of the surgical profession of this day, and he brings to his collegiate duties the dignified and reticent influences of university training and association, which are most healthful in that connection, especially when tintured, as they are in his case very strongly, by liberal and progressive opinions; then, because, in deciding his own course, Professor Humphry seems to argue the case of every provincial surgeon arriving at the same stage in position at the College, and to decide it, as he has decided for himself, negatively. The full force of his argument is very apparent. It may, however, reasonably be doubted whether it is not too absolute in form and peremptory in conclusion to have any general application. Every man must, in the first instance, be the judge of his own case; and, while yielding to Professor Humphry the meed of praise due to a man who has resigned a post of great honour from motives of public weight which he has fully weighed, we do not think it must be considered that his decision has any other than an individual application.

MEDICAL CHARITY AT BIRMINGHAM.

MR. SAMPSON GAMGEE'S address, to which we alluded a fortnight ago, has met with the cordial reception which we predicted, and no time has been lost in trying to give practical expression to his views. A meeting was held last week at the Town Hall, Birmingham, to consider the propriety of establishing a system of provident dispensaries suited to the requirements of the town. In the absence of the mayor,

the chair was taken by the Rev. H. B. Bowlby. In introducing the subject, the chairman quoted some of the striking statistics which were adduced by Mr. Gamgee, and which we have already laid before our readers.

Mr. Lawson Tait read a letter from the honorary secretaries of the Birmingham and Midland Counties Branch of the British Medical Association, which stated that at the recent annual meeting the following resolution was passed:

"That, in the opinion of this meeting, the introduction of the provident dispensing system offers the best means of checking the excessive increase in the amount of gratuitous medical advice dispensed by our local charities; and that the Council of the Branch be requested to take steps for promoting the formation of provident dispensaries in the town." The letter went on to say: "Our society is the largest representative body of the medical profession in the Midland counties, and a very general feeling prevails amongst its members that the provident system of medical relief, which is already in existence here, can only be fairly remodelled and prudently extended after very careful inquiry. The interests and position of existing provident societies, the customs, necessities, and means of the artisan population, and the legitimate requirements and views of members of the medical profession, are equally deserving of consideration. Our Council, while pursuing the task entrusted to it, will be happy to give their best attention to any suggestion for co-operation which may emanate from any society or committee having the same objects in view."

Mr. R. W. Dale moved the first resolution, which affirmed that a system of provident dispensaries, such as has been established in Manchester, would confer a great benefit on the industrial population of Birmingham. He believed the working-people of the town would much rather pay for their medical relief than receive it from a charity. The true course was to make it quite plain that this movement was intended to afford to the industrial classes that which large numbers of them had long desired, namely, the means of securing by their own money the medical advice which they and their families might require in sickness. But in order that the movement might be permanently successful, it must be made clear that the subscriptions of the working-people would suffice to pay the whole cost; in other words, they must aim at making them self-supporting institutions. He hoped, too, that they would not limit the benefits to artisans, but that clerks and others whose incomes were not larger than those of artisans would be allowed to become members.

Mr. Oliver Pemberton, Mr. Furneaux Jordan, and other gentlemen, expressed their cordial approval of the movement, and promised it their support.

Some speakers thought that the working-men ought to have been taken more into the confidence of the meeting, and, no doubt, it would be well to have the advice of the leaders of opinion amongst the industrial classes. We are glad, therefore, to observe that the last resolution affirmed "that it is desirable to have the co-operation of the friendly societies in the district". Not the least of the advantages which are likely to arise out of this movement is the reflex influence which the provident dispensaries will have upon medical clubs by constraining them to make better regulations for the treatment of sick members.

At the close of the meeting, an influential committee of gentlemen was formed to carry out the resolutions. Thus Mr. Gamgee's address has been like a trumpet-call to his professional brethren and to his fellow-citizens. They have responded to it promptly and with their accustomed energy, and now it seems as if it would not be long before Birmingham entered into a friendly rivalry with Manchester in the development of a system of provident dispensaries, organised in harmony with the existing medical charities. The Manchester and Salford Provident Dispensaries' Association, as the pioneer of this social reform, has had many difficulties to encounter. It will feel its hands greatly strengthened by the action which Birmingham has just taken, and Birmingham will derive valuable assistance from the experience of Manchester.

Since the above was written, we hear that a special general meeting

of the Branch has been called for Thursday, the 26th instant, by requisition, to take action in this matter. The objects of this meeting are: 1. To receive communications from the President and from the Council on provident dispensaries; 2. In accordance with a requisition from fourteen members of the Branch, to consider the position of the profession in reference to the proposed establishment of provident dispensaries in Birmingham; 3. To adopt such communications and requisitions respectively as the Branch may deem advisable.

DR. FANCOURT BARNES has been elected Physician to the British Lying-in Hospital.

MR. ALBAN H. G. DORAN has been appointed Pathological Assistant to the Museum of the Royal College of Surgeons in the place of Dr. J. F. Goodhart, who recently resigned.

PRINCE ALBERT VICTOR, eldest son of H.R.H. the Prince of Wales, is suffering under an attack of continued fever. The symptoms date from Saturday, the 7th instant; hence it must be some days before there can be any important change for the better. The course of the disease has hitherto been very favourable.

THE Chinese Ambassador, accompanied by a numerous suite, paid a visit to Guy's Hospital last week. His Excellency was conducted through the museum and various wards by Dr. Steele (superintendent), Dr. Pavy (physician), and Mr. Lushington (treasurer), and expressed himself highly gratified with the visit.

AN important meeting was held at the Royal College of Physicians, under the presidency of Dr. George Owen Rees (in the absence of the President), Sir Thomas Watson, Sir George Burrows, Mr. Hilton, Dr. Sieveking, and Dr. Barnes being present, at which a series of resolutions were adopted for the purpose of raising a supplementary fund to complete the Harveian Tercentenary Memorial.

AMONG the foreign visitors expected at the annual meeting of the British Medical Association in Manchester are Drs. Binz (Bonn), Bouchet (Aix in Savoy), Charcot (Paris), Labbé (Paris), Chauveau (Lyons), Gueneau de Mussy (Paris), Hermann (Zürich), O. Liebreich (Berlin), Lortet (Lyons), C. Ludwig (Leipzig), Marey (Paris), Ollier (Lyons), Marion Sims (New York), Virchow (Berlin), Worms (Paris), etc.

AT the first meeting of the Société de Médecine Publique, held on June 27th, M. Trélat, the director of the École d'Architecture, pointed out how defective were the greater part of the scholastic establishments with regard to the way in which they were lighted. He showed that the habit of making the light come from every or any side fatigued the eyes, developed short-sightedness, etc.

AT the Guildhall Police Court, Samuel Ward, a butcher, of Peterborough, was summoned for unlawfully sending to the London Central Meat Market four pieces of beef for sale which were unfit for the food of man. He was fined £10 and three guineas costs. Thomas Sharp, a Dorsetshire butcher, was convicted of a similar offence, and was sentenced to a month's imprisonment without the alternative of a fine.

A DEATH from hydrophobia is reported at Dalston this week. The deceased was bitten about three months ago by a rabid dog. He went at once to St. Thomas's Hospital, where the wound was cauterised and other preventive measures taken; but it is stated that the wound never healed properly. On Sunday last, symptoms of hydrophobia made their appearance and proved rapidly fatal.

VOLUNTEER SICK BEARERS.

A MEETING will be held at the Society of Arts, John Street, Adelphi, on Wednesday evening, the 25th inst., at seven o'clock, to carry out the further organisation of this movement.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

AT the annual meeting of the Council of this Institution, on July 12th, Mr. John Birkett, consulting-surgeon to Guy's Hospital, was elected President; and Mr. John Simon, C.B., F.R.S., surgeon to St. Thomas's Hospital, and Mr. Luther Holden, surgeon to St. Bartholomew's Hospital, were elected Vice-Presidents of the College for the ensuing year. Mr. T. Spencer Wells was elected Professor of Surgery and Pathology; Mr. W. H. Flower, F.R.S., and Mr. W. K. Parker, F.R.S., were re-elected Hunterian Professors of Comparative Anatomy and Physiology; Mr. W. J. Erasmus Wilson, F.R.S., was elected Professor of Dermatology; Mr. B. T. Lowne was elected Lecturer on Anatomy and Physiology.

AN ILLUSTRIOUS VISITOR.

WE understand that the celebrated gorilla from the Berlin Aquarium (the only living gorilla ever exhibited in Europe) will arrive in London this week, accompanied by his friend the chimpanzee and the dog his faithful companion. He will hold his *levées* at the Royal Aquarium, Westminster. This unique stranger arrives rather late in the season, but will, no doubt, find a cordial reception.

DR. SAYRE'S DEMONSTRATION AT ST. BARTHOLOMEW'S HOSPITAL.

AT the invitation of Mr. Callender, on Tuesday last Dr. Sayre gave another practical demonstration of his method of treating Pott's disease of the spine and lateral curvature, by suspending the body, and then keeping the spine in due position by means of a perfectly fitting case of plaster of Paris bandaging. The details of this method were described in our notice of last week. Dr. Sayre has also visited the London Hospital during this week, and there explained his methods of treatment.

EPSOM COLLEGE.

IN a recent number, we called attention to the notice of a meeting at which it was proposed to establish an Epsomian Club for the occasional reunion of those who have been educated at Epsom College. We are glad to hear that the movement has been a complete success. The first meeting of the club took place at St. James's Hall on Wednesday, the 11th instant, and a very pleasant evening was spent. More than sixty were present, and it was announced that over one hundred old Epsomians had joined as original members. These large numbers speak well for the future of the club, and are a strong proof of the interest felt by the past scholars of the College in the welfare of their Alma Mater.

THE ECONOMY OF SANITATION.

WE have received a document showing the great decrease in the number of fever-cases sent from the parish of St. Luke's to the London Fever Hospital since 1865, and the consequent diminution of the rates. We may, however, remark *in limine*, that the calculations do not include the cost to the ratepayers when the bread-winner is removed by death, so that the amounts mentioned are smaller than has really resulted from the diminution of the fever-cases. The document shows that the following are the numbers removed in different years to a fever-hospital. In 1865, there were as many as 766; in 1866, there were 572; whilst in 1867 the number dropped to 207, and thence to 123 in 1870, and since that time it has varied between 57 and 19. This decrease is attributed in great measure to the operations of the Sanitary Act, 1866, which enabled the local authorities to remove persons suffering from infectious fevers to a hospital; but there is no evidence in the document to show that any considerable number of patients were removed under its sections, which certainly should have been given. There is also another great objection to the theory; viz., that the year of largest mortality mentioned above is, with 1862 and 1864, the year in which the greatest number of deaths from fever occurred in all London during the long epidemic of 1862-70. The period, therefore, seems ill-chosen, as the mortality previously to 1865 is not given, and especially as fevers of all kinds appear to have

periods of unusual activity and quiescence; and this was one in the early part of which the whole of London suffered to an unusual degree, whilst since 1870 there has been an unusually small number of deaths from fever. The parish of St. Luke's has certainly suffered less in proportion since 1865; but then, without figures for previous years, we cannot tell if fever prevailed to a very unusual extent in 1865, or if the reduction is greater than might have been expected irrespective of the operation of this Act. As regards the saving to the parish, it is estimated to have been as much as £1,753:12 in 1875 and 1876, as there were only twenty cases removed in each of these years, and the cost per head at the London Fever Hospital was 2s. 4d. per day, with 5s. for removal, and an average duration of residence there amounting to eighteen days, making a total of £2:7 for each case. In addition were the sums paid in relief to the families whilst the bread-winner was unable to work, and we should add the loss to the community of his surplus earnings whenever he died. The vestry believe that the strict sanitary supervision exercised in the parish has assisted isolation of the sick in reducing the number of cases, in which we concur, and would also point out that there has been as great a reduction of fever-cases in Whitechapel as in St. Luke's.

THE HOSPITAL FOR DISEASES OF THE THROAT, GOLDEN SQUARE.
AN inquiry into the medical management of this institution took place at the house of Lord Dunmore, on Saturday last, before His Lordship, the Duke of Grafton, the Earl of Clarendon, and Sir William Gull, who had been deputed to hold it by His Royal Highness the Prince of Wales and the Marquis of Bute, as Patron and President respectively of the Hospital. The report of the Committee of Inquiry has not yet been made public.

SUICIDE OF A PUPIL AT CHRIST'S HOSPITAL.

THE Home Secretary has appointed a Commission consisting of the Rt. Hon. S. J. H. Walpole, the Rt. Hon. W. E. Forster, M.P., Mr. Russell Gurney, the Dean of Christchurch, and J. Walter, Esq., to inquire into the circumstances attending the death of the pupil Gibbs at Christ's Hospital, and as to the general management of the school. The Commission is now sitting with closed doors, and the examination of witnesses is proceeding. It must be remembered that pupils are admitted to the school from very different sections of society. Some are sons of professional men whose circumstances have become reduced, while others are from families of a much lower class. All these boys necessarily associate together, and are submitted to the same discipline. The effect upon individual boys must, of course, be various. All conditions affecting the health of the school are submitted to Dr. Alder Smith, the resident medical officer, and his recommendations have generally been complied with. On inspecting the diet-table, the scale of food allowed appeared rather low, especially considering that a very large percentage of the boys are strumous. The infirmary arrangements appear very complete. As already explained, the modes of discipline of the school and details of management cannot be discussed till the Commission has reported the result of its investigations.

THE METROPOLITAN SMALL-POX HOSPITALS.

AT the ordinary meeting of the Metropolitan Asylum Board, held on Saturday in the Board Room of the Board of Works, Dr. Brewer in the chair, returns from the several metropolitan small-pox hospitals were read, and from the statements therein contained it appeared that during the past fortnight in the Homerton Hospital 85 patients were admitted, 9 had died, 62 had been discharged, and 192 remained under treatment, leaving 26 vacant beds. In the Stockwell Hospital, 58 patients were admitted, 5 had died, 65 had been discharged, 110 remained under treatment, and the number of vacant beds was 77. At Hampstead, 54 had been admitted, 10 had died, 68 discharged, and 154 remained under treatment, leaving 146 vacant beds. At Fulham, 37 had been admitted, 2 had died, 38 discharged, and 73 remained under treatment, number of vacant beds being 169. At the Deptford

Hospital, 49 had been admitted, 8 had died, 64 had been discharged, and with 118 remaining under treatment there were 2 beds vacant. These figures showed, in the aggregate, a decrease of 45 in the number of cases under treatment, and an increase of 82 in the admissions as compared with the previous fortnight.

SMALL-POX HOSPITALS.

SEVERAL cases of small-pox having lately occurred within the sanitary district of Ware, it was at first proposed to receive these cases into the infectious wards of the workhouse, which is situated in the centre of the town. Wiser counsels, however, prevailed; and it has been decided to purchase three isolated cottages in the most convenient part of the union, to which persons, not paupers, suffering from infectious diseases may be removed. The sanitary authority of Luton has erected a temporary iron hospital, at a cost of £85, for the reception of infectious cases; and although it seems probable that no patients may have to be removed to this hospital, the precaution is a wise one.

BRITISH HOSPITAL AT RUSTCHUCK.

THE Stafford House Committee has received the following telegram from Mr. Barrington Kennett, commissioner from the Stafford House Fund.—“Shumla, July 12th. Have established Stafford hospital at Rustchuck, under Dr. Crookshank, and at Varna also. A transport service on the Shumla and Rustchuck line under Borthwick now sending five hundred wounded from Shumla. Send six more surgeons, £500 worth of quinetum, £50 worth of lint, six large hospital tents, £40 worth of leg and arm splints, four regulation amputating cases, and twenty pocket cases. I am continuing distribution of stores.” The Committee have also received the following telegram from Erzeroum.—“There are hardly any hospital stores here. Hundreds of wounded arrived, but surgical instruments, bandages, and surgeons greatly needed.”

SOCIETY OF MEDICAL OFFICERS OF HEALTH.

THE annual meeting of the Society of Medical Officers of Health was held on July 11th, when the following officers were elected for the year ensuing.—*President*: Dr. Thomas Stevenson, F.R.C.P.Lond.—*Vice-Presidents*: Dr. G. Buchanan (late President), Dr. T. O. Dudfield, Dr. C. Meymott Tidy, Mr. E. L. Jacob.—*Treasurer*: Mr. J. Liddle.—*Honorary Secretaries*: Dr. J. Northcote Vinen, Dr. W. H. Corfield.—*Council*: Dr. Bristowe, Mr. H. Leach, Mr. Lovett, Dr. Rygate, Dr. Tripe, Dr. Whitmore, Dr. Adams, Dr. Baylis, Dr. Bond, Dr. Philpot, Mr. Thomas, Dr. G. Wilson.

WESTERN COUNTIES IDIOT ASYLUM.

A NEW idiot asylum for the western counties has been recently opened at Starcross, near Exeter. The early English style of architecture has been adopted. The external walls are of grey limestone, relieved with dressings of buff bricks and Bath stone. The general arrangement of the main building is somewhat in the form of the letter E; the level of the ground floor being raised some feet above the ground, thus providing ample cellerage, etc., in the basement storey. The central block forms a residence for the superintendent. The northern wing is appropriated to the boys, and the southern to the girls. The building at present will accommodate eighty children, but provision has been made for further extension, if necessary. The cost has been from about £8,000 to £9,000. A portion of the old asylum building has been retained as a sanatorium.

THE INVENTOR OF THE LARYNGOSCOPE.

AT a meeting held at 21, Harley Street, on Saturday, a numerous signed address and a handsome service of plate were presented to Señor Manuel Garcia, in recognition of the great services he has rendered alike to science and humanity by his important discovery of the laryngoscope. Professor Huxley acted as chairman, in the unavoidable absence of the president, Lord Coleridge, and said it was unnecessary to do more than remind the physician that in the laryngo-

scope he had gained a new ally against disease, and a remarkable and most valuable addition to that series of instruments, all of which, from the stethoscope onwards, had come into use within the memory of living men, and the use of which had effected a revolution in the practice of medicine. They owed this instrument to Señor Garcia, whom they all rejoiced to see among them as full of youthful vigour as when, nearly a quarter of a century ago, he made this remarkable invention; and from no one could it have more appropriately proceeded than from the son of a famous singer, and the brother of one whose fame was world-wide. Sweden and Germany had long since acknowledged the deserts of the inventor of the laryngoscope, and a feeling arose that Englishmen should not be behindhand in recognising the merits of one who had so long lived among them. Numerous representatives, therefore, of the aristocracy and the commonalty, of the Bench and of the Bar, of artists and of physicians, of the cultivators of the mathematical, physical, and physiological sciences, had united for the purpose of presenting the inventor of the laryngoscope with this testimonial. Señor Garcia, in the course of his reply, said: "The instrument which has caused this manifestation owes its existence to the difficulties which constantly beset me in my teaching. The idea of examining the interior of the larynx with a mirror during the act of singing had often presented itself to me, but was always rejected, as I believed it to be impracticable. It was not until September 1854, that it occurred to me that the best way to resolve my doubts was to submit them to the test of experiment. I purchased a dentist's mirror, which, having heated it, I placed against the uvula; then, flashing upon it with a hand mirror a ray of light from the sun, I saw, to my intense delight, the larynx exposed. There my part ends. If the laryngoscope has become an useful instrument, it is all owing to the skill of the men into whose hands it has fallen. The approbation of my simple idea by so many leaders of the scientific world is to me an honour as unmerited as it was unexpected."

DIAGNOSIS BY DISSECTION.

AT the Manchester Summer Assize, in the Crown Court, on Saturday last, before Mr. Justice Denman, an action was brought by a Mr. Judge against the Manchester and Sheffield Railway Company for damages sustained in an accident. The trial was enlivened by many witticisms and frequent bursts of laughter. The climax appears to have been reached when Mr. J. Taylor, bone-setter, of Sheffield, gave evidence showing that the plaintiff's shoulder was so seriously dislocated that he would be permanently injured. He believed that the plaintiff had sustained a fracture of the bone, but he could not tell *unless he dissected him*. Mr. Russell: "But the plaintiff is not anxious to be dissected at present." No witnesses were called for the defence; and, Mr. Pope having addressed the jury in mitigation of damages, his lordship summed up, and the jury returned a verdict for the plaintiff, damages £30.

RED CROSS WORK.

THE argument against subscriptions to supplement the deficiencies of the sanitary and medical department of combatant armies has rarely been more tersely stated than in the following words of a correspondent, who signs himself "Fiat Justitia".

"Mr. Slade seems surprised that his appeal for aid for Turkish soldiers has not been responded to, and appears to think that its success is certain when it is generally known that 'poor Turkish soldiers who have been wounded are entirely uncared for, while the Russian wounded are carefully transported across the Danube and well cared for in Russian ambulances'. It strikes me, however, that this argument will tell with some people in just the opposite direction. Here are two combatants, each of whom is crippled for want of funds. The one elects, however, to spend fifteen shillings of his pound in war material, while the remaining five shillings provide care for his wounded; the other chooses to lay out his twenty shillings on military equipments, and to leave his 'war-victims' dying on the field, unless rescued by foreign aid. This being so, it is for your readers to decide whether they will offer a premium for neglect of the wounded, and will at the same time make the Turkish pound equivalent to twenty-five shillings,

and so enable the Porte to protract the war and produce additional slaughter on both sides."

This is very logical and telling in its way; but we very much doubt whether any such cold and calculating view of the case will or ought to stop the generous contributions which are the natural effect of a deep sympathy with the unhappy men who are the sufferers from the cruel neglect and deficiencies of their rulers, who are involved in a horrible warfare entailing the most fearful sum of human suffering.

ACTION FOR SURGICAL FEES.

WE publish in another column a report of an action brought by Mr. John Wood, Senior Surgeon at King's College Hospital, to recover the balance of an account for medical attendance on the defendant's wife. The full justice of Mr. Wood's claim was admitted in court, and a judgment was entered for the entire amount claimed. We feel certain that Mr. John Wood would not have taken the course in question except from a sense of duty and after mature consideration. Nevertheless, the circumstance of a consulting surgeon suing for the balance of an account is, we think, unusual; and, remembering the fact that the Fellows of the College of Physicians expressly preclude themselves by a by-law of the College from suing for fees, and that barristers have long since decided that in their branch of the profession it is for the honour and dignity of the bar that fees shall remain as *honoraria* and shall not be recovered at law, it seems an open question whether consulting surgeons would not, as a rule, do better to adopt the same principle and to refrain from dealing with their fees otherwise than as *honoraria* to be settled by arrangement and to be paid in the same manner as are the fees of consulting physicians. The subject has been much discussed during the week in surgical circles, and it might be satisfactory to arrive at some accepted conclusion on the subject.

DYING: NOT DRUNK.

ON Saturday afternoon, Mr. Humphreys held an inquest at the London Hospital, on the body of a man who had been locked up at a police-station as being drunk and incapable. It appeared that the man was walking along the street, when a stranger who passed him struck him a terrific blow on the chest, and he fell with his head against the kerb. The ruffian in question walked off and has not been identified. The police-constable found the deceased lying on the pavement and took him to the station, where he gave his name, said he had no home or occupation, and was locked up. He made no complaint against any one, and neither the constable nor the sergeant saw any bruise on him. The following are the leading features of the evidence. Sergeant Grane, 11 H, said he was on duty at the police-station when the deceased was brought in, and he did not appear to have any bruises or contusions about him. He made no complaint against any one; and, the charge "drunk and incapable" being entered against him, he was locked up about one in the morning, and visited every half-hour according to the rules. The assistant-inspector on duty said that, on the arrival of the police-van at 9.20 A.M. on Thursday morning, deceased was found to be in a critical condition; and the divisional surgeon, who was called in, ordered his removal forthwith to the hospital, and such order was at once carried out. Mr. Walter Kitching, the house-surgeon at the London Hospital, deposed that, when the deceased was brought in, he was in a state of coma, from which he never rallied, death taking place at 3.30 that afternoon. On making a *post mortem* examination, he found a large bruise on the forehead, a serious contusion at the back of the head, a fracture at the posterior part of the skull, and a terrible laceration of the brain, the result of extreme violence. The heart, liver, kidneys, spleen, stomach, etc., were perfectly healthy, the lungs only being affected. The cause of death was the fracture of the skull and the laceration of the brain. The coroner, in summing up the case, said that, although deceased was not proved to be drunk, yet he thought he was better off in the station-house than he would have been in the room of so poor a man as Williams; and the medical evidence clearly showed that no amount

of attention could have saved his life. No trace of the assailant had been discovered, and an open verdict had better be recorded. The jury returned the following verdict: "We find that deceased died from fracture of the skull and laceration of the brain; but how those injuries were received, and at whose hands, there was not sufficient evidence to show." We must confess that this appears to us to be rather a perfunctory method of proceeding. It is, to say the least, surprising that the man, suffering from the fearful injuries described, should present no trace of them if properly examined, neither when brought into the station-house nor during the subsequent half-hourly visits. The conduct of the police-constable who found the man with the persons around him who saw the assault, as well as of the sergeant and inspector at the station, ought, in our opinion, to be made the subject of a further inquiry; and we trust the Surgeon-General of Police will direct the attention of the Chief Commissioner to the facts as reported, for it cannot be said that this report is either creditable to the police or satisfactory to peaceable citizens.

PERJURY OR HYSTERIA?

AT Manchester Assizes this week, the trial of Josephine Morris for perjury was concluded. The prisoner, who is a young girl and a ward in Chancery, brought a charge against the Rev. Father Jackson and Mr. Shipper, solicitor, of Manchester, of having conspired to drug her and force her into a convent. The defence set up was, that she was suffering from hysteria when the charge was made. The jury, after deliberating for an hour and a half, acquitted the prisoner.

THE LUNACY LAWS.

LORD SHAFTESBURY gave evidence this week before the Select Committee on the Lunacy Laws. He said the number of *post mortem* examinations upon the bodies of deceased lunatic patients had much increased of late years. They were of the greatest benefit. Witness had modified his opinion upon private licensed houses since he gave his evidence in 1859. He still condemned the principle underlying such houses—namely, that of property; but their administration had so greatly improved of late years, that he would not advocate their entire abolition. At the same time, he believed that, if vigilance were relaxed—that of the public as well as of the Commissioners—the old state of things would return. The condition of single patients in private houses, so far as the Commissioners knew of them, had vastly improved of late years: but the system was not to be compared with that of licensed houses, as the temptation to a misuse of power was so great. Lord Shaftesbury had a strong opinion in favour of the early treatment of lunacy.

THE PUBLIC HEALTH.

DURING the week ending Saturday, July 14th, 5,491 births and 3,337 deaths were registered in London and twenty-two other large towns of the United Kingdom. The natural increase of population was 2,154. The mortality from all causes was at the average rate of 21 deaths annually in every 1,000 persons living. The annual death-rate was 21 per 1,000 in Edinburgh, 19 in Glasgow, and 24 in Dublin. The annual rates of mortality per 1,000 last week in the twenty English towns, ranged in order from the lowest, were as follow: Plymouth 12, Brighton 16, Hull 17, Portsmouth 18, Leicester 18, Nottingham 19, Bristol 19, Leeds 20, Newcastle-upon-Tyne 21, Oldham 21, Wolverhampton 21, London 21, Birmingham 22, Norwich 22, Bradford 22, Sunderland 22, Sheffield 23, Liverpool 24, Manchester 25, and Salford 28. The fatal cases of small-pox in the twenty towns, which in the nine preceding weeks had steadily declined from 92 to 29, were 37 last week, of which 32 occurred in London and 5 in Wolverhampton. Scarlet fever continues fatally prevalent in Liverpool. In London, 2,310 births and 1,449 deaths were registered. Allowing for increase of population, the births exceeded by one, while the deaths were 27 below, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes rose last week to 21.4. The 1,449 deaths included 32 from small-pox, 28 from measles, 21 from scarlet fever, 7

from diphtheria, 46 from whooping-cough, 21 from different forms of fever, and 169 from diarrhoea. Thus to the seven principal diseases of the zymotic class, 324 deaths were referred, against 210, 223, and 244 in the three preceding weeks. These 324 deaths were 51 below the corrected average number from the same diseases in the corresponding week of the last ten years. The fatal cases of small-pox, which in the nine preceding weeks had steadily declined from 78 to 23, were 32 last week; these included 14 in the Metropolitan Asylum Hospital, one in the Highgate Small-pox Hospital, and 17 in private dwellings. The deaths referred to diarrhoea, which in the six previous weeks had risen from 13 to 96, further increased to 159 last week, which were, however, 21 below the corrected average weekly number; 134 were of infants under one year of age, and 27 of children between one and five years. The deaths referred to simple cholera and choleraic diarrhoea were 14, against 2 and 6 in the two previous weeks; 7 were adult cases, including two of 20 and 39 hours' duration respectively. In Greater London, 2,778 births and 1,716 deaths were registered, equal to annual rates of 33.2 and 20.5 per 1,000 of the population. In the Outer Ring, four fatal cases were registered in West Ham, one at Hayes, and one at Edmonton. At the Royal Observatory, Greenwich, the duration of registered sunshine in the week was 40.5 hours, out of the 113.6 hours that the sun was above the horizon.

BRADFORD MEDICO-CHIRURGICAL SOCIETY.

THIS Society has just terminated a very successful session and held its fifteenth annual meeting. The membership now includes a large majority of Bradford practitioners and many of those from the populous districts surrounding the town. During the past session, the Committee concluded an arrangement with the Board of the Bradford Infirmary by which the Society finds a permanent home within the walls of that institution, obtains the use of a large and increasingly useful medical library, and secures facilities for the prosecution of pathology and the formation of a museum. The Society has had to deplore the loss of its President for the year, Mr. J. D. Lawrie, who died suddenly on January 1st, 1877. The officers elected for the ensuing year are as follows: *President*, R. H. Meade; *Treasurer*, W. Whalley; *Secretary*, D. Goyder, M.D.; *Curators*, A. Rabagliati, M.D., and T. C. Denby; *Auditors*, J. Foster and J. H. Bell, M.D. *Committee*, W. Burnie, M.D., P. E. Miall, J. Arthur, and E. A. Tibbitts, M.D.

THE CONTAGIOUS DISEASES ACTS.

THE *Western Morning News* states that the Assistant Commissioner of Metropolitan Police has just sent to the Home Office a very satisfactory report on the operation of the Contagious Diseases Acts. Our contemporary says: "The remarkable thing about the figures of this report is the diminution in the number of prostitutes and brothels which is taking place wherever the Acts are in force. Surely it is something gained for the cause not only of morality, but also of humanity, in the fact that during the year seventy-four girls between the ages of twelve and eighteen, and seventy-four between the ages of eighteen and thirty, and five above that age, who had been found in bad company and improper places, were rescued; and that one hundred and forty-six (thirty-seven of them between twelve and eighteen) who had commenced an immoral life abandoned it on being cautioned by the police, and were not placed upon the register."

DISTRIBUTION OF PRIZES AT THE LONDON HOSPITAL.

ON Wednesday last, the Right Honourable W. E. Forster, M.P., presided at the public distribution of prizes at the London Hospital Medical School, a large assembly having met by invitation in a tent erected on the recreation ground of the school. The scholarships and prizes were announced, and the successful candidates were introduced by Dr. Langdon Down. The scholarships and money prizes amounted in value to £330. The Chairman commented on the educational advantages offered by the London Hospital as the largest in the kingdom, the state of its finance being such that the fourteen resident posts filled

by the students and the house staff are given according to merit without fee. Mr. Forster then offered some remarks on the national importance of medical education, as supplying men fit to carry on the great work of sanitary science, and able to advise the Government upon matters connected with the health of the people. He also paid a well-merited tribute of respect to Mr. John Simon, as a man distinguished by his ability, deep sympathy, power of resource, and a firm determination to do his duty. Speaking on the subject of vivisection, Mr. Forster expressed his deep sympathy with the profession in its constant and desperate war with disease and death, and the natural desire to obtain further knowledge. Although the accounts circulated of operations upon animals in this country have been greatly exaggerated, and that by many who are responsible for cruelty to animals inflicted for far less useful and humane purposes, still Mr. Forster thought the late Act of Parliament necessary as a check upon the number of vivisections, the act of giving pain to watch its effects being fraught with danger of the moral nature of the inquirer. Mr. Hutchinson, in proposing a vote of thanks to the Chairman, insisted on the importance of frequent and intimate intercourse between the medical profession and those in charge of the affairs of the nation; benevolence should be the object of medical work, and science the means used. The Treasurer of the Hospital expressed the strong desire of the Committee to render the medical conduct of the hospital, and the teaching there given, as efficient as possible; their primary object being benevolence, and, only second to that, the advancement of the educational department. The action of the Committee during the last few years has fully exemplified this principle.

MR. GLADSTONE AND THE PUBLIC HEALTH BILL.

MR. GLADSTONE having been requested by most of the district boards within the borough of Greenwich to oppose the Public Health (Metropolis) Bill, has sent the following reply to the Woolwich Town Council.—“Dear Sir, I need not say that your letter of yesterday will weigh greatly with me, and will have my most careful consideration. I ought, however, to mention to you a communication which Mr. Sclater-Booth was so good as to make to me a few days back. He assured me, in terms which I could not, I think, have misapprehended, that, while his Public Health Bill consisted partly of new provisions and mainly of consolidation clauses, the new provisions were such as had raised no opposition, and that the objections taken apply exclusively to the matter contained in the consolidation clauses. I do not presume to say that this terminates the question, but it is a statement of which, I think, you ought to be in possession. Your very faithful servant, W. E. GLADSTONE.”

SOCIAL SCIENCE ASSOCIATION.

THE following are the special questions selected for discussion at the forthcoming congress in Aberdeen, in the Health Department. 1. What is the best mode of providing suitable accommodation for the labouring classes and of utilising open spaces in towns? 2. How can the sanitary condition of the population engaged in the coast fisheries of Scotland and the United Kingdom be improved? 3. The present state of house accommodation in rural districts, can its evils be remedied?

SCOTLAND.

ANOTHER candidate for the vacant Chair of Physiology in Aberdeen has appeared in the person of Mr. J. W. Fleming, M.B.Edin., Lecturer on Physiology to the Medical School attached to the Royal Infirmary of Glasgow.

MR. LISTER, having now very nearly concluded the work of the summer session, which it appeared incumbent upon him to finish, has formally resigned the Chair of Clinical Surgery in the University of Edinburgh.

THE Perthshire Society of Natural Science has resolved to erect, in Perth, a large public museum for objects of natural history and other branches of science. A local gentleman has headed the subscription list with £500.

In their last report, the Glasgow Water Trust state that the water in store on the 2nd instant was equal to 283 days' supply, and that the quantity of water sent into the city during the past fortnight averaged 34,380,000 gallons a day. The engineer stated, in answer to a complaint that the water-supply in the East End was deficient, that he believed they would have to carry forward from George Street one of the large mains for the benefit of that district.

LORD RECTORSHIP OF GLASGOW UNIVERSITY.

A MEETING of Mr. Gladstone's supporters in the Medical Faculty has been recently held. The canvasser, in his report, stated that one hundred and fifty of the medical students had been won over to the Liberal side, and he had good ground for saying that, before the winter session began, he should get a good many more. The chairman remarked that the enthusiasm for Mr. Gladstone was unbounded. It was stated that, of a large number of students coming from various schools, seven-eighths would vote in favour of Mr. Gladstone. The other candidate at present mentioned as likely to be proposed is Sir Stafford Northcote. Mr. Froude, who had consented to stand, has since withdrawn his name.

UNIVERSITY OF ABERDEEN.

AT a meeting of the Aberdeen University Court, held on the 13th ultimo, Dr. William J. Sinclair of Manchester was appointed Examiner in Midwifery and Medical Jurisprudence, in place of Dr. Turner of Keith, who has resigned on account of ill health. Dr. Jas. Cantlie of London was appointed Examiner in Botany and Natural History, in the room of Dr. James Trail, who was recently elected Professor of Botany. An application was received from Dr. G. Ogilvie Forbes, Professor of the Institutes of Medicine, to be allowed to resign on the ground of ill-health. The Court unanimously agreed to report to the Queen in Council that Dr. Forbes should be permitted to retire.

THE EDINBURGH UNIVERSITY HERBARIUM.

AT a recent meeting of the Edinburgh Botanical Society, some remarks on plants in the University Herbarium were made by Mr. F. M. Webb. This herbarium, he explained, was undergoing thorough examination, and when seven hundred sheets of specimens, now ready to be incorporated with it, were placed in the collection, it would be found the best British public herbarium in the United Kingdom. Dr. Paterson exhibited a luxuriant branch of *Ledum palustre*, found near the Bridge of Allan, in a patch of moss, where it has been known to have its *habitat* for upwards of thirty years. It was a native of Canada, and was there used instead of tea, and also as a cure for rheumatism and gout. Professor Balfour said there had always been a doubt whether the plant was a native of this country. Some remarks were made on the extreme backwardness of the season this year. So much was this the case, that Dr. Balfour had never had so much difficulty in getting plants to illustrate his lectures.

THE UNIVERSITY OF EDINBURGH.

A MEETING of the Edinburgh University Court was held last week; the Principal, Sir Alexander Grant, Bart., in the chair. There was laid before the Court the Order of Her Majesty in Council, dated April 30th, 1877, already published, authorising the retirement of Sir Robert Christison, Bart., from the Professorship of *Materia Medica* on retiring allowance. Arrangements made by the Medical Faculty, and approved by the Senatus, under which the examinations in *materia medica* in April last were conducted by Professor MacLagan and Mr. Alexander Henry, M.B., assistant to Sir Robert Christison, were reported to the Court by the Senatus, and approved. Arrangements for the examinations now in progress on the same subject being conducted by Dr. T. R.

Fraser, Professor-elect, and Mr. Henry, were also reported and approved. It was resolved to appoint a successor to Dr. Fraser, as extra-professional examiner in *matéria medica*, at the meeting of the Court to be held on January 21st, 1878. There was laid before the Court a letter from Professor Dewar of Cambridge, resigning the office of Examiner in Chemistry in the University of Edinburgh. It was resolved to appoint a successor to Professor Dewar at the meeting of the Court on October 8th, 1877; and Monday, October 1st, was fixed as the last day for receiving applications for the appointment.

HEALTH OF GLASGOW.

At the last fortnightly meeting of the Glasgow Police Board, the medical officer's report was a favourable one. It showed that, during the fortnight ending June 30th, there were 448 deaths, a decrease of 70 on the number of the preceding fortnight, and representing a death-rate of 21 per 1,000. There were 171 deaths from pulmonary diseases, or 38 per cent. of the total deaths; 7 from fever, and one from small-pox; while there were two cases of small-pox and 28 of fever registered during the fortnight.

IRELAND.

A PATIENT in the Richmond Lunatic Asylum, Dublin, died last Monday from injuries which, it is alleged, she received from another inmate of the asylum about a week previously.

THE LATE DR. WILSON.

THIS gentleman has bequeathed eighty shares in the Civil Service Building Society to the St. Mark's Ophthalmic Hospital, after the decease of the survivor of two persons, to whom the dividends thereon are payable for life. Also a contingent reversion in one undivided moiety of the lands of Illaunroe, Galway, to the same institution. The deceased has also left £50 each to the Male and Female Masonic Orphan Schools, and £50 to the Molyneux Asylum for the Blind.

KING AND QUEEN'S COLLEGE OF PHYSICIANS.

A LARGE number of candidates presented themselves last week at the usual monthly examinations of this Corporation. Twenty-two gentlemen obtained the licence to practise medicine, and twenty-six the licence in midwifery. One lady passed the preliminary examination. Three gentlemen, Dr. S. M. MacSwiney, Physician to Jervis Street Hospital; Dr. A. V. Macan, Obstetric Physician to the city of Dublin Hospital; and Dr. Reuben J. Harvey, Assistant-Physician to the House of Industry and to Cork Street Fever Hospitals, have been nominated for the Fellowship of the College. The election will take place in accordance with annual custom, on next St. Luke's day, October 18th.

NORTH DUBLIN UNION.

DR. J. RUTHERFORD KIRKPATRICK is, we hear, about to resign his appointment as one of the medical officers of the North Dublin Union Workhouse. The salary attached to the office, which is in the gift of the Board of Guardians—some sixty-odd persons—is £150 per annum. Dr. Kirkpatrick is Physician and Surgeon to the County Dublin Prison, and was recently, as we announced, appointed Medical Officer to the Bank of Ireland Mutual Medical Fund. He is an Examiner in Midwifery in the Royal College of Surgeons, Ireland, and a candidate for the vacant chair of midwifery in that College.

NEWSPAPER REPORTS OF SURGICAL CASES.

A SAD accident which befel a mounted police-constable in Dublin last week has excited considerable sympathy among the citizens. It is to be regretted, however, that certain professional details concerning the nature of the accident—a fracture of the skull—and its treatment, have been permitted to appear in the daily local papers. The constable was returning to barracks, when the mare he rode bolted and eventually threw him against the piers of an iron gate. "It was fortunate", we

are informed by the newspaper report, "that when the injured man was conveyed to — Hospital he received immediate attention from Surgeon —, who performed the operation known as trepanning. The superior angle of the occipital bone and part of the posterior portion of the parietal bones were broken, depressed, and wedged under the parietal bones. There was considerable difficulty in elevating the portion of the bone depressed, and the trephine was applied in two places. The bone was then lifted by means of an elevator. There was considerable hæmorrhage from a small vessel through an opening in the dura mater. The opening was enlarged, and the small vessel, which was in and supplying the membrane, ligatured. The periosteum was carefully laid over the opening where the bone was removed, and the soft parts brought into position. Ice was applied to the head, and other necessary remedies were adopted." This minute account, which bears intrinsic and palpable evidence of having been carefully drawn up by a surgeon and an anatomist, would be eminently suited for the columns of a professional journal. The propriety of communicating it, however, to a paper circulating largely among the general public is very questionable, and has given rise to strong animadversions in Dublin, among the members of the profession, in which city such a proceeding is, we are happy to say, very unusual. Notwithstanding, as we learn from another reference in the daily press to the same accident, that "all the skilled surgeons attached to the Hospital, including Surgeon —, were engaged upon the case", the patient never rallied, and died on the second day after the accident. The remarks of Mr. Herapath in last week's JOURNAL (p. 68), would seem applicable in this case. It is to be regretted that a member of the Council of the College of Surgeons should be affected by it.

HEALTH OF DUBLIN.

THE usual summary of the weekly returns of births and deaths in Dublin for the quarter ending June 30th, has just been issued. The number of deaths registered amounted to 2,361, affording a total death-rate for the city of 30.6, and for the suburbs 22.2; the rate represented by deaths from the seven principal zymotics being 4.5 per 1,000 inhabitants in the city (5.5 on the north side and 3.7 on the south), and 1.8 per 1,000 in the suburbs. The only other town with a higher death-rate was Galway, which had a total mortality of 34 per 1,000. The number of deaths registered in London during the same period was equal to an annual mortality of 22.1 in every 1,000 of the inhabitants. Owing to the great prevalence of measles, especially in the crowded and unhealthy North City districts, the number of deaths from zymotic diseases registered during the quarter, reached the alarming total of 411, or 17.4 per cent. of the deaths from all causes, and equal to an annual mortality of 5.2 in every 1,000 inhabitants, the deaths from the seven principal diseases of this class representing an annual mortality of 4.1 per 1,000 persons. The average number of deaths from all zymotic diseases in the second quarter of the previous ten years was 398, and the number for the first quarter of this year was 345. The deaths from measles and its complications numbered 446, or more than one-third of the total mortality from zymotic disease. In 42 of the 146 cases in which measles terminated fatally, the disease is stated to have been complicated with bronchitis, and in 30 with pneumonia or inflammation of the lungs. Eight deaths from small-pox were registered during the quarter. Owing, doubtless, to the low mean weekly temperature of the quarter, and the very changeable weather, diseases of the respiratory organs were exceptionally fatal. Bronchitis alone caused 396 deaths, against 299 in the second quarter of last year, and 253 in the corresponding quarter of 1875, the 396 deaths being 16.8 per cent. of the deaths from all causes, and equal to an annual rate of 5 per 1,000 inhabitants. The total deaths registered in the Dublin Registration District during the week ending July 7th, 1877, represent an annual mortality of 19.8 in every 1,000 of the population. In London the death-rate was 19.5 in every 1,000 of the estimated population. The number of deaths from zymotic diseases registered during the week was 25; average number for the corresponding week

of the previous ten years, 24.1. More than one-half (14) of the deaths from these diseases recorded last week were from measles, 7 fatal cases of which (including 5 in which the disease was complicated with pneumonia) occurred in the Summer Hill Division of No. 1, North City District, where 64 deaths from this cause have been registered during the last ten weeks.

TRAFFIC IN DISEASED MEAT.

WE have several times recently referred in this column to the alarming prevalence of this traffic in Dublin, and to the miscarriage of justice which has taken place concerning it. The whole question as regards the matter, in a medical point of view, is, Is the flesh of an animal suffering from pleuropneumonia fit for human food or not? Mr. Murphy, a veterinary surgeon and the inspector under the Cattle Diseases (Ireland) Act for the North Dublin Union, says that the flesh of an animal in the second stage of the disease is perfectly fit for human food. Dr. Cameron, on the other hand, the Medical Officer of Health for the city, says it is not. A case involving this point was before one of the police magistrates last Saturday. The law-agent for the Corporation applied for an order for the destruction of the carcase of an animal that was slaughtered as suffering from pleuropneumonia. The North Dublin Union opposed the application. Dr. Cameron stated in evidence that he had examined the carcase of the animal in question. One of its lungs was awfully diseased and loaded with pus, and must have weighed about 30 lbs.; the other lung was sound, and could not have weighed more than 8 lb. The sight of the lung was in itself sufficient to create loathing, and he believed the meat to be totally unfit for human food. Mr. Murphy stated that he had seen the animal during life, and had ordered it to be slaughtered. It was sold for £11 to a butcher. The animal was in the second stage of pleuropneumonia, and was, in his opinion, perfectly fit for human food. The carcase was subsequently seized by a police-constable, and condemned by Dr. Cameron. Without hearing any cross-examination, the magistrate made the required order, saying that when he had evidence from a most competent authority that the meat was unfit for human food, he could not go behind that. It was true that the purses of the ratepayers ought to be protected, but the health and lives of the citizens of Dublin were entitled to still more careful protection. Another difference, as regards a matter of fact, also exists between Dr. Cameron and Mr. Murphy. The former says that in London, Liverpool, and Manchester the officers of health do not allow the sale of the meat of any animal affected by the disease at all; Mr. Murphy says the sale of such meat in England is freely allowed! Mr. Murphy's salary has recently been raised by the Guardians.

SEWERAGE OF KINGSTOWN AND SANDYCOVE.

A SPECIAL meeting of the Town Commissioners of Kingstown was held last Monday, called for the purpose of considering the special general report forwarded to the Commissioners by the Local Government Inquiry Commissioners. The report, which was an abstract of the recent inquiry, stated, in reference to the sewage of the township, that several cases of defective and insufficient sewerage had been brought under the Commissioners' notice, some of which had been admitted by the engineer of the township as well founded. One related to Sandycove Harbour, into which a large sewer leads. It is made of masonry about one foot square from the sewer, running along the public road called Sandycove Avenue. The sewage through this sewer has largely increased of late from the building of new houses, and it originally discharged at high-water-mark. This was afterwards carried out to low-water-mark by a six-inch metal pipe leading from the one-foot square sewer. This pipe appears to be quite insufficient in size, besides being completely broken up and lying about the harbour, the bottom of which dries at low water, and is now in a horrible condition. The smell in summer is intolerable. A ladies' and gentlemen's bathing-place is situated close to the entrance of this harbour, and at certain times of the tide it is impossible for anyone to bathe there from the foul condi-

tion of the water and the fearful smell. The place has been allowed to remain in that condition for a number of years, to the great discomfort of, if not danger to, the inhabitants of this populous district. Numerous other complaints were made as to the condition and insufficiency of the sewerage, which the Commissioners consider would take up too much time to allude to, but which satisfied them that the existing sewerage of this populous and important township is in a defective condition, and requires immediate and careful supervision and attention. In conclusion, they remark that the greatest sanitary want in Kingstown is the want of a proper connection from the dwellinghouses to the main sewers, and that this should at once be supplied. The majority of the Town Commissioners characterised the report as unfair and erroneous; but any unprejudiced person who knows the localities in question must be aware of the accuracy of the report as a faithful and, unfortunately, too true account of the sanitary condition of Kingstown and Sandycove.

SENATE AND CONVOCATION OF THE UNIVERSITY OF LONDON.

CONVOCATION of the University of London, which consists of about eighteen hundred graduates, forms a very influential body, and the decisions taken at its meetings are equally weighty and worthy of consideration. That this must be the case will at once be evident when it is remembered that in this body are represented the Bar, the Bench, Parliament, and all the liberal professions. Sir George Jessel, Mr. Stansfeld, Mr. Julian Goldsmid, Mr. Herschell, Sir William Jenner, Sir William Gull, Dr. George Johnson, Dr. Quain, Mr. Savory, Mr. Lister, Professor Turner, and other names, occur to us at once as those of members.

The functions of Convocation consist in electing certain members of the Senate, in discussing and expressing opinions upon various subjects connected with the interests of the University, and, lastly, in vetoing any change in the Charter of the University which the Senate might advise. In other words, no alteration in the Charter can take place without the consent of Convocation.

About three years ago, the Senate, by procuring an Act which enabled the University to enter into the Conjoint Scheme, without consulting Convocation, infringed the privileges of the latter body; and Convocation requested the chairman to express to the Senate their hope that for the future no similar action might be taken without the previous consent of Convocation.

It is now contended that the Senate, by adopting Russell Gurney's Act, whereby the medical corporations mentioned in Schedule A of the Medical Act may admit women to their medical degrees, not only without first obtaining the consent of Convocation, but even in direct opposition to the vote of Convocation upon this matter in May last, has again altered the constitution of the University, and thereby infringed, and practically superseded, the privileges of Convocation.

Members of Convocation have consequently requested their chairman to summon a meeting, at which the question may be discussed; and such meeting will be held on Friday next, July 27th. It will then be proposed that the Annual Committee of Convocation shall confer with the Senate, and, if necessary, arrange for a deputation from Convocation to wait upon the Home Secretary, and take any further steps that may be necessary for asserting their reasonable and just rights. It is clear that if the privileges of Convocation are to be set aside by the Senate whenever the Senate may think it desirable to supersede the Charter by Act of Parliament, without consulting Convocation, the *raison d'être* of Convocation ceases at once. And that in this matter the Senate has strained, if it have not exceeded, its just functions, is obvious. We trust, however, that as it is most essential for the interests of the University that harmony between these two bodies should be restored, the good sense and *esprit de corps* of the members of Convocation will lead them to deliberate upon this question with that calmness which should characterise the proceedings of those who have so just a cause.

DONATIONS AND BEQUESTS.—Anonymous has given £100 to Mercer's Hospital; and Lady Harriet Verner £100 to the Cripples' Home, Bray, to found an additional bed in that institution. Mrs. Jessie Maria Knipe has bequeathed £100 to the Hospital for Incurables, Dublin; £100 to the Adelaide Hospital; £100 to the Cumberland Infirmary, Carlisle; £300 to the Cripples' Home, Bray; and £100 to the Blind Asylum, Sackville Street, Dublin.

MEDICO-LEGAL CASES.

ACTION FOR RECOVERY OF FEES.

ON July 13th, before the Lord Chief Justice of England and a special jury, an action was tried which was brought by Mr. John Wood, the Senior Surgeon at King's College Hospital, against Mr. Mathias, to recover the balance of an account for medical attendance on the defendant's wife. Mr. Day, Q.C., and Mr. Edward Pollock appeared for the plaintiff; Mr. Murphy, Q.C., and Mr. Winch for the defendant. In the spring of 1870, the defendant's wife was sent to London to be attended by the plaintiff. Having taken lodgings in the neighbourhood, she underwent two operations, which ultimately proved successful. The defendant, having paid the plaintiff £50 for the first operation, except as to £20, which he paid into court, refused to pay the balance, which consisted of £20 for the second operation, and seventy-five guineas for seventy-five visits consequent upon it. In answer to his Lordship, Mr. Murphy stated that he had no evidence to call to prove that these were improper charges; the defendant could only prove that he had no idea at the time that these would be the plaintiff's charges. His Lordship observed that that would be no answer; the defendant ought to have inquired. Mr. Murphy stated that he could carry the case no further. The defendant, having been sworn, stated that he plaintiff had deceived him, and ought to have informed him that his charges were so high. His Lordship directed the jury that this was no defence, and the jury found a verdict for the plaintiff. Judgment was entered accordingly.

GOODWILL OF MEDICAL PRACTICES.

A DECISION of much importance to medical men was given in the Edinburgh law-courts last week. An action was raised by Mr. John Bain, on a cash credit bond, in which he and the late Dr. A. D. Neill Munro, of Cupar Fife, were co-obligants, against the widow and father of Dr. Munro as his representatives jointly and severally, and praying that the widow should fulfil the obligation under which the doctor lay, in so far as she had benefited by his succession. The pursuer averred that at Dr. Munro's death the widow had obtained the house in which he lived, valued at £1,500, the sum of £436, proceeds of a policy of insurance, and £400 which she had obtained for the goodwill of her husband's practice. On the other hand, Mrs. Munro affirmed that the free balance of her husband's executing estate was £33, after paying debts and expenses, and that the three sums referred to did not fall within the executing estate. The Lord Ordinary found for the pursuer for the £33; otherwise and generally for the defender. The policy was in her marriage contract, and the house was purchased with her money, and was secured to her by marriage contract. As regards the goodwill of the practice, his lordship held that there is truly no such thing as goodwill in the case of business carried on by professional men such as a physician and surgeon, whose success depends entirely on his own personal skill. It is quite different in a trader or manufacturer, who largely depends on the skill of paid workmen for the excellence of his wares. It is true that such businesses are occasionally sold; but what is thus sold in the case of a medical man retiring from practice is the recommendation which the seller gives to his former patients or clients in favour of the successor, and in the case of a dead man's business it is the recommendation of the widow and family. In short, what the successor pays for is, in the case of a living man, the retirement of his predecessor, and that predecessor's recommendation of him as a competent successor. When the physician or law agent is dead, no such thing can take place. But if the family of the deceased professional man offer to recommend a successor to the clients or patients of the deceased, on receiving a money equivalent, what is paid for is merely the recommendation of the living members of the family of the deceased; and this is precisely what was done in the present case. Dr. Munro's practice had greatly fallen off during his last illness, which lasted for nearly half a year, and without his widow's recommendation it was really of no value to a new doctor. It had been clearly proved that his successor, who had bought his house, would, without such recommendation, have had to fight his way into practice entirely on his own merits. But great sympathy has been felt for Mrs. Munro, and the old patients appear to have been willing to accept her recommendation in favour of the successor, with the express intention that she might in return for such recommendation receive from the new doctor a pecuniary equivalent; and it is this which is called by the pursuer the sale of the "goodwill" of Dr. Munro's practice. The £400 she received, not for anything which belonged to her husband, but solely for her efforts in recommending the patients of her husband to avail themselves of the services of his successor.

SPECIAL CORRESPONDENCE.

TREBIZONDE.

[FROM OUR OWN CORRESPONDENT.]

IF there are any English surgeons thinking of coming out to the assistance of the Turkish sick and wounded (and Heaven knows there is need enough of their services), let them at the outset adopt for their motto that very useful old maxim, *Festina lente!* It is impossible to hurry the Turks; and the more urgent the need of prompt action the slower are the authorities at Stamboul to move, even when entirely gratuitous assistance is offered to them. I found myself, accompanied by an active young Irish surgeon, at Constantinople on June 23rd, being despatched by an English nobleman, at his own charges, to the assistance of the sick and wounded Turkish soldiers in Asia. If introductory letters could avail anything, we were certainly well provided; and it is but fair to state that we were most civilly and hospitably received by all the Turkish officials to whom we presented ourselves. There is no doubt that there is a crying want of surgeons, stores, drugs, and all sorts of appliances, throughout the whole Turkish army both in Europe and in Asia; but, from what I have seen, I should strongly advise that all surgeons coming out, and all stores about to be sent to Turkey, should be sent through one of the well known societies in England, such as the Red Cross Society or the Stafford House Committee, both of which associations appear to be in the highest degree appreciated by the Ottomans, and not as a private enterprise by individuals, whose charitable intentions seem utterly incapable of appreciation out here. I do not think there is much comfort or satisfaction for any Englishman who joins the Turkish military medical service; but I think that now the way is prepared for an honourable and independent, and I need not say useful, career to any competent surgeon sent, with proper credentials, by one of these societies.

On Wednesday, June 28th, I was invited to attend a meeting of the Council of the Red Crescent Society at the Sultan's palace. The Society is formed as nearly as possible on the model of the English Red Cross Society, and they seem to be thoroughly in earnest now that their affairs are assuming a more settled form. The Sultan himself is taking the most active interest in all the doings of the Council, and personally suggested some really practical improvements in the construction of the first ambulance-wagon of the Society. They seem truly thankful for English help, and paid me the compliment of electing me a member of their council, requesting me to give them all possible information from the seat of war in Asia, promising that all my suggestions shall be carried out with the utmost despatch. The Sultan, through the Society, promised the protection and assistance of a special firman, which, however, I could not wait for, but I trust it will follow me here by the next steamer. Dr. Sarell, an English practitioner in Constantinople, is one of the vice-presidents of this society, and I am sure his best services will be at the disposal of any Englishman coming out to offer himself for their work. I must give him my most sincere thanks for all his kindness and hospitality to myself personally, and for the help he has rendered in many ways to my mission. On Friday, June 30th, we had so far been able to get the necessary papers and instructions that we embarked on board the Austrian Lloyd's steamer *Polluce* for Trebizonde, where we now are, *en route* for Erzeroum. I hope to be able to leave in two or three days at the latest, being armed with a goodly array of medical stores and comforts which the Stafford House Committee, through their most valuable and indefatigable commissioner, Mr. Barrington Kennett, now at Constantinople, have promised to send out as they can be purchased at Constantinople. Their main supplies, which ought to have been here about now, will be much delayed, I fear, by the non-departure of the steamer by which they were to come from London. In a smaller degree, I suffer also by the same unfortunate *contretemps*, as most of my stores, bandages, beef-tea, drugs, and such like things, were to have come out by the same steamer. Fortunately, however, we brought out with us all necessary instruments, and our other deficiencies have been made up by kind English friends at Constantinople, notably Lady Kemball, who put at my disposal a sum of money sufficient to buy necessary medicines and a small stock of medical comforts, and Mrs. Layard, who has given me a large quantity of bandages, lint, old linen, etc., which a committee of English ladies at Constantinople had been getting together for some time past. Mr. Bigliotti, the English Vice-Consul here, has kindly afforded us his hospitality, and very acceptable

it is, as the hotel accommodation (Heaven save the mark!) is a thing which defies description. He is giving us the greatest possible assistance in the organisation of a caravan on a small scale for the convey of ourselves and our baggage to Erzeroum, which place we hope to reach five or six days after we are once fairly started off into the interior. The weather here is not unpleasantly warm, but the consul describes the place as being most unhealthy. He has been here four years, and during that time, out of a population of about twenty Europeans, he has known two cases of insanity (one suicide), four of partial or complete paralysis, and cases too numerous to particularise of intermittents and dysentery. However, it has redeeming qualities; for, only a few miles away from the town, there exists a spring where may be had a constant supply of a beautiful clear sparkling mineral water, very like in flavour to Apollinaris, only, if possible, more agreeable.

I paid a visit this morning to the military hospitals which have just been established here. A large building, formerly used as an armoury, standing in a healthy situation outside the town, on an eminence overlooking the Black Sea, has been converted into a hospital for about four hundred surgical cases. This hospital is now quite full of the wounded sent down from Batoum, and a large wooden building is in course of erection close by for the accommodation of four hundred and eighty more. This shed-like structure is fairly well constructed, and will not do badly for the summer season; but what the poor wretches will do when winter comes on I cannot imagine. There are no very serious cases in the wards here, as only those more slightly injured can be conveyed all the way from Batoum; the more serious cases are treated there. There are only two "operating surgeons": one an Italian civil practitioner and the other a young Armenian educated at Constantinople. There seems to be the greatest need of some surgeon or surgeons who *dare* do something. At present, it seems to be the order of the day to leave everything alone. There are many cases where the least paring of edges, or even bringing together with strapping, would make a very respectable stump, in which huge fungoid granulations and yawning chasms are allowed to exist, a bit of dirty charpie being the only thing applied. They say they employ carbolic acid, but the atmosphere, as far as I could ascertain, was perfectly free from its odour. Their way of arresting hæmorrhage is peculiar, to say the least of it. One poor fellow who had a bullet in his arm, which had not been removed, was the subject of secondary hæmorrhage, very profuse, which had been discovered by the ward attendant the day before. A tourniquet was immediately applied over the brachial artery, and left on till the visit of the surgeon, twenty-four hours or so later. The surgeon pointed out the case to me, and, when I asked him what he was going to do to arrest the hæmorrhage, he said he thought he would leave on the tourniquet for another day or two. When I suggested the possibility of gangrene, he shrugged his shoulders, and said that perhaps he would be able to do something else in the afternoon.

A few hundred yards further on is a large temporary hospital for the sick soldiers. Here the physicians seem better up to their work than the surgeons in the other case, and the patients seem clean and well looked after. I gave some suggestions as to the improvement of the latrines, which are very offensive, and the ventilation of the sheds now in course of construction, which Emin Pasha, the medical superintendent of both hospitals, received very politely, and at once orders were given by him for their adoption. He begged very hard for some Liebig's extract, and so I am going to spare him a few pots out of my somewhat scanty store.

I hope to be able soon to give more detailed accounts of our work at Erzeroum, where, we hear from a dispatch the consul has just received, there is the most dire need of everything that surgery and medicine can supply. The account of the state of the wounded before they are transported to the hospitals is perfectly appalling. I hope that before long a regular transport service for the sick will be organised. Mr. Barrington Kennett has been consulted by the military authorities on the subject, and I think it more than probable that he will be requested to organise and command the whole scheme. A better man for the purpose could not be found.

BODMIN HOSPITAL.—A meeting of the subscribers to the hospital at Bodmin was held on July 14th, having been specially convened in consequence of the diminution in the income of the charity. It was deemed necessary to at once reduce the number of free beds from twelve to ten, and in future years to issue a less number of tickets for out-patients. The treasurer reported a few additional subscriptions and donations towards the existing debt; and it was determined to hold a bazaar in aid of the funds in the summer of 1878, as there had been no such appeal to the public to aid this institution since 1852, when upwards of £170 was realised by that means.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: FORTY-FIFTH ANNUAL MEETING.

THE Forty-Fifth Annual Meeting of the British Medical Association will be held in Manchester, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1877.

President.—M. M. DE BARTOLOMÉ, M.D., Senior Physician to the Sheffield General Infirmary.

President-decl.—M. A. EASON WILKINSON, M.D., Senior Physician to the Manchester Royal Infirmary.

An Address in Medicine will be given by WILLIAM ROBERTS, M.D., F.R.S., Manchester.

An Address in Surgery will be given by T. SPENCER WELLS, F.R.C.S., London.

An Address in Obstetric Medicine will be given by ROBERT BARNES, M.D., F.R.C.P., London.

The business of the Association will be transacted in Six Sections, viz. :—

SECTION A. MEDICINE.—*President:* Sir William Jenner, Bart., M.D., K.C.B., F.R.S. *Vice-Presidents:* Samuel Crompton, M.D.; Wilson Fox, M.D., F.R.S.; Henry Simpson, M.D. *Secretaries:* Julius Dreschfeld, M.D., 292, Oxford Road, Manchester; F. T. Roberts, M.D., F.R.C.P., 53, Harley Street, London, W.

SECTION B. SURGERY.—*President:* Edward Lund, F.R.C.S. *Vice-Presidents:* W. Adams, F.R.C.S.; F. A. Heath, M.R.C.S. *Secretaries:* S. M. Bradley, F.R.C.S., 272, Oxford Road, Manchester; Henry Morris, F.R.C.S., 2, Mansfield Street, London, W.

SECTION C. OBSTETRIC MEDICINE.—*President:* W. O. Priestley, M.D., F.R.C.P. *Vice-Presidents:* A. H. McClintock, M.D., LL.D.; James Whitehead, M.D. *Secretaries:* David Lloyd Roberts, M.D., 23, St. John Street, Manchester; John Thorburn, M.D., 333, Oxford Road, Manchester.

SECTION D. PUBLIC MEDICINE.—*President:* Surgeon-Major F. S. B. De Chaumont, M.D., *Vice-Presidents:* Alfred Aspland, F.R.C.S.; W. H. Corfield, M.D., F.R.C.P. *Secretaries:* William Armstrong, M.B., Station Road, Cambridge; John Haddon, M.D., Monk's Hall, Eccles, Manchester.

SECTION E. PHYSIOLOGY.—*President:* Arthur Gamgee, M.D., F.R.S. *Vice-Presidents:* John Cleland, M.D., F.R.S.; Thos. Lauder Brunton, M.D., F.R.S. *Secretaries:* Joseph Coats, M.D., 33, Elmbank Street, Glasgow; William Stirling, M.D., University, Edinburgh; A. B. H. Young, M.B., Owens College, Manchester.

SECTION F. PSYCHOLOGY.—*President:* J. C. Bucknill, M.D., F.R.S. *Vice-Presidents:* H. Rooke Ley, M.R.C.S.; G. W. Mould, M.R.C.S. *Secretaries:* P. M. Deas, M.B., County Asylum, Macclesfield; T. Claye Shaw, M.D., Middlesex County Asylum, Banstead.

Local Secretaries. { Dr. LEECH, 96, Mosley Street, Manchester.
C. J. CULLINGWORTH, Esq., 260, Oxford Street, Manchester.
Dr HARDIE, St. Ann's Place, Manchester.

The General Meetings and the Meetings of the Council and Committee of Council will be held, and the Addresses in Medicine, Surgery, and Obstetric Medicine, will be delivered, in the CONCERT HALL. The Sections will meet in OWENS COLLEGE.

Luncheon will be provided daily in Owens College, from 1 to 2 P.M.

Tuesday, August 7th.

11 A.M.—Service at the Cathedral: Sermon by the Lord Bishop of Manchester.

12.30 P.M.—Meeting of Committee of Council.

2 P.M.—Meeting of Council, 1875-76.

3 P.M.—General Meeting.—President's Address.—Annual Report of Council, and other business.

9 P.M.—Reception and Soirée by the President of the Association and the Council and Senate of Owens College. Dr. Arthur Ransome will give an Address on the Present Condition of State Medicine in England.

Wednesday, August 8th.

9.30 A.M.—Meeting of Council, 1876-77.

11.30 A.M.—Second General Meeting.

11.30 A.M.—Address in Medicine.

2 to 5 P.M.—Sectional Meetings.

9 P.M.—Soirée by the Mayor and Corporation of Manchester, at the Town Hall.

Thursday, August 9th.

- 9 A.M.—Meeting of the Committee of Council.
10 A.M.—Third General Meeting.—Reports of Committees.
11 A.M.—Address in Surgery.
2 to 5 P.M.—Sectional Meetings.
6.30 P.M.—Public Dinner of Association in the Assize Court Hall.

Friday, August 10th.

- 10 A.M.—Address in Obstetric Medicine.
11 A.M.—Sectional Meetings.
1.30 P.M.—Concluding General Meeting, Reports of Committees, etc.
4 P.M.—Garden Party by President and Reception Committee at Manley Hall.

SPECIAL DISCUSSIONS.—It is intended to hold discussions on certain special subjects in several of the Sections, as follows.

Medicine.—Aortic Aneurism; the Treatment of Pleuritic Effusion.

Surgery.—Antiseptic Surgery; Excision of the Knee; Treatment of Stricture of the Urethra.

Obstetric Medicine.—Transfusion of Blood.

Psychology.—The Best Method of Treating Habitual Drunkards.

PAPERS.—In addition to the papers mentioned in last week's JOURNAL, the following have been promised.

- ANDREW, Edwyn, M.D. Extirpation of the Lacrymal Gland in Obstruction of the Nasal Duct.
BARLOW, W. H., M.D. Infantile Paralysis.
BOWRING, G., F.R.C.S. Surgical Cases.
BRADBURY, J. B., M.D. Hydatid Tumour of the Left Kidney successfully treated by Aspiration.
BRAIDWOOD, P., M.D. Recent Researches on Pyæmia.
CARRINGTON, D., M.D. Chenopodium Vulvaria, L. (C. Ovidum, Curtis) as an Antihysterical and Uterine Stimulant.
CASSELLS, James P., M.D. The Education of Deaf-mutes and Defective Hearers.
CHENE, John, F.R.C.S. Ed. Retropharyngeal Abscess.
CLARK, Andrew, M.D. 1. A Series of Portraits of Phtisical Diseases of the Lungs.—2. A Speedy Method of Treating Hay-fever.—3. Renal Inadequacy.
CORMACK, John C., L.K.Q.C.P. A Porcupine Boy successfully treated for his Disease.
DOLAN, T. M., L.R.C.P. Ed. The Etiology of Typhoid Fever; with Special Reference to the Discussion introduced by Dr. Gueneau de Mussy in the French Academy of Medicine.
EMRYS-JONES, A., M.D. Hypopyon Keratitis.
IRWIN, J. A., M.B. Hysterical Retention of Urine.
JAGIELSKI, Victor, M.D. Value of Koumiss in the Treatment of Nausea, Vomiting, and Inability of Retaining other Food in the Stomach.
LEE, Robert J., M.D. On the Importance of Preserving a Vacuum in the Pleural Cavity after Paracentesis of the Thorax and the Insertion of the Drainage-Tube; with Description of a Method by which Continuous Aspiration may be effected.
MARTIN, A., M.D. 1. On Transfusion.—2. A Successful Case of Removal of the Spleen.
MILLER, Hugh, M.D. A Case of Peculiar Crowing Inspiration in a New-born Child.
MYRTLE, A. S., M.D. The Continuous Current in certain Neuralgias and in Spasmodic Asthma.
PARKER, Rushton, F.R.C.S. Large Prostatic Calculus with Natural Perforation for the Urine: Removal by Recto-Urethral Lithotomy.
RANSOME, Arthur, M.D. On Epidemic Cycles.
REEVES, H. A., F.R.C.S. Eng. 1. The Immediate Treatment of Syphilis.—2. A New Method of Exploring the Female Urethra and Bladder.
ROGERS, Joseph, M.D. Poor-Law Medical Relief in the Midland Counties.
SCOTT, Adam, Esq. The Dutch Laws for Compulsory Registration and Stamping out of Infectious Disease.
SIMS, J. Marion, M.D. On Batten's Operation.
STEWART, Alexander, F.R.C.S. Ed. Why Dental Caries is so general; and how to prevent it.
STOCKS, A. W., M.R.C.S. 1. A Case of Complete Restoration of the Ulna after Neurosis of the Shaft.—2. A Case of Misplaced Testes with Hernia.
THOMPSON, James, M.D. Chyluria.
VACHER, Francis, L.R.C.P. Ed. Notes on the History of Contagium.
WEST, James F., F.R.C.S. Ed. The Value of the Antiseptic Treatment in Herniotomy.
WOLFE, J. R., M.D. Removal of a Large Tumour from the Orbit, with Preservation of Sight.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to the Secretaries of Sections on or before the 1st of August.

No paper must exceed twenty minutes in reading, and no subsequent speaker must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

GENERAL ARRANGEMENTS.

The Council of the Owens College have most kindly granted the use of the College as a place of meeting for the sections, and for all other purposes of the Association. The School of Medicine, which forms one of the blocks constituting the College, will be used as a Museum, and will make a most excellent place for the exhibition of all kinds of preparations, instruments, etc.

The Physiological Laboratory will be devoted to the use of physiological instruments, of which there will be a very fine collection.

One of the rooms will be set apart for the exhibition of microscopical specimens, and this will form a special feature in this year's Museum. At no previous Meeting, probably, has such an excellent series of rooms been at the disposal of the Museum Committee.

The Museum of the Sanitary Association will be situated in the College grounds, and thus the whole work of the Association will be carried on in one place.

There will be two Reception Rooms, one at Owens College and one in the town. This arrangement has been made to enable members to obtain full information of what is going on, without obliging them to go to the College, which is situated above a mile from the centre of the town. The two Reception Rooms will be in direct connection by messengers or telegraph. A large building, the Concert Hall, has been taken for the Town Reception Room, and the Business meetings will be held in this building.

Members attending the meeting are particularly requested to proceed on their arrival to the Reception Room at the Concert Hall, where Tickets will be issued and all necessary information afforded. The Reception Room will be open at 10 o'clock on Tuesday morning.

A list of lodgings will be inserted in next week's JOURNAL.

SOIRÉES.

On Tuesday, the first day of the Meeting, there will be an exhibition of Medical and Dietetic Plants at the Botanical Gardens; and the President of the Association and the Council and Senate of the Owens College will give a reception and soirée in the evening, at which Dr. Ransome will deliver an Address on the Present Condition of State Medicine in England.

An extremely interesting feature of this soirée will be a collection arranged by Professor Boyd Dawkins, illustrating the history of man in Britain from the pleistocene to the historic period. There will also be a series of fossils, illustrating the ancient carboniferous flora of Lancashire.

A detailed account of the arrangements will be published before the Meeting.

The Mayor and Corporation have intimated their intention of inviting the Association on Wednesday to a soirée, which they will give at the Town Hall. This building, which has been in course of construction for the past eight years, and has cost nearly a million, is just completed. It is probably the finest building of the kind in the world; and its splendid architectural proportions and magnificent decorations will, doubtless, be highly appreciated by all who visit Manchester.

The owners of all the most important warehouses, cotton mills, and other works in and round Manchester, have most kindly signified their intention of allowing members of the Association to visit their various places. Several of those which are not usually open to visitors will be shown at the time of the Association Meeting to members.

EXCURSIONS, ETC.

On Saturday, August 11th, excursions will be made to the following places.

Macclesfield.—A luncheon will be provided by the High Sheriff of Cheshire, Thomas U. Brocklehurst, Esq., at his seat, Henbury Park, near Macclesfield, Cheshire, for as many members as may like to go. After luncheon, arrangements will be made for drives through the park of Lord Stanley to Alderley, and past the celebrated Cat and Fiddle, the highest inhabited house in England, to Buxton. Members availing themselves of this invitation, will have an opportunity of visiting the County Lunatic Asylum at Macclesfield, and some interesting and important silk manufactories.

Lancaster.—The medical men of Lancaster have notified to the Reception Committee that they will be glad to entertain fifty members of the Association. The County Lunatic Asylum will first be visited, and then the Royal Albert Asylum for Idiots and Imbeciles, where a luncheon will be provided. The visitors will afterwards be conducted over the Ripley Institute, St. Mary's Church, and Lancaster Castle.

Southport.—The medical men of Southport invite one hundred members of the Association to visit them on the 11th of August. The Aquarium, Winter Gardens, Pier, Glaciarium, and the New Sewage Works, are the principal objects of interest here; and the Local Committee are making every arrangement to give a hearty welcome to those members who may visit Southport on this occasion.

Blackpool.—The Mayor and Corporation of this town have most kindly offered to entertain as many members of the Association as may like to visit Blackpool.

Woodhead Water-Works.—These are probably the largest artificial water-works in the world. The reservoirs cover about five hundred

acres, and supply a population of about one million in the valleys of the Irwell and Mersey, besides the numerous works situated therein. Those who visit Woodhead will also have the opportunity of seeing some dye-works belonging to Mr. Potter of Manchester, at which there is a special and most interesting plan of purifying water in operation. The works themselves are amongst the finest of the kind in Lancashire.

Northwich.—An excursion will be made to visit the salt-mines at Northwich. One of these mines will be illuminated for the occasion.

Castleton.—Professor Boyd Dawkins has undertaken to conduct an excursion to Castleton, in Derbyshire. Peak Cavern, Peak Castle, the Winnel, and other interesting places in this locality will be explored; and a special visit will be paid to the recently discovered cave-deposits containing remains of prehistoric times. Professor Boyd Dawkins will give a short address, and explain the nature of the deposits.

Arrangements are being made for a visit to one of the coal-mines near Manchester.

ANNUAL MUSEUM.

All communications respecting the Annual Museum should be addressed to the Secretaries, Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester, and James Ross, M.D., 335, Oxford Road, Manchester.

NOTICES OF MOTION.

Mr. F. W. LOWNDES, 62, Mount Pleasant, Liverpool, hereby gives notice that he will move :

"That the British Medical Association nominate a deputation to Mr. Secretary Cross to request that a Government inquiry be made into the state of our large mercantile sea-ports, especially Liverpool, Bristol, Hull, and Cardiff, with reference to the subjects of prostitution and venereal diseases; and also to suggest means for diminishing the prevalence of prostitution and venereal diseases."

Dr. HADDON, of Monks Hall, Eccles, hereby gives notice that he will move :

"That a Committee be appointed, consisting of members eminent in the several departments of medicine, surgery, midwifery, etc., who shall endeavour to make the JOURNAL a perfect epitome of the science as well as the practice of medicine, and at the same time utilise the members in clearing up disputed points in the diagnosis or treatment of disease, so as to increase the value of the JOURNAL, and, if possible, raise it to a higher place in the medical literature of the day. Such Committee to be responsible for the management of the JOURNAL, and any correspondence admitted to its columns."

FRANCIS FOWKE, *General Secretary.*

36, Great Queen Street, W.C., July 19th, 1877.

METROPOLITAN COUNTIES BRANCH.

The twenty-fifth annual meeting of this Branch will be held at the Alexandra Palace, on Tuesday, July 24th, at 4 P.M. President: JONATHAN HUTCHINSON, Esq., F.R.C.S. President-elect: SEPTIMUS W. SIBLEY, Esq., F.R.C.S.

Dinner at 5.30 precisely. Tickets, 15s. each, exclusive of wine.

Further particulars in circulars.

ALEXANDER HENRY, M.D. } *Honorary Secretaries.*
ROBERT FARQUHARSON, M.D. }

London, June 18th, 1877.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

The annual meeting of this Branch will be held in the University Buildings, New Aberdeen, on Wednesday, July 25th, at 1 P.M.

Exhibition of instruments and pathological specimens will take place from 11 A.M. in the University.

The members will dine together at the Palace Hotel at 3 P.M.

ALEX. OGSTON, } *Honorary Secretaries.*
JOHN URQUHART, }

Aberdeen, July 3rd, 1877.

NORTH OF ENGLAND BRANCH.

The annual meeting of this Branch will be held in Bishop Cosin's Library, Durham, on Thursday, July 26th, at 2 P.M.

Dinner at the County Hotel, at 5 P.M.

G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, July 7th, 1877.

SHROPSHIRE AND MID-WALES BRANCH.

The next quarterly meeting of the above Branch will be held at the Salop Infirmary, on Tuesday, July 31st: Dr. S. TAYLEUR GWYNN, President, in the Chair.

Gentlemen intending to read papers are requested to signify the same to the Secretary.

HENRY NELSON EDWARDS, *Honorary Secretary.*

Shrewsbury, July 14th, 1877.

GLASGOW AND WEST OF SCOTLAND BRANCH: ANNUAL MEETING.

The annual general meeting of the Glasgow and West of Scotland Branch was held in the Faculty Hall, Glasgow, on Tuesday, June 20th. Dr. ALLEN THOMSON, President, took the Chair at 2 P.M. The minutes of meetings of June 23rd, 1876, and April 6th, 1877, having been read and approved, Dr. Allen Thomson resigned the chair to Dr. G. H. B. MACLEOD, the President-elect, who gave a presidential address.

A Vote of Thanks for the address was awarded on the motion of Dr. ANDREW FERGUS.

Report of Council.—The report of Council and financial statement for the year were then presented. The following is the report of the Council.

"In presenting their annual report, the Council feel that very little need be added to what is contained in the minutes. It will be observed that, in addition to the regular annual meeting, there has been a special meeting of the Branch to consider the Habitual Drunkards Bill introduced into Parliament by Dr. Charles Cameron, M.P. for Glasgow. In this meeting, the Branch agreed to petition Parliament in favour of the general provisions of this Bill; but, as the Bill itself in its complete form was not before them, they did not commit themselves to the particular clauses of it.

"The Council has to congratulate the Branch on the large membership which it already possesses. At the present date, the numbers are 145. There are, however, a considerable number still outside the Branch who are members of the parent Association; and it is desirable that these should be induced to join.

"It will be seen from the financial statement, that the Branch is in a favourable position in this respect, and that the small annual subscription is sufficient to cover the expenditure."

The Medical Council.—Dr. ALLEN THOMSON made a statement as to the recent action of the General Medical Council, and the nature of certain Bills now before Parliament.

It was announced that Dr. Gairdner had sent three interesting nervous cases, which could be seen in a side-room.

Office-Bearers.—The election of office-bearers was then proceeded with, and the following is the result. *President:* G. H. B. Macleod, M.D. *President-elect:* Andrew Fergus, M.D. *Vice-Presidents:* Allen Thomson, M.D., F.R.S.; and D. Fraser, M.D. (Paisley). *Honorary Secretaries:* Joseph Coats, M.D.; and J. G. Lyon, M.D. *Council:* T. McCall Anderson, M.D.; A. M. Buchanan, M.D.; W. D. Fairless, M.D. (Bothwell); W. T. Gairdner, M.D.; J. Grieve, M.D.; D. Macleod, M.D. (Kilmarnock); J. Morton, M.D.; A. D. Stewart, M.B. (Greenock); Hugh Thomson, M.D.

EAST ANGLIAN BRANCH: ANNUAL MEETING.

The annual meeting of the East Anglian Branch of the British Medical Association was held at the Magistrates' Room, Diss, on Thursday, June 28th, at 2.30 P.M.; T. E. AMYOT, Esq., President, in the Chair. About thirty gentlemen were previously entertained to a sumptuous luncheon at the President's house at one o'clock. The President was introduced to the Chair by the ex-President, W. H. CLUBBE, Esq.

Report of Council.—The Honorary Secretary, Dr. J. B. PITT, read the report of Branch Council, which congratulated the members in assembling at Diss, and expressed satisfaction with the manner in which the JOURNAL was conducted.

Vote of Thanks.—It was proposed by Mr. ADAMS, seconded by Mr. SOFFE, and resolved: "That the thanks of this meeting be given to the retiring President, Members of Council, and Honorary Secretaries for their services during the past year."

Council and Secretaries.—It was proposed by Mr. CLUBBE, and seconded by Mr. G. TAYLOR: "That the Council and Honorary Secretaries be re-elected." The members learnt with regret that Dr. Chevallier, one of the honorary secretaries, had decided to retire; Dr. Elliston of Ipswich was elected in his stead, as Honorary Secretary for Suffolk; and Dr. Chevallier was elected a Member of Branch Council, in place of Dr. Kirkman, resigned. The other members of Council were re-elected.

Next Annual Meeting.—Dr. J. B. PITT moved, and Mr. ADAMS seconded: "That the next annual meeting of the East Anglian Branch be held at Peterborough, in conjunction with the Cambridge and Huntingdon and South Midland Branches, under the Presidency of Dr. Walker."

New Members.—Dr. George Stevens of Norton, Suffolk, was proposed by the President, and seconded by Dr. Pearce; Mark Stanley

Todd, Esq., of Bungay, was proposed by Mr. Adams, and seconded by Dr. Fletcher; G. W. Pretty, Esq., of Fressingfield, Suffolk, was proposed by Mr. Gorham, and seconded by Mr. Howard.

Communications.—The PRESIDENT read a very interesting address, referring to the usefulness of the Association and other medical topics.

Dr. ELLISTON read a paper illustrating Holt's treatment of Organic Stricture. An interesting discussion followed, in which Mr. Cadge and Mr. Allen took part.

Dr. ELLISTON exhibited an Obstetric Bandage, for application immediately after delivery.

Mr. G. TAYLOR also showed a Truss-compress, which he was in the habit of using. Considerable discussion followed, in which Dr. Barnes, Messrs. Adams, Soffe, Gorham, and Pitt took part.

Mr. CROSSE read a paper on Exostosis and Exfoliation of Bone, following Amputation: with specimen.

Mr. R. A. GIBBONS read an interesting paper on Electrolysis in Aneurism.

Dr. FLETCHER read a paper on two cases of Aphasia. An interesting discussion followed, in which Drs. Copeman, Barnes, Beverley, and Gibbons took part.

Mr. FARRINGTON showed a patient with Contraction of Fingers after Burn, and the application of a suitable splint to keep up extension.—Mr. CLUBBE thought skin-grafting sometimes beneficial in such cases.

Dr. BARNES showed a large Salivary Calculus, which had passed that morning.

Mr. CLUBBE read an interesting case of Prostatic Vesical and Urethral Calculi, which elicited remarks from Mr. Gorham and Mr. Cadge.

Votes of Thanks to the readers of papers, and to the President for his able and amusing address.

Dinner.—At the close of the proceedings, the members adjourned to an excellent dinner at the King's Head, where the usual loyal and other appropriate toasts were given, and a pleasant evening spent.

SOUTH-WESTERN BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at Penzance on June 27th; Dr. J. B. MONTGOMERY, President, in the Chair.

President's Address.—The PRESIDENT delivered an address, in which he first gave a brief notice of the district of West Penwith and the town of Penzance and its climate. He next referred to the Royal Geological Society of Cornwall, in the library of which the meeting was held; and in connection therewith spoke especially of Sir Humphry Davy, a native of Penzance, and the late Dr. J. A. Paris and Sir John Forbes, both of whom for some time resided in that town. The remaining topics of the address were, progress in the healing art, sanitary progress, and the objects of the Association. In concluding, the President remarked that the meeting was the first for purely professional purposes that had been held in Penzance for upwards of half a century, and he hoped it would be the prelude to many more.

Dr. ROLSTON (Devonport) moved and Dr. ALDRIDGE (Plympton) seconded a vote of thanks to Dr. Montgomery for his address, which was carried by acclamation.

New Members.—The following were elected: F. Boase, Esq., Penzance; H. Grenfell, Esq., Penzance; W. R. Trezise, Esq., Marazion; W. Wearne, Esq., Helston; C. F. Sinclair, M.B., Helston.

Next Annual Meeting.—It was unanimously resolved that the annual meeting of 1878 be held at Torquay, under the presidency of Dr. Radclyffe Hall.

The distribution of annual meetings between the counties of Devon and Cornwall having been discussed, it was agreed that one in every four should be held in Cornwall; one in four in the three towns (Plymouth, Devonport, and Stonehouse), as being central; one in four at Exeter; and one in four in any other town in Devonshire.

Vote of Thanks to the Ex-President.—On the proposal of Mr. DODGE of Penzance, seconded by Mr. MUDGE of Hayle, a vote of thanks was unanimously given to Mr. Roper for his able conduct as President during the past year.

Branch Council.—The following members were elected to fill vacancies: H. S. Hounsell, M.D., Torquay; J. A. Huxley, M.D., Torquay; J. Woodman, Esq., Exeter; C. W. Pridham, Esq. Paignton; Spencer Thomson, M.D., Torquay.

Representatives in the General Council.—The following were elected: J. Elliot, Esq., Kingsbridge; H. Harris, M.D., Redruth; R. S. Hudson, M.D., Redruth; J. Pollard, Esq., Torquay; C. H. Roper, Esq., Exeter; Lewis Shapter, M.D., Exeter; W. Square, Esq., Plymouth; and L. H. Tosswill, M.B., Secretary, *ex officio*.

Communication.—An interesting paper on the Use of the Trepnine in Depressed Fracture of Skull was read by Dr. HUDSON of Redruth. Several members took part in the discussion which ensued.

Exhibition of Cases, etc.—Mr. SWAIN, junior, of Devonport, sent photographs of three cases in which he had removed a part or the whole of the upper or lower jaw.

Luncheon and Dinner.—After the meeting, the members and their friends to the number of thirty partook of a very handsome luncheon provided by the President, who also provided a four-horse drag to convey the party to the Land's End. At 7.30, about twenty-three of the members and their friends wound up a very pleasant day by dining at the Queen's Hotel.

CORRESPONDENCE.

AN APPEAL.

SIR,—We venture to hope that you will kindly allow us, through your columns, to call the attention of the profession to the case of Dr. de Lisle Allen, who, after an illness of more than two years, is now an inmate of Bethlehem. During the whole of his illness, Dr. Allen has been incapacitated from following his profession, and his family have been indebted to the kindness of private friends, supplemented by a grant from the Medical Benevolent Fund, for the means of defraying the expenses necessitated by the nature of his malady. This appeal is now made to enable his wife and daughter to keep a home, and to put them in a position of earning a livelihood for themselves. Dr. B. W. Richardson, 12, Hinde Street, Manchester Square, has kindly consented to act as Treasurer.

(Signed)

J. E. ERICHSEN, F.R.C.S.

THOMAS SMITH, F.R.C.S.

BENJAMIN W. RICHARDSON, M.D., F.R.S.

J. HUGHLINGS JACKSON, M.D.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

A DISTRICT medical officer at the east end of the metropolis has forwarded a cheque for £5 in aid of the funds of the Association, to mark his appreciation of the work done by the Association during the past year.

POOR-LAW MEDICAL RELIEF IN THE MIDLAND COUNTIES.

SIR, I propose to read a paper on the Public Health Section at the forthcoming meeting at Manchester, in August, on Poor-law Medical Relief in the Midland Counties, its Anomalies and Deficiencies, with Hints for their Removal; and, as it is all important that I should get ready to read it, I beg the medical officers of the district and workhouse medical officers residing in Lancashire, Cheshire, Yorkshire, Shropshire, Staffordshire, Derbyshire, Lincolnshire, and Leicestershire will kindly forward me all the facts at their command, as soon as possible.

The strictest secrecy will be observed as to the names, etc., of gentlemen sending me information.—I am, sir, yours obediently,
JOSEPH ROGERS.
33, Dean Street, Soho, July 19th, 1877.

MILITARY AND NAVAL MEDICAL SERVICES.

STAFF-SURGEON DUNCAN HILSTON, M.D., has been promoted to the rank of fleet surgeon, with seniority of the 3rd of May.

THE appointment of Principal Medical Officer of the Southern District is falling vacant by the retirement of Surgeon-General R. Bowen.

SURGEON-GENERAL T. LONGMORE, C.B., has been re-appointed Professor of Military Surgery at the Army Medical School, on retirement upon half-pay.

STAFF-SURGEON WM. HARRIS LLOYD, M.D., has been promoted to the rank of fleet surgeon in Her Majesty's Fleet, with seniority of the 31st of May.

DEPUTY INSPECTOR-GENERAL OF HOSPITALS AND FLEETS WILLIAM LONEY was placed on the retired list on July 3rd, with permission to assume the rank and title of Inspector-General on the retired list from the same date.

MEDICO-PARLIAMENTARY.

HOUSE OF LORDS.—Monday, July 16th, 1877.

Sudden Deaths in Scotland.—On the motion of the Earl of MINTO, a return was ordered of sudden deaths and cases of suspicious deaths in Scotland during the year 1875-6, specifying the number of cases which had been subsequently the subject of criminal trials.

HOUSE OF COMMONS.—Thursday, July 12th, 1877.

The Suicide at Christ's Hospital.—Mr. Serjeant SHERLOCK asked the Secretary of State for the Home Department whether his attention has been called to the case of William Arthur Gibbs, who had committed suicide at Christ's Hospital; and whether it was proposed to institute an investigation into the circumstances of the case.—Mr. CROSS: Every one must deeply regret the occurrence, and no one can do so more than those who have the management of the school. I must demur to that part of the hon. member's question which implies that cruelty was inflicted on the boy; no proof of that has appeared, and it is entirely an assumption. The coroner's jury did not take the view that the temporary insanity during which the boy made away with himself was induced by such treatment. However, the authorities of the school have already made a thorough investigation into the matter, and as far as I can learn the boy's suicide was owing to his peculiar temperament rather than to any cruel treatment; but with that good feeling that, I am sure, would characterise anybody to whose care the well-being of so large a school was committed, they placed themselves most unreservedly in the hands of the Secretary of State. I have myself no doubt as to the course that should be taken, and I think it is decidedly for the interests not only of the public, but also of the school, than an investigation should be instituted, and the Governors of the school have come forward to render any assistance in their power.—Mr. Serjeant SHERLOCK said that the master of Hertsford school gave the boy a very high character.

Friday, July 13th, 1877.

Christ's Hospital.—Mr. CROSS said: I have been asked by the authorities of Christ's Hospital to state they are afraid that some observations which fell from me yesterday may be misunderstood. I stated then that I had received the report of their inquiry. They are afraid I had not stated that fact. What I stated was that I had received their report of the inquiry, but that it was too long to read to the House. I may as well take this opportunity of stating that I have, in consultation with the authorities, and with their consent, nominated a committee to make inquiry, not simply into the cause of the boy's death, but into the state, discipline, and management of this institution. That committee will consist of my right hon. friend the member for the University of Cambridge (Mr. Walpole); the right hon. gentleman the member for Bradford (Mr. W. E. Forster); the right hon. gentleman the Recorder of the City of London; the hon. member for Berkshire (Mr. Walter); and the Dean of Christ Church; and they will commence their labours on Monday next.

Monday, July 16th, 1877.

The Cattle Plague in the Metropolis.—Viscount SANDON, in reply to Colonel Kingscote, said he was sorry to say that there had been a fresh outbreak of cattle plague in Bethnal Green, in a shed containing ten cows. Several were affected, and the whole were slaughtered before 5 P.M. yesterday, after having been condemned by the Privy Council inspector. The owner did not make any report of the sickness amongst his cows, as required by the orders of the Privy Council, and the origin of the outbreak had not been traced as yet. Fortunately the orders of the Privy Council, under which no animal was allowed to leave the metropolis alive, and also for dealing with the cattle plague in the metropolis, were still in force. That afternoon the Privy Council had passed an order restricting the removal of livecattle in the metropolis north of the Thames. Every precaution would be taken for checking the outbreak.

Medical Department in India.—In answer to Dr. Lush, Lord G. HAMILTON said: The Government of India have for some time past had the whole question of the Army Medical Service in India under their consideration, but they have not communicated any conclusions. I am not, therefore, in a position to be able to state what modifications may be proposed, or the reasons for them.

Sane and Insane Prisoners.—The HOME SECRETARY informed Sir J. Bailey that the Prisons Act had made no difference whatever with regard to the maintenance of persons detained during Her Majesty's pleasure, as they were not criminals. With reference to those who,

having been convicted, afterwards became insane, the cost of maintenance would be borne by the State, while the sentence was being carried out; but, if it were necessary to detain them after the expiration of the sentence, they would be regarded as pauper lunatics, and become chargeable to the county, the Government making the usual allowance.

Small-pox in the Metropolis.—Mr. SCLATER-BOOTH, in reply to Dr. Lush, said, according to the latest information, there were in the Metropolitan Asylums Hospitals at the present time 621 patients suffering from small-pox, against 850 and 950 in the hospitals in May and June last. There were also at this moment 483 vacant beds, so that it might be said that the epidemic was abating, and that there were means for the treatment of any number of paupers and poor persons in the metropolis who might be brought within their care. It might also be said that there were greater accommodation, greater attention paid to the patients, and better means of holding the present epidemic in check than had been the case in former years. He would take care that the experience gained during the last nine months should be carefully collected to enable him to consider whether any recommendation was necessary.

Southwark and Vauxhall Water-Supply.—In answer to Colonel North, Mr. SCLATER-BOOTH said: My attention has been called to the recent report of Dr. Frankland to which my honourable and gallant friend refers. But complaints had previously been made to me by the Wandsworth District Board of Works as to the state of the water supplied by the Southwark and Vauxhall Company, which has for some time been unsatisfactory; and the Water Examiner has, by my directions, been in communication with the company on the subject during the last two months. On July 4th last, I issued an order directing that a special inquiry under Section 35 of the Metropolis Water Act, 1871, should be held by Major Bolton, and that inquiry will be held immediately. It is fair to add that the company have been incurring a large expenditure during the past year for renewal of their filters at Hampton and Battersea, a work which they admit to have been too long neglected. It remains to be ascertained what further works may be necessary to put this company's supply into a satisfactory state.

Broadmoor Criminal Lunatic Asylum.—On the sum proposed to complete the vote of £28,844 for this institution, Mr. RAMSAY said that he thought it was not desirable that they should make criminals of any class the pets of the State. The great expenditure at Broadmoor was, he believed, caused in some degree by the fact that a number of its inmates were not insane, but worked mischief when they had the opportunity. He acknowledged that the State was under obligations to the Council of Supervision for doing what they conceived to be their duty under the circumstances; but he thought, with all deference to them, they took a mistaken view of their duty by the expenditure of so much of the public money on a very worthless part of the community.

—Mr. WALTER, as one of the Council of Supervision, would remind the honourable member that Broadmoor was in no sense a prison. When it was first founded, it was expressly stated by the Lunacy Commissioners that it was intended to be as much of a hospital and as little of a prison as possible; and as a matter of fact convict prisoners—that was to say, prisoners who were sent from convict prisons to Broadmoor in consequence of having become insane—had ceased to be sent there. Broadmoor was essentially a place for the reception of persons who had committed in a state of insanity acts which would otherwise have been criminal. Therefore, the policy of the State had been to treat those persons not as criminals, but as patients. Broadmoor included an extensive acreage, with enormous buildings, the cost of maintaining which was extremely heavy. Then, again, the staff of attendants there was necessarily large, entailing a cost of 45 per cent. of the total expenditure. The attendants at Broadmoor were 20 per cent. of the inmates, whereas in ordinary county asylums he believed the attendants were about 10 per cent. That arose from the immense proportion of male patients. In pauper lunatic asylums, the number of male patients was about the same as the number of female. The present estimate was considerably less than that of last year, as that was less than that of the previous year. There had been a diminution since 1872 of about £6 a head in the cost of the patients. An objection had been made to the dietary; but it was well known to medical men that the recovery of these unfortunate people greatly depended upon good living. Broadmoor was one of the healthiest localities in which any class of patients could be placed. The mortality was only 2¼ per cent. There was no institution of that class in the kingdom which could show anything like so small a mortality among the patients. He read a few figures to show the ratio of mortality and the cost of maintenance in four different asylums. In the City of London Asylum, the dietary cost 6s. 11d. per head weekly, and the mortality was 4.89 per cent; in the lunatic asylum in the county of Bucks, the dietary was 6s. 5¼d. per head weekly, and the mortality was 8.28 per cent.; in Sussex Asylum, the dietary was

still lower—viz., 4s. 10³/₄d. per head weekly, and the mortality 13.94 per cent.; in Wilts, where the dietary was lowest—viz., 4s. 7³/₄d. per head weekly, the mortality rose to 16.96 per cent. In Broadmoor, the dietary was about 5s. 9d. per head weekly, and the mortality about 2¹/₄ per cent. He could not give the honourable member for the Border Burghs much hope of further reduction at Broadmoor. He should advise the Home Secretary to consider very well before he consented to any change in the asylum.—Mr. FLOYER said that, according to the last return to which he had access, he thought there were 20 deaths among a total of 500 patients, which would be a mortality of 4 per cent. The patients of Broadmoor hardly corresponded with the general class of patients in the county lunatic asylums. At Broadmoor, there were four persons to keep an account of the stores. He could not imagine how all these persons could be required to do that work. In an asylum with which he was acquainted, there was about the same number of patients as in Broadmoor, but the account of the stores was kept by one officer. He would recommend that the accounts at Broadmoor should be kept in a simple way. He perceived by the last report of the Commissioners that, out of the 500 inmates at Broadmoor, 49, or 10 per cent., were confined to bed. That was much above the average in ordinary asylums.—Mr. WALTER explained that the authorities at Broadmoor had to collect some £7,000 per annum from different unions and parishes all through England with which they were in connection, and that this work involved a very large amount of correspondence.—Mr. RAMSAY thought that the inmates at this institution, whether they were regarded as criminals or patients, cost more than was necessary. The lunatics at Perth did not cost half so much for maintenance.—The vote was agreed to.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentlemen passed their primary examinations in anatomy and physiology at a meeting of the Board of Examiners on July 12th; and, when eligible, will be admitted to the pass-examination.

Messrs. Henry Charles, Stanley T. Thomas, Edward L. Brackbill, and Francis S. Pilkington, Students of Guy's Hospital; Samuel J. Gabriel, Norman Rushworth, Leonard P. Mark, Frank Rushworth, and C. Paget Hooker, of St. Bartholomew's Hospital; Arthur Price and James Fulton, of St. Thomas's Hospital; Frank Parish and Leicester C. Ponsford, of University College; Edward J. Biden, of the Charing Cross Hospital; and Percy Brown, of the London Hospital.

Nine candidates were rejected.

The following gentlemen passed on July 16th.

Messrs. Arthur D. Deane, Stephen H. Moore, Oscar B. Shelswell, and Charles Sage, of Guy's Hospital; Albert H. Rees and William R. Parker, of University College; Henry C. Burrows, of the Liverpool School; Lawrence Humphry, of the Cambridge School; Frederick R. Walters, of St. Thomas's Hospital; Herbert Smith, of St. Bartholomew's Hospital; George B. Wall, of the Charing Cross Hospital; Augustus H. Bampton, of the Westminster Hospital; and Vere E. Hunter, of St. George's Hospital.

Twelve candidates were rejected.

The following gentlemen passed on July 17th.

Messrs. Harrington Sainsbury, Robert S. Walton, and H. Montague Duncan, of University College; Ernest O. Stuart, J. Willoughby Hodgson, and Frederick Hitch, of Guy's Hospital; Herbert T. Griffiths and J. Gascoyne Webb, of St. George's Hospital; William Berthwaite and Alfred S. Mackrell, of St. Bartholomew's Hospital; J. Smith, of the Westminster Hospital; William Williams, of St. Thomas's Hospital; James H. Greensill, of the Middlesex Hospital; William E. Sicard, of the Charing Cross Hospital; and James Balls, of King's College.

Nine candidates were rejected.

The following gentlemen passed on July 18th.

Messrs. H. Wynter Shettle, Langford R. Heyland and Waller Dunn, of St. George's Hospital; John E. Hine and F. Howard Tinker, of University College; Greville M. MacDonald and Robert Brookes, of King's College; Samuel W. Sutton, of St. Thomas's Hospital; and Audley C. Buller, M.A. Cantab., of the Cambridge School.

Seven candidates were rejected.

APOTHECARIES' HALL.—The following gentleman passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, July 5th, 1877.

Blomfield, Arthur George, Barton-le-Clay, Bedford

The following gentlemen also on the same day passed their primary professional examination.

Binnington, Robert Croodson, St. Thomas's Hospital
Butterworth, John Tyngle, Birmingham General Hospital
Campbell, William Frederick, St. Mary's Hospital
Clowes, Joseph Smith, Guy's Hospital
Green, Thomas Beaufoy, University College
Leatham, Henry Blackburn, St. Thomas's Hospital
Lloyd, John Jenkin, University College
Powell, John James, St. Thomas's Hospital
Temple, Thomas Cameron, Middlesex Hospital
Weekes, Francis Henry, St. Thomas's Hospital

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 12th, 1877.

Fagg, Thomas William, Alkam, near Dover
Green, Thomas Beaufoy, Kendal
Rawson, Ernest, Taranaki, New Zealand
Wakefield, Thomas, 37, Nottingham Place
Wright, Arthur, 64, St. Mary's Terrace, W.

The following gentlemen also on the same day passed their primary professional examination.

Bowlby, Anthony Alfred, St. Bartholomew's Hospital
Fisher, Frederick Charles, St. George's Hospital
Webb, Charles Alfred, St. George's Hospital

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, June 12th, 13th, and 14th, the following candidates obtained the licences to practise Medicine and Midwifery.

Crozier, William Penny, Charles Hall
Knott, John Freeman Penny, Henry James
O'Donovan, Eugene

The licence to practise Medicine was also granted to—
Westry, George

MEDICAL VACANCIES.

The following vacancies are announced:—

BOITON UNION. Medical Officer for the Harwood District.
BRISTOL GENERAL HOSPITAL. Assistant House-Surgeon. Salary, £5 per annum, with board, lodging, and washing. Applications to be made prior to the 26th instant.
CELBIDGE UNION. Medical Officer for the Workhouse, and Consulting Officer for the Union. Salary, £100 per annum as Medical Officer, and £15 as Consulting Sanitary Officer. Applications to be made on or before the 25th instant.
CHARING CROSS HOSPITAL. Assistant-Physician. Applications to be made on or before the 24th instant.
FARRINGTON UNION. Medical Officer and Public Vaccinator for the Shrivenhams District. Salary, £70 per annum as Medical Officer, and £10 as Medical Officer of Health. Applications to be made on or before the 31st instant.
GLASGOW EYE INFIRMARY. Assistant-Surgeon.
HAVERSTOCK HILL and MALDEN ROAD PROVIDENT DISPENSARY. Medical Officer. Applications to be made on or before the 31st instant.
ISLE OF WIGHT UNION. Medical Officer for the Workhouse. Salary, £90 per annum, and fees. Applications to be made on or before 25th instant.
MALE LOCK HOSPITAL, Dean Street—House-Surgeon. Applications to be made on or before the 20th instant.
MORVEN, Parish of—Medical Officer.
ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—Two Assistant-Physicians. Applications to be made on or before the 31st instant.
SOUTHMOLTON UNION. Medical Officer for the North District.
WARWICK COUNTY ASYLUM. Junior Assistant Medical Officer. Salary, £100 per annum, with furnished apartments, board, and attendance.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

DICKSON, J. Dunbar, M.D., appointed House-Surgeon to the Buckinghamshire General Infirmary, *vice* G. H. Keyworth, M.R.C.S.Eng., resigned.
MACKENZIE, John A., M.B., appointed House-Surgeon to the Bolton Infirmary and Dispensary, *vice* Edward M. Garstang, L.R.C.P.Ed., resigned.
MERCIER, Charles, M.R.C.S., appointed Medical Superintendent of the Bethel Hospital for the Insane, Norwich.
STOCKEN, James, L.D.S.C.S., appointed Dental Surgeon to the National Dental Hospital, *vice* Anthony Hockley, M.R.C.S.E., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for insertion of names of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

DEATHS.

GROWSE, Robert, L.S.A., at Bildeston, near Ipswich, in his 80th year, on July 17th. *Pope, Edmund, M.R.C.S.Eng., of Brixton, aged 40, on July 15th.—Friends and patients please to accept this intimation.

BEQUEST.—The late Mr. W. H. Mulligan has bequeathed £100 to the Belfast Royal Hospital.

TESTIMONIAL TO DR. M. MACKENZIE.—A testimonial has lately been presented to Dr. Morell Mackenzie, by the staff, executive, and some of the patients of the Hospital for Diseases of the Throat. It consisted of a handsome clock and candelabra.

ON July 3rd, at the Glamorganshire Quarter Sessions, Mr. J. G. Hall, Senior Surgeon, and Dr. J. Paddon, Physician, to the Swansea Hospital, qualified as Justices of the Peace for the county.

THE QUEEN'S CHEMISTS.—The *London Gazette* contains an official announcement that the Queen has been pleased to appoint Messrs. Peter Wyatt Squire and Alfred Herbert Squire, jointly, to be chemists and druggists upon the Establishment in Ordinary to Her Majesty.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
THURSDAY...	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

FRIDAY.—Quekett Microscopical Club (University College, Gower Street), 8 P.M. Annual General Meeting.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; and those concerning business matters, non delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

FOUNDLING HOSPITALS.

SIR,—Can you inform me if there are any, and what, institutions other than the Foundling Hospital of a similar nature in London or elsewhere, and what are the conditions of admission?—Yours, etc.,

MEDICUS.

July 14th, 1877.

WE DO NOT know of any other institution of the kind than the Foundling Hospital in Guilford Street.

UNIVERSITY DEGREES.

SIR,—Your correspondent (M.D. and Master in Arts) in the JOURNAL of July 7th seems to me, from the tone of his letter, to be a graduate of Trinity College, Dublin. In the list of Universities that make "no restriction as to the youth of candidates" for their degrees in medicine, he omits to mention the University of Dublin. He also does not mention that degrees in arts and medicine can be obtained in that University without any residence *on or near* the University whatever; so that, except for his own statement, his degrees convey no proof of collegiate residence. He also is not quite correct in stating that "only three months' residence in a provincial town" is required of candidates for the medical degree of the Queen's University in Ireland, as the classes required could not be attended in less than six months by yours faithfully,

AN M.D., Q.U.I.

FEES TO ASSISTANTS.

ASSISTANT asks for information in the following case. A. (self), assistant to B. in a provincial town, is asked by another medical man, C., with whom he (A.) is friendly, to attend a confinement for him (C.), which occupies from 12 P.M. to 4 P.M., and for which C. sends his horse, etc. The assistant, A., is paid half the fee (10s. 6d.) by C. Of course, A. informs his principal of this. B. claims the fee from A. Is this customary for the principal B. to do? I presume the strict letter of the law would allow B. to claim this sum; but I am anxious to know if any rule exists among medical men on this point.

THE NEW MIDWIFERY DEGREE.

SIR,—In referring to the above degree in your issue of July 7th, it ought to have been stated that I was a candidate and passed the examination, but, owing to my not having the degree of Bachelor of Surgery of Trinity College (though I am a graduate in Medicine and Arts), the Board decided, at the eleventh hour, that they could not confer the degree on me. The existing rule enforces candidates for the midwifery degree to have both the M.B. and B.Ch. It is to be hoped that the present rule will be changed; and that graduates in Medicine, although they possess other surgical qualifications than that of the Dublin University, will be eligible for the degree of *Magister Artis Obstetriciæ*.—I am, sir, yours truly,

RICHARD THOMAS HEARN,
M.B. Dub. Univ., L.R.C.S.I., Assistant Master Coombe Hospital.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

A DISEASE RESEMBLING HAY-FEVER.

Dr. T. E. Clark (Clifton) writes:—I firmly believe that, if the character of the mucous membrane of the nose could be altered, the case would be cured. I should obtain the cæcum of a fowl, insert it in the nostril, inject it with tepid water, then tie it to prevent the fluid from escaping, and attach to it the wire from the zinc side of either a six- or twelve-celled continuous battery, the copper side being applied by a moistened sponge to the superior cervical ganglion of the sympathetic. The application should be continued for five minutes at first, and gradually increased to fifteen minutes or longer. At first, it should be used morning and evening. I should also give liquor arsenici bromidi ℞i, with food, three times a day. I presume there are no vibrations developed in the mucous membrane; but even then I believe the galvanic current would destroy the nidus.

Mr. Douglas Hanning writes:—I would suggest to Mr. Briscoe to advise his patient to try, if he have not already done so, the local application of carbolic acid. I have myself suffered for many years in a similar manner to Mr. Briscoe's patient, though not to such an extreme degree, and have tried various remedies, with but slight success. This summer, however, I was advised to try the effect of carbolic acid applied to the interior of the nostrils. I first used the glycerinum acidi carbolici of the *British Pharmacopœia*, but this caused such extreme smarting, violent sneezing, and great irritation, that I abandoned it. I have accordingly for some time been using a mixture of carbolic acid and vaseline (thirty grains to one ounce). The effect has certainly hitherto been beneficial. The sneezing and running from the eyes have been considerably less, and the general "stuffy" feeling of the nasal passages has been somewhat relieved. Vaseline will, I think, be found an excellent vehicle for the application of remedies to the nasal mucous membrane, as it is soothing and pleasant.

C. says:—If the ears of Mr. Briscoe's patient have not been examined, I should recommend him to do so. There may be some source of irritation there. If no perceptible cause can be found in them, a direct sedative to the nerves supplying the Schneiderian membrane can be applied through the ears.

Dr. Llewelyn Thomas says:—I have no doubt that the case mentioned by Dr. Briscoe is an exaggerated form of what is usually considered to be hay-fever. From observation, I believe that exposure to the glare of the sun greatly aggravates the symptoms, especially those appertaining to the ophthalmic mucous membrane, though probably the primary exciting causes are floating vegetable particles. It is very interesting in this case to note that, even in the higher regions of the Alps, the symptoms still did not cease till the heat diminished. I have reason to consider that hay-fever has been very prevalent this season; and I can assert that age has no influence in mitigating its very distressing effects, as I have had this year under my care cases ranging from six years to eighty years of age, the two extreme ages suffering the most severely. Hoarseness and loss of the singing voice have been a prominent symptom in two cases, accompanied by but slight congestion of the laryngeal membrane. The treatment which I would suggest in Dr. Briscoe's case is one which I have found exceedingly beneficial and grateful to the patients—namely, the inhalation, twice or thrice daily, of the smoke from the combustion of a powder composed of datura stramonium, datura tatula, each one ounce, and nitrate of potash, five drachms, powdered and mixed; a teaspoonful placed on a metal or porcelain surface, and ignited.

H. H. G. writes:—I should be glad to know wherein the disease referred to by Mr. Briscoe differs from hay-fever. I am an otherwise healthy gentleman, aged 38, and have suffered for thirty-five years from all the symptoms so clearly detailed by Mr. Briscoe's patient, and have always understood that the complaint is hay-fever. All these symptoms are described in works on the subject; but, alas! no certain remedies are mentioned. It is, I thought, well known that the irritation of the eyes and the fits of asthma proceed, not from the sneezing, but from the same causes, whatever they be, that produce the sneezing itself. Benzoic acid, evolved from the flowering grass, and, more recently, "vibrios" ("bacteria"), hatched in the same "nidus", have been successively accused of being the irritating cause. After a very large experience of many districts at home and abroad, and of still more drugs and applications, I can certainly recommend to try placing, in a wide-mouthed (e.g., a scent-) bottle, a piece of sponge moistened with a mixture of chloroform, camphorated spirit, and laudanum, and sniffing at it vigorously directly the irritation is felt. For the asthma, drawing the fumes of cigarettes of tobacco or stramonium into the lungs till a slight feeling of giddiness and sickness comes on, will almost certainly produce expectoration and give relief; while bathing the eyes with very hot water and a little laudanum will relieve the irritation in those organs. The seaside is the best place *as long as the wind is from the sea*; but, on the whole, my experience during the whole hay-fever season convinces me that, in my case at least, London is by far the best place. Burning touch-paper in the bedroom is another excellent way of preventing, as well as curing the fits of asthma. My experience is that the attacks become less and less severe every year, and last a shorter time. Though I never had it as late as September, and generally am quite rid of the complaint by the end of July, yet I once had a very sharp attack, in the South of France, in August, from walking through a field of maize in bloom. I have read that various flowering plants are, in certain countries, charged with producing the symptoms; and, according to my own experience, "grass-fever" would be a more appropriate name for this distressing complaint. "Vibrios" or not, the irritating causes appear amenable to the influences of anaesthetics and of the oxides of nitrogen evolved in burning touch-paper or tobacco, but they are not apparently attacked by quinine or carbolic acid, both of which are supposed, I believe, to be fatal to the organisms in question under other circumstances.

DEFICIENCY OF LACTAL SECRETION.

SIR,—Can any of your readers inform me if there be any really efficient milk-producer? A patient of mine, now pregnant for the fourth time (her first child being only two years and a half old), is very anxious to suckle her coming baby. She has well-developed mammary glands and nipples, and everything seems to promise a good supply of milk, but such supply never appears. I have tried many drugs and many diets, but, as the patient says, "everything seems to go to fat" (she becomes exceedingly stout during the first two or three months after confinement), "and nothing to milk." Hoping you will find space for this note in your valuable JOURNAL, I remain, yours obediently,

SCIENTIFIC.

July 13th, 1877.

M.B. ASKS where he can meet with past examination papers for the Army Medical Service, to serve as some guide to the character of the examination. An application to the Medical Department has been unsuccessful.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the **BRITISH MEDICAL JOURNAL**, should be forwarded direct to the **Publishing Office, 36, Great Queen Street, W.C.**, addressed to **Mr. FOWKE**, not later than **Thursday, twelve o'clock.**

PEPSIN.

SIR,—I appear to have been the only person who has written on the subject of the various kinds of pepsin in circulation is what has been frequently repeated, namely, that in the beginning dry preparations act quite well, but that they do not keep for any length of time. The researches of Panum and Preyer have shown that, of the various solutions, the best is the pepsin-essenz of Oscar Liebreich.

A QUERIES.

SIR,—The Grainger case just tried in this city gives rise to an interesting legal question.

From the summing up of Baron Huddleston, it appears that, however convinced the jury might have been that the wound was not accidentally inflicted, the prisoner would nevertheless have been acquitted, because it was doubtful whether the fatal hæmorrhage resulted from the wound or the operation.

If, therefore, a wound be unlawfully inflicted, and an unsuccessful operation follow, the prisoner will be acquitted, provided there be a doubt as to whether the immediate cause of death is the operation or the wound, *no matter how certain*

This, it would seem, is the letter of the law; but is it not contrary to the spirit of justice?—Yours, etc.,
GLYNN WHITTLE, M.D.
25, Holywell Street, Oxford, July 9th, 1877.

SIR,—The attention which has lately been directed in your **JOURNAL** to "maternal impressions" will apparently fail to supply evidence which can be accepted as sufficiently conclusive on the subject if, like previous attempts of the same kind, it should continue to lead only to the accumulation of fresh cases in illustration of this alleged cause of congenital defects. A very large proportion of the cases which have been from time to time referred to maternal impressions must be rejected, because the age of the fœtus was too advanced for the impression to have produced any such local arrest of development as was necessary for the production of the defect. In cases, for example, of hare-lip, which are not unfrequently referred to this cause, the fœtus has often been past the age at which such an occurrence was possible; for, as I have had occasion to state in my paper on the Influence of Age in Hereditary Disease, the laws of embryonic development only admit the possibility of this defect occurring within a very circumscribed period of fetal existence. In many cases, the occurrence of congenital defects can be directly traced to some endemic influence injuriously affecting the health of the parents, and consequently disturbing the development of their offspring. Until a comparatively late period, the offspring of the larger Felidae confined in the Zoological Gardens in the Regent's Park were almost without exception born with cleft palates; but, during the last few years, this tendency to local arrest of development has been to a great extent overcome by improvement in hygiene.

Perhaps one of the strongest arguments in favour of an emotional impression influencing development is that supplied by Mr. Carter (*On the Pathology and Treatment of Hysteria*, p. 24, cited by Dr. Carpenter). "A lady, who was watching her little child at play, saw a heavy window-sash fall upon his hand, cutting off three of its fingers: and she was so much overcome by fright and distress as to be unable to render it any assistance. A surgeon was speedily obtained, who, having dressed the wounds, turned himself to the mother, whom he found seated, moaning, and complaining of pain in her hand. On examination, three fingers, corresponding to those injured in the child, were discovered to be swollen and inflamed, although they had ailed nothing prior to the accident. In four-and-twenty hours, incisions were made into them, and pus was evacuated; sloughs were afterwards discharged, and the wounds ultimately healed." But even evidence of this kind falls very short of what would be required to establish the probable influence of an emotional impression of the mother on the development of her offspring; and many of the most distinguished members of the medical profession, especially in former years, have strenuously opposed this popular doctrine. The late Mr. Hey of Leeds even went so far as to assert that, according to his own experience, "women are more apt to have deformed children when they are not frightened during pregnancy than they are when such frights have occurred."

It has been very generally admitted by those who have directed special attention to this subject that the accumulation of the *post hoc, ergo propter hoc*, evidence of highly sensitive mothers has not hitherto been of much service in the inquiry. Some years since, an attempt was made at one of our charitable institutions to note down the most remarkable impressions which had affected, during the earlier months of pregnancy, women about to become mothers. But the result of the inquiry, which was, I think, too limited to be regarded as conclusive, was not favourable to the belief that maternal impressions lead to congenital defects in the offspring. If a more extended inquiry of this kind could be systematically carried out, under suitable direction, it would probably supply some useful information on the subject; and it might also possibly assist in showing that this popular belief is very commonly founded on popular fallacy.—I am, sir, yours,
WILLIAM SEDGWICK.
12, Park Place, Upper Baker Street, July 1877.

MEDICAL TITLES.

SIR,—I have glanced at the letter of "A Disgusted M.D." and the rest of the series with an exhausted interest. It is now upwards of thirty years (*Eheu fugaces anni!*) since I approached the portals of the profession and began to look into the medical journals. There was much in them that I could not understand; but, with a boy's love for a fight, I greatly enjoyed a lively contention then going on in their pages on the medical titles question, and the respective worth of divers diplomas and degrees. With occasional intermissions and some variations, substantially the same contest has been prolonged ever since; and now, at the end of a thirty years' war (*melior mio pede*), I am disposed to ask the question—which the visitor put when he was shown the hall of the Sorbonne, where the doctors had disputed for four hundred years—"And what have they settled?" Is it not time that this chronic and useless polemic should cease? Is there no "Eirenikon" effectual to stay this continual letting out of the waters of strife? It seems to me that unwarrantable assumption on the one hand, illiberal jealousy on the other, and ignoble vanity all round, are the miserable motives which incite and sustain these unseemly disputes. After all has been said, "Qui sis, non unde," is the principle which the public adopts in judging of our merits; and it is better than blindly accepting the mere mint-mark of any examination board.—I am, sir, your obedient servant.
Manchester, July 1877. A. P. H. M.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

HEALTH OF THE JOURNAL.

SIR,—In the **BRITISH MEDICAL JOURNAL** of May 26th, a correspondent asks what dynamite contains that causes pain in the head; and relates the case of a patient of his who is unable to work with dynamite on account of the effect that it produces on his head. This property of dynamite is due to the nitroglycerin that it contains. I have been assisting Dr. Lauder Brunton in some experiments on nitroglycerin, and during the time of the experiments and for some hours afterwards we both had headaches. These, in Dr. Brunton's case, continued as long as the experiments lasted; in my own case, they passed off after about the first week. As nitroglycerin is non-volatile, the amount that passed into the system must have been exceedingly small. This effect of nitroglycerin has also been observed by other experimenters.

Yours truly,

Library, St. Bartholomew's Hospital, July 14th, 1877.

E. C. TAIT.

CONSULTATION FEES.

SIR,—Will you kindly favour me with your opinion on the following.—A. and B. are partners. A. attended Miss T. for some time, and then left home; B. took charge of the case. After two or three weeks, Miss T., of her own accord, left home, and placed herself under the care of Professor X. While under his treatment, she wrote apprising B. of her state. A. returned home, and Miss T.'s mother told him that her daughter was being treated by X., and expressed the anxiety she felt regarding her. A. being well acquainted with X., and, having previously frequently corresponded with him, volunteered to write to X.; he did so, stating the above particulars, and asking how Miss T. was progressing. X. replied. He complained that Miss T. had brought no letter from B., "the regular and proper way for consultation"; he briefly stated his diagnosis of the case, adding that she would return home in a few days; and he wrote—"you can cause a fee to be sent for this consultation letter". Now, considering that Miss T. was an ordinary patient of X.'s, temporarily residing in the town where he lives, and that she was, as such, regularly visited by him, further, that B. did not recommend her to consult X., and that A. was, as formerly stated, a private friend of X.'s and wrote him as such—X. entitled to charge a consultation fee for his brief note? and, if so, is A., or Miss T.'s mother, responsible for it?—Yours, etc.,
A.

* Assuming the facts to be as stated, we do not think that X. ought to charge a consultation fee.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest.—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; etc.

* We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. W. O. Priestley, London; Dr. M. A. Eason Wilkinson, Manchester; Dr. G. Johnson, London; Dr. Bradbury, Cambridge; Mr. Howard Marsh, London; M.B.; Dr. Fancourt Barnes, London; Assistant; Dr. Davies, Brecon; Dr. J. W. Moore, Dublin; Dr. Edis, London; Dr. Joseph Bell, Edinburgh; Dr. Collicie, Homerton; Dr. Davies, Swansea; Dr. Warner, London; Dr. George Hoggan, London; Sceptic; Dr. Mickle, Bow; Mr. Farrant Fry, Swansea; Mr. G. Eastes, London; The Secretary of Apothecaries' Hall; Dr. J. Milner Fothergill, London; Dr. W. Fairlie Clarke, Southborough; The Registrar-General of England; Dr. A. S. Taylor, London; Dr. F. A. Mahomed, London; Dr. Tripe, Hackney; Mr. Wanklyn, London; The Registrar-General of Ireland; Mr. Burdett, Greenwich; Mr. T. M. Stone, London; Dr. Sawyer, Birmingham; Dr. Henry N. Edwards, Shrewsbury; Mr. J. E. Ingpen, Putney; Mr. J. J. Pickles, Leeds; Mr. J. Ransome, Chichester; Mr. William Sedgwick, London; Dr. Goldie, Leeds; The Secretary of the Obstetrical Society; Dr. Joseph Rogers, London; Dr. Robert J. Lee, London; Dr. James Russell, Birmingham; Dr. Robert S. Hudson, Redruth; Our Paris Correspondent; Mr. Alban Doran, London; Surgeon-Major; Fairplay; Dr. Thornburn, Manchester; Mr. R. W. B. Nicholson, Hull; W. W.; Mr. Square, Plymouth; Mrs. Leith, Ashby-de-la-Zouch; Sir E. H. Currie, London; Dr. Harris, Redruth; Mr. C. J. Harris, London; The Rev. M. J. Fuller, London; The City of Boston Board of Health; The Secretary of the Quekett Microscopical Club; Mr. W. Prowse, Cambridge; Dum Spiro Spero; Our Dublin Correspondent; Dr. G. H. Philipson, Newcastle-upon-Tyne; M.D. Edin.; Dr. Rutherford, Edinburgh; Dr. J. Davies, Maesteg; Sir W. Gull, London; Dr. G. T. Mockett, St. Ives; Mr. Walter Pye, London; Dr. D. J. Leech, Manchester; Mr. W. M. Banks, Liverpool; Dr. Galabin, London; Mr. E. J. Adams, London; Mr. J. A. Irwin, Manchester; Mr. W. D. Spanton, Hanley; Dr. Falconer, Bath; Dr. Macpherson, London; Mr. F. A. Clark, Hull; Dr. Goyder, Bradford; Our Correspondent with the Turkish Army in Asia; Dr. Maclagan, Dundee; Dr. John Hayes, Kaipoi, New Zealand; Dr. Arldge, Stoke-on-Trent; Mr. Holder, Hull; Mr. Philip Hill, Crickhowell; Dr. James Ross, Manchester; Dr. Bateley, Yarmouth; Dr. W. E. Dring, Faversham; Dr. A. Davies, Swansea; Dr. J. Duncan, Edinburgh; Mr. F. Vacher, Birkenhead; M.D.; Dr. Barlow, London; Mr. E. S. Tait, London; Medicus; L.S.A.; Dr. Phillimore, Nottingham; Rolling Stone; Dr. Kelly, Taunton; Dr. Talfourd Jones, Brecon; M. E. de Watterville, London; A Doctor; Mr. N. A. Humphreys, London; Mr. Maclure, London; Dr. Percy Boulton, London; etc.

LECTURES

ON THE

DIAGNOSIS AND TREATMENT OF HIP-DISEASE
IN CHILDREN.*Delivered at the Hospital for Sick Children.*

BY HOWARD MARSH, F.R.C.S.,

Assistant-Surgeon to St. Bartholomew's Hospital, and to the Hospital for Sick Children, Great Ormond Street.

LECTURE III.

Treatment by the Weight and Pulley.—During this plan of treatment, it is a *sine quâ non* that you provide the child with a separate bed. In any case in which the parents are too poor to buy one, a wooden tray, to be had anywhere for a few shillings, will answer the purpose. Choose a firm and rather thin horsehair or flock mattress, and put the leaf of a table or something of the kind under it to keep its surface level. A feather-bed or a thick mattress soon becomes uneven. Do not be afraid of bed-sores in children who are properly attended to. Except in cases of extreme exhaustion, bed-sores in children are scarcely ever seen. Do not use a common-sized pillow; the child will get his shoulders upon it, and then there will be a tendency for him to slide down to the foot of the bed, and also his trunk will be raised—a position equivalent to flexion of his thigh. The best kind of pillow is one large enough only for the head, and wedge-shaped, so that it brings the head forward and allows the child to see things around him without raising the shoulders. It is useless to apply the weight while the child lies on his side. He must be on his back. There are two means for maintaining this position. 1. An ordinary long splint, with a cross-piece at the foot to keep it from rotating, may be applied to the opposite or sound side from the armpit to below the foot. I wish particularly to direct your attention to the practice of using the long splint, not for the affected, but for the sound side. A limb, in hip-disease, as a rule, when you begin to treat it, presents an outline to which you cannot satisfactorily adapt a straight splint. Some surgeons have the splint "interrupted" opposite the joint; but then it fails to give the limb any useful support; and, when the child is lifted, or when he tries to move himself, it is much more likely to wrench the joint than to protect it. On the affected side also, the splint may press on an abscess that is forming, and its bandages may interfere with the circulation; but, on the sound side, it is more effectual in keeping the child at rest, and also, by affording a kind of counter-extension by steadying the trunk and sound limb, favours the action of the weight. 2. To keep the shoulders flat, you may use a chest-band, consisting of a cross-piece of webbing or cloth, with armlets, passed through a strip of strong webbing tightly strained across the surface of the bed beneath the shoulders (see figs. 8 and 9). By these appliances, the child is effectually kept at rest as regards his trunk and sound limb. The chest-band may seem to you too severe a discipline; but, as a matter of fact, children never mind it. It leaves the arms full play, and it is only felt as a restraint when the patient tries to sit up. If it be worked in coloured worsted, the child looks on it as a piece of finery, like a ribbon for the hair. Another means for keeping a child on his back is Thomas's splint, which will be presently described. The best method of fixing the weight is by the common strapping "stirrup". This should be stout and strong. The twilled strapping prepared by Mr. Ewen of Jermyn Street, and the moleskin strapping sold by Messrs. Maw and Son of Aldersgate Street, are both well adapted for the purpose. Cut a strip two inches or two inches and a half wide, and long enough to reach, when doubled, from the middle of the thigh to three or four inches below the sole. Double it on itself and convert its rounded loop into a rectangular one, by fixing into its concavity a piece of wood, shaped like a visiting-card, of the same width as the strapping, and long enough to spread the sides of the loop so that they may not touch the malleoli; run the cord for supporting the weight through a central hole previously bored in the wood and through the stirrup at a corresponding point, and secure it with a knot; then fix the "spreader" in its place by means of a second piece of strapping surrounding it and the stirrup transversely. The stirrup is now ready for use. It is applied so that its ends run up the inner and outer surfaces of the limb to the middle of the thigh—it is better to have the weight act from the thigh rather than from the leg alone—and the strips are then fixed by frequent transverse pieces encircling the limb, the lowest of which should be a clear two inches above the malleoli—if nearer, it may produce swelling of the foot—and over these a

thin flannel or domette bandage is applied. The successive turns of the bandage should be stitched together in three vertical lines down the limb, to prevent their slipping, or they may be fixed by being brushed over with thin paste. It is better to allow the strapping eight or ten hours in which to become firmly settled upon the limb before the weight is suspended from it, otherwise it may gradually slide down. A well applied stirrup will last for two or three months without alteration. There is no better or cheaper form of pulley than a large cotton-reel with deep rims threaded over a carpet-rod, and fixed by some simple means to the framework at the foot of the bed. It is often very useful to support the limb by sandbags, one of which is placed on the outer side from near the axilla to the foot, the other between the legs. Place a small cradle over the foot to protect it from the weight of the bed-clothes; and, in winter, keep the foot warm by wrapping it in cotton-wool or soft flannel. If the child slide down towards the foot of the bed, place a brick or a block of wood of a similar shape between the board and the frame of the bed (fig. 8). This plan is more secure than raising the feet of the bedstead.

The direction in which the weight is made to act is of the greatest importance. This must be in the long axis of the limb in whatever posture the thigh has, in the course of the disease, become fixed upon the trunk. Before the pulley is fixed, the limb—when you have gently straightened the knee—must be carried in any direction that is necessary to remove all anterior curvature of the lumbar spine, and all twisting of the pelvis; that is, you must first remove all compensatory curvature of the spine, and thus place the limb in its true position. To do this, if the spine be curved forward, raise the limb till the spine is flat (fig. 6); if the pelvis be too low on the affected side, abduct the limb;

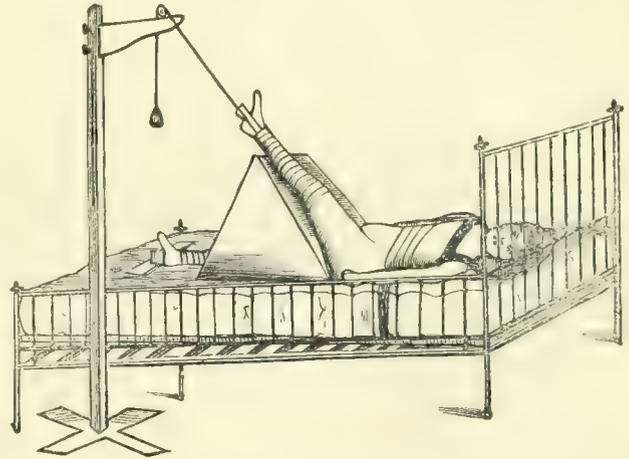


Fig. 6.

if too high, adduct it, until in either case the two iliac spines are on the same level; then fix the pulley at some convenient point in the line of the long axis of the femur. Observe, when the pulley is thus placed, the force you are using is that of *simple extension*. If, on the other hand, your pulley be at a point not coincident with the axis of the femur, you are not using simple extension, but leverage. Thus, in fig. 7, the femur is a lever of the second order; and F, the acetabulum,

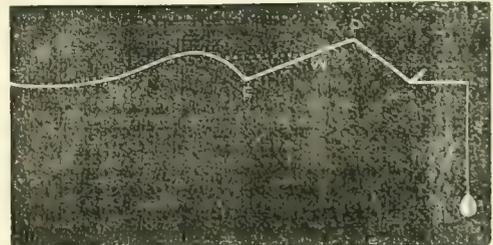


Fig. 7.

is its fulcrum; the muscles passing from the spine and pelvis to the femur are the resistance, and may be represented by W, and P is the power acting on the femur by means of the weight-extension. The force thus applied, though, of course, more gentle in its action, is of the same kind as that used when you forcibly straighten the limb under chloroform, and it is open to the same objection, that it makes a

fulcrum of the acetabulum. In acute disease, if the pulley be placed as in fig. 7, the child's pain will be increased; while, if it be put in a line with the femur, pain is generally at once relieved.

When you have removed the curvature of the spine, the limb will be more or less flexed and generally either abducted or adducted; and, whatever its position may be, in this you must support it with a pillow or with some padded framework. Now, if the limb be simply flexed, the pulley must be raised to the requisite height in the line of the trunk (fig. 6). But, if there be also abduction, the pulley must be carried outwards towards the side of the bed (fig. 8). If the limb be adducted so that

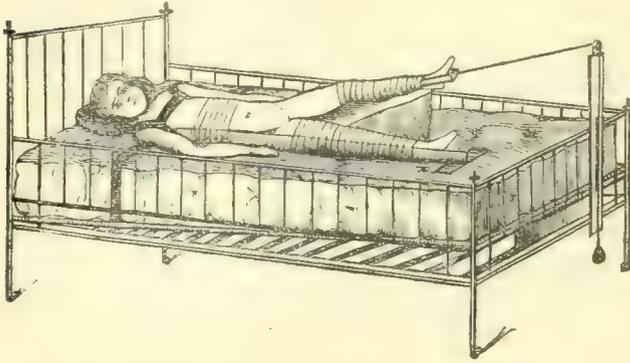


Fig. 7.

it crosses the opposite leg, the pulley must occupy a corresponding position (see fig. 9). Subsequently, as the muscles and other rigid structures yield, the limb will subside into its natural position until it is in full extension and parallel with its fellow. As this change goes on, you must gradually shift the pulley, so that it is kept still in the line of the long axis of the femur, and, at the same time, the height of the pillow supporting the limb must be gradually diminished. The rule for moving the pulley and diminishing the height of the pillow is this. About once a week, while you hold the limb well extended by grasping it above the ankle, so that the articular surfaces are kept apart, direct the nurse to detach the weight and remove the pillow, and then you bring the limb down as far as it will come without arching the spine; and either adduct it or abduct it (carrying it towards its natural position) as far as you can without disturbing the pelvis. You will thus see how much you have gained, and you can have the pulley and the height of the pillow re-adjusted accordingly.

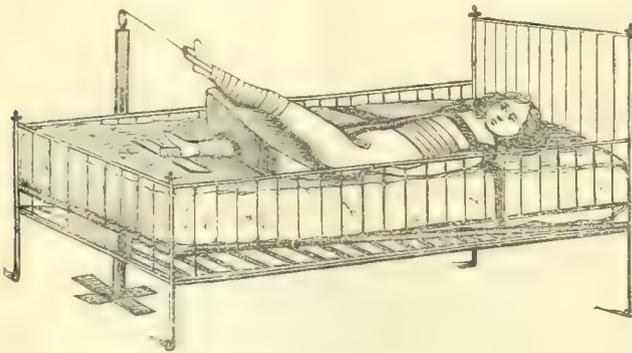


Fig. 8.

In cases, however, in which there is long-standing and considerable adduction—or, in other words, considerable apparent shortening—the deformity will not yield, or will yield very slowly, to simple extension. Then the following plan may be adopted. First, having applied the long splint to the sound side, remove flexion, if it be present, by means of the weight, as already described; then, when the limb can be placed flat on the bed, apply a heavy weight, say five pounds, to the foot in the usual way; place an outside splint on the diseased limb from the sole to the middle of the thigh; fasten three rings to this at different heights along its outer side, and to these rings attach weights and let them hang over the side of the bed (fig. 10). The weights should be about two pounds each. They will generally cause no pain; but, if they

do so in any case, they must be diminished. In the course of three weeks or a month, this plan will remove long-standing adduction, so that the apparent shortening, that perhaps has amounted to an inch and a half or two inches, is corrected.

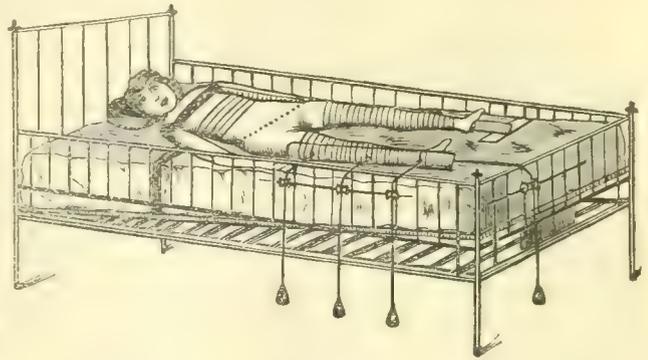


Fig. 9.

I think, if you have not watched the treatment of distortion following hip-disease by means of the weight and pulley, you would be surprised to see what it will accomplish. Of course, if there be bony ankylosis at the joint, the weight cannot alter the posture of the limb; but, in cases in which the joint is fixed only by fibrous adhesions and contracted muscles, the restoration of the limb to its normal posture is, in the large majority of instances, only a question of time. I have lately seen two cases in which the thigh had been flexed within a right angle with the trunk, in one for more than a year, in the other for nine months; and in both deformity was removed, so that the limb was fully extended in a little over two months. Some of the most striking effects of the weight have been seen in cases in which there was considerable apparent shortening. The plan described above for removing this distortion by lateral weights is very easily carried out, and it requires no apparatus that cannot be had anywhere for a few shillings. It needs, no doubt, careful supervision—what method does not?—but an intelligent mother or nurse can soon learn how to manage it, and it will be enough if you see your patient about twice a week. It can be carried out without pain and with no discomfort to the patient.

When deformity has been removed, and the patient has taken to the habit of recumbency, the long splint and the armlets may, if he can be watched, be removed, and treatment by the weight only be continued. For what period this latter may be required depends on a variety of circumstances: the duration of the disease, its severity, the formation of abscess, etc. Perhaps the best rule is, that the weight should be constantly applied for at least three months after all symptoms have disappeared, and then that the child should, by slow degrees, be advanced to the stage of using crutches. But, for many months—six or nine—or for a year, the weight should be worn at night; so that any tendency there may be to return of distortion may be counteracted. This use of the weight at night is a matter of great importance. If it be neglected, you will find in many cases that, although all active disease has ceased, the limb will, in the course of a few months, become flexed upon the trunk, so that the child walks more and more upon his toe, and with more and more lordosis. In cases of real shortening, before the patient is allowed to walk on the limb, he must have a high boot. This should be made with the front part of the sole very nearly as thick as the heel, so that the child, instead of being made, as is the case when the common "high heeled" boot is used, to walk on his toe—that is, with his leg bent—may bring his foot horizontally to the ground.

The second method of treatment that I must describe is the American. This has for its object to apply extension and counter-extension to the joint, and thus provide for the repair of the disease, while the patient is up and taking exercise. To do this, various instruments—all of them modifications of one originated by Dr. Davis—have been recommended; but I need only refer to two of them—Dr. Sayre's and Dr. Taylor's—which are improvements on the rest. In Sayre's splint (fig. 11), A is a metal plate with which is connected a perineal band; to A is fastened, by a ball-and-socket joint, a steel bar (C D), which runs from just below the crest of the ilium nearly to the knee, on the outer aspect of the limb. This bar consists of two parts running the one within the other—an upper hollow and a lower solid piece; at E is a cogwheel worked with a key, by which D is made either to ascend within or protrude from C; F is a catch for fixing D.

Thus C D can be lengthened or shortened at will. At the lower end of C D is a branch passing over the front of the thigh to the inner aspect of the knee. At G H are two buckles pointing downwards. To prepare the limb for the splint, a piece of strapping is applied longi-

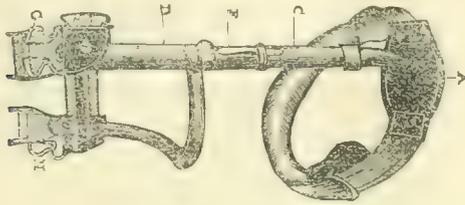


Fig. 11.

tudinally to the outer side of the thigh, and a like piece to the inner side, and both are fixed with a baudage. The lower free ends have a webbing tongue stitched upon them. The splint is now laid along the outer side of the limb, the perineal band is made secure, and the free webbing ends of the two pieces of strapping are turned up over rollers and fastened to the buckles, and extension and counter-extension are produced by protruding D from the canal of C by means of the cog-wheel at E, and maintained by the catch at F.

Taylor's instrument is shown in fig. 12 (next lecture). Both the outside bar and the strapping extend from the hip to the ankle, and thus the apparatus is altogether longer than that of Sayre. The bar terminates above in a very firm pelvic girdle fitted with two perineal bands strong enough to support the weight of the patient "without yielding in the least". Below, the bar ends in a foot-piece. This consists of a horizontal plate about an inch and a half wide, which turns at right angles beneath the sole. A leather strap passing transversely beneath the sole and through apertures at each side of this plate is fastened to buckles, stitched on the free ends of the strapping running up on either side of the limb. As the foot-piece projects below the level of the sole for nearly two inches, "the sound limb should have the same amount added to its length by means of increasing the thickness of the shoe worn on that foot". The instrument should be so adjusted that there is a little space between the foot and the foot-piece; so that, in walking or standing, the weight may not rest on the limb, but the whole of the weight of the body should rest directly on the instrument.

The time at my disposal does not allow me to do more than thus very briefly to describe the principle of these instruments and the method of their construction; and in so short a notice it is not possible to do them justice. But you may find a full account of them in Professor's Sayre's recently published *Lectures on Orthopaedic Surgery* (Churchill, London), or in Dr. Taylor's essay on the *Treatment of Disease of the Hip-joint* (New York). The object at which they aim is undoubtedly most important, and they are constructed with great mechanical skill; yet I confess I have found it extremely difficult to obtain satisfactory results by their use. I suppose the greatest amount to which the surface of the head of the femur can be separated from that of the acetabulum cannot be more than about the tenth of an inch. And it is very difficult to preserve efficient extension and counter-extension within this range; for the parts cannot be acted upon as if they were parallel metal plates to be adjusted by a screw; they must be controlled through the agency of perineal bands and strapping fixed upon the skin, and all these are apt to give when they are subjected to constant traction; and, if they yield, though it be but slightly, they soon, in the aggregate, lose this tenth of an inch of extension which they should maintain, and then the articular surfaces come again into firm contact. Besides, I may refer to what has seemed another difficulty. Both Dr. Sayre and Dr. Taylor allow their patients to move the thigh upon the trunk by bringing it towards flexion, and it has always appeared to me that, if the perineal band be adjusted, according to their direction, when the limb is extended, it will become loose when the limb is flexed. However, I have not had the good fortune to see Dr. Taylor carry out his treatment (though I once saw Professor Sayre apply his splint to a patient in the hospital); but the results published both by him and Professor Sayre are very striking, and are such as all may envy. Still, I cannot help thinking that, with either instrument, extension and counterextension can only be maintained by such an amount of incessant watching as cannot be secured in the usual course of practice; for, so far as I have observed, the perineal band requires readjustment—when the child is

up and about—several times in an hour, and it always grows loose in the course of the night. Again, perineal bands must always be very troublesome appliances in young children, especially in girls.

REMARKS ON OPHTHALMIC THERAPEUTICS AND THE TREATMENT OF THE COMMONER DISEASES OF THE EYE.

Being Extracts from the Address delivered at the Annual Meeting of the South Wales and Monmouthshire Branch of the British Medical Association at Brecon, July 11th, 1877.

By TALFOURD JONES, M.B. LOND.,

University Medical Scholar; President of the Branch; Lecturer to the Breconshire Infirmary; etc.

AS practitioners of general medicine, we must feel extremely indebted to ophthalmic surgeons for the precise, methodical, and excellent work which they have done during recent years. A complete and exact knowledge of ophthalmology can only be acquired by one who makes up his mind to devote the greater portion of his lifetime to the special study of diseases of the eye; but a general knowledge of this most important subject can, and should, be mastered by all those who practise general medicine, and who necessarily in the country undertake the treatment of ocular diseases. Yet, it is not simply in order to treat skilfully diseases of the eye that we should all earnestly seek to make ourselves proficient in this interesting though difficult branch of medicine and surgery, but, as practitioners of the healing art, it becomes our duty to familiarise ourselves with the means which ophthalmic surgeons have placed at our disposal for the diagnosis and study of so many general diseases.

But, it is not to ophthalmic surgeons only that we, as physicians and surgeons, are indebted, for we are equally indebted to those physicians whose zeal and love for medicine led them to make early use of the ophthalmoscope for the more complete study and diagnosis of diseases of the nervous system, and who have by their industry and genius placed at our disposal information of surpassing value.

Up to very recent times, it was considered impossible to see into the interior of the eye, nor was it supposed that any instrument could ever be discovered whereby such a view could be obtained, for it was long held that the pigment of the choroid absorbed all the light which entered the eye, and that, therefore, a luminous reflex could not be obtained. We, however, of this generation possess in the ophthalmoscope an instrument which enables those who are skilled in its use to see at a glance to the innermost depths of the eye, to view with ease the veins and arteries of the retina, and to detect all those pathological changes in them which disease induces.

Most of you, it is to be hoped, have read the interesting address which Dr. Hughlings Jackson delivered before the Medical Society of London on Ophthalmology in its Relation to General Medicine, and which has recently been published in our JOURNAL. He shows in vivid words how we all may, by well-directed efforts and patient study of ophthalmology, make ourselves not simply oculists, but abler and wiser physicians.

[Dr. Talfourd Jones here quoted and summarised several paragraphs from Dr. Hughlings Jackson's address, lately published in the JOURNAL; referring also to the labours of Dr. Clifford Allbutt, Mr. Jonathan Hutchinson, Dr. John Ogle, Mr. Brudenell Carter, and others.]

I would urge upon you the advisability of using more generally the ophthalmoscope in the investigation of cerebral, arterial, and renal disease. Without its aid, many important pathological conditions must escape our notice; and it is clearly the duty of those who undertake the treatment of disease to make themselves familiar with the use of so valuable an instrument. Without its aid, what can we know of such diseases as optic neuritis, simple atrophy of the optic nerve, embolism of the retinal arteries, retinal hæmorrhages, and the characteristic retinal changes in Bright's disease, or, indeed, any other disease of the fundus oculi? and yet those pathological conditions are of extreme interest to the general practitioner of medicine.

Now, gentlemen, although I would urge you to make yourselves familiar with the use of the ophthalmoscope for purposes of diagnosis and treatment, special and general, and would advise you to study the means now employed for testing abnormal refraction, for investigating astigmatism, and thus be enabled to advise your patients in the proper selection of glasses, and help them in other matters; yet, the object of my paper is quite apart from all this, for I desire to call your particular attention to the question of ophthalmic therapeutics and the treatment of the most common and most simple diseases of the eye, diseases which can be readily diagnosed without the aid of the ophthalmoscope by anyone who cares to give that proper attention to the subject which I hold it is the duty of every general practitioner to bestow, and a duty which he cannot neglect without incurring the gravest responsibility. I would take this opportunity of recommending those who have not yet given much attention to this subject to peruse Mr. Brudenell Carter's most excellent and charming *Practical Treatise on the Diseases of the Eye*. For the purposes of the general practitioner, no better book exists. It is quite unnecessary that we should all be 'able to operate' for cataract or perform iridectomy; but it is necessary that we should know how to treat the common diseases of the eye; that we should know before it is too late what ought to be done; that we should be able to frame an accurate diagnosis; that we should know where an operation should be done, though unable or unwilling to do it ourselves; that we should be able safely to advise our patients; and that we should know in time the circumstances and conditions which may render a consultation with a specialist advisable.

Mr. Brudenell Carter says that purulent ophthalmia is supposed to be the cause of nearly half the existing blindness of this country, although, with only ordinary care, the disease ought to terminate in complete recovery in every instance. He says: "I fear that in many cases medical men are greatly to blame." Again, he says: "I cannot too strongly express my conviction that no infant should ever lose its sight from this affection; and that sight cannot be so lost under the observation of a medical man except as a consequence of neglect or want of knowledge of a very flagrant character." Many of the bad cases we meet with are the result of what is called counter-practice. A patient suffering from ulceration of the cornea, or from incipient iritis, sends to the druggist for a lotion. He is given sulphate of zinc, or nitrate of silver, or some other stimulating eye-wash; and, when it is too late, he applies to the doctor. On this point, Brudenell Carter gives sound advice. He says: "It is much to be wished that all persons who may by any possibility be tempted to prescribe for eye-disease without knowing anything about it would at least lay to heart the cardinal truth, that a solution of atropine, although it may fail to do good, will in many cases be very serviceable, and can scarcely ever do harm. Astringents, on the other hand, although highly conducive to the cure of conjunctival affections, may be productive of irreparable mischief when either the cornea or the iris is inflamed."

In speaking to you about ocular therapeutics, I shall chiefly confine myself to what are called neurotic remedies, and shall but briefly refer to others. Thanks to Liebreich, we have now a remedy which, as a neurotic and a simple hypnotic, is invaluable. In many ocular affections, where we find wakefulness or restlessness unassociated with pain, and due perhaps to mental worry or anxiety, chloral hydrate acts like a charm; and in such cases we should not fail to make use of this most valuable drug. It now and then produces some local discomfort; but in no case have I ever known it fail to be of service where its use was clearly indicated. As an anæsthetic, it is of little value. It is probable that croton-chloral, which has been so highly praised by Liebreich for its power of relieving neuralgias and other painful affections of the trigeminus, may, in neuralgia of the ophthalmic division of that nerve and irritability of the eyeball, be of greater use than chloral-hydrate; but in my own practice, I have not yet found it to be deserving of all the praise that has been bestowed upon it.

And now a word or two about the bromides. Bromides act directly upon the nervous tissues; they are depressors of motor power, and lower the reflex excitability of the spinal cord; hence they are useful in nervous excitement, wakefulness from cerebral excitement, and occasionally useful in neuralgia. Bromide of potassium is of use as a hypnotic in many eye-diseases depending upon nerve-irritation.

Next comes iodide of potassium. We know that in certain tertiary syphilitic diseases of the ocular nervous tissues, and in iritis, iodide of potassium is of inestimable value; but it is also useful in other than syphilitic cases, for, by its influence on the blood-supply of the brain, it cures recurrent nocturnal headache and lessens intra-ocular pressure or tension; and in that condition of ophthalmia associated with scrofulosis, in which we have impaired nutrition and more or less anæmia, iodine or iodide of potassium, in combination with iron and cod-liver oil, has long been used as a valuable constitutional remedy.

In Calabar bean, we have a medicine which, when it is better known, will probably be found of considerable value as a remedial agent. It causes myosis, *i. e.*, contraction of the pupil, it also causes contraction of the ciliary muscle and an artificial myopia; and it is consequently employed to counteract the paralyzing effects of belladonna on the accommodation. Therapeutically, I have not myself used it in diseases of the eye, but it has been tried with excellent results in some cases of paralysis and atony of the ciliary muscle.

There are many other remedies, such as strychnia, arsenic, quinine, quinine and iron, quinine in combination with morphia and iron, which we can now only mention; but they are all valuable medicines. With the limited time at our disposal, we must pass on; but a few words must be said about morphia and mercury.

It is our duty in all cases where pain exists to use our best endeavours to relieve it. Brudenell Carter very truly says: "That no eye will get better whilst it is acutely painful, so that acute pain must always be subdued as a condition antecedent to recovery." For the relief of acute pain, we have no remedy comparable to morphia, and it should be freely used where it is clearly indicated.

Mercury, by many, is supposed to have gone out of fashion; but ophthalmologists know better than to discard so valuable a remedial agent. The late Dr. Anstie believed mercury to have some special elective affinity or special action upon the parts which are supplied by the fifth nerve. It probably does exert a more marked action upon the ocular tissues than upon any others. It must ever be one of our most potent and useful remedies.

There are three very active medicines which are now classed together under the head of mydriatics. These are belladonna, stramonium, and hyoscyamus; and they are called mydriatics because, when applied to the eye or when given by the mouth, they cause mydriasis, *i. e.*, dilatation of the pupil. The active principles of these three mydriatics are almost identical in their action; but the one which is of the most use, and which is best known, is atropia or atropine. Atropia was discovered forty-six years ago, and most of its chief physiological actions have been long known. It is a matter for surprise, therefore, that a remedy which has been proved to possess a very remarkable therapeutic value, which is so clean, so handy, so certain, and so rapid in its action, is still by many practitioners never used at all.

It will not be necessary for my present purpose to enter into the general physiological action of atropine, but it is important that we should briefly consider its peculiar action on the eye. We now know that the movements of the iris are due solely to the action of its muscular fibres; and we also know that the dilatation of the pupil, caused by atropia, is not due to the local action of the alkaloid on the muscular tissue of the iris, but to its paralyzing action on the nerve-filaments, or nerve-endings in the iris. The ocular motor fibres of the third nerve supplying the circular, *i. e.*, the contractor or sphincter muscles of the pupil, are paralysed by a local application of atropine; and the filaments of the sympathetic ending in the radiating fibres, *i. e.*, the dilator pupillæ, are stimulated. We know that division or injury of the cervical sympathetic produces contraction of the pupil and passive congestion of the eye; whence it is inferred that the sympathetic supplies the dilator pupillæ and the vaso-motor branches; hence atropine, by stimulating the sympathetic, causes dilatation of the pupil in a way distinct from its paralyzing effects upon the filaments of the third nerve. It also causes contraction of the muscles, and so relieves congestion.

Atropine, when administered internally, acts probably on the eye in precisely the same way, though perhaps not to the same degree; that is, it acts on the nerve-filaments of the iris as if locally applied. Atropine also gives rise to increased arterial tension, and this rise in the blood-pressure is probably due to its action on the muscular tissue of the arterioles, whereby a contraction of the vessels ensues. As for myself, I have no doubt on this point; and, therefore, believe that it does lessen the blood-supply when applied to the eye. Atropine also acts as a local sedative to the muscular and nervous tissues of the eye; for it produces a local anæsthetic effect on the ocular filaments of the fifth nerve, and so we may fairly call it an anodyne.

It is now almost universally believed that atropine causes lessened intraocular pressure or tension, and this no doubt happens as a consequence of the lessened blood-supply. Not the least important action of atropine I have purposely left to the last. When freely applied, it causes paralysis of accommodation. Next to its mydriatic action, this is by far the most important one. In order to understand clearly the action of atropine on the accommodation, let me remind you of the action of the ciliary muscle. This muscle, muscle of accommodation, or tensor of the choroid, is known to effect those alterations in the curvature of the lens, by which the eye is adjusted or "accommodated" for vision at different distances. The nearer the object the more convex does the lens become, and *vice versa*. And since we are more or less incessantly

adapting or accommodating, by the action of this muscle, our eyes for objects at different distances, it is apparent that, for purposes of healthy vision, this muscle should be in a sound and healthy state; that it should not be overtaxed; also that, in many diseased conditions, it is essentially necessary that this muscle should have absolute rest. By the free use of atropine, we can insure this rest, and at the same time give rest to the iris, and so obtain that rest for the eye which we would wish to secure for a broken leg by putting it up in splints.

For therapeutical purposes, the sulphate of atropia is the most convenient form in which to use atropine. This salt is very soluble in water, requiring no addition of rectified spirit. If the usual four-grain solution of the *Pharmacopœia* be dropped into the eye, it will in most cases produce in half an hour complete dilatation of the pupil. It is then that the power of accommodation becomes impaired, and near objects cannot be distinctly seen. In about an hour later, *i.e.*, an hour and a half from the instillation, there is more or less complete paralysis of accommodation, and no objects within twenty feet can be distinctly seen. When complete paralysis of accommodation is once produced, it often happens that normal accommodation does not return for a week or a fortnight. By using a weak solution of atropine, it is very easy to cause mydriasis without paralyzing the accommodation; hence, for purposes of ophthalmic examinations, it is wise to use a minimum quantity of atropine; though, for therapeutic purposes, it is usually of extreme importance that the accommodation should be paralysed.

Dr. H. C. Wood of Philadelphia, in his able work on *Therapeutics*, quotes a short paper by Norris, the dentist of New York, which is well worth your perusal. Speaking of its anodyne action, he says: "In phlyctenular keratitis, by its local anæsthetic action on the branches of the trigeminal it diminishes the photophobia and blepharospasm, and seems to mitigate the intensity of the inflammation by its influence in contracting the ciliary vessels, thus diminishing the supply of nutritive materials carried to the cornea."

Let me now sum up in five sentences the wonderful effects of atropine upon the eye: it causes mydriasis; it lessens the blood-supply; it lessens intraocular pressure; it paralyzes the accommodation; it causes local anæsthesia. Strammium and hyoscyamus are almost identical in their action with belladonna; hyoscyamus is, however, believed to act more distinctly as a hypnotic; and most of us would use hyoscyamus for this purpose when we would not think of prescribing belladonna.

In the October number of the *Practitioner* for the year 1872, a very interesting and instructive paper was published by Mr. Henry Power on the internal administration of belladonna in strumous ophthalmia. In addition to the local instillation of atropine in the varied forms of strumous or scrofulous ophthalmia which are met with and called phlyctenular, pustular, and so on, he recommends that belladonna should be given internally; and he has found the most troublesome cases yield to this treatment. This plan of treatment, he acknowledged, was not a new one. I had long myself been acquainted with the value of the internal administration of belladonna in similar cases. Of late, however, I have come to the conclusion that, where the patient can be daily seen by the medical man, and a proper instillation of atropine insured, the internal administration of belladonna is almost unnecessary. Where, however, we cannot insure a careful and efficient instillation of atropine, it is a most excellent plan to give belladonna internally, and also to apply it in the shape of paste to the orbit or forehead, care, of course, being taken to warn the child's parents of the special symptoms which would necessitate a discontinuance of the drug. In nearly all the cases of phlyctenular ophthalmia that come under my observation, I find that the local application of atropine and Cremer's pomade,* together with a general attention to the constitutional state of the child, will readily effect a cure. In fact, the results of this plan of treatment are so good that I am always pleased when such a case is brought to me.

With your permission I will narrate very briefly a few typical cases illustrating the treatment which I wish to advocate.

CASE I.—About two years ago, I went into an adjoining county to see a married lady who was said to be getting blind, and who was suffering so much from intense pain that her life was almost despaired of. The history of the case was this. A month before my visit, she was taken ill with neuralgic pains about the left forehead and temple. In a week, the pain became almost limited to the eyeball. Then the eye became reddened; she was unable to sleep; and exposure to light intensified the pain. She sought medical advice: she was ordered to remain in a darkened room: astringent remedies were applied to the eye, then fomentations and poultices; but the patient got worse: her

appetite failed and the mischief progressed. At the end of a month, twelve leeches were applied to the left temple, and for a few hours she was easier; but the next day she was even worse than before. It was then that I was requested to see her. She was lying on a sofa in a room from which every ray of light was carefully excluded: she was very weak, had a worn-out and haggard look, and kept the left eye tightly closed. The photophobia was so extreme that I failed to obtain a view of the cornea; I therefore injected, by means of a blunt hypodermic needle, a few drops of a four-grain solution of atropine between the lids, and applied a compressive bandage, and gave her a draught containing 30 grains of bromide and 10 grains of iodide of potassium, with 10 grains of chloral-hydrate. In half an hour, I was able to examine the eye, and found ulceration of the lower and inner quadrant of the left cornea, with some turbidity and much vascularity. The ulcer was marked with white-lead streaks. The conjunctiva was hyperæmic; there was troublesome lacrymation; and the eyeball was somewhat tense. I instilled more atropine, and re-applied the compressive bandage. At the end of a second half-hour, the pupil was widely dilated, and the photophobia marvellously lessened, so much so that I was able to hold a Weiss's benzoline lamp in front of the eye. She was ordered to take three times a day 15 grains of bromide with 10 grains of iodide of potassium, and at bedtime a similar draught together with 20 grains of chloral-hydrate; to take brandy and eggs, and plenty of food; and atropine was directed to be instilled three times a day. At my next visit, on the third day, there was a marked and most satisfactory improvement. She had slept well each night, and was absolutely free from pain. Cremer's pomade was now prescribed in addition to the former remedies. She continued daily to improve, and by the seventh day the ulcer had almost healed; and in less than a week she was as well as ever. Unluckily, in this case an acetate of lead lotion had been used, and opaque specks and streaks of white lead remained imbedded in the new corneal tissue.

This is a good example of what we may expect to meet with in a case of long continued and neglected neuralgia affecting the ophthalmic division of the fifth nerve. The fifth nerve is a nerve of sensation, and it also ministers to trophic functions; and it must be borne in mind that the nutrition of the eyeball is liable to suffer greatly when the fifth nerve is diseased. Had the neuralgia in this case been properly treated at the onset, all the subsequent mischief to the eye would have been prevented. Had proper neurotic medicines been given, such as those which were ultimately prescribed, the disease would have been stopped. Instead of this, the pain and loss of sleep were not properly combated, and free local abstraction of blood was ventured upon, when, to my mind, a transfusion of additional blood would have been infinitely better.

This case shows also the evil that results from applying lead-lotions to an abraded or ulcerated corneal surface.

CASE II.—As an example of specific disease not diagnosed, and consequently not properly treated, the following brief case is worth recording. A young girl was brought to me in 1865. She had been under medical treatment for some time; blisters had been applied behind her ears; various pain-producing lotions had been used. She gradually got worse; at last, became nearly blind. When brought to me, she could not distinguish any object, and she was obliged to be led into the room. There was in this case chronic iritis, with some lymph in the anterior chamber; and the corneæ were blurred. Suspecting specific disease, I inquired, and was soon satisfied that syphilis was at the bottom of it. Atropine was freely instilled; and iodide of potassium with perchloride of mercury, and belladonna, were given internally. In a month, the girl was well. She was recommended to go on with the iodide of mercury for some months.

CASE III.—The next is a case of mild catarrhal ophthalmia accompanied with ulceration of the cornea. On November 9th, 1876, a baby three months old was brought to me with a bad eye. The mother said it began three weeks before with "a cold in the eye", and she did not think much of it until she saw a white speck some six or seven days ago. I noted that there was photophobia; the lid was slightly swollen, with a little sticky muco-purulent discharge. On the cornea, there was a circular ulcer about a line in diameter, containing a white opaque slough. There was haziness of the cornea for some little distance around it. Cremer's ointment was applied, and a weak atropine solution instilled; a compressive bandage was applied; and the baby was given bromide of potassium and belladonna internally. Next day, I determined, in consequence of the great difficulty met with in applying local remedies, that chloroform should be given. It acted admirably: the child left me fast asleep in its mother's arms, and remained easy the whole of the day. Whilst under the influence of chloroform, it was easy to examine the upper lid, which could not be inspected before. It was swollen, red, with some discharge. A weak

* Cremer's pomade: an ointment composed, like Pagenstecher's, of precipitated yellow oxide of mercury, and preserved for use in compressible tin tubes furnished with cannula, through which the ointment can be readily squeezed between the lids.

solution of nitrate of silver was dropped in, and atropine again applied. Belladonna paste was applied externally. Henceforth chloroform was regularly administered morning and evening. Cremer's ointment was substituted for the nitrate of silver. By the sixth day, there was no swelling of the lid; no discharge. The pupil looked bright, and the ulcer was healing. On this day, a belladonna rash broke out on the head, neck, and back. The belladonna was withheld, and next day the rash was gone. By the twelfth day, the child was well.

I quote this case more particularly to show the value of chloroform in such cases. Chloroform or ether should be employed in all cases where, in consequence of photophobia and muscular spasm, a proper examination cannot otherwise be made. Chloroform acts readily on the pupil. At first, it causes contraction; later on, dilatation, by its paralyzing effects on the motor oculi. It has appeared to me that chloroform is not only useful in enabling one to carefully and easily examine the eye and to apply local remedies in a way that would in many cases be impossible without it, but that its sedative or anodyne action continues for some time, often many hours, after the general effects pass away. Ringer states that Sir James Simpson had observed that a few drops of chloroform put on the palm of the hand and held near a photophobic eye, so that the vapour entered the eye, would enable it to bear the light without pain.

CASE IV.—In December 1874, a young lady came to me from the neighbourhood of Swansea, suffering from phlyctenular ophthalmia. Her eyes had been bad off and on for three years. She was obliged to leave school, and has to wear blue glasses. There was extreme photophobia; several small ulcers were to be seen on the margin of the cornea, numerous vessels, and the conjunctival papillæ were red and prominent. There was a total absence of anything like scrofulosis. Atropine was fully applied; one-eighth of a grain of belladonna extract was ordered to be taken three times a day, and Cremer's pomade was applied night and morning. In a fortnight, the eyes were nearly well. Atropine was now used but once a day, though the belladonna was increased to half a grain. In February, she returned home, and was instructed to use weak atropine solution and Cremer's ointment, and to take quarter-grain doses of belladonna. Wishing to prevent a recurrence of the disease, I advised her to use the remedies for some months. In June, the belladonna was reduced to one-eighth of a grain. The biniodide of mercury ointment was regularly applied until the end of June. The eyes were then quite well, and the conjunctival papillæ were no longer visible. From that day to this, now two years, she has had no further trouble.

CASE V.—The next case is a good example of the so-called scrofulous ophthalmia. The girl, ten years old, presented the general aspect of scrofulosis. She had been suffering from bad eyes for more than a year. The mother told me that she had consulted several doctors in this county and in Glamorganshire; that all sorts of remedies had been tried; that so many painful things had been done to the child that she quite dreaded coming to me. On inquiry, I found that nearly all the local applications that had been used had given her pain; also that she had been freely and repeatedly leeches and blistered. The large scars behind the ears, extending down the neck, showed how severely she had been treated. In fact, she was permanently disfigured.

I noted that there were extreme photophobia, a little muco-purulent discharge, ulcers on the cornea, and granular lids. Atropine was instilled; belladonna paste was ordered to be applied around the orbit, and belladonna and iodide of potassium were given internally. The lids were touched with lapis divinus, which is a handy and useful remedy composed of equal parts of sulphate of copper, nitrate of potash, and alum, moulded into sticks. Cod-liver oil and syrup of iodide of iron were also prescribed. This was on November 15th; on the 17th, *i.e.*, in two days, there was a marked improvement, and in six weeks, under this treatment, she perfectly recovered.

CASE VI.—Some time ago, a young man consulted me who, for some months, had been suffering from phlyctenular ophthalmia. He was getting no better, worse in fact, under medical treatment, and he was informed by his doctor that nothing further could be done. He inquired if it would be any use consulting an oculist; he was told that no oculist could do him any further good. A friend of mine happened to see him and sent him to me. On examination, several minute ulcers and small pustules were seen on the cornea, with a cloudy and dull pupil. There was photophobia and ciliary neuralgia. I told him that, if he would but promise to come and see me regularly, and would do exactly all that he was ordered, he would probably be well in three weeks; but that he must expect to have some corneal opacity left.

He promised, and he was most exact in performance. I applied my usual remedies, *i.e.*, atropine, Cremer's pomade, and a compressive

bandage, and gave him iron. At the end of a fortnight, he was almost well, and, before the end of the three weeks, was quite free from trouble. He was then told to discontinue all the remedies except the ointment, and this he was advised to use occasionally for some months. A faint cloudy opacity of the cornea remained, as was prognosticated.

In the treatment of most of the commoner forms of disease of the conjunctiva, cornea, and iris, the most successful practitioner will be he who, in addition to making a wise use of the neurotic and constitutional remedies of which we have spoken, also knows best how to apply local remedies. Let me briefly say that, where the conjunctiva is inflamed, metallic astringents are indicated, and that the best are nitrate of silver and acetate of lead.

When the cornea is inflamed or ulcerated, there is no local remedy equal to atropine; and metallic astringents must be avoided, though, in certain stages and under certain conditions, a weak red precipitate ointment is often of service; and, when this is indicated, there is no preparation, to my mind, so convenient, so useful, and so handy as Cremer's pomade.

When the iris is inflamed, atropine must be freely instilled, and, for this disease, it is the local remedy. When both conjunctiva and cornea are inflamed, the practitioner must learn how best to apply astringents to the mucous membrane and yet avoid irritating the cornea.

In conclusion, gentlemen, let me say that I shall have gained my object if the observations which have been addressed to you will induce the members of this Association to pay more attention to the diagnosis and proper local treatment of the commoner diseases of the eye; if it will but induce you to give up blisters, setons, leeches, and painful astringent lotions in but one disease, *viz.*, phlyctenular ophthalmia, and make you trust more to atropine, I shall be indeed amply repaid.

THE PATHOLOGY OF URÆMIA AND THE SO-CALLED URÆMIC CONVULSIONS.

By T. J. MACLAGAN, M.D., Dundee.

DR. MAHOMED'S interesting communication on the above subject is a notable addition to the literature of a vexed question. While recognizing the agency to which he ascribes them as a possible cause of convulsions, it may be well to note one or two objections, besides those which he has indicated, which militate against his opinion that these convulsions are caused by minute capillary hæmorrhages. These objections are general and special.

General.—The general objections are these.

1. To separate convulsions associated with renal disease from convulsions not so associated, and to study their pathology apart from that of convulsions in general, is a mode of treating the subject which is calculated to exclude much valuable information regarding the general question, and to lead to narrow, and therefore probably erroneous, generalisations regarding the special subject of uræmic convulsions.

2. To separate convulsions from all the other nervous symptoms associated with uræmia, and to regard them as pathologically distinct, is a mode of treating the question which can scarcely commend itself to physicians or pathologists, unless a better reason be advanced for so doing than any which Dr. Mahomed has given us.

In connection with this point, I would note, what Dr. Mahomed does not seem to be aware of, that Traube years ago advanced the theory that the nervous symptoms of Bright's disease (convulsions among the rest) were indirectly caused by cerebral œdema. His idea was, that the impoverished state of the blood, and the coincident occurrence of cardiac hypertrophy, led to the exudation of water through the coats of the minute vessels; that there was thus produced anæmia of the cerebral substance; that the capillaries and veins were pressed upon by this effusion; and that this pressure gave rise to anæmia of the brain. To this anæmic condition of the brain he ascribed the nervous symptoms. To Dr. Mahomed's, even more than to Traube's, view of the part played by œdema in the production of the nervous symptoms of Bright's disease, there is the very grave objection that such symptoms are most common in that form of renal disease in which œdema is least apt to occur—the contracting granular kidney. In attributing the nervous symptoms only indirectly to œdema, and directly to anæmia, Traube greatly strengthened his theory; for, of all the causes of nervous symptoms, anæmia of the brain, or, to be more accurate, malnutrition of the nervous centres, is the most potent.

On this part of the general question, space forbids me to enter. I would, therefore, simply refer Dr. Mahomed and those interested in the question to Chapter XIV of my work on the *Germ-Theory of Dis-*

case. In this chapter (on the nervous symptoms of fever), the whole question of uræmia is fully discussed.

Special.—The special objections to Dr. Mahomed's theory may be noted as follows.

Granting the existence of minute capillary hæmorrhages (which has yet to be demonstrated), and granting their competence to produce convulsions, how do they act? There are only two possible ways: (a) by loss of blood, and (b) by physical pressure on the cerebral substance (for such minute hæmorrhages could not lacerate the brain-tissue as do larger ones). But the hæmorrhages, as described by Dr. Mahomed, are so minute that the loss of blood cannot be felt by the brain. They must, therefore, act by compressing the brain-tissue. Now, if one or two minute hæmorrhagic points can produce convulsions in this way, we ought frequently to find such symptoms in those cases, first described by Charcot and Bouchard, in which minute capillary aneurisms exist in large numbers in the brain, producing, in virtue of their number, greater pressure than could be caused by a few hæmorrhages not exceeding in size the individual aneurisms. But such is not the case. If Dr. Mahomed will refer to the published observations of the French pathologists, he will find that milary aneurisms, which differ from his hæmorrhages only in having the blood surrounded by the aneurismal covering, may exist in the brain in dozens, and even in hundreds, without causing any such symptoms as those which he attributes to minute capillary hæmorrhage. A certain allowance, I am aware, must be made for the more sudden occurrence of the hæmorrhagic pressure; but this I believe to be more than counterbalanced by the large number of the aneurisms. These aneurisms, too, occur in all parts of the brain: the optic thalami, the corpora striata, the convolutions, the pons Varolii, the cerebellum, the centrum ovale, the middle peduncles of the cerebellum, the peduncles of the brain, and the bulb.

To sum up: the objections to Dr. Mahomed's views are, first, that they lay aside as inadequate an agency which is at work in every case of uræmia, and which has been proved to be a potent cause of convulsions—viz., malnutrition of the nervous centres; and, second, that they substitute for this an agency whose existence has not been proved, and whose competence to produce convulsions is, at the least, doubtful.

ON A CASE OF DOUBLE HEMIPLEGIA, WITH CEREBRAL SYMMETRICAL LESIONS.

By THOMAS BARLOW, M.D., B.S.,

Assistant-Physician to Charing Cross Hospital, and to the Children's Hospital, Great Ormond Street.

W. S., A BOY aged 10, was admitted into the Hospital for Sick Children, Great Ormond Street, under the care of Dr. Dickinson, on December 16th, 1875. There was no history of rheumatism, and no suspicion on the part of his mother that the boy had heart-disease.

Four months before admission, according to the statements given, he must have had an attack of right hemiplegia. Whilst holding the baby, he suddenly burst out crying, his face was drawn, and he fell down. But he did not lose his senses, and within a quarter of an hour was able to walk. He was put to bed, and at that time he talked naturally and swallowed without trouble. But next morning, he had lost his speech; he could only say "Haw-haw"; he had also difficulty in swallowing. His face was drawn. He could not grasp with the right hand, and he dragged the right leg when put on his feet. In ten days, he was greatly improved. The leg improved before the arm. The speech had returned on the tenth day; but occasionally he made a mistake, gave the wrong name for a boy, and did not seem always quite to understand what was said to him.

In a month's time, he seems to have quite recovered. He was then able to go errands for his mother, and he discharged them correctly. He was very pale. Six days before admission, he got an attack of left hemiplegia. It was noticed that he was very irritable, and could not bear the noise made by the other children; he cried and sobbed a great deal. Next morning, he could not use the left hand, had difficulty in swallowing, and had quite lost his speech. His mother does not know whether the face was drawn or not. No notice was taken of his legs till five days afterwards, and then it was found that he could stand without support. When brought to the hospital, he cried just like a patient with senile softening, directly he was approached. But after a few days, he was amenable to investigation. As he changed very little, I may summarise his condition whilst in the hospital.

The only approach he could make to a voluntary articulate sound

was "Ah". He could cry vigorously; there was no lack of voice. From his admission, he appeared to understand all that was said to him. When asked his age, he counted ten on the questioner's fingers; counted four, when asked how many brothers he had; and so forth. He made signs for what he wanted, and the signs were correct.

From the first, he was able to write his name when asked, and after a few weeks would answer in writing any question that was put to him. He could not be induced to show his upper teeth, nor to protrude his lips, nor to smile when he was told. But his face was not expressionless. He occasionally smiled involuntarily. There was at first the slightest possible flattening of the left naso-oral ridge, but this soon passed off, and there was no loss of symmetry.

He could not protrude his tongue at all. There was no wasting of the tongue. Both sides responded to Faradism. There was no deviation of the uvula; no dropping of either palatine arch; no regurgitation of fluids. The palate was sensitive. His swallowing of solids was very peculiar. He was fed best when lying on his back. A large morsel succeeded better than a small one. It seemed very gradually to find its way to the fauces, but without any arching up of the tongue. When once past the arch of the palate, there was at no time any difficulty. There was no choking nor regurgitation; nor did the boy push the morsel down to the back of the pharynx, as is seen sometimes in cases of labio-glosso-pharyngeal paralysis.

He never made any attempt to chew. He did not use his pterygoids at all; but on one occasion, after much persuasion, he was induced to give my finger a bite between his molars, and the masseters were felt to contract. The sensory division of the fifth nerve was quite natural. There was no ocular palsy; the optic discs were natural. The sense of taste and the sense of smell were natural.

To sum up the cerebral condition, there appeared to be loss of voluntary motor power over the muscles concerned in articulation and the first part of deglutition.

As to the limbs, there was at first weak grasp with both hands, the left the weaker. There was slight wasting of both upper limbs. But all this greatly improved in three weeks' time. At no time was any rigidity elicited by flexion. Both arms responded well to Faradism. At the time of his admission, he was able to draw up his lower limbs equally; and in a month, when he was allowed to walk, he did so without dragging. There was no diminution of irritability to the Faradic current.

There was no perversion of sensation. For a couple of days after admission, he had retention of urine, but this did not recur. There was no trouble with the sphincter ani. The cause of his hemiplegia was not far to seek. He had a double aortic murmur, with considerable hypertrophy and dilatation of the heart.

He was in the hospital less than two months. His condition as to speech and swallowing did not alter in the least, though his limbs improved. No fresh nervous signs appeared.

He died from the results of his aortic regurgitation. At the *post mortem* examination, the right and left aortic valves together measured the same width as the posterior aortic valve. They were partly united along one edge, and there was a frænum uniting two contiguous cusps. This was probably a congenital condition. Besides this, there were vegetations partly calcified at the free margins of all three valves, and there were a few recent vegetations at the base of the aortic curtain of the mitral. There was dilatation and hypertrophy; and there were some oldish thrombi in both auricles. As to the other viscera, there was some induration with old infarcts in the lungs, a nutmeg liver, infarcts in the spleen and kidneys, and some effusion, probably passive, in the peritoneum.

As to the brain, no disease of the vessels forming the circle of Willis could be detected; but in the left middle cerebral, an inch and a quarter beyond its origin, three calcified nodules, each rather less than a millet-seed, were found. Two branches, traced from this vessel, were also found to present calcified spots. There was no actual occlusion, but the calibre was obviously diminished by the above condition. No aneurism was detected and no plug of fibrine found. In an identically corresponding position on the right side some similar calcification was found, though not quite so much in amount. These vessels were traced into small oval regions of softening, each of which might be covered with a shilling. On each side, these regions consisted of the lower end of the ascending frontal and the hinder end of the middle and inferior frontal convolutions. These areas were pale, buff-coloured, slightly depressed, slightly softer than the surrounding brain-substance. Reckoning from the surface, they were less than a quarter of an inch deep, *i.e.*, they involved the cortical and a little of the subjacent white substance.

The rest of the brain, so far as could be made out by naked-eye inspection, was natural.

REMARKS.—The first point of interest as to this case is its etiology. The very close union of two of the aortic valves appears to me strongly in favour of a congenital condition of imperfect development. Whether there was foetal endocarditis, I will not pretend to say; but it seems likely that the congenital imperfection predisposed to the subsequent endocarditis in this region.

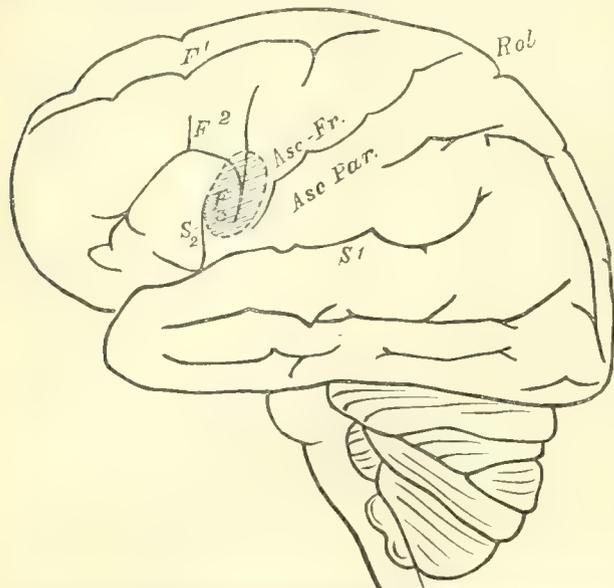


Fig. 1.—Lateral View of Human Brain (Licker). S₁. Posterior Limb of Fissure of Sylvius. S₂. Anterior Limb of Fissure of Sylvius. Rol. Fissure of Rolando. Asc. Fr. Ascending Frontal Convolution. Asc. Par. Ascending Parietal Convolution. F₁, F₂, F₃. Superior Middle and Inferior Frontal Convolution. The dotted portion represents the situation of the lesion on each side of the brain—viz., in the lower end of the ascending frontal and the hinder end of the middle and inferior frontal convolutions.

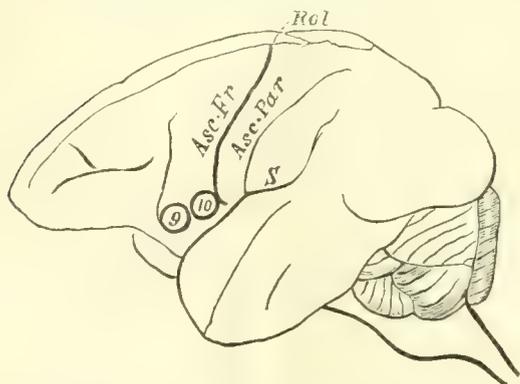


Fig. 2.—Lateral View of Brain of Monkey (adapted from Ferrier). Stimulation over areas (9) and (10) produced movements of mouth and tongue. These areas correspond with the lower portion of the ascending frontal and the hinder end of the inferior frontal in man.

The sequence of events seems clear, viz., that vegetations were carried either from these valves or from the left auricle to the spleen and kidneys, and also, first, to the branches of the left middle cerebral, and afterwards to the branches of the right middle cerebral. There, these vegetations first caused block, and subsequently set up changes in the walls of the vessels and in the parts of the brain supplied by them.

It seems fair to associate each attack of hemiplegia with diminished blood-supply, first to the left, afterwards to the right, side of the brain, in the convolutions round the fissure of Rolando. But, whilst the greater part of the regions referred to recovered, the nutrition of one small portion on each side was permanently damaged.

Is it unreasonable to associate this bilateral lesion with the only marked symptom which remained after the two attacks of hemiplegia had passed off, viz., the loss of voluntary power over the mouth and

tongue muscles? I own that, at first, the question of disease of the pons or medulla came into my mind; but the entire absence of wasting of the tongue, the absence of ocular palsy, the non-implication of the sensory division of the fifth nerve, and the very limited affection of the facial, were surely strong points against such a condition. Dr. Hughlings Jackson, who was kind enough to look at the boy, predicted disease of the regions supplied by branches of the two middle cerebials.

The relation between the specialised symptoms during life and the well-defined lesions found *post mortem*, is substantiated by the results of physiological experiment. Professor Ferrier has shown, in the brains of monkeys, that in this identical region, or rather in the region homologous with it, the centre for the movements of the mouth and tongue is situated. Now, according to Dr. Broadbent's hypothesis, the bilateral muscles, which act together, are represented on the two sides of the brain. After the first attack of hemiplegia, although this region on the left side was probably permanently damaged, yet still the right side remained intact. But, after the second attack of hemiplegia, the corresponding region on the right side became damaged; and henceforth, as far as voluntary movements of the mouth and tongue were concerned, the boy was irretrievably deficient.

The case is incomplete, because of the absence of a microscopic examination of the pons Varolii. The brain was put into spirit, but did not harden properly. The lower part of the medulla and cervical region of the cord, however, were preserved; and I have to thank my friend Mr. R. W. Parker for some sections of them. In the spinal cord sections, there is undoubtedly some thickening of the neuroglia generally. It is most marked in the front of the posterior columns. What the significance of it is, I am not prepared to say. It is quite different from the descending sclerosis described by Charcot. In the medulla oblongata, Dr. Gowers (who has been good enough to look over the sections) has failed to find anything wrong, except that the cells of the nuclei of the vagi seem a little smaller than natural.

ON THE TREATMENT OF ACUTE RHEUMATISM.*

By E. MARKHAM SKERRITT,

B.A., B.S., M.D. Lond., M.R.C.P.;

Fellow of University College, London; Lecturer on Medicine and on Pathological Anatomy at the Bristol Medical School; Physician to the Bristol General Hospital.

DR. LATHAM says: "Acute rheumatism has experienced strange things at the hands of medical men. No disease has been treated by such various and opposite methods. Venesection has wrought its cure, and so has opium, and so has calomel, and so has colchicum, and so have drastic purgatives. I speak of each of these remedies in the sense which medical men imply when they talk (as they often do) of this, that, or the other thing being their 'sheet-anchor'—meaning that they rest upon it alone for the cure of the rheumatism, and employ other remedies either not at all or for very subordinate purposes. And, indeed, I bear my testimony to the success of each of these different remedies so far as that, under the use of each, I have seen patients *get well*."

Had he written in these days, Dr. Latham would have had many other "strange things" to add to his list: alkalies, acids, salines, hot water, cold water, lemon-juice, citric acid, chloral, belladonna, iodide of potassium, ergot, digitalis, aconite, guaiacum, emetics, sulphur, antimony, perchloride of iron, quinine, iodine, plaster of Paris bandages, galvanism, subcutaneous injection of carbolic acid, blisters, podophyllum, cynara, propylamine, chloro-hydrate of trimethylamine, and last, but not least, salicin, salicylic acid, and salicylate of soda. All these remedies have been used for rheumatic fever, and each has been extolled as more potent than all the rest.

It is, I take it, the duty of the opener of the debate to facilitate discussion by briefly laying before you the results of past experience. I will, therefore, give a summary of the effects of the more important of the above remedies.

First, however, arises the question, What are the *natural* course and duration of acute rheumatism? We all know that rheumatic fever has no definite course, and is most uncertain in its duration; that some cases will be long protracted, others will be well in two or three days; hence our difficulty in deciding on the merits of the various methods of treatment. The results of the *mint-water* treatment by Drs. Gull and Sutton drew special attention to the fact that rapid recoveries were often made when the only treatment was good nursing, and that

* Read before the Bath and Bristol Branch: being the opening paper at a discussion on the Treatment of Acute Rheumatism.

we had departed from the good old times when the sole remedy for rheumatic fever was six weeks in blankets. In a series of twenty-five cases, all well marked first attacks, the average duration of acute symptoms under treatment was 9.1 days, or, from the beginning of the disease, seventeen days. Hence Drs. Gull and Sutton concluded that drugs had little influence in shortening the disease. With regard to heart-complications, the eleven patients whose hearts were healthy on admission remained free from cardiac complication. They, therefore, held that the heart was affected early in the disease (generally within the first week); and that, if it escaped for a week, it would probably escape damage altogether. This is a very important conclusion, and merits special attention when we are comparing the virtues of different remedies; for we see that, if it be correct, many drugs will have the credit of warding off heart-complications simply because the time for the occurrence of these lesions has passed before the medicine is given.

We have, doubtless, all of us met with cases of rheumatic fever which, by their rapid recovery, have forcibly suggested the reason why there are so many highly satisfactory remedies for the disease. I have lately had under my care at the Bristol General Hospital several marked instances, and will refer to two by way of illustration.

A young woman, in her second attack, had a temperature of 102.5 deg., a pulse of 116, and well marked joint-affection; she had been ill four days. The treatment was a mild purgative occasionally. In three days, the temperature went down to normal; in four days, the pulse dropped from 116 to 80; and, in five days, the pain was entirely gone. Here is the temperature chart of another patient:—On admission, the temperature was 104.6 deg.; in four days, it was normal.

I propose to discuss the treatment of acute rheumatism under the following heads.

- A. Treatment of the Constitutional Disease: the effect as regards—
 - a. The Ordinary Phenomena and the Duration of the Disease;
 - b. The Prevention of Relapse; c. The Occurrence of Complications, particularly of the Heart.
- B. Treatment of Complications, with Special Reference to Hyperpyrexia.

A. *Treatment of the Constitutional Disease.*—I will speak only of those remedies which, at the present time, have the best reputation: alkalies and salines, iron, quinine, quinine and alkalies, blisters, and, lastly, salicin and salicylic acid.

1. *Alkaline and Saline Treatment.*—When large doses of bicarbonate of potash are given, the urine becomes either neutral or alkaline, instead of highly acid; together with this change, there is often a marked alleviation of the acute symptoms: the pulse fails, the temperature is reduced, and the pain is said to be generally relieved within forty-eight hours. We must remember, however, that sometimes, in acute rheumatism, the urine will become alkaline without apparent cause, and that there is no necessary connection between alkalinity of the urine and abatement of the acute symptoms, though these are very frequently associated. Alkalies in large doses necessarily make the urine alkaline, but this alone is no proof of any action upon the disease itself. The duration of rheumatic fever is, according to statistics, shortened by alkalies: in fifty-one cases recorded by Dr. Garrod, the duration under treatment was six to seven days, as compared with 9.1 days under mint-water; and the total duration thirteen to fourteen days, instead of seventeen. The patient is, however, often left weak and anæmic to a marked degree. Next, as regards complications, any of the complications of rheumatic fever may occur while the patient is under the influence of alkalies. As to the heart, Dr. Dickinson gave statistics in which the percentage of heart-disease occurring under alkaline treatment was 2.1, as against 31.7 under various other remedies. Dr. Garrod says that the heart was never affected after the patient had been taking the remedy for forty-eight hours. On the other hand, Dr. Stewart, on comparing the results of two years' alkaline treatment with those of two years of expectant treatment, found that the percentage of heart-disease was nearly equal in the two periods. Dr. Wilks quotes two interesting cases in which, under alkalies, the urine speedily became alkaline, and the pain was very much relieved in two days; but, on the third day, acute pericarditis came on in each, showing that the articular disease may be cut short, but the heart may not be saved. We must not forget, too, the mint-water cases, in which no heart-complications occurred. It also seems that, when heart-complications do come on under alkalies, they are more troublesome; the effusion of pericarditis is often very large in amount, and there is a greater tendency to carditis. Thus alkalies shorten the disease, do not prevent complications, and debilitate the patient.

2. *Treatment by Perchloride of Iron.*—This has been strongly ad-

vocated by Dr. Russell Reynolds. In a series of sixty-five cases, the relief of pain was often marked and early, but only in half the cases was the pain gone by the tenth day. The pulse sometimes fell from 120 to 40 in two days. As to the duration of acute rheumatism under iron, the temperature was normal by the fifth day in 36 per cent., and before the tenth in 61 per cent. This does not compare favourably with Dr. Garrod's results with alkalies, where the average duration of the whole number of cases was six to seven days; nor is there much advantage over the mint-water treatment, for in the latter the average was 9.1 days. In Dr. Reynolds's cases, heart-disease was present in 48.1 per cent.; but no distinction is made between those cases in which it existed before and those in which it came on under treatment. In twenty-three cases treated with iron in University College Hospital in 1875, heart-complications came on under treatment in 30.4 per cent.; this is a large proportion when compared with Dr. Dickinson's alkaline cases, where the percentage was only 2.1; but here, again, we are reminded of the uncertainty of acute rheumatism; for, on examining the cases treated with alkalies in the same hospital for the same year, I find that the percentage of heart-complications is 37.5, thus exceeding the proportion under iron.

3. *Quinine* has been extensively used in France; very large doses have been given—from fifteen to ninety grains in the twenty-four hours. Its influence on the disease is said to be very marked; the pulse and temperature rapidly fall, the joints are quickly relieved, and the heart is seldom implicated.

4. *The Quino-alkaline Treatment* is strongly recommended by Dr. Garrod, who has found it much more efficacious than the simple alkaline treatment; he says there is less tendency to relapse, and that the fever leaves the patient in a much more satisfactory condition.

5. *Blistering* (revived by Dr. Herbert Davies).—Blisters are very freely applied near the affected joints, and the resulting discharge is supposed to afford a vent for the rheumatic virus. The advantages claimed are, that the joints are rapidly relieved, the pulse becomes slower, and the heart is safer. On the other hand, in the experience of others, the only result has been to hasten the disappearance of inflammation from the joints without otherwise affecting the course of the disease.

6. *Salicin, Salicylic Acid, and Salicylate of Soda.*—I propose here to consider what claim these drugs have to be regarded as specifics in acute rheumatism.

Doubtless, we were all struck by the observations on salicin published by Dr. MacLagan, and we could not but admire that poetic faith in the goodness of Nature which led him to salicin, in the belief that, as the cinchona flourished where ague abounded, so, where Nature had decreed that rheumatic fever should prevail, there she had also placed a remedy. But will a wider experience bear out the conclusion that salicin is a specific in this disease?

I have collected a series of forty-three cases treated with salicin, including my own, and will lay before you some of the data obtained from them. Excluding all cases in which the dose was less than twelve grains every three hours, the following are the results.

On the temperature:—No effect in 19.4 per cent.; in the others, normal in 4.9 days, or in three days in 33.3 per cent.

On the pain:—No effect in about 23 per cent.; omitting these, pain gone in 3.8 days, or in three days in 50 per cent.

Dr. MacLagan has since said that the dose he first recommended is too small, and that this accounts for so-called failures of salicin. On dividing the cases into two groups, and placing in one all in which the dose was from ten to fifteen grains every three hours, and, in the other group, putting all cases where the dose varied from twenty grains every two hours to thirty grains every hour, I got the following results.

Failure with the smaller doses in 16.6 per cent.; with the larger, in 30.7 per cent.

A normal temperature with the smaller doses in 4½ days; with the larger, in 6½ days.

Complications.—With the smaller doses, two cases of endocarditis and one of pericarditis; with the larger, three cases of endocarditis and two of pericarditis. With the smaller, one case of pneumonia; with the larger, one case of pleurisy. In each series, one case of hyperpyrexia.

Altogether, therefore, the larger doses have been followed by the worse results. If the doses first given were too small to be effective, what becomes of those brilliant early results which introduced salicin, and which have not since been surpassed?

To turn to salicylic acid and salicylate of soda:—From a series of twenty-seven cases, we get the following data:—failure in 20 per cent.; excluding these, temperature normal in 4.1 days, or in three days in 50 per cent.; pain gone in 3.2 days, or in two days in 56.6 per cent.

If now we compare salicylic acid with salicin, we find: failure of salicin in 10 per cent.; of salicylic acid in 20 per cent.; temperature normal under salicin in 4.0 days, or in three days in 33.3 per cent.; under salicylic acid in 4.1 days, or in three days in 50 per cent.; pain removed under salicin in 3.8 days; under salicylic acid, in 3.2 days.

Though these results are somewhat in favour of the acid, yet they will not warrant us in deciding that one of these remedies is more powerful than the other.

A study of these results must, I think, make us allow that, under these remedies, the average duration of rheumatic fever has been remarkably short. Instead of the 9.1 days of the mint-water treatment, we have 4.9 days under salicin and 4.1 under the acid. There is an advantage of from one to three days over the results of the alkaline treatment recorded by Dr. Garrod. Comparing with iron, in Dr. Reynolds's cases the temperature was normal in half the cases in ten days; under salicylic acid, normal in half the cases in three days. We must, however, still bear in mind the peculiar uncertainty of the disease with which we have to do.

[To be continued.]

THERAPEUTIC MEMORANDA.

NITRATE OF SILVER IN LARYNGEAL PHTHISIS.

IN THE JOURNAL for July 21st, Dr. Llewelyn Thomas, commenting upon Dr. Marcet's paper on Affections of the Epiglottis, observes:—"I do not agree with the application of nitrate of silver in laryngeal phthisis, whether in solution or solid, as it produces great pain and frequently terrible spasm." Nitrate of silver, in my hands, has proved a valuable remedy in this disease. In a clinical lecture on phthisical laryngitis, which I published two years ago, I wrote:—"When the mucous membrane (of the larynx) is swollen or ulcerated, we ought regularly to brush it twice or thrice a week with a solution of nitrate of silver of the strength of one drachm of the salt to a fluid-ounce of water. In this remedy, so used, I have had abundant ground for confidence; and I have found this kind of local treatment especially reliable in relieving or removing the difficulty of deglutition, which is often such a prominent and painful symptom in laryngeal phthisis." I suppose the nitrate of silver acts beneficially in these cases mainly by deadening the morbid sensibility of the tumid and ulcerated mucous membrane; and it thus, by diminishing the tenderness of the parts, renders swallowing less painful, and also, by lessening the sense of laryngeal irritation, abates the tendency to coughing. In many cases, in order to produce these good results, it is sufficient to apply the remedy only to the swollen epiglottis and aryteno-epiglottidean folds without carrying the brush within the rima glottidis. In simple chronic laryngitis, the application of a solution of nitrate of silver to the mucous membrane of the larynx is often of service, but it causes considerable pain, and sometimes rather alarming spasm. Laryngeal phthisis is a malady so painful and so fatal, and so little controllable by treatment, that we cannot afford to dispense with the use of any method of medication which can in any degree relieve its symptoms or retard its progress.

JAMES SAWYER, M.D. Lond., etc.,
Physician to the Queen's Hospital, Birmingham.

THE EMPLOYMENT OF LIQUOR AMMONIÆ ACETATIS IN DYSMENORRHOEA.

I HAVE great pleasure in adding my testimony to that of Dr. Drew in favour of the use of liquor ammoniæ acetatis in painful menstruation, noted in his paragraph in the JOURNAL of July 14th; but I fear the cases in which it seems to act as a specific are rare. When it has succeeded in my hands, there has generally been a physical condition, and that alone, to account for the pain; while, unfortunately, we know that by far the most frequent cause is purely anatomical and mechanical, and that then nothing short of an operation can afford relief. At times I have employed chloroform by inhalation, or have given it internally in the form of chloric ether, and have found it quite as serviceable as the liquor ammoniæ acetatis; but all means proved more or less unsatisfactory, and I consequently resorted to the old-fashioned treatment of the warm bath, and continue to prescribe this in preference to anything else, finding it the most effectual of all remedies in affording relief from the extreme pain sometimes present, while it is occasionally not less effectual in directly causing the discharge to appear. It is, in fact, both palliative and remedial in its effects; while many of the cases that have been cured by guaiacum, belladonna, colchicum, liquor ammoniæ acetatis, and the host of other

remedies used in the treatment of dysmenorrhœa, which was formerly very empirical, can only be palliative. If dysmenorrhœa were an entity, or a disease in itself, we might have a hope of selecting a therapeutic specific; but experience has taught us otherwise, and the cases in which the liquor ammoniæ acetatis will prove useful in any of our hands, I fear, can only be when the pain and obstruction are the result of inflammation and attendant turgescence of the cervical mucous membrane of the uterus.

ROBERT TORRANCE, L.R.C.S.E., Matfen.

CARBOLIC ACID FOR TINEA TONSURANS.

CARBOLIC acid has been a well-known remedy for tinea tonsurans for three years at least. The preparation I have always used, and I have never had a failure with it, is the glycerinum acidî carbolici, applied twice a day. I think that, if Dr. Lee will try the above, he will abandon the precipitated sulphur, the use of which I cannot see.

JOHN MILSON RHODES, Didsbury, near Manchester.

REPORTS

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

GUY'S HOSPITAL.

DEMONSTRATION BY DR. SAYRE OF HIS MODE OF TREATMENT OF DISEASE OF THE SPINE.

AT the invitation of Mr. Durham, last Wednesday, Dr. Sayre gave another demonstration of his mode of treatment of disease of the spine at Guy's Hospital, many members of the staff and visitors being present. In the area of the theatre was placed a tripod stand, with a block-and-fall arrangement hanging from its centre, carrying a horizontal crossbar. A pale and delicate-looking little girl was carried in by her mother, being quite unable to walk. The case was one of extensive disease of the cervical vertebrae of several years' standing; many plans of treatment and many kinds of apparatus had been used without success. The curve on the back was very prominent, and an outline was taken by means of a strip of lead, and transferred to paper, for comparison at a future date. A finely knitted "skin-fitting" vest without armlets was slipped over the body, and adapted itself perfectly, without crease or wrinkle;* a pad was then placed on the abdomen underneath the vest. The mother held the child in her arms while a padded leather collar, made to fit the child, was buckled round, so as to support the head at the chin and occiput; straps from this collar were carried to the crossbar, and pads with straps attached were then passed under the arms and likewise attached to the crossbar. The child was then suspended by the pulleys, and the straps adjusted, thus regulating the pull upon the head and trunk respectively, till the child, when almost drawn off the ground, said she was "comfortable".

Bandages of loosely woven muslin, three yards long and two inches and a half wide, had been prepared by rubbing dry plaster of Paris into them; these, when thoroughly wetted, were passed round the body from below upwards, figure-of-8 turns being taken over "the hump", the layers being carefully rubbed down one upon the other. A case was thus built up around the trunk up to the arms while the child was suspended. The "head-piece" was then added; this consisted of a soft piece of iron bent like an inverted \cap , the limbs passing each side of the hump, and being bent so as to adjust themselves to the back; while lateral rib-like strips of perforated tin passed from this iron round the body and gave it further support; other turns of bandage then fixed this apparatus firmly in its position. The child was now taken down and laid on a water-bed; the stomach-pad was withdrawn, thus leaving room under the case for the respiratory movements; the case was slightly moulded over the crista ili, and the whole left to dry. When the case was set, the head was suspended by the collar from a bar arising from the top of the inverted \cap . The child said she was comfortable, and was able to walk a little with assistance.

By this method, the diseased surfaces of the vertebrae are gently separated from one another, and the trunk is fixed in position, with per-

* These vests can be obtained at 273, Oxford Street.

fect comfort to the patient; while the respiratory capacity of the chest, as measured by the spirometer, is increased. The patient is enabled to get out of doors daily; digestion and circulation are improved, and the best opportunity is afforded for the reparative work of Nature. In thus treating Pott's disease of the spine, the intention is the same as in treating fractures: to get the parts in a good position, and thus to immobilise them, not to break up adhesions already formed by reparative action. When the case becomes loose, it may be slit down and fastened again by eyelets and laces, or a new case may be adapted, according to judgment. Each case requires as much thought and care on the part of the surgeon as a case of lithotomy or cataract. Very many forms of apparatus to extend the spine have been used and have failed. The plan now suggested is simple, inexpensive, and can be conducted by any surgeon. Suspension may be made from a pulley fastened to a doorway. The treatment must be thus continued generally for many months, until the patient can bear to jump, and feels no pain from a concussion imparted to the spine.

A well-marked case of *lateral curvature* in a girl was then brought into the theatre. She had been under treatment at various hospitals during the last three years, and various apparatus had been used at different times. The collar was adjusted and suspension made from the head only, the child being taught to *suspend herself* by pulling at the rope with a hand-over-hand action, such as is used in climbing a rope, care being taken that the hand of the lowest shoulder was the highest when the child was self-suspended, standing on tiptoe. The spine was now seen to become much straighter. The case was then built up as before, no head-piece being here required. When the case had set, the girl said she was comfortable, and had increased in height by three-quarters of an inch.

Lateral curvature is not simply a bending of the spine to one or other side; a *rotation of the vertebrae* takes place as well. This was beautifully illustrated by an arrangement suggested by Mr. A. B. Judson of the Belle Vue Hospital, New York. A spinal column was placed in a stand, with India-rubber springs to represent the muscles. When a slight deviation was given to the column, pressure upon its upper extremity was seen to produce a double lateral curve, and at the same time a partial rotation of the vertebrae with great distortion; and no manipulation of the bones could rectify the deformity as long as pressure was made upon the column from above, though the two large curves might be broken up into a number of small ones; when, however, the pressure was removed, the springs representing the muscles straightened the column spontaneously. So, in the living subject, very slight causes may start a lateral curvature and slight lateral rotation of the vertebrae. A school-girl leans more upon one elbow than upon the other: the serratus magnus, thus constantly brought into action on that side, draws upon the ribs, and drags the transverse processes round, and lateral curvature of the column results; the weight of the head and arms increases this, and prevents a satisfactory cure. By lifting the weight of the head from the column, the spine straightens spontaneously, as is seen when the patient suspends himself; the case supporting the whole body keeps it erect, and the daily practice of "self-suspension" strengthens the muscles and effects a permanent cure.

Further particulars of Dr. Sayre's method of treatment will be found in the report of his demonstration at University College Hospital in the JOURNAL of July 14th.

WORCESTER.—Dr. Strange says, in an early part of his report, that this city possesses pure air, good water, an improved system of scavenging and cleansing cesspits, a skilled analyst, early information of cases of sickness and of death; so that it has nearly all the necessary means for the enjoyment of healthy life. He says that there are, however, a large number of tenements unfit for human habitation in many of the poorest streets and lanes, being tumble-down dwellings, dirty with the dirt of centuries, yet crowded with inhabitants. There were 775 notices served during 1876 for the removal of nuisances, of which 347 consisted of foul drains or privies, and 110 of dilapidated premises. The total number of births was 1,174; and, deducting the deaths of non-residents in the infirmary, there were 780 deaths, or 150 births to each 100 deaths. The annual death-rate was 23.27 per 1,000 (which is high), whilst the average duration of life was 33.6 years. If, however, the environs be included, in which the death-rate was only 13.3, the rate is reduced to 20.75 per 1000, which Dr. Strange considers favourable. There was not any death from small-pox, and the mortality from typhoid had declined. He recommends the filling up of all privies near the dwelling-houses, and connecting the closets with the sewers; as well as the systematic cleansing of all the other cesspools and united drainage of the whole district.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKER, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 28TH, 1877.

THE CONTAGIOUS DISEASES ACTS.

SIR HARCOURT JOHNSTON, bearing in mind the vote of the House of Commons last summer on his motion for the repeal of the Contagious Diseases Acts, and possibly influenced by the strong expression of opinion he witnessed at the Statistical Society on Mr. Stansfeld's endeavouring to prove to that body that these Acts had proved a failure hygienically in the army, has deemed it inexpedient to court defeat again by introducing the motion this year. On the other hand, Mr. Stansfeld's faith in his own method of handling the Army Returns is not shaken by even the experience of the Statistical Society; and though the treasurer's balance-sheet of the "Medical Association for the Repeal of the Contagious Diseases Acts" shows the expenditure to have exceeded the income, notwithstanding the liberality of some friends who have come forward nobly to bear the expense of the work, yet there is reason to believe funds will not be wanting hereafter to carry on what the Committee designate a "warfare against a system which is opposed to the truest teachings of science in its highest and broadest sense".

To assist in promoting this desirable end, Dr. Routh delivered an address at the Society's annual meeting at Birmingham on March 28th, some parts of which we think it well to bring to the notice of our readers, that they may be enabled to judge for themselves of the particular form the "truest teachings of science" are taking under the auspices of the Medical Association for the Repeal of the Contagious Diseases Acts. Like every other advocate of that side of the question, Dr. Routh speaks of the hygienic value of the Acts as a very minor point in the general question; but, like them all, he finds it necessary to minimise the result to the utmost before venturing to set forth his other views, and, with this object, has made extensive use of the Army Returns—with what success we shall proceed to show. We may here observe that there is nothing in the handling of statistics that any person of ordinary discrimination may not deal with, provided only he have a thorough knowledge of the different features and relations of his subject, and have made himself acquainted with the modes of treatment which men who have given their attention to such investigations have found it necessary to adopt, that they may exclude error; but there is nothing more striking in the mass of figures that has been published by the opponents of the Acts than the evidence they afford of the absence of these essential requisites; and, we regret to say, those of Dr. Routh form no exception to the rule.

Dr. Routh states that syphilis and gonorrhoea fluctuate like all other contagious diseases, and irrespectively of the Contagious Diseases Acts; but adds that the supporters of the Acts ignore this law, as it might affect unfavourably the conclusions to which they wish to bring us. He excepts Dr. Balfour, it is true, from this sweeping accusation; but, had he been acquainted with the discussion which took place at the Royal Medical and Chirurgical Society the year before last, or that at the Statistical Society last year on Mr. Stansfeld reading his paper there, or the correspondence on the subject which has appeared in our pages, he would have been aware that the view he entertains was first propounded, and has since been most stoutly main-

tained, by advocates of the Acts; while those opposed to them were reluctant to admit it in the first instance, and even now do not understand its application.

Veneral disease, Dr. Routh informs us, has been more frequent of late years than thirty or forty years ago; and he gives us a table from the first volume of the Army Medical Reports which shows its prevalence between 1837 and 1846, and during 1859, which brings this out clearly for these periods. To elucidate the question further, however, he has prepared tables of the ratios per 1,000 of strength of gonorrhœa and primary sores among the Foot Guards, Dragoon Guards and Dragoons, and Infantry, each year from 1837-38 to 1846-47, and from 1859 to 1873, and in the following table gives the mean prevalence of "primary syphilis or sores" in these bodies of men respectively in the two periods.

In the ten years 1837-47. In 1,000 men.	In the fifteen years 1859-73. In 1,000 men.
In Foot Guards 118.1	In Foot Guards 153.3
In Dragoon and Dragoon Guards..... 25.7	In Cavalry and Household Cavalry 83.3
In Infantry 36.1	In Infantry 83.0

As to gonorrhœa, from 1837 to 1846 the mean among the Foot Guards is said to have been 57.2; in the Dragoon Guards and Dragoons, 68.3; Infantry, 88.7; while from 1859 to 1873 the numbers were respectively 63, 84, and 103; and for all the troops at stations "under the Acts" (from 1865 to 1872), the means are given as 111.9; and for those "not under the Acts", as 114.8. The ratios in the latter two instances have become transposed, the 114.8 having been met with at the stations under the Acts. The others, for gonorrhœa, however, are all more or less in excess, from the erroneous method employed in calculating them. Upon the statements just given, Dr. Routh remarks: "From these facts only two conclusions are possible: either that the men have greatly deteriorated in morality, or that venereal disease has become more virulent; and in any case, and that with the utmost the Contagious Diseases Acts could do, the results have never attained the low figures which obtained for the army in earlier years." Dr. Routh, it is seen, includes in his definition "primary syphilis or sores", or what for some years past have been indicated by the expression "primary venereal sores"; these, before the adoption of the nomenclature of the College of Physicians in 1859, appeared in the Army Returns under the designations of "syphilis primaria" and "ulcus penis non syphiliticum", or of "ulcus penis" alone. In forming this table, Dr. Routh has altogether overlooked the latter class of cases in both periods. Introducing them, the ratio of admissions in the former period is found to have been in the Foot Guards 140.8 per 1,000; in the Dragoon Guards, 79.4; and in the Infantry, 122.0. Similarly, in the latter period, the ratios were in the Foot Guards 153.4 per 1,000; in the Cavalry and Household Cavalry, 90; and in the Infantry, 82.7: facts very different from those subjected to comparison by Dr. Routh, and which open the way to a third conclusion he does not seem to have contemplated, which both he and our readers may draw for themselves.

In the detailed return of "primary sores" already alluded to, there is one to show the frequency of these from 1867 to 1872 inclusive in all corps at stations "under the Acts", and at those "not under the Acts". A similar return for gonorrhœa from 1865 to 1872 appears under that disease, evidently taken from one at page 10, vol. xiv, of the Army Medical Reports; but, although the ratios for "primary sores" are in the adjoining columns to those for gonorrhœa in the original, those in Dr. Routh's table were evidently obtained from another source, and it was only after some consideration that we fell upon it. At page 8 of the same volume, the admissions into hospital per 1,000 of strength for primary sores are given for the different years named for each of the fourteen stations which then were or ultimately came under the Acts; also for the fourteen now under them; and Dr. Routh has taken the sum of these ratios for a single year for each group, and, dividing by fourteen, gives the result as the ratio of admissions for the

group that year. From the six yearly means he arrives at a general mean by a similar process, which for the stations "under the Acts" is 63 per 1,000, and for those "not under the Acts" 94. On calculating these means for the same years in the manner followed by statisticians—viz., by taking the sum of the strengths for the different years, and the sum of admissions for the same, as given at page 10—the correct ratio for the period is found to be 59.9 for the stations "under the Acts", and 109.1 for those not under them. Dr. Routh may fail to perceive the necessity of this method: we will, therefore, put it to him in another way. Let us suppose he had lent a friend £50 at 3 per cent. *per annum*, £150 at 5 per cent., and £200 at 7 per cent.; the mean percentage is 5; and would he be satisfied if his friend, at the end of the year, tendered him four times £5, or £20, as his interest? Or, if he had lent the £50 at 7 per cent., and the £200 at 3, does he think his friend would pay him £20 as the interest for the year? The proper interest in the former case is £23, and in the latter £17; and a similar calculation to that by which these numbers are arrived at must be followed in computing the mean ratios of sickness where bodies of men of different strength, and undergoing different ratios of sickness, are concerned.

"But there is another way", we are told, "in which we may deduce how illusory it is to draw the conclusion that the Contagious Diseases Acts have the principal share in diminishing, or at least modifying, the frequency or severity of venereal diseases." To indicate this, the admissions per 1,000 from all forms of venereal affections in 1868 are given for "the following protected stations for that year": Woolwich, 191; Cork, 209; Aldershot, 237; Curragh, 243; Chatham and Sheerness, 275; Plymouth and Devonport, 280; Shorncliffe, 291; Windsor, 343; Portsmouth, 348; Winchester, 349; Canterbury, 407; Colchester, 537. "Why", it is asked, "this disparity between Woolwich (191) and Colchester (537)? Why should the Acts produce such different results in different places?" Now here, as elsewhere, Dr. Routh draws conclusions from premisses which he has not taken the precaution to verify. Had he examined the question, he would have found that in 1868 the only places in the above list which were under the Acts the whole year were Woolwich, Aldershot, Chatham and Sheerness, Plymouth and Devonport, and Portsmouth; and that, of the remainder, Shorncliffe alone came under the Acts that year on July 24th. These facts may enable Dr. Routh to reply to his questions in a different sense from what he anticipated.

Our space does not permit us to pursue this subject further. The instances we have adduced show the utter unsoundness of Dr. Routh's manipulations of Army Returns, and we can only express our deep regret that such means should be resorted to for the purpose of misrepresenting facts and misleading public opinion.

THE EDUCATION AND CARE OF IDIOTS, IMBECILES, AND HARMLESS LUNATICS.

IN November last, we drew the attention of our readers to the action taken by the Charity Organisation Society with reference to the above-named class, and noticed a number of resolutions which had been passed by a large and influential special committee appointed to consider and advise upon the matter. This Committee has now concluded its labours; and the result is before us in the form of an able and exhaustive pamphlet (Longmans, Green and Co.), based upon very extended inquiry, in which ready and valuable assistance appears to have been given by the Secretaries of State for Foreign and Colonial affairs, and by the highest authorities on the subject on both sides of the Atlantic.

The *raison d'être* of this inquiry appears to have been the entire inability of the Society to point out, in many distressing cases brought to their notice, any means of relief to a family from the burden of an idiot member.

A few years ago, under Mr. Hardy's Act of 1867, the pauper idiots, imbeciles, and harmless lunatics, of all ages, were gathered from the

Metropolitan Workhouses and Lunatic Asylums into two new District Asylums at Leavesden and Caterham; when it soon became evident that the children ought to be separated from the adults, and specially trained. A school for this purpose was accordingly established temporarily at Clapton, and has already given most encouraging results; while permanent buildings for five hundred of this class are in course of erection at Darent. In this way, provision has been made for the paupers of a district numbering three-and-a-half million persons. But, for the rest of the country, nothing worthy of mention has been done. It is true that, in two or three county asylums, special wards have been set apart for the idiots; but the arrangements are on too small a scale, and not sufficiently complete, to warrant any hope of success; and in the meantime the asylums are encumbered with a number of these cases, and with harmless chronic lunatics, to the exclusion of acute cases, for whom immediate treatment is of vital importance. The Commissioners in Lunacy have recommended that, instead of enlarging the present lunatic asylums, which proceeding appears to be imminent in several counties, separate buildings should be erected for patients of the chronic and harmless class; and this advice is in accordance with the conclusions of the Committee.

Whatever view may be held as to the propriety of removing harmless lunatics from the County Asylum, no difference of opinion can exist as to the advisability of taking from the workhouses upwards of ten thousand imbeciles and idiots, for whose proper management nearly all the conditions are there wanting; there being, moreover, neither suitable education for the children nor industrial occupation for the adults; and it being difficult to persuade the guardians that a more than usually nourishing diet is absolutely necessary for them.

Owing to the absence of precise definitions, and to the fact that idiots and imbeciles are included without distinction in the reports of the Commissioners in Lunacy and the Local Government Board, while the Census of 1871 is proved to be utterly unreliable for the purpose, on account of the prevailing ignorance on the subject and the natural desire to conceal the existence of idiocy in families, the Committee were unable to arrive at any certain conclusion as to the number belonging to the class with which they had to deal. An estimate, however, is given of 35,963 cases; of whom 4,205 are in the Metropolitan District Asylums; 10,681 in lunatic asylums; 11,302 in workhouses; 6,506 are out-door paupers; and 3,269 are estimated to belong to the class just above pauperism.

The Committee recommend that training-schools be erected, capable of containing not more than five hundred inmates, and custodial asylums for two thousand, to be placed wherever they can be most conveniently filled; and in which suitable means of employment should be provided, as at the Metropolitan District Asylums; that these training-schools and asylums be in mutual relation with each other, and under the same general superintendence; that they be governed by representatives of the local magistrates and guardians, and by persons appointed by the Crown; and be under the supervision of the Commissioners in Lunacy and the Local Government Board. The expense of providing these institutions can only be borne by the entire community, every member of which is personally interested in the absence of the painful and demoralising spectacle of the neglected idiot, and in the knowledge that he is properly cared for and educated to the extent of his capacity; and it is suggested that advances should be made for this purpose from the public funds, on terms sufficiently liberal to allow their being repaid out of the rates without imposing too great a burden on the rate-payers; and that a liberal capitation-grant should be made for every idiot child certified to be under effectual training in these institutions. The burden will not be altogether a new one, as the persons to be provided for are already chargeable to the rates and public funds. It is also proposed that the benefits of the system should be extended to a class above the destitute poor, without the stigma of pauperism; the assistance given being wholly or partly paid for by the families concerned, according to their ability.

Whatever may be the cost of educating the idiot, the cost of neglecting

him is greater still. He must be supported in idleness, misery, and mischief, if not taught to work. The noble institution at Earlswood, and the kindred asylums founded upon its model, have shown the great direct benefit which may accrue to the idiot from systematic care and training; but the indirect benefit to the industrious families, whose exertions are trammelled, and who are often brought to poverty by the care of an idiot child, is of still greater importance, and must be credited in the national account.

For the upper and upper-middle classes, there is accommodation at Earlswood, Lancaster, Essex Hall, and in private establishments, where every advantage is given which money can purchase; while, for the lower middle-class, provision has been made by the charitable founders of the above-named institutions, and also at the asylums for the Midland and Western Counties; but there are only eleven hundred idiots in asylums on the voluntary principle in England and Wales; and the candidates for admission are so numerous as to oppose a formidable barrier to those who cannot pay the total cost of maintenance. Time, most valuable as regards the education of the idiot, is lost by the delay in gaining admission. It is believed that this pressure would be relieved by the extension of the benefits of the district training-schools to the class just above paupers; and would put the charitable institutions, with their valuable resources, within the reach of the class for whom their founders specially intended them.

Apart from the delay connected with admission and the question of pecuniary ability, comes a grave difficulty: the process of selection, which results in the total exclusion of many candidates. The managers of the Earlswood Asylum take a more liberal view of this matter than do those of the kindred institutions at Lancaster, Essex Hall, and elsewhere, where the epileptic, the blind, and the deaf and dumb rarely obtain admission; whereas, at Earlswood, nearly one-fourth of the whole lunatics belong to the epileptic class; and refusals, unless on account of age, active disease, or insanity, are rare. In the case of these refusals, the condition of the lower middle-class families is truly pitiable; they are absolutely without hope or relief. They cannot appear before their boards of guardians as paupers, and thus are in a worse position than this latter class. By the close connection which it is proposed to establish between the training-schools and the custodial asylums, it will be practicable to admit every candidate, however helpless; and, as already stated, it is proposed to extend these benefits to the class just above pauperism.

But to enable full advantage to be taken of the above plan, it is absolutely necessary that the stringent provisions of the "Lunacy Acts" be no longer applied to the class under consideration. Speaking of the voluntary institutions, the Commissioners in Lunacy have repeatedly alluded to the obstruction offered by the obsolete character of the legislation on the subject; and have expressed their opinion that, among other things, all forms or orders, medical certificates, returns, etc., should be as much as possible simplified.

The Committee state that they have endeavoured to profit by the experience of Scotland, Ireland, the Colonies, and foreign countries; and, though they find that the matter has received serious and practical attention, particularly in the United States, yet it appears that in that country the process of selecting trainable and youthful patients for admission into the State Institutions, to the exclusion of all others, largely prevails; while no adequate accommodation exists for the so-called custodial cases; and there can be no doubt that, bad as the arrangements in England are, in every other country they are worse. It is hoped and believed that the example now proposed to be set will be largely followed elsewhere.

DR. BASTIAN has gone to Paris to submit his experiments on spontaneous generation to the investigation of the Commission of the French Academy. M. Pasteur has offered the use of his laboratory. Much interest is felt in this subject, and the results of the experiments will shortly be published.

PRINCE ALBERT VICTOR continues to progress favourably.

THE library of the Obstetrical Society of London will be closed during the month of August.

GERMANY has despatched to the Russian army three sanitary trains, consisting of seventy-two carriages. The equipment alone cost £5,000.

SIR ALEXANDER ARMSTRONG, K.C.B., made an official inspection of the Royal Marine Hospital at Chatham, in charge of Deputy Inspector-General Morgan, C.B., on the 24th instant, and subsequently visited the dockyard.

THE Barnsley sewerage works, constructed near Ardsley at a cost of £50,000, were opened last week. The system adopted is Mr. Bailey Denton's intermittent filtration and broad irrigation. Some experiments made are said to have proved eminently successful.

DR. R. THORNE writes to the *Times* complaining that the books lent to the patients in the London Fever Hospital are now in a dilapidated condition, and appealing to the public to remedy this by sending their superfluous books there.

WE regret to hear of the death by suicide, at the age of twenty-nine, of Dr. James Cathcart of Wednesbury. He had been in a desponding state since the death of his wife three months ago; and on the 18th instant put an end to his life by taking hydrocyanic acid.

ACCORDING to a recent Austrian census, it appears that the proportion of cretinism per 10,000 ranges from a small figure up to as high as 40 in the different districts of the Alpine parts of the empire. The proportion to every 10,000 inhabitants is, in the Salzburg district, 40; in Upper Austria, 18.3; in Styria, 17; in Silesia, 10; in Tyrol, 7.6, etc.

THE Huguier Prize for Anatomical Drawing has been awarded by a jury—including M. Mathias Duval, the Professor of Anatomy at the École des Beaux Arts, MM. Lenoir, Lequesne, Larey, Robert, Fleury, etc.—to M. Cuyer, a pupil of M. Bonnat. Two honourable mentions were awarded to M. Besly, a pupil of M. Cabanel, and M. Haro, a pupil of MM. Cabanel and Carolus Duran.

A CORRESPONDENT telegraphs from Constantinople, under date July 19th: "Dr. Dickson, of the English Embassy here, has given a dinner in honour of the representatives of the Stafford House and Red Cross funds for the sick and wounded. The reports circulated of differences existing between these two societies are destitute of any foundation, both associations working most harmoniously together."

LAST week, Dr. Hardwicke held an inquest at the Islington Coroner's Court on the death of the illegitimate child of a domestic servant. The child, which was six months old at the time of death, was placed in the charge of a woman, who neglected it so that it died, the mother and the nurse being censured by the coroner. But for the modifications introduced, at the representation of the Women's Vigilance Society, into the Infant Life Protection Bill when passing through Parliament, so that it protects only infants who were farmed out where two or more were taken by the same person, the registration of this child would have been required by law, and such neglect and cruelty would have been practically impossible.

THE Stafford House Committee for the relief of sick and wounded Turkish soldiers is distributing with all possible rapidity the funds at its disposal. At the meeting yesterday of the full committee it was determined to send out four more surgeons, in addition to the five who have arrived, fully equipped. Besides these, Mr. Kennett is superintending the distribution of appliances and the establishment of hospitals, of which three are in working order under other doctors at Schumla, Varna, and Rustchuk. Mr. Pratt of Royston Hall, Norfolk, has volunteered to proceed to the East as assistant-commissioner, and will

take out the next supply of stores. Lord Blantyre has generously sent out a number of medical men at his own expense; and altogether no fewer than twenty-three English surgeons of proved capacity will represent in a practical form the assistance which the good feeling of Englishmen tenders in mitigation of the horrors of war.

PROFESSOR BILLROTH, in his clinic at Vienna, lately excised a spleen, the patient being a man about forty years of age. The organ was extremely adherent to the surrounding textures, and great hæmorrhage followed its extraction. After ligaturing the larger vessels, the galvano-cautery was applied to restrain the bleeding from the smaller ones. The patient, however, lost so much blood that he expired shortly after the completion of the operation. Upon weighing, the spleen was found to be 14 lbs. This is the second time that the same surgeon has performed splenotomy within the last six months; the result in both cases was the same.

OWING to some differences of opinion between the Medical Department and the Nightingale Institution, which naturally wanted to retain some control over, and secure good terms for, its own nurses, the scheme to provide a nursing staff for the Herbert Hospital, Woolwich, from the very efficient members of the above institution has fallen through. The *Army and Navy Gazette* observes that the Secretary, Mr. Bonham Carter, appears to have proved himself altogether too formidable for the less astute authorities with whom he had to deal. In the interests of Woolwich Hospital, however, it is to be regretted that terms of accommodation were not arrived at, as it is much to be feared that no staff of nurses can be so efficient as that which Mr. Bonham Carter represents.

WE published last week an extract from the *Gazette*, appointing the two sons of Mr. Squire as his successors as chemists on the establishment of the Queen. We understand that Mr. Squire, who is close upon eighty years of age, and has served half his life in Her Majesty's service, considered it prudent to retire and make room for his youngest son, who is now appointed in his place. He is still in possession of all his faculties, and is active in mind and body; but he wisely considers that at that age he has no right to tax them too much; and, instead of withdrawing altogether from business, he relaxes his duties, and Her Majesty has been graciously pleased to accept his resignation and appoint his youngest son. He is the last member of the first Council of the Pharmaceutical Society, and the only remaining one of the first appointed medical staff of the Queen.

MR. GLADSTONE AND THE CONTAGIOUS DISEASES ACTS.

THE *Liverpool Courier* of July 21st mentions that Mr. F. W. Lowndes, the local secretary to the Association for Promoting the Extension of the Contagious Diseases Acts, forwarded to Mr. Gladstone some time ago a copy of a pamphlet recently published. Mr. Gladstone's reply was as follows.

"Sir,—I beg to thank you for your tract, which I have not failed to peruse. My own opinions on the question coincided very much with the proposal of the late Government, which did not in full satisfy either extreme view and did not become law.—Your faithful servant,
W. E. GLADSTONE."

"F. W. Lowndes, Esq., 62, Mount Pleasant, Liverpool.

The proposal of the late Government was that the Acts should be modified and extended, not repealed.

MR. FORSTER ON VIVISECTION.

MR. W. E. FORSTER, M.P., has written to the *Times* to the following effect in reference to his recent speech at the London Hospital. "As the subject (vivisection) is one in which I have long taken a deep interest, will you allow me to say that after stating what I believe to be the case of the physiologists, and fully acknowledging the misrepresentations to which they are often exposed, I went on to dwell upon the reasons why I thought legislation on the subject necessary, and upon the importance of absolutely prohibiting all pain-giving experiments

in any medical schools or for purposes of teaching. While admitting that such experiments might, in some very rare cases, be necessary to the progress of medical science, I pointed out the dangers inseparable from the practice, and therefore needing to be guarded against; and at the same time I expressed my belief that, in the restraints provided by the Act, Parliament had not gone beyond the feeling of the medical profession itself."

FORENSIC MEDICINE IN FRANCE.

M. VOISIN, the Paris Prefect of Police, has authorised M. Vulpian, the Dean of the Paris Faculty of Medicine, to give a course of lectures on practical legal medicine at the Morgue. These lectures will be given twice a week from November 1st, 1877, to April 1st, 1878. Doctors of Medicine and third years' students will be admitted by cards.

SHIPS' SURGEONS.

At the Liverpool Police Court last week, William Ellis, owner of the sailing-ship *Arago*, was summoned under the Merchant Shipping Act for failing to provide a surgeon for that vessel, she being a passenger-ship. The *Arago* sailed from Liverpool to Bombay, and at Jeddah took on board six hundred and thirty-six pilgrims, a number of whom died on the way. There was no surgeon on board. It was admitted that the defendant (who pleaded guilty) had broken the Act through a misconception and not from design, and it was stated that it was unusual for vessels carrying pilgrims to be furnished with a surgeon. The modified penalty of forty shillings and costs was imposed.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

At a quarterly court of the directors of the Society held on Wednesday, July 11th—the President, Sir George Burrows, Bart., in the chair—a sum of £1,324:10 was distributed among sixty widows and thirteen orphans. The new grants made at the meeting amounted to £172 *per annum*. Three widows and one orphan were admitted as recipients of grants. Two new members were elected. The deaths of five members were reported, that of Mr. George Cooper, Vice-President, being one of the number.

METROPOLITAN FREE HOSPITAL.

At the Mansion House, under the presidency of the Lord Mayor, a public meeting was held on July 23rd in aid of the rebuilding of the Metropolitan Free Hospital. The report of the Special Committee stated that, in pursuance of a public meeting held at the Mansion House on the 3rd of November last, the Committee had thought it their first duty to consider the question of the most suitable site available in the immediate neighbourhood of Devonshire Street, Bishopsgate. A valuable freehold property was in possession of the trustees in Half Moon Street; and it was ultimately decided to build immediately on that site a hospital to contain not less than one hundred beds, together with accommodation for a large number of out-patients. The estimate of the cost was £30,000, £10,000 of which had been already subscribed, and the Committee appealed to the public for the remaining £20,000. The Lord Mayor, in opening the meeting, said the work of rebuilding the Hospital was a most important one, inasmuch as it was sought to bring help to those who could not help themselves. He proposed the adoption of the report. Cardinal Manning, in seconding the resolution, observed that no one could doubt that the present hospital accommodation in the City and throughout London was inadequate. The Metropolitan Free Hospital had fulfilled an important and efficient work of consolation and help to multitudes, and he trusted that the work would be taken up by the charitable public. The resolution was carried *unanim.* The next resolution was proposed by Bishop Claughton: "That the Special Committee be requested to continue their services as a Building Committee, and to proceed as soon as possible with the rebuilding of the hospital on the already acquired site." This was seconded by Dr. McAusland, and carried

unanimously. Another resolution was carried pledging the meeting to use every exertion to raise the necessary funds for rebuilding the hospital. The proceedings terminated by a vote of thanks to the Lord Mayor for presiding. We trust that in the new hospital care will be taken to reorganise the out-patient department, so as to prevent abuse.

A SANITARY TRAIN.

The Odessa branch of the Red Cross Society has dispatched a sanitary or hospital train to the seat of war. It consists of seventeen carriages for the sick and wounded, with others, in addition, fitted up as kitchen, larder, cellar, chemical department, linen-room, an office, and sleeping chambers for the sisters of mercy and the staff, and even a mortuary. Each of the seventeen carriages contains twelve beds—six below resting on elastic supports, and the same number above suspended from the roof. Being movable, they can be used as stretchers to convey patients from the field of battle to the train, and from the train to the hospital, without disturbing the poor fellows. The ventilation, lighting, and arrangements for washing are perfect, as are also those touching the administrative department. The whole is a model of ingenuity, arrangement, and cleanliness, and even of economy, for its entire cost is only 11,000 roubles (that unit is now worth about 2s. 2½d.), that is, 5,000 roubles for altering the carriages, for they were not new ones built on purpose, and 6,000 for fitting them up. The train is under the management of a chief, with whom are associated a chaplain, a doctor, and two assistants, a chemist and his store-keeper, eight sisters of mercy with two lay sisters, and, besides, two male attendants per carriage.

INFANT MORTALITY IN BERLIN.

STATISTICAL returns show a deplorably high rate of infant mortality in Berlin. In the last week of June, no fewer than seven hundred infants died of cholera and dysentery, a larger amount of deaths than had been registered in any other year. The Hygienic Society of Berlin has appointed a Committee to investigate the causes of this excessive mortality, more especially in relation to infant-feeding.

INFANT LIFE PROTECTION ACT.

It appears by the report of the Metropolitan Board of Works just issued, that the total number of houses registered by the Board under this Act during the year 1876 was six, and the number of young infants authorised to be kept in such houses apart from their parents was fifteen. Several other applications, it is stated, were made to the Board for registration, but it was found on inquiry that the applicants did not come within the operation of the statute. The Board, no doubt, does its best to perform properly its duties, but it evidently has not any machinery at its disposal sufficient for the effectual protection of its youthful charges.

PROPOSED REFORM IN THE OFFICE OF CORONER.

WE heartily concur in the resolutions which have been recently presented to the Secretary of State for the Home Department by the Council of the Social Science Association. Some changes in the mode of electing coroners, and in defining their duties and responsibilities, have been long urgently required. The resolutions to which we refer are as follows:

"1. That in the opinion of this Council a Parliamentary inquiry into the mode of appointment, the office, duties, and jurisdiction of coroners is imperatively demanded. 2. The Council draw attention to the fact that the office of coroner is one of high antiquity and high utility; that it has been the subject of much and intricate legislation, and has come, in process of time, to be attended with inconveniences in respect of the constituencies by which the coroner is elected, the manner of election, the mode of administration and procedure, the place for holding the court, as well as many points relating to functions, procedure, and responsibility. The Council are of opinion that, in consequence of various social changes since the time of the original creation of the coroner's office, the expediency of obtaining a coroner's jury, either at all or in its present form, the existing relations of the

coroner to the justices of the peace, the provision for the use of expert witnesses, have become matters requiring fresh and special arrangement. 3. That the question of inquiry into the causes of fires is one of urgency, and should be considered in regard to the appointments, duties, and functions of coroners."

With the exception of the last, referring to inquiries into the causes of fires, to which we see no objection, the resolutions include the views which have been frequently advocated in our pages by leading articles and the letters of intelligent correspondents well acquainted with the subject. We trust that the Home Secretary will be able to deal with this wide and important question in the next session of Parliament.

CLAPTON ASYLUM FOR IMBECILE CHILDREN.

THE second report of the Clapton Asylum for Imbecile Children has just been issued. During last year, the daily average of children in the Asylum was 326, and much good appears to have been effected among them. About one-sixth of the number of boys were employed as tailors and shoemakers, while a large number of girls were engaged in domestic occupations; five cases have been so much improved as to be discharged "recovered". The educational and industrial system of the institution, under the able direction of Dr. Beach, has rendered the lives of many of these children happy; and their labour has partially supplied their wants, so that the expense per head has been reduced to 12s. 6d. per week. The new building at Darenth is rapidly rising, and, when completed, will afford accommodation for 500 children. The various parishes are constantly sending applications for the admission of imbecile children, as it is felt that a training such as they receive at Clapton gives them the best chance of earning their own living in after years.

SMALL-POX AND VACCINATION.

WE need scarcely apologise for referring at the present time to the important report presented by Dr. Collie to the Committee of the Fever Hospital at Homerton on the relative mortality from small-pox amongst vaccinated and unvaccinated persons. It appears that 1,194 cases were admitted, and that 208 persons per 1,000 admitted were unvaccinated and under fifteen years of age; that 122 per 1,000 were above fifteen years of age and unvaccinated; and that the mean mortality of the unvaccinated amongst those under fifteen years of age was 37.0 per cent.; and amongst those who were above fifteen years, 37.7 per cent.; that the death-rate was 6.5 per cent. amongst those who had one or more *bad* marks and were under fifteen years of age; whilst of those in this class who were above fifteen, the death-rate was 14.4 per cent.; showing that the protective power of insufficient vaccination decreases as age advances. Indeed, Dr. Collie remarks that in childhood almost any kind of vaccination is protective. This opinion receives great support by the statistics, as out of 158 patients admitted under fifteen years of age with indifferent or good vaccination marks, not one died, although 73 had only one good mark or indifferent marks; whilst out of 363 above fifteen years of age who had marks of the same kind, as many as 22 died. Of these, 9 had indifferent marks, 8 one good mark, and 5 two good marks. An analysis of the severe cases of small-pox shows that not one vaccinated child under twelve years suffered severely, whilst as many as 73 above twelve years old were classed under this heading. Dr. Collie therefore argues, as no re-vaccinated case came under his care, and as a majority of primary vaccinations have been shown to be imperfect or almost worthless, that efficient vaccination must be extended to include revaccination about the time of puberty. He also refers to the medical reports of the Privy Council, 1860-64, in support of his experience as to the inefficiency of a large proportion of primary vaccinations. The practical issue of these and other discussions of small-pox statistics seems to be that all persons should be revaccinated about fifteen years of age, with not less than four punctures, by the arm-to-arm vaccination plan; that as much care should be used in performing the second operation as the first, and that in no case should the lymph be taken from a case of secondary vaccination. The great advantages of general revaccination

would be that the operation would be properly done, with good lymph, instead of as is frequently the case now, when it is done at a time of panic, with any lymph that can be procured, either on points or in tubes; and also that persons so vaccinated would almost certainly be safe against death by small-pox. We would just remark that Dr. Jenner tested his cases of vaccination in a manner that is illegal now, as the following passage shows, which is taken from his evidence before the House of Commons in 1802. "As soon as I could furnish myself with virus from the cow, a number of children were inoculated in succession, one from the other, and, after several months had elapsed, they were exposed to the infection of small-pox, some by inoculation, others by variolous effluvia, and some in both ways; but they all resisted it." With this testimony before us, and the accumulated evidence of the partial wearing out of the protection afforded by infantile vaccination, it may well be asked why is a small-pox epidemic ever allowed to occur for want of primary and secondary vaccination? The medical profession and our legislators must answer the question.

FEVER ACCOMMODATION FOR THE MIDDLE CLASSES.

MUCH attention has lately been given to the subject of hospital accommodation for the middle classes, and at the recent meeting at the Mansion House it was stated that the London Fever Hospital had provided such accommodation for those suffering from fever. The success this institution has already met with in this direction may be regarded as an indication of the willingness of the well-to-do to avail themselves of the advantages of hospital treatment when this is not attended with a loss of the comforts to which they are accustomed in their own homes. The Committee of the London Fever Hospital are making every effort in their power to adapt the hospital to the requirements of those who seek its assistance on account of the infectiousness of their disease rather than on account of poverty. The wards have recently been thoroughly cleansed and painted, and, together, with the garden, which is now in excellent order, present an appearance of cheerfulness and comfort which must greatly relieve the monotony of the quarantine necessary after fever. There is no doubt that the advantages thus offered of the opportunity of passing through fever without exposing other members of the family to the risk of infection, and without the loss of any home comforts, are so great that they only require to be more known to be generally adopted. Members of the medical profession have the opportunity of sending patients into private wards, where a fee of three guineas a week is charged, and where the patients can be visited by their own medical attendants in consultation with the hospital physicians. Into the general wards are admitted servants, *employés*, etc., on payment of an admission-fee of two guineas; and the families of working men not in receipt of parish pay without charge. An ambulance is sent for the removal of patients on receipt at the hospital of a medical certificate, the horse-hire alone being charged for.

PUBLIC HEALTH (METROPOLIS) BILL.

IN withdrawing this Bill, Mr. Sclater-Booth said that when it was introduced it was not expected to have received any opposition; but, as many of the vestries and district boards had made great objection, there was not time for it to pass. "If he introduced it next year, it would be his duty to amend the sanitary law of the metropolis more than could be done in what was chiefly a consolidation Bill. In withdrawing the present measure, he would not, therefore, bind himself to reintroduce the same Bill next session, but hoped to reintroduce it in an amended shape." If this course be adopted, the amendments should include powers to compel a supply of water from the companies' mains for domestic purposes as well as for the scouring of drains, with separate cisterns for each, which cannot legally be enforced at present, except in very small houses. Clauses should also be introduced preventing the water companies from cutting off the supply, except with the consent of the sanitary authority. We mention these, because, whilst good water is as essential as good drainage, the local authorities in the metropolis have no jurisdiction except when it is used as an adjunct to

drainage, or for houses the rental of which is under five shillings per week. There should also be something like uniformity as regards house drainage, which does not obtain at present; as in some districts most of the houses are drained in small blocks of five or even more; whilst in others every house has its separate drain. In some districts, the local authority has made by-laws for the laying of drains, both as to the size and level as well as regards the use of concrete; whilst in others they have not made any such by-laws. These and numerous other gaps in the metropolitan sanitary law can be easily and usefully filled up in the new Bill that has been partially promised by Mr. Sclater-Booth; but, if it be proposed that old clauses, taken from old Acts of Parliament, shall be strung together in the same way as they were in this Bill, without some modifications that would render them suitable for the present time and the more advanced state of sanitary knowledge and practice in the metropolis, it is probable that the opposition will be no less vigorous than it has been on the present occasion.

ROYAL MEDICAL BENEVOLENT COLLEGE.

ON Wednesday, a special meeting of the Royal Medical Benevolent College was held at the offices, Soho Square, under the presidency of Mr. Hancock, to consider the two following resolutions, moved by Rev. R. J. Simpson: 1st. That in the opinion of this meeting it is expedient to prohibit the practice of canvassing for votes; and, therefore, in future no application by the candidate, parent or guardian of the candidate, for votes shall be allowed; and when it shall be satisfactorily proved to the Council that this rule has been infringed, the Council shall have the power to remove the name of the applicant from the list of candidates, and, if elected, to declare the election of such applicant void; and 2nd. That all voting papers be sent by the voter himself direct to the secretary of the College, and that the signature of the governor, with date and address, be appended in full. Dr. Hare seconded the resolutions, and entered fully into the advantages that would result to the Charity and to the applicants for its aid. As there were Life Governors who had vested interests in the way of votes, it was not proposed to abolish the system of voting, but the canvassing for votes only. At present, he felt that the children whose friends were most wealthy gained the election, instead of those who were more deserving by reason of their poverty. He said also that many leading members of the profession were in favour of the abolition of the voting system, and were sure that sooner or later their point would be gained. On the other hand, it was urged that, if the resolutions were carried, the result would be a falling-off in the funds of the Charity. That, apparently, was the opinion of the majority present, for, upon the resolutions being put, they were rejected.

THE BELGRAVE AND VICTORIA HOSPITALS FOR CHILDREN.

IN the best interests of medical charity, we have consistently advocated the amalgamation of the Belgrave Hospital for Children with the larger and more powerful institution at Gough House, believing that much waste, both of funds and energy, arises from the multiplication of moderate-sized and probably competing institutions. If a small hospital do not go steadily forward, it speedily falls under the destructive influences of decay; and we are, therefore, not surprised to learn that the Belgrave building is now totally unsuited to its wants; that its funds are languishing; and that the efforts of its professional staff are powerless to keep up more than a supply of chronic and too frequently incurable cases. Under these circumstances, the medical officers and the more influential of the governing body gladly availed themselves of the proposal to join the Victoria Hospital at Gough House, and enlarge the sphere of operations of both charities, by building a new wing on land which has recently been acquired for that purpose. To bring this very reasonable plan fully under the notice of the subscribers, a general meeting was held at St. Michael's Schools, Ebury Street, on Wednesday, July 25th, under the presidency of the Duke of Westminster; and, after His Grace and others had expressed their cordial

concurrence with the proposed amalgamation, and their disapproval of the attempt to carry on the separate existence of the Belgrave Hospital under its present unfavourable conditions, the vote was taken, on a motion proposed by Mr. Pick and seconded by the Rev. H. Fleming. We are sure we express very general regret when we announce that sentiment prevailed over the clearest considerations of reason and argument, and that the supporters of amalgamation were defeated by a narrow majority. The medical officers, who had taken a very active part in furthering a scheme which would rescue their institution from the destruction which now certainly awaits it, feeling that their usefulness can hardly survive so total a rejection of their views and recommendations, saw that only one course was now open to them, and accordingly Mr. Pick, Dr. Farquharson, and Dr. Hope at once sent in their resignations, in which they were joined by the acting honorary secretary Mr. Meates. Mr. Stirling, the junior surgeon, was prevented from taking part in the action of his colleagues by absence in Australia. We are sure we need hardly suggest that the good feeling of the profession will naturally prevent eligible candidates from presenting themselves, under present circumstances, to fill these vacancies.

PROPOSED UNIVERSITY OF MANCHESTER.

ON July 20th, a very large and influential deputation waited upon the Duke of Richmond and Gordon (Lord President of the Council) at Downing Street, for the purpose of presenting a memorial praying that a charter might be granted to Owens College, Manchester, conferring upon the institution the rank of an university, to be called the University of Manchester, with power to grant its own degrees in art, science, medicine, and law. The Lord President, in his reply, said he scarcely ever recollected a deputation representing so large, so important, and so intelligent a portion of the community. The Education Department had not been altogether unmindful of the merits of Owens College, having allowed the science teachers in training to attend there in place of South Kensington: as high a compliment, they would agree with him, as any department could pay to country institutions. He would faithfully report the subject to the Cabinet, and he could promise them the best and most attentive consideration.

BOARDING-OUT.

A REPORT by the Local Government Board expressing its opinion on the outrage on the two children, Martha and Sarah Dunn, was read at the meeting of the Nantwich Board of Guardians on Saturday. While refraining from expressing any opinion as to the sufficiency of the rules framed by the guardians for the guidance of persons employed in carrying out the boarding-out system, they express their regret that many of the safeguards against abuse which the rules provided were in the present case entirely neglected. Under the circumstances it is evident, they say, that practically there has been no supervision by the guardians or their officers of these children, and consequently not only has their training and education been neglected, but they have been subjected to much deprivation and cruelty. The Board cannot but feel that the guardians are to a great extent responsible for the unfortunate occurrences which have taken place, and they request to be informed what steps have been and are proposed to be taken to provide for the proper care and supervision of these children, as well as any other children placed out by the guardians of their union. The judgment of the Local Government Board entirely confirms the observations which we made when the case was first published.

HOME HOSPITALS FOR THE WELL-TO-DO.

ON July 20th, a meeting of the committee recently appointed to consider the scheme for the promotion of home hospitals for the well-to-do was held in the Venetian Parlour of the Mansion House, under the presidency of the Duke of Northumberland. There were also present Sir Francis Hicks, Mr. George Stanley, Dr. Quain, Mr. Albert G. Sandeman, Mr. Clifford Wigram, and Mr. H. C. Burdett. It was resolved to establish an association to provide homes which would be

self-supporting for the treatment and cure of disease, as in hospitals, by skilled nursing, rest, and regulated diet, under proper sanitary and hygienic conditions, with the comforts of home, for the benefit of all classes when attacked by illness who could afford to pay in various degrees for such advantages. In order to establish the first homes successfully, it was necessary to provide sufficient funds to meet the primary outlay for buildings, fittings, furniture, and other essential appliances. For that purpose the committee decided to make an appeal to the public for funds, say £20,000, to enable them to open one or more homes fitted with any comfort and requirement which science and forethought could suggest. Taking as their model the principle laid down in the governorship of some of the public schools, they had decided to solicit contributions either as subscriptions conferring certain privileges or as free gifts. They proposed that every contributor of fifty guineas and upwards should be regarded as a governor of the association with the following privileges: eligibility to serve on the committee of management, priority of admission to the homes, and power to nominate patients. Other donors would have privileges equal to the amount of their donation. Surplus funds would be devoted to the extension of the movement. It was believed the Invalids' Home Association would thus be the means of relieving the present hospitals from much of the pressure which now existed. Should the scheme succeed, it was intended to combine invalid homes in town with similar institutions in the country where the cure of convalescent patients might be completed.

THE PUBLIC HEALTH.

DURING the week ending Saturday, July 21st, 5,702 births and 3,327 deaths were registered in London and twenty-two other large towns of the United Kingdom. The annual death-rate was 17 per 1,000 in Edinburgh, 24 in Glasgow, and 25 in Dublin; measles caused 20 deaths in Dublin, equal to an annual rate of 3.3 per 1,000. The annual rates of mortality per 1,000 last week in the 20 English towns, ranged in order from the lowest, were as follow: Portsmouth 16, Leicester 16, Sheffield 16, Sunderland 17, Hull 17, Newcastle-upon-Tyne 17, Bristol 18, Plymouth 19, Leeds 19, Norwich 21, London 21, Brighton 21, Birmingham 21, Salford 22, Bradford 22, Liverpool 23, Nottingham 24, Manchester 25, Wolverhampton 29, and Oldham 31. The annual death-rate from the seven principal zymotic diseases averaged 4.1 per 1,000 in the twenty towns, and ranged from 1.0 in Sunderland to 7.1 in Wolverhampton. In the twenty towns, 41 deaths from small-pox were registered, of which 35 occurred in London, 4 in Liverpool (exclusive of a fatal municipal case in Toxteth Workhouse), one in Brighton, and one in Leeds. Whooping-cough showed fatal prevalence in Liverpool, and scarlet fever in Wolverhampton. In London, 2,415 births and 1,438 deaths were registered. Allowing for increase of population, the births exceeded by 111, whereas the deaths were 204 below, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the three previous weeks had steadily increased from 18.8 to 21.4 per 1,000, was last week equal to 21.2. The 1,438 deaths included 35 from small-pox, 42 from measles, 19 from scarlet fever, 6 from diphtheria, 36 from whooping-cough, 21 from different forms of fever, and 173 from diarrhoea. Thus to the seven principal diseases of the zymotic class 332 deaths were referred, against numbers increasing from 210 to 324 in the four preceding weeks. These 332 deaths were 149 below the corrected average number from the same diseases in the corresponding week of the last ten years, and were equal to an annual rate of 4.9 per 5,000. Two deaths from hydrophobia were registered, of which one occurred in Bartholomew's and one in Guy's Hospitals. In Greater London, 2,875 births and 1,650 deaths were registered, equal to annual rates of 34.4 and 19.7 per 1,000 of the population. In the Outer Ring, the four fatal cases of small-pox were all registered in West Ham. Two deaths from typhoid fever were registered in Croydon, of which one occurred at Penge. At the Royal Observatory, Greenwich, the duration of registered sunshine in the week was 37.8 hours, out of the 112 hours that the sun was above the horizon.

SCOTLAND.

DR. WILLIAM JAMES FLEMING, assistant to the Professor of Physiology in Glasgow University, is a candidate for the chair of the Institutes of Medicine in the University of Aberdeen. Dr. Fleming has devoted much time and attention to the study and teaching of physiology, and has had considerable experience as assistant to the Professor of Physiology in the University of Glasgow, and as lecturer at the Infirmary School.

THE annual examination of the pupils of the Edinburgh Deaf and Dumb Institution took place on July 18th, when upwards of sixty pupils were examined. At the close of the proceedings, it was mentioned that, of twenty-three pupils of the institution who competed for the prizes and certificates offered by the Science and Art Department, twenty-two were successful in carrying off prizes or certificates.

AT the presentation of prizes to the successful students attending the Glasgow Ophthalmic Institution, marking the end of the session, an address of thanks was presented by the students to Dr. Wolfe, one of the oculists to the institution.

Last week, the registered deaths in Edinburgh amounted to only 66, which is at the annual rate of 16 per 1,000. No deaths from fever were recorded in the city, and the zymotic mortality in the old town only consisted of two deaths from whooping-cough and one from erysipelas. There were two deaths from diphtheria in the new town.

SEAMEN'S PROVISIONS.

ROBERT COCHRANE, master of the *Crown Prince*, which recently arrived at Glasgow from Peru, was charged before Sheriff Spens, at Glasgow, on Saturday last, with having supplied unsound meat to his crew, in consequence of which six of them died, and others were taken seriously ill. He was fully committed for trial on a charge of culpable homicide and neglect of duty, but was liberated on bail.

PROPOSED COTTAGE HOSPITAL AT KEITH.

A PUBLIC meeting was held last week in Keith, at which a report was given in by a committee previously appointed for the purpose of getting subscriptions for the erection of a cottage hospital in the town. It was explained that Mr. Longmore, banker, who had first proposed the scheme, had given £200 for carrying it out, and had procured a donation from the trustees of the late J. A. Longmore, Edinburgh, to the amount of £500, on condition that a ward for incurables was erected in the hospital. The local subscriptions amounted to £200, making a total of £900 available at present. The committee approved of a plan of the proposed building which had been prepared, and the cost of carrying it out was estimated at £600; it was proposed to raise other £300 by means of a bazaar. The meeting requested the committee to take further steps for carrying out the scheme, and also to admit to its benefits inhabitants of the neighbouring parishes of Cairnie, Botriphine, Boharne, and Grange.

DRAINAGE OF THE EDINBURGH NEW INFIRMARY.

OPERATIONS are now in progress in connection with the laying of a large drain-pipe for the new Infirmary buildings, Edinburgh. The pipe-track, which is over seven hundred yards in length, extends from the south-east corner of the Infirmary grounds along the northern boundary of the East Meadows, and joins the St. Leonard's sewerage system at Hope Park End, its depth varying from eight feet at its western extremity to twenty-three feet at the outfall. The laying of the pipe has involved some heavy cutting through a stiff clayey soil, rendered all the more obstinate by the late heavy rains, and in the eastern section of the track about twelve feet of bastard rock had to be dealt with, part of which was blasted with gunpowder. The pipe itself is of fireclay, twenty-four inches in diameter, and is being carefully joined with Portland cement. Eight man-holes have been constructed at

short distances, to allow the cleaning out of the drain. The contract price for the work is £1,200, and it is being carried out under the superintendence of the burgh engineer.

SMALL-POX AT A CLYDE WATERING-PLACE.

THE *Manchester Guardian* reports that a shocking occurrence has just taken place at Helensburgh. A short time since, Mrs. Wright, the wife of a Glasgow outfitter, took summer lodgings at Helensburgh for herself and family. After a week's residence, small-pox broke out among the children, one daughter dying. This was followed by the death of Mrs. Wright, and it is now said that the blankets on the beds on which the family slept had covered small-pox patients. The matter has caused much sensation, and special meetings of the local authorities are to be held to consider the subject.

IRELAND.

THE election of a professor of ophthalmic and aural surgery, and a professor of midwifery, in the Royal College of Surgeons, will take place next Thursday, August 2nd.

HEALTH OF BELFAST.

IN the second quarter of the year, the mortality in Belfast from six of the principal zymotic diseases amounted to 183, being equal to an annual rate of 4 per 1,000 of the population. Measles caused 59 deaths, fever 56, whooping-cough 17, scarlet fever 14, diphtheria 2, and diarrhoea 35.

ST. MARK'S OPHTHALMIC HOSPITAL.

MR. J. B. STOREY, late resident medical officer of this hospital, has been appointed assistant and house-surgeon. It is intended to enlarge the institution by additional buildings; but want of funds at present prevents these alterations from being carried out in their entirety. It has been resolved, however, to spend a certain amount in remodelling the dispensary and surgery, so as to meet the necessary demands for admission.

SANITARY CONDITION OF DUBLIN.

THE Public Health Committee of the Corporation of Dublin lately forwarded a resolution to the Commissioners of Police, to the effect that their efforts to improve the sanitary condition of the city by enforcing on the part of owners of tenement-houses the provision of sufficient sanitary accommodation for their occupants, have in a great measure proved unavailing through the practice of casting refuse matter and ordure upon the public thoroughfares; and urging the Commissioners to assist the Committee in the promotion of their objects by adopting such measures as may be deemed expedient for the repression of a practice which so seriously affects the sanitary condition of the city. In reference to this matter, the *Daily Express* observes that, "if the back streets were swept every day, the death-rate of Dublin, instead of being now a disgrace to Ireland, would probably be brought down to reasonable proportions. The Public Health Committee of the Corporation have called upon the police to prevent refuse from being thrown into the back streets, from which, in the execution of one of its first and most pressing duties, the Corporation might daily sweep it away. The consequence will be to add to the secret depôts of filth, the number of which is only too great at present, concealed from the eye, though revealed to the noses of all passengers through back streets as they pass over certain of the area-gratings—the Public Health Committee perhaps excepted."

ROTUNDA LYING-IN HOSPITAL.

DR. WILLIAM J. SMYLY has been appointed assistant-physician to the Rotunda Lying-in Hospital, in the room of Dr. Purefoy, whose term of office has expired. The assistant-physicians—of whom there are two—to this hospital hold office for three years. A special vote of thanks was unanimously passed by the governors of the hos-

pital at their last meeting to Dr. Purefoy, for the efficient and satisfactory manner in which he discharged the duties that devolved on him as assistant-physician, and for the extreme care and attention he paid to the patients under his care during his term of office.

GLANDERS.

A FATAL case of glanders was a short time since mentioned in this *JOURNAL* (vol. I, 1877, p. 463) as having occurred near Coleraine. The Irish Privy Council has recently repealed an order made nine years ago in reference to the care of horses, mules, or other animals affected with glanders or farcy, and issued a much more stringent one. One of the clauses of the new order directs that, when an animal dies of farcy or glanders, or is slaughtered because it suffers from either disease, the carcass shall be buried whole at least six clear feet below the surrounding surface of the place of interment, with at least one foot of roche or quick-lime beneath the carcass, and two feet of such lime immediately above all its parts. Immediately before such burial, the hide or skin of the carcass shall be slashed or gored from the upper part to the extreme lower part by incisions through it, of not more than six inches distant one from the other.

HOSPITAL FEES.

AN adjourned meeting of the physicians and surgeons of the Dublin clinical hospitals was held in the College of Physicians on Monday last to receive the report of the secretaries of the Hospital Boards, and adopt a scale of fees for hospital practice. From the report, which was read by one of the honorary secretaries, it appeared that the Medical Board of one of the Dublin clinical hospitals, while agreeing to an increased scale of fees in the gross, declined to bind themselves to any fixed time for receiving such fees, or any definite portion thereof. It was proposed in the report that the fee for perpetual pupils should be paid in two instalments: the first upon entrance, and the second instalment in the second year. To this plan, however, the hospital referred to objected. The question of the desirability of abolishing the system of fees for perpetual pupils was then discussed. But, as this opened up a new view of the subject, and as it was felt by the majority of those present at the meeting useless proceeding further in the matter without complete unanimity, the meeting was adjourned to Monday next. In the meantime, the subject of the fees for perpetual pupils will be considered by the Hospital Boards; and it is to be hoped that the single hospital now holding out against the unanimous wishes of all similar bodies will by that time also be induced to reconsider its determination, if only for the sake of unanimity and professional prestige.

ADULTERATION OF DRUGS.

DR. CAMERON of Dublin, who holds the post of analyst for several of the Irish counties, reported recently to the grand jury of the County Wexford that he had examined for the guardians of the Wexford Union a specimen of fluid extract of Peruvian bark used at the Crossabeg Dispensary. Instead of containing, as it should, at least 45 per cent. of solid matter, it included only 7.31 per cent., and was, therefore, a completely spurious article.

SLIGO DISPENSARY DISTRICT.

MR. THOMAS D. PALMER of Boyle, surgeon to the Sligo Rifles, has been elected to the vacancy in this district. The appointment unfortunately has been the means of causing some religious excitement in the town. Mr. Palmer, whose claims and suitability for the appointment are undisputed, was opposed by a candidate—a recently qualified gentleman—who was supported by the Roman Catholic party, on the grounds that one of the dispensary doctors should be a Protestant and the other a Catholic. Both are now Protestants, Mr. Palmer being returned by twice as many votes as his opponent polled. Apart from this election, we regret to say that, speaking generally, the question of the superior professional fitness of rival aspirants for Poor-law medical appointments in Ireland is apparently but rarely taken into consideration, the candidate whose religious opinions agree with those of the

majority of the electors, and who has the most local influence, in ninety-nine cases out of a hundred being elected. Indeed, until these appointments are made by an independent Government Board, we cannot see how it could well be otherwise.

MULLINGAR LUNATIC ASYLUM.

THE report of this institution for the past year shows that, on the last day of December, there were 401 inmates in the asylum, being an increase of 5 on the number at the same period of the preceding year. The patients who were discharged cured amounted to 40, and the improved to 6. Thirty-five deaths occurred during the twelve months, being 9 less than in 1875. During the past year, two suitable buildings have been erected for accommodating the patients at meals, separating females and males. The medical superintendent, in his report, states that he has on several occasions drawn the attention of the grand jurors and of the governors towards the want of any precautions against extinguishing a fire, should one unfortunately occur.

HEALTH OF DUBLIN.

THE deaths from zymotic diseases in Dublin during the week ending July 14th amounted to 40, the average number for the corresponding week of the previous ten years being 25.2. Among the deaths from this class of diseases were 18 from measles, which at present exists as an epidemic, and has been excessively fatal. Of the 40 persons who died from zymotic diseases, 27 were children under five years of age. One death occurred from small-pox, that of a girl aged 6, supposed to have been vaccinated.

"GIBRALTAR" TRAINING-SHIP AT BELFAST.

AN inquest was held in the Belfast Royal Hospital last week relative to the death of a pupil of the training-ship *Gibraltar*, who died in the hospital on the 17th instant. The jury found a verdict to the effect "that the deceased had come to his death from hæmorrhage of the lungs, hastened by the shock he received by bathing on the 12th instant"; and they recorded their disapproval of the system adopted by the committee of the training-ship, which prevents the immediate medical treatment of pupils of the ship.

PAYMENT OF MEDICAL SUBSTITUTES.

THE guardians of Carlow Union having lately written to the Local Government Board, stating their opinion that their medical officers should pay their substitutes on *all* occasions when obtaining leave of absence, the Board, in their reply, pointed out that it rested entirely with the guardians to allow temporary substitutes to be paid out of the rates, and that each case should be decided upon its own merits. The duties of dispensary medical officers, we may add, are arduous enough; but, when sickness arises in the discharge of their professional calling, the least they may expect is, that the rest they so much require should not be weighted with the knowledge that they incur the expense of the substitutes they have provided during their absence.

QUEEN'S COLLEGE, BELFAST.

THE Duke of Marlborough, who is stopping this week in the North of Ireland, visited on last Monday Queen's College, Belfast. On his arrival, he was conducted to the library, where an address was presented to him by the President, in which the present position and future prospects of the Queen's Colleges were referred to. In Belfast, for the past thirty years, the practicability and value of united education has been tested. Thousands of students have mingled as brothers, and those scattered over the world are still inspired with friendship for each other. His Grace, in reply, said that he felt very great interest in the success, not only of the Queen's University in Ireland, but in the Queen's Colleges individually, and especially that of Belfast. The statement given by the President was a most interesting one, and it was a matter for sincere congratulation that so large a number of members of various denominations were pursuing a system of united education. He expressed regret that the recommendations of the Departmental Commission were not carried into effect, but hoped the matter of the professors' salaries would soon be satisfactorily settled.

PRINCE ALBERT VICTOR OF WALES.

THE young prince has now reached about the twentieth day of the attack of typhoid (continued) fever from which he is suffering, and thus far happily; the attack, although a moderately severe one, has been free from untoward complications, and has presented only the troubles which must be expected in a case of typhoid fever in which the temperature at one period reached 104 deg. Fahr., and the respirations have been at 30 and 31 per minute. Such an attack has necessarily caused much anxiety, but the fever-process is pursuing its normal course, and a favourable termination may be justly anticipated. The fever from which the heir presumptive is now suffering—the third of his line who has thus been afflicted within a period of sixteen years—was, it is believed, contracted at Sandringham; and this is a circumstance which will, of course, require careful local sanitary investigation. Typhoid fever being essentially a preventable fever, due to causes which, by perfect sanitary arrangements, may be held at bay, it is, we believe, proposed that Dr. Seaton, the head of the medical department of the Local Government Board, shall make a searching examination of the water-supply and other sanitary arrangements at Sandringham. Since the serious illness from typhoid fever of H. R. H. the Prince of Wales, the water-supply of Sandringham has been remodelled at considerable cost and trouble. It is stated, however, that, at the time of the recent visit of the Prince and his family for some days to Norfolk, the works connected with the newly arranged water-supply were out of order, and recourse was had for a while to the source whence the water was drawn prior to the Prince's purchase of the estate. The importance of a scientific investigation into the facts can hardly be over-rated. It is not a little remarkable, and certainly a most painful coincidence, that the heir presumptive should thus early fall under the scourge of the same preventive zymotic disease which has so seriously visited the royal house of late years; and it is highly necessary that the precise meaning should be ascertained of so shocking a succession of sanitary mishaps. So far as we have yet heard, the lesson to be drawn from the present illness of the young Prince Victor is of deep sanitary significance. We are very glad to be able to say that the indisposition of the young Princess Victoria, recently rumoured, has been of a quite passing and unimportant character.

SENATE AND CONVOCATION OF THE UNIVERSITY OF LONDON.

BEFORE this meets the eyes of many of our readers, the meeting of Convocation which, as we last week announced, the Chairman has summoned for to-day (Friday) at 5 P.M., will have given its decision in the matters now pending between the Senate and Convocation. During the past week, both sides have issued circulars stating their views: both those who consider that, by its recent action in adopting a permissive Act of Parliament without consulting Convocation, the Senate has encroached upon the just privileges of that body, and those who are of opinion that the Senate has not exceeded its *legal* limits. It is, therefore, tolerably certain that the question will be debated and determined in a full house.

The law officers of the Crown have given it as their opinion that it was competent to the Senate to adopt this Act without the concurrence of Convocation, and a copy of this opinion has been sent to Dr. Storrar for the use of Convocation. At the same time, the Senate has resolved that it is desirable that a new charter should be obtained, extending the power of granting degrees to women already possessed by the University in the Faculty of Medicine to the case of degrees in all other Faculties.

It is thus clear that the Senate makes use of an Act of Parliament to accomplish for one Faculty what it is unable to do for the other Faculties without a new charter, and without the approval of that charter by Convocation. It is consequently as clear as anything possibly can be that the Senate, by its operation in that one Faculty under an Act of Parliament, is ignoring the claims which Convocation possesses under the charter for considering and assenting to, or dissenting from, such modifications of the constitution of the University. An opinion has been pronounced by most eminent lawyers that, morally and equitably, the Senate in this matter has placed itself in the wrong.

We again express our heartfelt regret at what has taken place in the University of London, by which the harmony which has so long existed in all its branches has been thus disturbed. In its simplest

aspect, it seems intolerable that a question involving the medical element in the University should be chiefly dealt with by the legal and arts graduates, entirely in opposition to the wishes and feelings of the medical graduates. The former should remember that a day of retribution may come.

THE HARVEY TERCENTENARY MEMORIAL.

A MEETING of the London subscribers to this fund was held, by permission of the President of the Royal College of Physicians, at the College, on Wednesday, July 18th. There were present Sir Thomas Watson, Sir G. Burrows, Dr. Owen Rees, Dr. Sieveking, Dr. Hare, Dr. Barnes, Mr. Hilton, Mr. Ernest Hart, Dr. Glover, Dr. Lowe, Dr. R. Willis, Dr. Begley, Dr. Hadaway, Dr. Day, Mr. J. S. Eastes, etc., and Mr. G. Eastes, the London Honorary Secretary. A letter was received from Lord Derby, the Chairman of the London Committee, saying that his lordship regretted his inability to be present. Dr. OWEN REES took the chair.

The HONORARY SECRETARY read a statement as to the progress and prospects of the fund, from which it appeared that the net sum now available for the purpose of the fund rather exceeded £800; but that this was insufficient for the erection at Folkestone of a statue which would meet with the approval of the subscribers. The report was received.

It was proposed by Dr. SIEVEKING and Dr. BARNES, and resolved: "That Dr. Hare and Dr. Glover be requested to act as auditors of the fund."

It was proposed by Mr. HILTON, seconded by Dr. GLOVER, and resolved: "That Sir G. Burrows, Bart., and Mr. Prescott Hewett be requested to act as Honorary Treasurers to the fund."

It was proposed by Dr. GLOVER and Dr. DAY, and resolved: "That the Earl of Radnor be respectfully requested to grant a suitable site of land at Folkestone, on which the statue, when completed, may be erected."

It was proposed by Mr. HILTON, seconded by Dr. BARNES, and resolved: "That Sir G. Burrows, Sir W. Gull, Sir J. Paget, Sir F. Hicks, Sir S. Waterlow, Mr. Lushington, Dr. Quain, Dr. Owen Rees, Mr. John Simon, and Mr. Prescott Hewett be requested to form an Executive Committee for London, to act with a similar Executive Committee to be formed at Folkestone in all matters relating to the object of the fund, and report to another general meeting before the final steps be taken."

It was proposed by Dr. SIEVEKING, seconded by Dr. GLOVER, and resolved: "That the Executive Committee be requested to report progress to the General Committee before the close of the present year."

It was proposed by Sir THOMAS WATSON, seconded by Sir G. BURROWS, and resolved: "That an application be made to the Committee of Council and all the Local Branches of the British Medical Association, and to the British Association, with a view to obtaining further subscriptions for this fund."

It was proposed by Mr. ERNEST HART, seconded by Dr. BARNES, and resolved: "That an application be made to the Universities, Medical Corporations, and Medical Societies of Great Britain and Ireland for donations to this fund."

It was proposed by Dr. HARE, seconded by Dr. SIEVEKING, and resolved: "That it be referred to the Executive Committee to consider the propriety of requesting the editors of all the medical journals of Great Britain and Ireland, and the editors of such other journals as they may think desirable to enlist in this cause, to advocate the establishment of a *five-shilling fund*, for the purpose of this memorial, and to receive such and other subscriptions at their offices."

It was proposed by Mr. HILTON, seconded by Dr. BEGLEY, and resolved: "That the best thanks of this meeting are due and are hereby tendered to Dr. Risdon Bennett, the President of the Royal College of Physicians, for kindly granting the use of the College for the purposes of this meeting."

It was proposed by Dr. GLOVER, seconded by Sir G. BURROWS, and resolved: "That the best thanks of this meeting are due and are hereby tendered to Dr. Owen Rees for presiding on this occasion."

It was proposed by Dr. OWEN REES, seconded by Mr. HILTON, and resolved: "That the best thanks of the subscribers to the fund are due to Mr. G. Eastes, the London Honorary Secretary, for his services to the memorial fund."

The meeting then closed.

HOME HOSPITALS.

At the Mansion House meeting, of which we publish a brief report, at which resolutions were passed, backed by the support of the most eminent members of the profession, in favour of the propositions for establishing homes or hospitals at which patients capable of making payments should be able to obtain the nursing, attendance, and appliances of the same grade with which the poor are supplied at free hospitals, a Provisional Committee was appointed, consisting of the Lord Mayor, the Lord Bishop of London, Duke of Northumberland, Earl of Bessborough, Sir Rutherford Alcock, K. C. B., Frederick Cleeve, Esq., John E. Erichsen, Esq., Ernest Hart, Esq., Sir Francis Hicks, E. H. Lushington, Esq., Dr. Quain, F. R. S., A. G. Sandeman, Esq., George Stanley, Esq., C. Wigram, Esq., and H. C. Burdett, Esq., to prepare a scheme for the purpose. The Provisional Committee has decided to recommend that, in the first instance, persons desirous of supporting this scheme should be invited to found it on the same system on which proprietary schools and colleges are often instituted in this country; namely, by a system of proprietary governorships, each governor to subscribe £50 towards the building and general fund, and to have certain rights of nomination connected therewith for himself and family, donors of £20 having privileges of a lower order. When adequate funds are thus provided, it is proposed that houses should be taken in suitable central localities and fitted up with all the necessities of hospital accommodation, and provided with trained nurses and a resident medical officer. Persons availing themselves of these homes will be called upon to make payments suitable to the accommodation which they require, and will be attended by their own medical attendants. The scheme so framed has been adopted, and handsome subscriptions have at once been announced as forthcoming for the purpose. The project generally has been regarded with great favour, not only by the profession at large, but by leading merchants, bankers, and eminent civil servants and military and naval officers. We are cognisant of the difficulties experienced by barristers in chambers, civil servants, visitors from the country, clerks, bachelors, and others, occupying lodgings, or otherwise unable to obtain in their homes the advantages of hospital nursing and hospital appliances in times of sickness or disease, or when called upon to undergo surgical operations. For the present, Mr. H. C. Burdett has consented to continue to act as honorary secretary to the Committee, and communications may be addressed to him on this subject at the Mansion House, of which the Lord Mayor has kindly granted the use for the purpose of forwarding the interests of this movement.

HOSPITAL AND DISPENSARY MANAGEMENT.

MEDICAL RELIEF IN HOSPITALS AND HOMES.

SIR CHARLES TREVELYAN writes, in the *Charity Organisation Reporter*:

"The reform of medical relief has reached a more advanced stage. The result of seven years' work was summed up at a second conference at the Society of Arts, at which we were assisted by some of the most eminent members of the medical profession; and the fresh impulse now given is not likely to subside until the object has been attained. The discussion is being actively prosecuted at Manchester, Birmingham, and Liverpool, as well as in London; and, owing to the increase of population in many towns of the second class in various parts of England, the local 'infirmaries and dispensaries' is quite unequal to the demands upon it. Both in the metropolis and the provinces the remedy proposed under various forms is, medically, that the out-patient departments should be decentralised, and, financially, that the burden should be extended over a much wider surface. In other words, that a subsidiary system of provident dispensaries should be established on the mutual assurance principle, whereby the hospitals and infirmaries would be relieved of all which are not properly hospital cases.

"Meanwhile a movement has commenced for self-supporting hospitals for the upper and middle classes. This principle has long been established in every other civilised community. When the present Registrar to the Admiralty was a young man, he was sent on a public mission to French Guiana; and, falling sick of the prevailing fever, he was told that he 'ought at once to go into hospital'. There he found a clean, cheerful, airy apartment, and a skilled Sister of Charity to nurse him; and he got well much sooner than he could have done in his lodgings. When the General Hospital at Madras was rebuilt, a wing overlooking the river was appropriated to civil and military officers, and other persons of the upper or middle class who require medical treatment and nursing. There is an obvious economy in connecting such arrangements with existing hospitals, instead of providing

separate buildings, with their ancillary establishments, expressly for the purpose. In practical New England, this principle is consistently carried out; for, except a few endowed 'free beds' for destitute cases, everybody pays according to his means, from the lady or gentleman who has a separate room to the artisan in the common ward.

"This is evidently a case for revising our insular institutions by the light of the larger experience of the civilised world. The proposition enunciated at the meeting at the Mansion House was, that there ought to be hospitals for the upper and middle classes. This is true, but it is comprehended in a wider truth—that all hospitals should be adapted to the wants of all classes of the community. This is demanded by the most obvious motives of the economy of money and time, including the precious time of medical men in high repute, and it is also recommended by ulterior considerations of a moral and social kind which will occur to every person who reflects upon the subject."

In respect to the latter paragraph of Sir C. Trevelyan's letter, we may, however, observe that the services of the staffs of our great hospitals are gratuitous, or nearly so; and that, if with this service were mixed up paid work for the reception of paying patients, these institutions and their officers would materially change their relation to the public, and the profession would in most cases depart from the purposes of their appointments and would come to be looked upon with jealousy and distrust. In the new invalid homes, it is proposed that the privileges of the patients and of their medical attendants should remain intact, and that the same relations should be observed as in private life.

NORTH-EASTERN HOSPITAL FOR CHILDREN, HACKNEY ROAD.

THE ninth annual meeting of this charity was held on June 26th at the Cannon Street Hotel, Mr. J. Gurney Barclay occupying the Chair. The report showed that 356 in-patients had been received, and 13,527 out-patients had been treated at 49,644 attendances, thus making an average of 9 attendances to each child. The mode of admission of out-patients is worthy of remark. Out-patients are admitted by subscribers' free tickets, or by payment of 4d. on admission and 3d. a week afterwards; in-patients, by subscribers' free tickets, or by payment of 2s. 6d. per week. By this plan, out-patients have contributed £604, and in-patients £88. The amount of governors' subscriptions is £684; no special means, however, are taken to inquire into the social circumstances of the cases. This hospital, like others in the east end of London, has great pressure upon its in-door department. A new out-patient department has been built; and it is now proposed to rebuild the in-patient department, with accommodation for eighty beds, at an estimated cost of £5,000. The medical staff are particularly anxious to carry on their work in the new building as soon as possible, as the present old building, not having been built as a hospital, is found somewhat inconvenient and defective in its sanitary condition. The Convalescent Home at Croydon in connection with this hospital continues to prove an useful auxiliary, and has received 108 patients during the last year. The medical report and statistics show much zeal, scientific labour, and success. The hospital is carrying on a work much needed, and deserves to be well supported.

THE MANCHESTER HOSPITAL FOR SICK CHILDREN.

THE report of this institution for 1876 shows that it continues to prosper. In the midst of such a population as Manchester contains, a hospital for sick children is almost a social necessity, and we are glad to observe that it is well supported, and that it is administered in a liberal and intelligent spirit. The Children's Hospital is one of the medical charities which co-operate with the Provident Dispensaries' Association. One effect of this arrangement has been to reduce the out-patients very considerably. The total number of applicants at the dispensary during the past year was 4,178, as against 6,651 in 1875 and 7,886 in 1874. But the managers wisely perceive that this diminution is a gain, and not a loss. At the annual meeting, both the Bishop of Manchester and Mr. Oliver Heywood pointed out that this decrease was very satisfactory, when it was remembered that the provident dispensaries in the neighbourhood were growing, and that the in-patient department, which constitutes the most valuable part of the hospital's work, is in greater favour than ever. In the course of his speech, the Bishop said: "I am extremely glad to hear that the work of the hospital, in one sense, has diminished, and that the diminution has been greatly due to the careful inquiries which have been instituted through the provident dispensaries. At one time, it seemed from the reports that there were upwards of 100,000 people every year receiving gratuitous medical relief in Manchester and Salford; and that seems to me to be altogether out of scale of the actual wants of the case. The cause of charity is one of the last things which should be imposed upon, and I am extremely glad in that sense that the charity has not

been imposed upon. When I find that the consultations in 1871 were 46,000, and in 1876 only 30,000, that seems to me to be a reduction which amounts to something. At the same time, the actual work of the medical men has not decreased; for the hospital is full, and applicants have had to be refused; but I have not the slightest doubt that, when the institution is increased, as it will be in July next, to its full complement of one hundred and sixty-eight beds, the supply will not be in excess of the demand. It is a gratifying fact that patients are received without recommendations from the subscribers. I think the practice of obtaining such recommendations from subscribers is a thoroughly vicious principle. I would much rather leave the decision in each case to the careful inquiries of the Board of Management and the medical officers." Mr. Oliver Heywood said that, for the last three years, the authorities of the hospital had endeavoured to work loyally with the Provident Dispensaries' Association. The work carried out by this association was a very difficult and intricate one, but it was one which deserved the warmest and most friendly co-operation on the part of the citizens of Manchester.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Dr. de Wecker's Clinique.—The Metrical System in Ophthalmology.—Phosphaturia.—The Acid of the Gastric Juice.

DR. DE WECKER, whose *clinique* for diseases of the eye I noticed in my letter of July 15th, 1876, has just published his annual report for the year 1876. The report is drawn up by Dr. Masselon, his "chef de clinique", by whom Dr. de Wecker is ably seconded not only at the abovementioned institution, but in his private practice, of which Dr. de Wecker may well be proud. According to the annual report just referred to, there have been eight hundred and ninety operations performed on the eye at the *clinique* during the year, which seems to comprise the entire surgery of that organ. As regards the operation for simple cataract, Dr. de Wecker has, after another year's experience, come to the conclusion that the method "à lambeau périphérique" is preferable to the linear extraction of Von Gräfe; his reasons for this are fully developed in the report, but which cannot be entered into here. Drainage was performed fifty-eight times during the year, and the principal cases for which this method was employed were for "décollement" of the retina (twenty-six), absolute glaucoma (twelve), hydrophthalmia (five). A long description of the operation and its *modus operandi* is given in the pamphlet, and Dr. de Wecker prognosticates for it a most useful place in the surgery of the eye. A case of anophthalmia with congenital cysts of the lower lids, simulating ectropion of the eyes, and which presented itself at the *clinique*, is also fully described. Dr. de Wecker's interesting annual report will well repay perusal.

Après of diseases of the eye, Dr. Edmond Landolt of Zürich, but now practising in Paris, has recently published a pamphlet in which he strongly advocates the introduction of the metrical system into ophthalmology. Indeed, its universal adoption cannot but be attended with great advantage not only as regards uniformity of measure, but it must be granted that the results obtained by the old system of units is far from being so precise as that obtained by the metrical system. The inconvenience of the old system as applied to ophthalmology is strongly brought out by Dr. Landolt in his pamphlet; and, to give but one example, a lens No. 5 made in France cannot, he says, be the same as a No. 5 English, Austrian, or Prussian lens, because the inches of these respective countries differ materially from one another. Dr. Landolt is a rising ophthalmologist; and, young as he is, his experience in this branch of medicine seems as great as, if not greater than, that of many of his seniors in years or standing in the profession, as may be gathered from his pamphlet, which is well worth a perusal; and this is the more easily done, as the work is published in English by the Messrs. Churchill of London. Among the novelties in the pamphlet may be noticed a description of an artificial eye to which Dr. Landolt has given his name. It is a modification of Dr. Donders's well-known "reduced eye", and is "designed for ophthalmological demonstration and the experimental control of physiological calculations, but especially for the solution of all the problems relating to the size of the retinal images, the influence of connecting glasses, etc., without the necessity of calculation". Dr. Landolt's artificial eye was exhibited at the Kensington Exposition, and is made by Machet of Paris.

Besides the regular professors and *agrégés* at the School of Medi-

cine, a certain number of medical men are authorised by the Minister of Public Instruction to deliver lectures on the various branches of medicine and surgery. These gentlemen render great service in their way; and the specialists keep up, at considerable expense, *cliniques* or dispensaries where advice to patients and instruction to students, and even to practitioners, are given gratuitously. Dr. Mallez is one of these *ex officio* professors; and his *clinique* for diseases of the urinary organs is well attended, where may be also seen a very good collection of pathological specimens of this particular class of diseases. At a recent meeting of the Société de Médecine Pratique, he read a very interesting paper on "Phosphaturia", and calcareous incrustation of catheters left permanently in the bladder in the treatment of certain affections. It is a well-known fact that all foreign bodies introduced into the bladder become rapidly covered over with ammoniaco-magnesian phosphate; and instruments introduced by the surgeon are, of course, subject to the same law. But this species of petrification is produced more or less rapidly according to the proportion of phosphates contained in the urine; and this proportion, according to Dr. Mallez, varies—(1) with the conditions of alimentation; (2) with the state of irritation in the urinary apparatus; (3) the quantity of urine excreted, the proportion of phosphates being the same; lastly, with the functional disorders of the spinal marrow, and particularly with depressing affections of the brain. In illustration of the last mentioned condition, Dr. Mallez presented to the Society a catheter that he had removed from a patient suffering from general paralysis, and which, at the end of forty-eight hours, was so incrustated that he had great difficulty in withdrawing it. Dr. Mallez at the same time submitted to the Society some catheters, the vesical extremity of which was so coated with ammoniaco-magnesian phosphate that the original thickness of the instrument was nearly doubled. From this circumstance, Dr. Mallez comes to the following conclusion: "that, in all cerebro-spinal affections of a depressive character which necessitate the use of the catheter, the instrument should be replaced at the end of thirty-six or forty-eight hours, and never be allowed to remain beyond that time."

After the very conclusive experiments of Dr. Charles Richet on the lad with the fistulous opening into the stomach, to which I referred in my letter of March last, one would have imagined that that much vexed question, What is the acid of the gastric juice? was once for all settled. It will be remembered that M. Richet attributed the acidity of this liquid to the predominance in it of hydrochloric acid; but since then Dr. Béclard, Professor of Physiology at the School of Medicine, has endeavoured to show that the acidity was due to the presence in excess of lactic acid. Professor Béclard actually delivered a lecture on the subject, and supported his argument by the following experiment. Into a solution of hydrochloric acid diluted to 2-1000ths a solution of the violet of aniline was poured, and the liquid immediately assumed a bluish-green colour. With a solution of lactic acid of the same strength, no similar change took place. The conclusion, therefore, arrived at is that, if free hydrochloric acid existed in the gastric juice, the addition of a solution of aniline to the latter ought to have produced the same result as above described, instead of which no change took place; consequently there was no hydrochloric acid. All this seemed clear enough in the laboratory of the School of Medicine; but when Dr. Laborde, Professor Béclard's assistant, renewed the experiment before the Biological Society, he there met with a powerful opponent in the person of M. Berthelot, Professor of Chemistry at the College of France, who there and then performed a crucial experiment, which completely annulled that by Dr. Laborde. To some gastric juice M. Berthelot added some hydrochloric acid, and the addition to this liquid of a solution of aniline produced no change whatever in the colour. The deduction naturally is, that Dr. Laborde's experiment was defective; and M. Berthelot adds that, when an ordinary solution of hydrochloric acid is experimented with, the change of colour takes place, but the presence of the gastric juice prevents this effect. In conclusion, M. Berthelot stated that the question of the gastric juice was more complex than is supposed, and ought to be studied otherwise than has hitherto been done. He was in hopes that the further researches of Dr. Richet would finally elucidate this most important point. Since this statement was made at the Biological Society, Dr. Charles Richet has communicated to the Academy of Sciences the result of his further researches, and the following are his principal conclusions. "Pure gastric juice contains almost exclusively mineral acids or other analogous acids. When left to itself, it ferments, and the proportion of organic acids analogous to lactic acid increases. Food mixed with gastric juice can, by artificial digestion, independently of direct vital action and that of the secretion of the stomach, increase by 20, 50, and even 70 per cent. the acidity of the fluids of the stomach. The gastric juice, mixed with alimentary substances, always contains organic acids analogous to lactic acid; but the mineral acid always

remains predominant so long as putrefaction does not set in. The ferment which renders the alimentary substances acid would seem to be partly retained with the non-filtrable solid substances, and partly to escape with the dissolved matter."

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: FORTY-FIFTH ANNUAL MEETING.

THE Forty-Fifth Annual Meeting of the British Medical Association will be held in Manchester, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1877.

President.—M. M. DE BARTOLOMÉ, M.D., Senior Physician to the Sheffield General Infirmary.

President-elect.—M. A. EASON WILKINSON, M.D., Senior Physician to the Manchester Royal Infirmary.

An Address in Medicine will be given by WILLIAM ROBERTS, M.D., F.R.S., Manchester.

An Address in Surgery will be given by T. SPENCER WELLS, F.R.C.S., London.

An Address in Obstetric Medicine will be given by ROBERT BARNES, M.D., F.R.C.P., London.

The business of the Association will be transacted in Six Sections, viz. :—

SECTION A. MEDICINE.—*President*: Sir William Jenner, Bart., M.D., K.C.B., F.R.S. *Vice-Presidents*: Samuel Crompton, M.D.; Wilson Fox, M.D., F.R.S.; Henry Simpson, M.D. *Secretaries*: Julius Dreschfeld, M.D., 292, Oxford Road, Manchester; F. T. Roberts, M.D., F.R.C.P., 53, Harley Street, London, W.

SECTION B. SURGERY.—*President*: Edward Lund, F.R.C.S. *Vice-Presidents*: W. Adams, F.R.C.S.; F. A. Heath, M.R.C.S. *Secretaries*: S. M. Bradley, F.R.C.S., 272, Oxford Road, Manchester; Henry Morris, F.R.C.S., 2, Mansfield Street, London, W.

SECTION C. OBSTETRIC MEDICINE.—*President*: W. O. Priestley, M.D., F.R.C.P. *Vice-Presidents*: A. H. McClintock, M.D., LL.D.; James Whitehead, M.D. *Secretaries*: David Lloyd Roberts, M.D., 23, St. John Street, Manchester; John Thorburn, M.D., 333, Oxford Road, Manchester.

SECTION D. PUBLIC MEDICINE.—*President*: Surgeon-Major F. S. B. De Chaumont, M.D., *Vice-Presidents*: Alfred Aspland, F.R.C.S.; W. H. Corfield, M.D., F.R.C.P. *Secretaries*: William Armistead, M.B., Station Road, Cambridge; John Haddon, M.D., Monk's Hall, Eccles, Manchester.

SECTION E. PHYSIOLOGY.—*President*: Arthur Gamgee, M.D., F.R.S. *Vice-Presidents*: John Cleland, M.D., F.R.S.; Thos. Lauder Brunton, M.D., F.R.S. *Secretaries*: Joseph Coats, M.D., 33, Elmbank Street, Glasgow; William Stirling, M.D., University, Edinburgh; A. B. H. Young, M.B., Owens College, Manchester.

SECTION F. PSYCHOLOGY.—*President*: J. C. Bucknill, M.D., F.R.S. *Vice-Presidents*: H. Rooke Ley, M.R.C.S.; G. W. Mould, M.R.C.S. *Secretaries*: P. M. Deas, M.B., County Asylum, Macclesfield; T. Clay Shaw, M.D., Middlesex County Asylum, Banstead.

Local Secretaries:
Dr. LEECH, 96, Mosley Street, Manchester.
C. J. CULLINGWORTH, Esq., 260, Oxford Street, Manchester.
Dr HARDIE, St. Ann's Place, Manchester.

On Tuesday, the Meetings of the Committee of Council, and the First General Meeting, will be held in the CONCERT HALL. On Wednesday, Thursday, and Friday, the General Meetings will be held and the Addresses in Medicine, Surgery, and Obstetric Medicine delivered, in the CHEMISTRY LECTURE ROOM, OWENS COLLEGE. The Sections will meet in OWENS COLLEGE.

Luncheon will be provided daily in Owens College, from 1 to 2 P.M.

Times, August 7th: Meetings in Concert Hall.

11 A.M.—Service at the Cathedral: Sermon by the Lord Bishop of Manchester.

12.30 P.M.—Meeting of Committee of Council.

2 P.M.—Meeting of Council, 1875-76.

3 P.M.—General Meeting.—President's Address.—Annual Report of Council, and other business.

9 P.M.—Reception and Soirée by the President of the Association and the Council and Senate of Owens College. Dr. Arthur Ransome will give an Address on the Present Condition of State Medicine in England.

Wednesday, August 28th: Meetings in Owens College.

- 9.30 A.M.—Meeting of Council, 1876-77.
 11.30 A.M.—Second General Meeting.
 11.30 A.M.—Address in Medicine.
 2 to 5 P.M.—Sectional Meetings.
 9 P.M.—Soirée by the Mayor and Corporation of Manchester, at the Town Hall.

Thursday, August 29th: Meetings in Owens College.

- 9 A.M.—Meeting of the Committee of Council.
 10 A.M.—Third General Meeting.—Reports of Committees.
 11 A.M.—Address in Surgery.
 12.30 P.M.—Demonstration, by Dr. Sayre of New York, of his Method of Treating Curvature of the Spine (Lecture Theatre of Medical School).
 2 to 5 P.M.—Sectional Meetings.
 6.30 P.M.—Public Dinner of Association in the Assize Court Hall.

Friday, August 10th: Meetings in Owens College.

- 10 A.M.—Address in Obstetric Medicine.
 11 A.M.—Sectional Meetings.
 1.30 P.M.—Concluding General Meeting, Reports of Committees, etc.
 4 P.M.—Garden Party by President and Reception Committee at Manley Hall.

SPECIAL DISCUSSIONS.—It is intended to hold discussions on certain special subjects in several of the Sections, as follows.

Medicine.—Aortic Aneurism; and the Treatment of Pleuritic Effusion.

Surgery.—Antiseptic Surgery; Excision of the Knee; Treatment of Stricture of the Urethra.

Obstetric Medicine.—Transfusion of Blood.

Psychology.—The Best Method of Treating Habitual Drunkards.

PAPERS.—In addition to the papers mentioned in previous numbers of the JOURNAL, the following have been promised.

- ANNINGSON, Pashell, M.D. On the Effective Constituents of Vaccine Lymph.
 BAKER, Benson, M.D. Fibrinous Concretions in the Heart and Large Vessels, with Cases.
 BRANCH, Leonard, M.D. The Treatment of Professional Cramp.
 BRIDGES, T. Eastler, M.D., F.R.S.
 CARTER, William, M.B. The Treatment of Fifty Cases of Acute and Subacute Rheumatism by Salicylic Acid and the Salicylates.
 CLOUSTON, Thomas S., M.D. A Case of General Paralysis at the age of 17.
 FLEMING, William J., M.B. 1. The Physiology of the Turkish Bath: an Experimental Inquiry into the Effects of Hot Dry Air upon Man.—2. Demonstration of a Simple Form of Transmission-Sphygmograph.—3. Demonstration of a Metronome recording by Transmission.
 GLYNN, T. R., M.B. Notes on a Case of Embolic Obstruction of the Left Posterior Cerebral Artery, and on Two Cases of Cerebral Tumour.
 GRIFFITHS, Thomas D., M.D. On Anteversion of the Liver simulating Enlargement.
 HAMILTON, D. J., F.R.C.S.Ed. Fat-Embolism following Injuries of Bone and other Parts, as an Explanation of many so-called Deaths from Shock.
 HICKS, J. Braxton, M.D., F.R.S. Hæmorrhage from the Retroflexed Uterus, and its Treatment.
 JESSOP, Surgeon-Major C. M. Position an Auxiliary in the Treatment of Chorea.
 LOWNDES, Frederick W., M.R.C.S.Eng. The Prevalence and Severity of Syphilitic Disease among Merchant Seamen.
 MCKENDRICK, J. G., M.D.
 MICKLE, William J., M.D. Respiration of Ascending and Descending Rhythm.
 RUTHERFORD, William, M.D., F.R.S. The Changes of the Circulation in Asphyxia.
 SEMPLER, Robert H., M.D. On our Present Knowledge of Diphtheria.
 STIRLING, William, D.Sc., M.D. The Ganglionic Structures in the Tongue.

Gentlemen desirous of reading papers, cases, or other communications, are requested to forward the titles to the General Secretary, or to one of the Secretaries of the Section in which the paper is to be read. All papers should be forwarded to the Secretaries of Sections on or before the 1st of August.

No paper must exceed twenty minutes in reading, and no subsequent speaker must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

GENERAL ARRANGEMENTS.

The Council of the Owens College have most kindly granted the use of the College as a place of meeting for the sections, and for all other purposes of the Association. The School of Medicine, which forms one of the blocks constituting the College, will be used as a Museum, and will make a most excellent place for the exhibition of all kinds of preparations, instruments, etc.

The Physiological Laboratory will be devoted to the use of physiological instruments, of which there will be a very fine collection.

One of the rooms will be set apart for the exhibition of microscopical specimens, and this will form a special feature in this year's Museum. At no previous Meeting, probably, has such an excellent series of rooms been at the disposal of the Museum Committee.

The Museum of the Sanitary Association will be situated in the College grounds, and thus the whole work of the Association will be carried on in one place.

There will be two Reception Rooms, one at Owens College and one in the town. This arrangement has been made to enable members to obtain full information of what is going on, without obliging them to go to the College, which is situated above a mile from the centre of the town. The two Reception Rooms will be in direct connection by messengers or telegraph. A large building, the Concert Hall, has been taken for the Town Reception Room, and the Business meetings will be held in this building.

Members attending the meeting are particularly requested to proceed on their arrival to the Reception Room at the Concert Hall, where Tickets will be issued and all necessary information afforded. The Reception Room will be open at 10 o'clock on Tuesday morning.

HOSPITALS.

Royal Infirmary.—The medical and surgical staff will be in attendance to receive visitors on Wednesday, Thursday, and Friday, from half-past 9 to half-past 10 A.M.

St. Mary's Hospital for Women and Children, Quay Street, Deansgate.—Dr. D. Lloyd Roberts, Physician to the hospital, and Mr. J. H. Ewart, one of the Surgeons, will attend at 10 o'clock A.M., on Wednesday and Thursday, to receive visitors and to point out any cases of interest.

Sick Children's Hospital, Pendlebury.—Special omnibuses will be provided for the accommodation of members desirous of visiting the hospital, which is some distance from the city; they will start from the Reception Room (Concert Hall) at 12 noon on Thursday. The Chairman of the Board of Management (J. H. Agnew, Esq.), and will be present to receive guests, who will be invited to luncheon in the hospital. Members desirous of availing themselves of this arrangement, are requested to leave their names at the Reception Room on or before the previous evening (Wednesday).

Royal Eye Hospital, St. John Street, Deansgate.—Operations will be performed at half-past twelve on Wednesday, Thursday, and Friday, for the special convenience of those members who are interested in ophthalmic surgery.

The abovementioned hospitals will be open to members during the whole meeting. The following will also be open each day.

Clinical Hospital for Women and Children, Park Place, Cheetham Hill Road.

Manchester Southern Hospital for Women and Children, Clifford Street, Oxford Road.

SOIRÉES, ETC.

On Tuesday, the first day of the Meeting, there will be an exhibition of Medical and Dietetic Plants at the Botanical Gardens; and the President of the Association and the Council and Senate of the Owens College will give a reception and soirée in the evening, at which Dr. Ransome will deliver an Address on the Present Condition of State Medicine in England.

An extremely interesting feature of this soirée will be a collection arranged by Professor Boyd Dawkins, illustrating the history of man in Britain from the pleistocene to the historic period. There will also be a series of fossils, illustrating the ancient carboniferous flora of Lancashire.

The Mayor and Corporation have intimated their intention of inviting the Association on Wednesday to a soirée, which they will give at the Town Hall. This building, which has been in course of construction for the past eight years, and has cost nearly a million, is just completed. It is probably the finest building of the kind in the world; and its splendid architectural proportions and magnificent decorations will, doubtless, be highly appreciated by all who visit Manchester.

The owners of all the most important warehouses, cotton mills, and other works in and round Manchester, have most kindly signified their intention of allowing members of the Association to visit their various places. Several of those which are not usually open to visitors will be shown at the time of the Association Meeting to members.

EXCURSIONS, ETC.

On Saturday, August 11th, excursions will be made to the following places.

Macclesfield.—Thomas Unett Brocklehurst, Esq., High Sheriff of the County of Chester, has very kindly offered to entertain to luncheon at his seat, Henbury Park, near Macclesfield, those members who may avail themselves of a proposed excursion to Macclesfield. Members joining this excursion will have an opportunity of inspecting, under very favourable circumstances, the delicate and beautiful processes of

the manufacture of silk in all its stages. The County Asylum will also be visited. After luncheon, it is proposed to arrange driving excursions: 1. Through the Park of Lord Stanley of Alderley, to Alderley Edge; 2. To Buxton, by the celebrated Cat and Fiddle Inn, the highest inhabited house in England.

Lancaster.—The medical men of Lancaster have notified to the Reception Committee that they will be glad to entertain fifty members of the Association. The County Lunatic Asylum will first be visited, and then the Royal Albert Asylum for Idiots and Imbeciles, where a luncheon will be provided. The visitors will afterwards be conducted over the Ripley Institute, St. Mary's Church, and Lancaster Castle.

Southport.—The medical men of Southport invite one hundred members of the Association to visit them on the 11th of August. The Aquarium, Winter Gardens, Pier, Glaciarium, and the New Sewage Works, are the principal objects of interest here; and the Local Committee are making every arrangement to give a hearty welcome to those members who may visit Southport on this occasion.

Blackpool.—The Mayor and Corporation of this town have most kindly offered to entertain as many members of the Association as may like to visit Blackpool.

Woodhead Water-Works.—These are probably the largest artificial water-works in the world. The reservoirs cover about five hundred acres, and supply a population of about one million in the valleys of the Irwell and Mersey, besides the numerous works situated therein. Those who visit Woodhead will also have the opportunity of seeing some dye-works belonging to Mr. Potter of Manchester, at which there is a special and most interesting plan of purifying water in operation. The works themselves are amongst the finest of the kind in Lancashire.

Northwich.—An excursion will be made to visit the salt-mines at Northwich. One of these mines will be illuminated for the occasion.

Castleton.—Professor Boyd Dawkins has undertaken to conduct an excursion to Castleton, in Derbyshire. Peak Cavern, Peak Castle, the Winnel, and other interesting places in this locality will be explored; and a special visit will be paid to the recently discovered cave-deposits containing remains of prehistoric times. Professor Boyd Dawkins will give a short address, and explain the nature of the deposits.

Excursion to English Lakes.—Messrs. Cook and Son have undertaken to organise tours of seven days (with extension if desired) through the English lake district, similar to the one they superintended to the Scotch lakes after the Edinburgh meeting. The Excursions will be arranged in three sections, starting from Manchester, Lancaster, and Southport, on Saturday, August 11th. Arrangements will be made by which members who join other excursions fixed for that day can afterwards avail themselves of the excursion to the lake district by meeting the party at places along the route.

Arrangements are being made for a visit to one of the coal-mines near Manchester.

ANNUAL MUSEUM.

All communications respecting the Annual Museum should be addressed to the Secretaries, Thomas Jones, F.R.C.S., 96, Mosley Street, Manchester, and James Ross, M.D., 335, Oxford Road, Manchester.

NOTICES OF MOTION.

Mr. F. W. LOWNDES, 62, Mount Pleasant, Liverpool, hereby gives notice that he will move:

"That the British Medical Association nominate a deputation to Mr. Secretary Cross to request that a Government inquiry be made into the state of our large mercantile sea-ports, especially Liverpool, Bristol, Hull, and Cardiff, with reference to the subjects of prostitution and venereal diseases; and also to suggest means for diminishing the prevalence of prostitution and venereal diseases."

Dr. HADDON, of Monks Hall, Eccles, hereby gives notice that he will move:

"That a Committee be appointed, consisting of members eminent in the several departments of medicine, surgery, midwifery, etc., who shall endeavour to make the JOURNAL a perfect epitome of the science as well as the practice of medicine, and at the same time utilise the members in clearing up disputed points in the diagnosis or treatment of disease, so as to increase the value of the JOURNAL, and, if possible, raise it to a higher place in the medical literature of the day. Such Committee to be responsible for the management of the JOURNAL, and any correspondence admitted to its columns."

FRANCIS FOWKE, *General Secretary.*

36, Great Queen Street, W.C., July 26th, 1877.

SHROPSHIRE AND MID-WALES BRANCH.

The next quarterly meeting of the above Branch will be held at the Salop Infirmary, on Tuesday, July 31st: Dr. S. TAYLEUR GWYNN, President, in the Chair.

Gentlemen intending to read papers are requested to signify the same to the Secretary.

HENRY NELSON EDWARDS, *Honorary Secretary.*

LANCASHIRE AND CHESHIRE BRANCH: ANNUAL MEETING.

THE forty-first annual meeting of this Branch was held in the Medical School, Dover Street, Liverpool, on Wednesday, June 27th. In the absence of Dr. STEELE, the President, Dr. T. R. ROGERS, one of the Vice-Presidents, occupied the Chair. Eighty-four members and four visitors were present.

President's Address.—Dr. ROGERS, after expressing the great regret which he and all the members of the Branch felt at Dr. Steele's enforced absence, delivered an address, in which he congratulated the members on the prosperous condition of the Branch, and spoke of the advantages of association of members of the same profession for the high purpose of advancing the art of healing; and animadverted on the spectacle sometimes presented of one doctor appearing as a witness against another in a court of justice. He then spoke of the subdivision of medical practice into specialities, remarking that it had been often condemned; but that, whilst too extended subdivision was disadvantageous, some maladies demanded special study and treatment. Speaking of mental diseases, he said: "No branch of medical practice has suffered so much, both in professional and popular estimation, from this enforced separation as the study and treatment of mental diseases. Instead of being regarded as a study of the highest importance, as involving the functions of the most complex and highly developed organisation of the human body, it has been almost entirely ignored as a branch of medical education by the examining bodies, and, until lately, those who practised in this department were regarded as almost outside the pale of the profession, and as occupying a kind of hermaphrodite position between doctors and boarding-house keepers; whilst, at the same time, the law has given the power to any one holding a medical diploma to deprive a man of personal and civil liberty by filling up a certificate of insanity, although the medical man so certifying may have never seen an insane person in his life, nor ever read any work on mental diseases. Even at the present time, the practical study of mental diseases forms no part of the curriculum of ordinary medical education; and it is a purely voluntary and, I must add, praiseworthy effort on the part of a few students to gain an insight into a subject which, by the various medical licensing boards, is practically treated as unworthy of consideration. That this is an anomalous and undesirable position cannot be denied; and although, as a matter of fact, very glaring errors are not often committed, that does not justify the position, but merely shows that the practice is not so bad as the principle. The profession, as well as the public, have been losers by this state of affairs; the former by relinquishing into legal hands the authoritative decision on matters which are, in the first instance at least, purely medical, and by incurring suspicion and distrust, not always unfounded, in their dealings with insane patients; and the public by their being liable at any time to have their lives and liberty placed at the mercy of those who are practically unacquainted with the diseases they are called upon to treat; and hence it not unfrequently happens that lives are lost through the inability of those in attendance to foresee the tendency of certain earliest manifestations of cerebral disease, just as, whilst a prudent and skilful mariner, by forecasting the weather, may decide to put back into harbour and so avoid a cyclone, a rash or inexperienced one may meet it in full tide, and so lose his ship and all hands. One result of this professional neglect of a branch of medical study (which is certainly remarkable when one considers the importance of the functions of the organ affected, as well as the lamentable consequences that may result from an inability to appreciate signs, which, though full of significance to those who can interpret them, are like the writing on the wall of Belshazzar's palace to those who cannot read them) is a sort of panic, periodically recurring amongst the general public, and an outcry that sane people are deprived of their liberty and shut up as lunatics merely to serve the pecuniary advantages of proprietors of asylums. The appointment of the Select Committee of the House of Commons, that is at present sitting to inquire into what have been supposed to be abuses of the Lunacy Acts, is an instance of this. If the object of this Committee had been a general inquiry into the laws relating to insanity, with a view to ascertain how far they were capable of amendment, in accordance with the advanced knowledge and experience of the subject acquired within the last twenty or thirty years—for it must be remembered that the Act of Parliament under which our county and borough asylums were established, which may be considered as the first practical recognition by the State of insanity being a disease and amenable to treatment, was only passed about thirty years ago—if this had been the aim and purpose of the Committee, the object would have been a worthy one, and great benefit might have been expected to result from it; but from the narrowness of the terms of reference, it seems more probable that the cumbrous

and expensive machinery of a Select Committee of the House of Commons will have been applied to determine whether one or two alleged lunatics have been rightly or wrongly declared to be insane, and have, therefore, been temporarily deprived of their liberty—an approximation of means to an end as disproportionate as to employ a steam-hammer to crack a nut or an elephant to pick up a pin. If this inquiry should result in increasing the legal restrictions attending the admission of insane patients into hospitals and asylums, I cannot but think that more injury than benefit will accrue to the patients themselves, by deferring the period at which treatment may be said to commence; for it is hardly necessary for me to remind this audience that disease affecting the mind is no exception to any other form of disease, in being more amenable to treatment in proportion to the promptness with which proper treatment is employed."

Report of Council.—The Honorary Secretary read the following report of the Council. The Council congratulates the members on the prosperous condition of the Branch, as shown by its increased numerical strength. The number of members last year amounted to 447, of whom 11 have resigned and 8 have died. During the year, 187 members have been elected; so that at the present time the Branch includes 615 members, and is larger than at any former period. The Council hopes that the visit of the Association to Manchester, in August, may lead to a further increase of the Branch; but draws attention to the fact that there are still in Lancashire and Cheshire one hundred members of the Association who are not members of the Branch, and about six hundred medical men who have not joined the Association or Branch. Members are urged to impress on their brethren who have not entered the Association and Branch the desirability of joining both. The increased size of the Branch has necessitated some alteration in its laws; and a new code has been drawn up by the Council and submitted to every member of the Branch.

The new laws provide for more frequent changes in the ordinary and representative members of the Council, for more frequent meetings of the Branch, and for an increase in the number of the local Secretaries.

The report and financial statement which accompanied were adopted, and a vote of thanks passed to the retiring President, Vice-Presidents, Honorary Secretaries, and other members of the Council.

Next Annual Meeting.—It was resolved that the annual meeting in 1878 be held at Blackpool; that Dr. Leslie Jones be appointed President-elect, and Dr. Bird of Stockport and Dr. Lyster of Liverpool Vice-Presidents-elect.

Representatives in the General Council.—The following gentlemen were elected representatives of the Branch in Council:

G. B. Barron, M.D., Southport; R. Beales, M.D., Congleton; L. Borchardt, M.D., Manchester; R. C. Brown, M.D., Preston; C. J. Cullingworth, Esq., Manchester; T. Davies-Colley, M.D., Chester; A. Davidson, M.D., Liverpool; W. H. Fitzpatrick, M.D., Liverpool; H. Halkyard, Esq., Oldham; James Hardie, M.D., Manchester; Reginald Harrison, Esq., Liverpool; John Harrison, Esq., Chester; C. Johnson, Esq., Lancaster; Edward Lund, Esq., Manchester; C. E. Lyster, M.D., Liverpool; W. M'Cheane, Esq., Liverpool; W. H. Manifold, Esq., Liverpool; W. M'Ewen, M.D., Chester; Thomas Mellor, Esq., Manchester; G. W. Mould, Esq., Cheadle; A. Ransome, M.D., Manchester; W. Roberts, M.D., F.R.S., Manchester; D. Lloyd Roberts, M.D., Manchester; T. L. Rogers, M.D., Rainhill; H. Simpson, M.D., Manchester; A. B. Steele, L.K.Q.C.P., Liverpool; A. T. H. Waters, M.D., Liverpool; Charles White, Esq., Warrington; M. A. Eason Wilkinson, M.D., Manchester.

Members of Branch Council.—The following gentlemen were elected members of the Council of the Branch:

Essex Bowen, M.D., Birkenhead; W. M. Campbell, M.D., Liverpool; W. M. Coultate, Esq., Burnley; G. Downs, M.D., Stockport; W. Garstang, M.D., Blackburn; T. R. Glynn, M.B., Liverpool; J. H. Gornall, Esq., Warrington; John Haddon, M.D., Eccles; W. Hall, Esq., Lancaster; M. J. J. Jennett, Esq., Birkenhead; Leslie Jones, M.D., Blackpool; F. B. Mallett, M.D., Bolton; H. Colley March, M.D., Rochdale; James Ross, M.D., Manchester; G. Thomson, M.D., Oldham; J. Thorburn, M.D., Manchester; James Vose, M.D., Liverpool; E. Waters, M.D., Chester; F. P. Weaver, M.D., Frodsham; George Woods, Esq., Southport.

New Laws.—The code of laws submitted by the Council was considered, and, with a few slight alterations, approved. It will come into force when sanctioned by the Committee of Council.

Communications.—The following communications were read:

1. Note on Extraction of Foreign Bodies from the Bladder. By Mr. Reginald Harrison.
2. Muscular Pseudo-Hypertrophy in a Case of Hemiplegia. By Dr. Ross.

3. On Extirpation of Cancerous Growths. By Mr. W. Mitchell Banks.

4. Notes of three Cases of Abscess treated by Distension. By Mr. T. Jones.

5. Flaws in the Faculty. By Dr. John Haddon.

6. Mr. G. Walker showed a case of Sympathetic Ophthalmia which had resulted in complete recovery.

7. Mr. R. Parker showed a patient from whom half the Tongue and Upper Jaw had been removed. He also exhibited a series of microscopic specimens illustrative of Surgical Tumours.

8. Dr. Glynn showed a patient who had suffered from Paralysis of the Abductors of the Vocal Cords and recovered after tracheotomy. He also showed Roussel's new Transfusion instrument.

9. Dr. Brown-Séguard gave an address on the Mode of Origin of Symptoms of Brain-Disease, for which the thanks of the meeting were accorded him by acclamation.

Exhibition.—A new and interesting feature of this Branch meeting was an exhibition of new surgical instruments, and of drugs and preparations which have been recently introduced.

Dinner.—Upwards of sixty members of the Branch dined together in the evening at the Adelphi Hotel. Amongst the guests, were Dr. Brown-Séguard, Mr. E. R. Russell, and the Rev. H. Higgins.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ANNUAL MEETING.

THE twenty-third annual meeting of the Branch was held on June 26th, at the Midland Hotel, Birmingham, when there were present fifty-five members and visitors. Dr. BODINGTON, retiring President, took the Chair and briefly introduced the President, Mr. SAMPSON GAMGEE, who then took the Chair and returned thanks for his election.

A Vote of Thanks to the retiring President, Dr. Fowler Bodington, was proposed by Mr. NEWNHAM (Wolverhampton), seconded by Dr. JOHNSTON, and carried unanimously.

New Members.—The following associates were elected members of the Branch: Dr. Barnes, West Bromwich; Mr. J. Brett, Leamington; Dr. Larkin, Bilston; Mr. J. H. Palmer, Birmingham; Mr. A. W. Pearson, Kingswinford; Mr. W. Rhodes, Birmingham; Mr. R. B. Wilkins.

Annual Report.—Dr. SAWYER read the following report. The Council congratulates the members on the close of another prosperous year. The Branch now numbers three hundred and thirty-eight members; twenty-two new members have been elected; sixteen members have been lost by resignation or removal, and two by death, viz., Mr. E. Bartleet of Campden and Mr. S. A. Bindley of Birmingham. In the death of Mr. Bartleet, the Branch has lost one of its former Presidents and one of its ablest and most esteemed members. Mr. Bindley was one of the senior practitioners of the town, and long occupied an honourable professional position. At present, one hundred and seventy-eight members belong to the Sections, against one hundred and sixty-six at the close of the previous year. Six ordinary meetings of the Branch have been held, and papers have been read by Dr. Russell, Dr. Harrison, Mr. Wilders, Dr. Haynes, Mr. V. Solomon, Dr. Savage, and Mr. O. Pemberton. Pathological specimens and instruments have been brought forward by Mr. Browne, Dr. Dewes, Mr. Gamgee, Dr. Hickinbotham, Mr. Jolly, Mr. Fumeaux Jordan, Mr. Kettle, Dr. Malins, Dr. Rickards, Dr. Saundby, Dr. Sawyer, Dr. J. Thompson, Mr. W. Thompson, and Mr. Whitcombe. Since the last annual meeting, the Branch has lost its able and zealous Secretary, Dr. Foster. The vacancy was filled by the election of Dr. Malins as co-secretary with Dr. Sawyer. At the fourth meeting of the session, Mr. Oakes brought forward the question of the adoption by the Branch of steps "for the promotion of medical defence", and a Committee was appointed to consider "the best means of promoting and defending the interests of legally qualified practitioners, and report to the Branch". The Committee is still engaged in its labours.

Dr. SAWYER, in the absence through domestic affliction of Mr. WATKIN WILLIAMS, read the statement of accounts, which showed that the receipts (including a balance of £81 : 17 : 2 from last year) amounted to £133 : 18 : 2; and, after the reduction of expenditure, there remained in hand a balance of £75 : 17 : 6.

Pathological and Clinical Section.—Dr. SAWYER read the report of the Pathological and Clinical Section.

Microscopical Section.—Dr. SAWYER read the report of the Microscopical Section.

On the proposition of Mr. MANBY (Wolverhampton), seconded by Mr. BERRY, the statement of accounts and reports were adopted.

Votes of Thanks were accorded to the Treasurer and Secretaries, and to the Chairmen and Officers of the Pathological and Clinical and Microscopical Sections, and to the retiring Council and Representatives of the Branch in the General Council of the Association.

Vote of Condolence.—On the motion of the PRESIDENT, seconded by Mr. BARTLEET, it was unanimously resolved: "That the members of the Birmingham and Midland Counties Branch, assembled at their annual meeting, desire to express to Mr. Watkin Williams, their esteemed Treasurer, their most sincere sympathy with him in the very great and sudden bereavement he has just sustained in the death of his wife."

President's Address.—The PRESIDENT delivered an address, an excerpt of which was published at page 803 of the JOURNAL for June 30th.

On the motion of Dr. DE BARTOLOMÉ, President of the Association, seconded by Dr. FOWLER BODINGTON, it was resolved by acclamation: "That the best thanks of the meeting be given to the President for his able and admirable address, and that he be requested to allow the address to be published."

Provident Dispensaries.—On the motion of Dr. BALTHAZAR FOSTER, seconded by Mr. OAKES, and supported by Dr. WADE and Mr. SOLOMON, it was resolved: "That, in the opinion of the meeting, the introduction of the provident dispensary system offers the best means of checking the excessive increase in the amount of gratuitous medical advice dispensed by our local charities; and that the Council of the Branch be requested to take steps for promoting the formation of provident dispensaries in the town."

Officers and Council.—The PRESIDENT declared that the following gentlemen were elected to the undermentioned offices for the ensuing year:—*President-elect:* John Tibbits, M.D., Warwick. *Secretaries:* James Sawyer, M.D.; E. Malins, M.D. *Treasurer:* T. Watkin Williams, Esq. *Council—Country Members:* W. C. Garman, Esq., Wednesbury; A. J. Harrison, M.B., Walsall; V. Jackson, Esq., Wolverhampton; H. R. Ker, Esq., Cradley; F. E. Manby, Esq., Wolverhampton; J. Manley, Esq., West Bromwich; C. E. Newnham, Esq., Wolverhampton; T. Underhill, M.D., West Bromwich. *Town Members:* A. Baker, Esq.; T. H. Bartleet, Esq.; B. W. Foster, M.D.; J. Johnston, M.B.; O. Pemberton, Esq.; E. Rickards, M.B.; J. Russell, M.D.; W. F. Wade, M.B. *Representatives in the Council of the Association:* T. H. Bartleet, Esq.; B. W. Foster, M.D.; Sampson Gamgee, Esq.; A. J. Harrison, M.B.; J. Johnston, M.B.; E. Malins, M.D.; F. E. Manby, Esq.; J. Manley, Esq.; C. E. Newnham, Esq.; A. Oakes, Esq.; Lloyd Owen, Esq.; O. Pemberton, Esq.; J. Tibbits, M.D.; T. Underhill, M.D.; W. F. Wade, M.B.; T. Watkin Williams, Esq.; J. Sawyer, M.D., *ex officio.* *Auditors:* E. Mackey, M.D.; J. Garner, Esq.

Dinner.—The members afterwards dined together; Mr. Sampson Gamgee, the President, occupying the Chair; and Dr. Tibbits, President-elect, and Dr. Sawyer, the Vice-Chairs. Dr. De Bartolomé of Sheffield was present as a visitor.

YORKSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at York on Wednesday, June 27th; Dr. SHANN, President, in the Chair.

President's Address.—Dr. SHANN, the President, gave an address, founded on the analysis of the last hundred cases under treatment by him in the county hospital. The results of most interest therapeutically were—the evidence afforded by a number of cases of the benefit derived from the use of croton-chloral in cases of neuralgia of the face and head; the benefit of arsenic in the treatment of chorea; of belladonna in the relief of night-sweats; of the hypodermic injection of morphia in distressing heart-diseases; and also of nitrite of amyl given internally in two-minim doses in a like affection. Pathologically, the points of most interest, illustrated by certain cases, were—the insidious intercurrent attacks of acute pneumonia or pleuropneumonia in the course of chronic lung- and heart-disease; and a striking illustration of a similar occurrence in a case of acute peritonitis, in which pneumonia supervened a few hours before the fatal termination. The obvious necessity of bearing in mind the sudden and insidious nature of these attacks, especially in consultation practice, was indicated, as a precaution against unjust suspicion of oversight in reference to the practitioner in primary attendance in a case of the kind. One case appeared interesting in a medico-legal point of view, in which the *post mortem* appearances exhibited intense emaciation, all the viscera drained of blood, and not a particle of food in the stomach or intestines; which had it formed the subject of an inquest, might have given occasion to a most unjust suspicion of neglect and starvation, and a verdict in accordance.

Report.—The report of the Council was read by the Secretary. The Branch was said to be in a satisfactory condition, with an increasing number of members, which now amounted to 281. Three meetings had been held during the year, viz., at Bradford, Scarborough, and Doncaster. The total number of communications made on those occasions amounted to sixteen. The report then went on to state the gratification the Council felt at the eminent success which had attended the annual meeting of the Association held at Sheffield, and felt that the thanks of the members were due to the profession of that town, who had boldly come forward in a time of difficulty; and that, through their energy, coupled with the unflinching exertions of the President, Dr. Bartolomé, and the Secretaries, Mr. Jackson and Dr. Keeling, the meeting was made in every respect worthy of the great manufacturing centre in which it was held. The report alluded to the unsatisfactory state of the law in relation to vivisection and the prosecution of illegal practitioners. The annual meeting of the Branch would be held next year at Leeds; and Dr. Clifford Allbutt was named as President-elect. The report concluded by stating that, on the invitation of the East York Branch, a conjoint meeting of the two Branches would be held in the autumn at Hull. On the motion of Dr. Clifford Allbutt, seconded by Dr. Burnie, the report was adopted.

Council.—Dr. BRITTON proposed, and Mr. HINGSTON seconded: "That the following gentlemen constitute the Council and Representatives to the Council for 1877-78." *Branch Council:* York—A. Ball, Esq.; W. D. Husband, Esq.; W. Matterson, M.D.; S. W. North, Esq.; G. Shann, M.D. Leeds—T. C. Allbutt, M.D.; J. E. Eddison, M.D.; J. D. Heaton, M.D.; S. Hey, Esq.; T. R. Jessop, Esq.; T. P. Teale, Esq.; T. Scattergood, Esq.; C. G. Wheelhouse, Esq. Sheffield—M. Martin De Bartolomé, M.D.; J. Benson, Esq.; W. F. Favell, Esq.; A. Jackson, Esq.; J. H. Keeling, M.D. Bradford—R. H. Mead, Esq.; W. Burnie, M.D. Scarborough—W. Taylor, Esq. Wakefield—S. Holdsworth, M.D. Huddersfield—S. Knaggs, Esq. Doncaster—John Lister, Esq. Rotherham—J. Hardwicke, Esq. *Representatives in the General Council:* T. Clifford Allbutt, M.D.; W. Burnie, M.D.; W. F. Favell, Esq.; J. D. Heaton, M.D.; S. Holdsworth, M.D.; A. Jackson, Esq.; J. H. Keeling, M.D.; W. Matterson, M.D.; R. H. Mead, Esq.; A. S. Myrtle, M.D.; G. Shann, M.D.; T. P. Teale, Esq.; C. G. Wheelhouse, Esq.; J. H. Wright, Esq.

Secretary.—On the motion of Mr. HEY, seconded by Mr. NORTH, Dr. Procter was re-elected Secretary.

Papers.—The following papers were read:

- (1) Is Cancer curable? By Mr. Husband.
- (2) Two Cases of Early Pregnancy. By Mr. Draper.
- (3) Dr. Matterson exhibited a case of Perforation of the Œsophagus.

Dinner.—After the meeting, the members dined together at the Black Swan Hotel.

CORRESPONDENCE.

DR. TARNIER'S MIDWIFERY FORCEPS.

SIR,—From the interest displayed in the subject, it is evident that the information you gave in a recent number of the JOURNAL respecting Dr. Tarnier's new forceps has attracted the attention of the profession in this country; and the interesting communications of Dr. Lombe Atthill and Dr. Christie show that skilled obstetricians have not been slow to employ the learned Parisian professor's new instruments and to test their practical worth.

It may interest your readers to know that Dr. Tarnier has kindly written to me to say that he is having some further improvements made in his forceps; and that, as soon as they are completed to his satisfaction, he proposes sending me a pair for exhibition before the Obstetrical Society of London.—I have the honour to be, sir, your obedient servant,

ALFRED WILTSHIRE, M.D.
57, Wimpole Street, Cavendish Square, W., July 25th, 1877.

DR. HOGGAN'S VIVISECTIONS.

SIR,—I have been somewhat amused by reading the attack made upon me by M. Vignal, in his letter under the above heading, which appeared in your issue of the 7th instant. I willingly accept his challenge, and will proceed to expose his misstatements and answer his questions in an unequivocal manner.

I believe it may be reasonably urged on behalf of M. Vignal that he is evidently ignorant of the details of the theory which I exposed before the Royal Medical Society of Edinburgh (not the Royal Society, as he

supposes), as only two copies of the dissertation exist—one in the archives of the Society and the other in my own hands. Like him, however, I shall take for my text the quotation he gives from my evidence in the Blue Book as follows:—"In fact, my theory did away with the necessity of muscles of inspiration. I denied the action of them as they stood." Passing on to each of the statements which follow, I have, in the first place, to deny that I ever explained to any one in the College of France my theory of the action of the so-called muscles of inspiration. Consequently, I have to deny, in the second place, that anyone there "tried by reasoning to demonstrate to me its falsity". Thirdly, I deny that I was conducted to the laboratory of M. Cl. Bernard to be convinced by experiment. And, fourthly, I beg to state that the experiment said to have been "made in my presence without anæsthetics", and "following my directions", during which "the animal died at once, its lungs collapsed, as soon as the respiratory muscles, said by Dr. Hoggan to be useless, were divided", is purely and wholly imaginary. As all M. Vignal's statements and questions turn on this point, I shall endeavour to be even more explicit by stating that never, to my knowledge, in my presence, or by my directions, was ever any vivisectional experiment performed upon any animal, with or without anæsthetics, in Paris or anywhere else, in connection with any part or detail of my theory of inspiration. Nay, further, amongst all the experiments I have witnessed, I have never yet seen the diaphragm while it acted in any living animal, being in this far behind the young ladies at Girton, who, according to an official circular issued by the College and now before me, are shown that interesting vivisection in Professor Foster's class of physiology.

After making such statements, it would be useless repetition to reply *seriatim* to M. Vignal's questions; but I enclose that answer should it appear in your judgment to be necessary. I might, however, add, with reference to the latter part of his third question, that had the imaginary experiment really taken place, I should not have been allowed to describe it before the Commission, unless (which would be impossible) I could have accompanied it with a published reference. I can assure M. Vignal that I carried before the Commission a great written budget of what, in the language of the day, would be called atrocities which I myself had witnessed; but, whenever I entered upon it, I was stopped by a protest from Professor Huxley to the chairman against any testimony being received as to what had taken place abroad, unless a published reference could also be produced as a voucher.

It would seem that M. Vignal has confounded my views in respect of the muscles of inspiration with my theory On the Erectile Action of the Blood-pressure in Inspiration, and its Important Agency in the Various Functions of Life, under which title I wrote an article published in the *Edinburgh Medical Journal* for October 1872, and presented a copy to Professor Ranvier when, by his great kindness, I worked under him in the College of France. Some time afterwards, that gentleman, knowing my wish to learn experimental physiology, kindly introduced me to Professor Bernard, with a request that I might be allowed to assist (*aider*) him in his laboratory, and, at the same time, handed him another copy of the article in question; but there was never any discussion or any experiment even on this part of my theory, and, indeed, I confess that my little vanity felt somewhat wounded by the fact that, after receiving the article, M. Bernard never again alluded to the subject.

The arguments with which I opposed the idea of muscles of inspiration were based upon anatomical facts and physiological movements laid down as mathematical problems. They were such as could be tested by every man upon his own body, from which he was certain to receive a clearer answer than he could expect to get from any tortured animal. In this way, taking, for example, the diaphragm, one of the least unassailable of the so-called muscles of inspiration, I showed that neither by itself nor in conjunction with the thoracic muscles, did it act in inspiration; and the stock argument derived from its action in maintaining respiration after injury of the spinal cord below the origin of the phrenic nerve I showed not only to be untenable, but only comprehensible when my heretical theory was applied to it. Those arguments have never been answered, and, until they are answered, I shall denounce any experiments on animals in connection with them, even under the influence of anæsthetics.

Although my little experience prevents me from admitting that vivisection is always either useless or cruel, I object to the one imagined by M. Vignal, because it was both: and he must pardon me when I say that it is neither consistent with my knowledge of or respect for the skill of the physiologist referred to, that knowing (as supposed) my theory he should ever have planned so grossly ignorant an experiment, or have been either surprised or convinced by the result obtained. To "sever the respiratory muscles" referred to, simply means that the

whole trunk was cut to pieces; and who can wonder that the poor mangled brute "without anæsthetics" sank under such treatment? The lungs would certainly collapse when the thorax was opened, not (as explained in my dissertation) that they have any connection whatever with the so-called muscles of inspiration, but because the contractile elements of which they are largely composed would contract on exposure to the air.

I regret, sir, that I cannot further intrude upon your space with the details of my theory of inspiration, but I hope I have said enough to prevent M. Vignal from commencing any more of his characteristic experiments before he has mastered the preliminary facts.—I have the honour to be, sir, your obedient servant,

GEORGE HOGGAN.

7, Trevor Terrace, Rutland Gate, S.W., July 13th, 1877.

OBITUARY.

ROBERT GEORGE BOULTON, M.D. AND J.P.

DR. BOULTON died of renal calculus, on July 12th, at his residence in Beverley, Yorkshire, having just passed his seventy-second birthday.

He was educated at Edinburgh, and afterwards settled in Beverley, where he held a leading position, both professional and social, for forty-seven years. He was a magistrate for the borough, a staunch churchman and conservative.

He married Ann, second daughter of the Rev. H. R. Whytehead of Thormanby and Creyke, Yorkshire, by whom he had twelve children, nine of whom survive. He has two sons in the medical profession; William Whytehead, who succeeds to the Beverley practice; and Dr. Percy Boulton, who has chosen a wider sphere in London.

Dr. Boulton was an able practitioner. He attended and kept accurate records of over three thousand cases of midwifery, with an extraordinary low maternal mortality. He was fond of his gun, and was a fine example of a manly country-gentleman type of practitioner. The rich and the poor alike have lost in him a kind, sympathetic, and trusted friend.

W. BATHURST WOODMAN, M.D., F.R.C.P.

THE subject of this notice, whose decease, at the early age of forty-one, we had to chronicle with the greatest regret in a late number, was the son of a congregational minister at Cadenham, in the parish of Minested, New Forest. He entered as a student at the London Hospital, and held almost all the appointments open to the alumni. As house-surgeon, resident accoucheur, and resident medical officer, the manner in which he devoted himself to his duties was such as to command the warmest acknowledgments from lay and medical staff. During the cholera epidemic of 1866-7, he was medical superintendent of the Limehouse Hospital, and contributed an account of work done there to the third volume of the *London Hospital Reports*. He subsequently became an Examiner at the Apothecaries' Hall; Examining Physician to the London Orphan Asylum and British Home for Incurables; and Physician to the North-Eastern Hospital for Children. He was a frequent contributor to the *Medical Times and Gazette*, *London Medical Record*, etc. He translated and edited Wunderlich's *Medical Thermometry* for the New Sydenham Society, and contributed a paper on Chorea and Pregnancy to the *Obstetrical Society's Transactions*. In conjunction with Dr. Tidy, he furnished a communication to the Royal Society on "Ammonia in the Urine", which was published in their *Proceedings*. In 1861, he became M.R.C.S. and a L.S.A. In 1862, he graduated with honours as M.D. at St. Andrew's, and in 1876 he was elected a Fellow of the Royal College of Physicians of London.

In 1870, Dr. Woodman was appointed one of the assistant-physicians at the London Hospital, and early in the present year he became Physician, after seven years' service. His work here was in many respects remarkable. For hours, apparently without the slightest fatigue, he would sit and see the out-patients. The many students who attended his practice can testify that if he lacked the brilliant rapidity of some, he bestowed on each case that extreme caution and earnest painstaking attention which rendered his opinion valuable and his teaching sound. As a lecturer on physiology, the chair of which he held for some years at the medical school, his lectures were remarkable for the wide range of knowledge they exhibited, and the mass of facts, culled for the most part from the works of foreign physiologists, with which he burdened them. Here, indeed, was his failing as a lecturer; he knew much, and was unable to measure the amount a student needed.

In private practice, his ultimate success all prophesied as certain. He had passed the first great struggle, and it was but a work of time

for him to reap the reward of laborious reading and careful clinical observation. The last few years of his life had been mainly devoted to preparing, conjointly with Dr. Tidy, a *Manual of Forensic Medicine*. His devotion to the subject-matter of the work was untiring: every book and every pamphlet, English and foreign, bearing in the least degree on legal medicine was gone through; and the labour he bestowed upon it few can imagine.

He was emphatically a learned man. To a more than average acquaintance with dead languages, he added a critical knowledge of French, German, and Italian.

As regards his private character, no words can sufficiently express his generosity, his kindness of heart, and absolute unselfishness. No poor person asked for advice or relief from him in vain. He considered nothing a trouble that he did for others; he considered no return too great for any little favour another did for him. Not a few will feel that they have lost in him one who in the strictest sense was a friend, that feeling of loss being intensified by the sad circumstances which closed a career of great promise.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE CROYDON BOARD OF HEALTH AND INFECTIOUS DISEASES.

SIR,—“A Medical Officer of Health” calls in question the course I have taken in the matter of additional infectious wards for the district of Croydon. He expresses an opinion that my action is “a mischievous and a retrograde one”. With your permission, I will explain the position I have taken and will state the reasons which have brought down upon me the condemnation of your correspondent.

I have always urged upon the proper authority the necessity of providing isolated hospitals for the treatment of infectious disorders. The destitution authority have already provided one such building in the district, which is supervised by the Croydon Local Board of Health. When power was given to health authorities to provide similar accommodation, I at once moved the Local Board to urge upon the Board of Guardians the necessity for making sufficient provision for such cases within their district; and I stated that one building was not sufficient. I pointed out also to the Board of Guardians that, whilst their present infectious wards were admirably fitted for the treatment of one kind of infectious disease, they could not deal with two, such as typhus and small-pox, at the same time. I urged, therefore, that they should duplicate their present buildings, by erecting another set upon land which they have already available for the purpose; that their staff would require additions of inferior officers only to work both buildings; and that the duplicate set would afford ample accommodation for the district for a long time to come; that, if it became necessary at any time for the Local Board to send in non-pauper patients, they would be prepared to pay all expenses which would be incurred in attending upon and treating such cases. To this proposition the Board of Guardians unanimously and willingly agreed. Their architect was instructed to prepare, and did prepare, plans for another set of buildings similar in character to the present infectious wards. Contracts for the erection of the building were invited, and everything was in order, by means of which Croydon would have been amply provided for the isolation of disease. But the Local Government Board stepped in and informed the Guardians that the proposed arrangement would not be allowed: it was contrary to the policy of the Local Government Board to allow the two boards to act in harmony; and, whilst unable to deny that the present infectious wards are not sufficient for the district, and agreeing that it is necessary to have a second set built, they also call upon the health authority to provide distinct hospitals for non-pauper cases.

Now, sir, I hold that, however wise it may be to have abundance of accommodation for the treatment of infectious diseases, there are limits beyond which common sense as well as the all-powerful ratepayer will not proceed; that to provide shams for the treatment of infectious disease would be worse than useless; that two distinct blocks, making up fifty-six beds in four compartments, are ample accommodation for this district, if efficient; and that it has been agreed to duplicate the twenty-eight already existing. The destitution authority has an efficient staff and an able superintendent, whilst the health authority has nothing of the kind. The sites are secured, by means of which the foci of disease will be limited. If the Local Board of Health were compelled to find sites for two fresh infectious wards, they would have to incur enormous expenses, or else provide a sham. We have so many shams already, in the supervision of health by destitution authorities, and by the impediments placed in the way of healthy progress by the Local Government Board, that it is high time to try to bring about a change. I am of opinion that the principles of legislation, as promoted by the Local Government Board, are altogether wrong. We are breeding up among us a class of persons who are paupers from their cradles to their graves. They are treated as if they were not of the same family as ourselves, and that feeling is to be inculcated more strongly by preventing the ingress of any but those in the service of the Board into the wards of their hospitals. I believe the introduction of non-pauper cases for treatment in the hospitals designed for the poor is a step in the right direction, and is likely to be followed by benefit, not injury, to the poor themselves; but that to call upon the Croydon Local Board of Health to provide further accommodation for the isolation of disease when the district is already sufficiently provided for, is a waste of public money; an injury instead of a benefit.

The zeal of the Local Government Board is sadly wanted in another direction. In the autumn of 1875, Dr. Buchanan was sent down to inquire as to the causes of the epidemic of fever which assailed us in the spring and summer of that year. He reported that one of the causes of the disease was the defective state of many of the sewers. The Croydon Local Board applied for power to borrow £15,000 to remedy the defects. The application was made to the Local Government Board more than a year ago, and we have not yet received authority to proceed to remedy those defects which still tend to produce disease among us; but we are called upon to proceed to an enormous expenditure which we believe to be altogether unnecessary

and which will not be used if we go to the fountain-head as to the causation of disease. Let us remove these causes first, and if then it be found that the present allowance of fifty-six beds is not sufficient for the isolation of infectious disease, it will be time enough to call upon us to provide more; or, still better, transfer to the health authority the treatment of the sick poor altogether.

Whilst the spirit which existed in the old Poor-law Board, and which has snuffed out Mr. Simon, reigns at the Local Government Board, there is but little chance of correct legislation there.—I am, sir, your obedient servant,
Croydon, July 9th, 1877. ALFRED CARPENTER, M.D., C.S.S.Camb.

FEES FOR OPERATIONS.

THE following letter has been handed to us for publication.

“Local Government Board, Whitehall, S.W., July 17th, 1877.

“Sir,—I am directed by the Local Government Board to state that they have had under their consideration the grounds stated in your letter of the 10th of May last, upon which the Council of the Poor-law Medical Officers' Association base their application for the issue of a general order fixing the remuneration of medical practitioners called in to assist Poor-law medical officers in performing capital operations. The Board have very carefully considered the representations contained in your letter; but, as at present advised, they do not think that sufficient reasons have been adduced to render it expedient to alter the existing regulations on the subject.

“The circumstances connected with each of the capital operations referred to in your letter are in practice so different as to render it impossible to lay down a fixed scale of remuneration, such as would be just alike to the medical practitioner and to the ratepayer. Moreover, the Board consider that it would be undesirable to encourage the performance in the dwellings of the poor of such serious operations, sometimes involving danger to life, as those referred to. When operations of this nature are performed at the paupers' houses, neither the constant care and nursing, nor the means and appliances for carrying the operation to a successful issue, can as a general rule be provided.

“For the comparatively few exceptional cases in which it is absolutely necessary for the district medical officers to perform capital operations, and for the right means of dealing with such grave contingencies, the law and the regulations of the Board, as has been already pointed out, appear to make sufficient provision.—I am, sir, your obedient servant,

“(Signed) HUGH OWEN, Jun., Assistant-Secretary.

“To J. W. Barnes, Esq., F.R.C.S., Hon. Secretary to the Poor-law Medical Officers' Association, 3, Bolt Court, Fleet Street, E.C.”

DUTIES OF WORKHOUSE MEDICAL OFFICERS.

SIR,—The guardians of a large workhouse, the medical work of which is discharged by two resident officers, have passed a resolution to the effect that, besides carrying out the Consolidated Order, Article 207, the medical officers be directed to visit all sick cases (which include cases of itch, venereal disease, and others of a chronic nature) received at the workhouse within one hour of their being removed to their respective wards. Can you tell me whether the guardians have power to enforce such a rule, involving, as it does, a large amount of absolutely unnecessary attendance? See Glen's *Poor-law Board Orders* for Article 207, which ought to be read in connection with Article 154.—Yours, etc.,
X. Y. Z.
July 11th, 1877.

* * * Having regard to the very stringent regulations laid down in the articles referred to in our correspondent's letter, we are of opinion that the resolution of the guardians is wholly unnecessary, and calculated to give needless trouble. We should imagine that it has been come to in ignorance of the tenour of the general orders, upon which it should have been the duty of the clerk to enlighten the guardians. We further believe that the Central Board would not support the guardians in their apparent attempt to unduly harass their officers; if, therefore, after respectful remonstrance, the resolution be insisted on, we would advise our correspondent to lay the facts before the Central Authority.

POOR-LAW MEDICAL APPOINTMENTS.

DRING, W. Ernest, M.D., appointed Medical Officer and Public Vaccinator of the Third Division of the Faversham Union, *vice* R. S. Francis, Esq., resigned.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

DRING, W. Ernest, M.D., appointed Medical Officer of Health of the Third Division of the Faversham Union, *vice* R. S. Francis, Esq., resigned.

THE Town Council of Chatham have been appointed the Port Sanitary Authority for Chatham and Rochester.

SUPERANNUATION.—The Board of Guardians of the Uckfield Union have awarded to Mr. G. Holman, for his long services of forty-two years, the sum of £50 *per annum*.

MILITARY AND NAVAL MEDICAL SERVICES.

THE appointment of Senior Civil Medical Officer in the Straits Settlements has fallen vacant by the death of Surgeon-Major Henry Lloyd Randell, on June 22nd, at Singapore. The deceased, who had taken an active part in the suppression of the late Malay revolt on the Perak River, when he was seriously wounded, joined the service as an assistant-surgeon in January 1855, and served with the 62nd Regiment in the Crimea from July 1855, taking part in the siege and fall of Sebastopol, and the assault of the Redan on the 8th September. He served afterwards with the Royal Engineers and Royal Artillery, and had been medical officer in the Straits Settlements for the last ten years.

THE FUTURE OF THE ARMY MEDICAL DEPARTMENT.

STR.—I am convinced that under a staff system the medical service of the army will be more independent and useful than ever; and if Mr. Hardy had been content to modify his short service system in accordance with what appears to be the general wish of the profession, his organisation will be a success. It is not fair to say that a staff service will not succeed because a short service system tacked on to it is practically a failure. The one has nothing whatever to do with the other; and to bring forward the death of candidates as a proof that it is a failure is altogether illogical, and may do much harm. A little less obstinacy on the part of Mr. Hardy would even now end much unfortunate discussion. A short service system, with perfect freedom of selection to the Director-General to retain in the army those young officers who proved themselves worth retaining and liked a military career, or of allowing those to go who wished to start in civil life, would be a real advantage. The department is about to become independent for the first time in its long and honourable connection with the army; and we want to continue at the head of affairs an independent officer to steer it successfully, not a weak man who will pander to the foibles of combatant officers, who, however courteous they may be, cannot understand our being independent and free to manage our own affairs. We should unite to forward so good a work, and not make ourselves ridiculous by advocating a number of impossible schemes long since obsolete and things of the past. The most noble in every land do not disdain to participate in the working of an ambulance system or military hospital, as is patent in every war. Why should we look forward to a lower social status as hospital surgeons? Bah, the thing, or rather the idea, is a mere chimera!

DUM SPIRO SPIRO.

MEDICO-PARLIAMENTARY.

HOUSE OF COMMONS.—Thursday, July 19th, 1877.

Grocers' Spirit Licences.—Mr. DALRYMPLE inquired if the attention of the Home Secretary had been called to a memorial signed by nine hundred medical practitioners, setting forth the evils resulting, in their opinion, especially to women, from the purchase under the guise of necessities of spirituous liquors from licensed grocers; and whether he would bring the memorial under the notice of the commission about to take evidence on the subject?—Mr. CROSS said that he had not received any memorial; but if one were presented to him, he would forward it to the commissioners.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 19th, 1877.

Flewitt, Walter, Birmingham
Giffard, Henry Edward, Hershaw, near Esher
Weekes, Francis Henry, Auckland, New Zealand

The following gentlemen also on the same day passed their primary professional examination.

Baird, Andrew, St. Mary's Hospital
Bower, Arthur E. R., St. Thomas's Hospital
Devis, Charles James, General Hospital, Birmingham
Fallon, Joseph Septimus, Westminster Hospital
Farrer, George Albert, St. Bartholomew's Hospital
King, W. H. Tindal, St. Mary's Hospital
Pardington, George Lucas, St. Bartholomew's Hospital

UNIVERSITY OF DUBLIN: SUMMER COMMENCEMENTS, 1877.—A meeting of the Senate of the University was held on Thursday, June 28th, under the presidency of the College *caput*, the Right Hon. Judge Longfield, *pro* Vice-Chancellor, the Rev. Dr. Lloyd, provost, and the Rev. Joseph A. Galbraith, A.M., senior master non-regent, for the conferring of degrees.

Licentiate in Medicine.—James Campbell Hall, George Henry Manning.

Licentiate in Surgery.—James Campbell Hall.

Bachelor in Surgery.—Henry Joseph Battersby, William Arthur Booker, Wm. Byrne, John Vincent Conolly, Freeman Wills Crofts, Arthur Francis Dobbs, William Hamilton, Frederick Fitzgerald M'Cartie, Rev. Henry Drought Sheppard, Edward James Thompson.

Bachelor in Medicine.—Henry Joseph Battersby, Charles Alfred Cooper, Rev. H. Sheppard, Ewing Mould Glynn Whittle (*ad eundem*).

Master in Medicine.—E. B. Sarr-Laur (*honoris causa*), Alfred M'Clintock (*honoris causa*), Arthur Vincent Macan.

Master in Surgery.—H. J. Battersby, S. H. Taylor, Ralph M'Dermott.

Doctor in Medicine.—Thomas Elliott, James Joseph Moran, Jas. Murphy, Samuel Lane Popham, Joseph Francis Porter, Rev. H. Drought Sheppard, James Thompson, Arthur Annesley West, Cadwallader Brooke Wolseley, Ewing Mould Glynn Whittle.

QUEEN'S UNIVERSITY, IRELAND.—At a meeting of the Queen's University, for conferring degrees, on June 18th, the following degrees were conferred.

Doctors of Medicine, Master in Surgery, and Licentiate in Midwifery.—Archibald R. H. Bland and George Henry Bull, Queen's College, Cork; William Corry, Queen's College, Belfast; Hugh L. Donovan, Cork; Wm. A. Quayle, Belfast; William H. Thornhill, B.A., and Jas. Tidbury, Cork; Chas. Workman, Belfast.

Doctor of Medicine and Master in Surgery.—Robert D. Donaldson, B.A., Cork; J. J. Kent Fairclough, and Robert H. Robinson, Belfast; Henry G. Thompson, Galway and Cork.

Doctor of Medicine.—William H. Bracken, Belfast; Dennis Harrington, Galway; Henry O'Neill, Belfast.

Master in Surgery and Licentiate in Midwifery.—J. J. Adams, Belfast.

Master in Surgery.—John Mulrenan, Cork.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the usual monthly examination meetings of the College, held on Monday, Tuesday, Wednesday, and Thursday, July 9th, 10th, 11th, and 12th, 1877, the following candidates passed the examinations for the Licences to practise Medicine and Midwifery.

Charlton, Henry Arthur Herbert	Kisby, George
Clarke, John Patrick	Lyndon, George
Clinch, James Vincent	Rugg, James Foster
Conry, John	Ryan, Walter Henry
Delahoyde, O'Connell John	Sherrard, Henry Robert
Donaldson, Ebenezer	Smith, Richard Baker
Duignan, John Joseph	Thompson, John Henry
Fisher, Francis Charles	Tyner, Richard Gilling
Higgins, Samuel McCulloch	Wylde, James Harrold

The examination for the Licence to practise Medicine was passed by—
Clarke, Joseph Rowlands, William
Jennings, John Bray Winter, Walter Henry T.

The examination for the Licence to practise Midwifery was also passed by—

Croft, Freeman Wills	O'Dwyer, Malachi
Fairbank, William	Thompson, James Edward
Goodman, Francis George	Westley, George
Hamilton, William	

MEDICAL VACANCIES.

The following vacancies are announced:—

ALBERT EDWARD INFIRMARY AND DISPENSARY, Wigan—Junior House-Surgeon. Applications on or before August 1st.

BOLTON UNION—Medical Officer for the Harwood District.

FARINGDON UNION—Medical Officer and Public Vaccinator for the Shrivenham District. Salary, £70 per annum as Medical Officer, and £10 as Medical Officer of Health. Applications to be made on or before the 31st instant.

GLASGOW EYE INFIRMARY—Assistant-Surgeon.

GRANTHAM UNION—Medical Officer for the Ancaster District.

HAVERSTOCK HILL and MALDEN ROAD PROVIDENT DISPENSARY—Medical Officer. Applications to be made on or before the 31st instant.

MORVEN, Parish of—Medical Officer.

ROYAL HOSPITAL FOR DISEASES OF THE CHEST, City Road—Two Assistant-Physicians. Applications to be made on or before the 31st instant.

SOUTHMOLTON UNION—Medical Officer for the North District.

WARWICK COUNTY ASYLUM—Junior Assistant Medical Officer. Salary, £100 per annum, with furnished apartments, board, and attendance.

MEDICAL APPOINTMENT.

Names marked with an asterisk are those of Members of the Association.

STORY, John B., M.B., B.Ch., appointed Resident and Assistant Surgeon to S Mark's Ophthalmic Hospital, Dublin.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. *id.*, which should be forwarded in stamps with the announcement.

MARRIAGE.

EMMERSON—MORTON. At St. Peter's, Syston, Leicestershire, on the 24th instant, by the Rev. W. M. Croome, M.A., *William Lindsay Emmerson, Surgeon, Newcastle-on-Tyne, to Sarah Jane, seventh daughter of the late William Morton, of Oakham.

BEQUESTS.—The following legacies, besides others to religious and charitable institutions, have been bequeathed by the late Mr. James Mitchell of Kincairney, Perthshire, and of Edinburgh, all free of legacy duty: to the Royal Infirmary of Edinburgh, £1,000; the Perth Infirmary, £1,000; the Royal Dispensary, Edinburgh, £1,000; Royal Hospital for Sick Children, £500; Destitute Sick Society, £500; Blind Asylum, £500; Institution for the Relief of Incurables, Edinburgh, £500; Indigent Gentlewomen's Fund, £1,000. The total amount of the bequests was £12,500.—Mrs. Brocas, late of Dublin, has bequeathed the following sums: To the Adelaide Hospital, £250, in memory of her late brothers William and Henry Brocas; to the Meath Hospital and County of Dublin Infirmary, the sum of £200, for the purpose of supporting and keeping up a bed in the hospital, to be called "The Brocas Bed", in memory of her said brothers; to the City of Dublin and to Mercer's Hospitals respectively, £100; and to the National Institution and Molyneux Asylum for the Blind of Ireland, £100.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
 TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
 WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
 THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
 FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
 SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

VACCINATION FEES.

SIR,—The usual fee for vaccinating a child in such a family as that described by your correspondent "An Associate" is half-a-guinea. This includes the subsequent visit to ascertain whether the operation has been successful, but nothing else. Any intermediate visit would be charged for at the usual fee. In reply to the second question, it is not customary to charge any additional fee if a confinement take place either before or after the time named by the patient. There is no possibility of saying exactly when the services of the medical man may be required; and, however much the inconvenience to the attendant, it has not hitherto been recognised as necessary to charge any extra fee. Were it a case *in mala fide*, it might be otherwise.—I am, very faithfully yours, F.R.C.S. Edin.

PROFESSIONAL ETIQUETTE.

SIR,—Will you kindly state your opinion on the following facts? A. and B. are practising in the same place, where there is a Foresters' Court. B. has been surgeon to the Court for thirteen or fourteen years, but now they wish to have two instead of one surgeon only. A. has been in the place about four years, and three months ago became an honorary member of the Court. Last week, A. was asked by the secretary if he would attend so many of the club members as wished to pay to him at the same as B. Is there anything unprofessional in A. consenting to attend those members? Your opinion is asked, because one naturally does not wish to throw away any chance of increasing one's income, and yet wishes to retain the esteem of his neighbouring practitioners.—I am, sir, faithfully yours, EXPECTANS.

* * We presume that the "Foresters' Court" has a right to increase its medical staff if thought necessary. In such a case, we see nothing unprofessional in A. consenting to attend the members.

ANTI-VIVISECTION LITERATURE.

A MEDICAL man, who recently advertised a reward for a lost dog, received the enclosed communication, which is so characteristic as to need no comment, especially the final falsehood.

"Lost Dog.—You are earnestly requested to read and to circulate these pamphlets and papers. See Part i, pages 15, 16, 17, Rutherford's diabolical evidence; pages 17, 18, notice of Sir A. Cooper's life; page 7, Klein's fiend-like infamous evidence. See Mr. William Howitt's noble letter; see advertisement of Society for Total Abolition of Vivisection in the *Morning Post* of April 23rd, 1877; Dr. Bartlett's hellish experiments on the dog—the *loving, faithful, intelligent dog*.

"N.B.—To every hospital in London is attached an employe, whose business it is to procure stray dogs and cats for use in a laboratory (see *Scotsman* of November 2nd, 1875.—*Wanted: Spectacles!*)

SIR,—Would you or any of your readers kindly tell me where I am to apply for information concerning change of address in the *Medical Register*? The authorities in Oxford Street are silent.—Yours obediently, ROLLING STONE.

* * * What kind of information does our correspondent require?

We have received a notice of the healthy attractions of Ilfracombe Hotel. There are few sites more highly endowed by Nature, or suitably improved by art, than this very healthy holiday resort for health-seekers. The climate is mild, the scenery singularly beautiful, and the sea-breeze sweeps over the whole coast.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

DE LISLE ALLEN FUND.

The Honorary Treasurer begs to announce the following subscriptions to the above named Fund, in response to the appeal in our number of July 21st.

	£	s.	d.
Barker, A. E., Esq., London	1	1	0
Bury, G., Esq., Whetstone	1	1	0
Bull, H. G., M.D., Hereford	2	0	0
Fowler, O. N., Esq., Cirencester	5	0	0
Fox, Tilbury, M.D., London	2	0	0
Jackson, J. Hughlings, M.D., London	3	0	0
Jackson, T. Carr, Esq., London	2	0	0
Jenner, Sir W., Bart., M.D., London	2	2	0
L. T. C., Berkhamstead	1	1	0
Reynolds, J. Russell, M.D., London	3	0	0
Stear, H., Esq., Saffron Walden	2	0	0

Further subscriptions to the Fund, sent to Dr. Benjamin W. Richardson, F.R.S., 12, Hyde Street, London, W., or to the "De Lisle Allen Fund", Union Bank of London, Argyll Place, Regent Street, W., will be thankfully received.

CASE OF EXTRAVASATION OF URINE.

SIR,—Mr. Alderson having drawn my attention to my report of a case of extravasation of urine at page 742 of your JOURNAL for June 16th, and being under the impression that some of your readers may imagine that he did not at once recognise the gravity of the case, I desire to say that he saw the patient but once, when he immediately sent him into the hospital.—I remain, sir, your obedient servant, Portman Square, July 24th. W. F. TEEVAN.

OIL OF TURPENTINE AS A REMEDY FOR "HAY-FEVER".

SIR,—Hitherto the profession has been at a loss for an effectual remedy against hay-fever and other similar affections of the pituitary and bronchial membranes, as shown in the history of the severe case reported by Mr. Briscoe in your JOURNAL of the 7th instant. At this moment I am unable (my time being fully occupied) to state more than the bare fact, that several cures of this obstinate disease have resulted from the internal administration of the rectified oil of turpentine. In answer to the appeal of Mr. Briscoe, I think he will find a safe and certain remedy for the case he has in hand in this volatile oil. Let him only try my prescription, which is as follows. *B. Olei terebinthinae rectificati ℥ 30; spiritus vini rectificati ℥ 270. Mix.* Five to ten drops in half a wineglass of water to be taken every three or four hours. For obvious reasons, I prefer a small and frequently repeated dose. The cure will probably be completed in from three to four weeks, or even sooner. Will Mr. Briscoe kindly report the result?—Yours truly, Wm. PROWSE, Cambridge, July 17th, 1877.

SILPHIUM CYRENAICUM.

SIR,—Permit me to inquire through the medium of the BRITISH MEDICAL JOURNAL whether any qualified practitioner can give information, from practical tests, of the influence of silphium cyrenaicum in diseases of the lungs.—I remain, sir, yours, July, 1877. INQUIRER.

VOMITING CONNECTED WITH DYSMENORRHEA.

SIR,—I should feel obliged if some of your correspondents could suggest any remedy that would be useful in a case of troublesome vomiting in connection with dysmenorrhoea, generally coming on a few days before the monthly period. Hydrocyanic acid, bismuth, oxalate of cerium, and all the usual remedies have been tried, but with only temporary success.—I am, sir, yours truly, M.R.C.S. Eng.

DISEASE OF THE TONGUE.

SIR,—I have at present a man aged about forty-five under my care, who says that for the last twenty years he has suffered from a sore tongue. The organ becomes dry and parched, especially at night; sometimes he awakes and finds his tongue sticking to the roof of his mouth, and on drawing it away the epithelial covering still adheres to the palate, and the surface of the tongue is left raw, cracked, and bleeding. He also complains of a painful tingling feel. He cannot swallow anything hot without great pain. When the bowels are constipated, all these symptoms are exaggerated; drinking spirits has also a prejudicial effect. The anterior half of the tongue has a reddish, somewhat glazed, appearance, and bleeds readily on slight irritation. Transversely across the organ there is the mark of a deep fissure, which has healed up. The posterior half is in its normal condition. There are no ulcers at present; but he states that he used to have ulcerated spots on the surface and sides of the tongue, and the cicatrices of some of them are still to be seen. I can get no distinct history of syphilis from him, though he confesses to having had a "running" when a young man. On the supposition that the disease might have a specific origin, I prescribed perchloride of mercury and iodide of potassium internally, and, as an application, black wash and glycerine, at the same time keeping the bowels open and knocking off drinking and smoking. Under this treatment he improved, and lost the painful tingling sensation he previously complained of. After a time, this treatment seemed in some measure to have lost its efficacy. I then ordered Donovan's solution in twenty-minim doses, which he is at present taking, and which seems to agree with him; but still there is a reddish inflamed patch near the lip, which has up to the present resisted all treatment.

I may add, that he "has suffered many things of many physicians", and with the Scriptural result; but he states that he has derived more benefit from the above than from any previous treatment.

If any of your readers could help me to a diagnosis, you would greatly oblige, yours truly, JOHN S. HAVES.

Kanapoi, Canterbury, New Zealand, June 1st, 1877.

P.S.—The patient is a man of active habits, and his general health is good. He is a wool sorter by trade.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

MEDICAL CLUB UNIONS.

SIR.—Mr. Knight's complaint that "Look before you Leap" did not attach his name to his note re medical club unions needs no remark, except that it would be better for Mr. Knight to avoid clumsy sarcasm, and pay a little more attention to homely grammar.

Will any of the former medical officers of the Northampton Club Union endorse Mr. Knight's estimate of £300 as the yearly value of the medical appointment? or can Mr. Knight prove his estimate? Will Mr. Knight inform the profession how many times it has been necessary to seek fresh medical officers since the Association was instituted (five or six years, I think)? and how it is, if club practice be as good for the profession as Mr. Knight says it is, that the medical officers have had enough of it at the Northampton Club Union in about two years, a little more or less? Mr. Knight's statement that he has had applications from "men" of great "eminence" for the appointment of medical officer to the Northampton Club Union is proof of the inability of laymen to appraise professional qualifications. The only way to secure mutual satisfaction between the clubs and the profession is to allow the sick members of clubs the selection of their own medical attendants at the time of illness, instead of restricting them to one, or perhaps two; and for the costs to be paid, after scrutiny by a competent secretary and committee, out of the medical aid funds of the clubs or club unions, according to the professional tariff of the district for private practice. The legitimate scope of such associations is purely financial; and the folly of the present system of club medical aid recoils on the unfortunate sick members. It is vain to expect that men who have to live by their profession can render proper medical aid to the sick members of clubs for a few shillings a year each member, or that the sick members of clubs will be satisfied with such attendance; and the sooner such a system comes to an end the better, both for doctors and patients.—Yours faithfully,

A FORMER, BUT DISGUSTED, MEDICAL OFFICER TO A CLUB UNION.

SIR.—Some years since, the medical men in my locality asked for an increase, on account of several of the club members being in very good positions, such as bankers, landowners, and well-to-do tradesmen; they also asked, in case this demand should not be acceded to, that such persons should only be attended as private patients. These requests being refused, and the medical men holding out, it was decided to advertise for a new medical officer, in consequence of which, several applied; one of whom, with the M.R.C.S. diploma, was elected; and he has turned out to be one of those alluded to by "Look before you leap", in his letter to you on June 16th, as "a walled and stray of the profession". Not without some good qualities, he is under the ban of intemperance, and other evils follow as a matter of course; but, strange as it may seem, after being installed for some time, he made the same application as his predecessors, and obtained the increase. Now, notwithstanding his peculiar method of introduction into the place, I have not been unfriendly to him, but have latterly declined to attend patients on his behalf, owing to representations having been repeatedly made to me of his neglect. The complaints have been great, the last I heard being of a case where he was sent for on three successive days, each time promising to go immediately, but eventually the patient dying without any medical aid at all. Being on good terms with the officers of the club, of course he maintains his position.

There are several points upon which information is desirable, and perhaps Mr. George Knight will kindly furnish it; and, to assist him in the matter, I will put some of them in the form of questions.

1. How is it that these clubs are satisfied to have medical attendants without any medical diploma? men who are not considered sufficiently qualified for parochial appointments, Government very properly insisting upon a double qualification?

2. How is it that the medical officers of these societies may maintain their position after doing repeatedly what would insure dismissal for the first offence under the Poor-law regulations, or as an assistant to a private practitioner, or any other respectable employ?

3. What is it that makes it worth the while of the club-officers to uphold medical officers when guilty of such misconduct, in face of public opinion and of the representations of the sufferers (these latter, of course, always being in a minority)?

In conclusion, seeing that as a rule the wire-pullers of these institutions are ignorant of all matters relating to medical men, and therefore incompetent for the duty of selecting medical officers; and, considering that efficient medical attendance, no less than the force of moral example, is of the utmost importance as bearing upon the material welfare of such societies, I would suggest that Government extend its supervision to matters which are of even greater consequence than correct accounts.

Begging Mr. Knight to excuse my *nom de plume*, permit me to subscribe myself—Yours obediently,

LAM-ALEPH.

WOLVES IN RUSSIA.

The *Russische Revue* contains an interesting article on The Wolf in Russia. According to the official reports published by the Minister of the Interior, the damage done by wolves in forty-five governments is valued at 7½ millions of roubles. But this sum is not supposed to be sufficiently large. The number of wolves in Russia is estimated at 200,000. Each of these requires for its annual maintenance about 23 cwt. of flesh. The whole army, therefore, must consume every year about 230,000 tons, 500,000 geese and 100,000 dogs being included. There were also 167 human beings destroyed. Altogether, the amount of damage done may be valued at not less than 15,000,000 of roubles, or a couple of millions of our money. A good many wolves are killed every year, but hunting has declined since the emancipation of the serfs, by which, therefore, the wolves have profited. Of late, a proposal has been made to get rid of them by means of strychnine, but it remains to be seen whether the plan will succeed.

NEW DISEASES.

SPEAKING of "the humbler Post-Office officials", and quoting from the Postmaster-General's Report for 1874, a writer in one of the magazines says:—"The Postmaster, after expressing a hope that 'compulsory education' may bring about an improvement, gives us some specimens of written replies to customary questions received from candidates for the humbler appointments of the Post-Office. They were required to answer concerning the diseases prevalent in their families. 1. 'Father had sunstroke, and I caught it of him.' 2. 'Sister died of compulsion.' 3. 'My little brother died of some funny name.' 4. 'A great white cat drew my sister's breath, and she died of it.' 5. 'Aperplexity.' 6. 'I caught Tyber fever in the Hackney Road.' 7. 'Burrager in the head.' 8. 'Shortness of breath.' 9. 'Indigestion of the lungs.' 10. 'Sister was consumed, but now she's quite well again.'"

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

HOSPITALISM.

SIR.—Will you kindly allow me space for a few remarks upon what might aptly be termed the present hospital mania? What with our hospital Sundays and Saturdays, hospital canvassers, hospital circulars, hospitals for the poor, children's hospitals, and projected hospitals for the middle classes, truly it may be said that medical practitioners will soon go to the dogs. *Cui bono* hospitals for the middle classes? The half-crown per day charged for each inmate is now the maximum charge of any ordinary practitioner for private patients, so that on the score of expense, at least, there will be no saving. Again, is it not admitted that cases do better when treated at their own homes and not massed together? Architects and surveyors must be rubbing their hands with glee at the prospect of more buildings to stifle the already overcrowded city; and physicians must be doing likewise—at least those who have greatest hopes of forming the staff. Poor trudging general practitioners will doubtless soon have to sit at home and pensively meditate upon the former happy times, when they were deemed competent to treat the ills that flesh is heir to. Let the warm advocates of such innovations consider well before they sit on strange eggs and hatch adders to sting them to death. Fashion and newfangled ideas are wonderfully catching. Should a scheme answer abroad, it is no argument why in this country it should be salutary. How are the hospitals to be supported? Is it to be done by fresh rates and taxes?—Englishmen appear able to bear any amount of them—or is it to be done by speculating companies? Of course, it is unpleasant to have to wait upon, nurse, and bear with the sufferings of relations, especially of poor ones. It may be fancy, but it appears to me that their very sufferings and the patience with which they are borne are the truest test of our affection and beauty of our dispositions. Can a stranger soften the fancied hardness of a man's pillow? or satisfy the varied capricious whims and lull the anxious mind to rest so well as a wife or near relation? Once in a hospital, how often would they be seen by those nearest and dearest to them? It is said that amongst certain savages when a parent becomes a burden to his relatives they break his spine with a stone whilst sleeping, and thus quietly and efficaciously get rid of the trouble and responsibility. With us the more humane course will offer itself, by immuring in some middle-class hospital. It only wants hospitals for aristocrats to obtain perfection. It has been held out as a sop that general practitioners can attend their own cases. Is this feasible? I am only surprised at the matter being so warmly advocated by medical men; and, in conclusion, would warn them in time, so that they may not cut their own throats without a caution.—I remain, yours faithfully,

86, Approach Road, Victoria Park, July 1877.

E. J. ADAMS.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. W. Roberts, Manchester; Dr. Macleod, Glasgow; Mr. Jonathan Hutchinson, London; Dr. Wilkinson, Manchester; Dr. Priestley, London; Dr. A. S. Taylor, London; Dr. Philip Bindley, Birmingham; Dr. Robert Saundby, Birmingham; Dr. Franklin Parsons, Goole; Mr. C. S. Lock, London; Dr. G. de Gorreque Griffith, London; Fiat Justitia; Mr. Robert Ceely, Aylesbury; Mr. Howard Marsh, London; Mr. N. A. Humphreys, London; Mr. Edward Buckell, Winchester; Mr. Harry Leach, London; Dr. Tidy, London; Mr. Waren Tay, London; Expectans; Dr. Alfred Carpenter, Croydon; Dr. Tripe, London; Mr. J. M. Rhodes, Didsbury; Mr. T. C. Langdon, Winchester; Mr. Outhwaite, London; Dr. Ward Cousins, Southsea; Dr. Peart, North Shields; Dr. Edis, London; The Secretary of Apothecaries' Hall; Dr. J. Milner Fothergill, London; The Registrar-General of England; Mr. G. Eastes, London; The Registrar-General of Ireland; Mr. T. M. Stone, London; Dr. H. W. Larking, Bilston; Dr. Wm. Fairlie Clarke, Southborough; W.; Dr. Warner, London; Mr. J. H. Ashworth, Bourn; Dr. J. W. Moore, Dublin; Dr. Joseph Bell, Edinburgh; The Secretary of the Obstetrical Society; Mr. Burdett, Greenwich; M.D.; Dr. Joseph Rogers, London; Mr. Wanklyn, London; Dr. Herbert Major, Wakefield; Dr. Myrtle, Harrogate; Mr. A. W. Stocks, Salford; Our Dublin Correspondent; Mr. J. B. Blackett, London; Our Edinburgh Correspondent; Dr. W. J. Fleming, Glasgow; A Volunteer Surgeon; Mr. J. W. Barnes, London; Dr. E. T. Tibbits, Bradford; Dr. Lloyd Roberts, Denbigh; Dr. Sawyer, Birmingham; Mr. F. Mason, London; Mr. J. May, Wolverhampton; Dr. Fletcher Beach, Lower Clapton; Dr. Parsons, Dover; Dr. E. F. Ingals, Chicago; Mr. Balmanno Squire, London; Mr. W. T. Briscoe, Chippenham; H. B. K.; Dr. C. R. Drysdale, London; Dr. R. J. Lee, London; Dr. E. Long Fox, Clifton; Mr. E. Atkinson, Leeds; Mr. W. F. Teevan, London; Dr. Emrys-Jones, Manchester; Mr. Whitcombe, Birmingham; Dr. Philipson, Newcastle-on-Tyne; Mr. Rushton Parker, Liverpool; Dr. Bradbury, Cambridge; Dr. W. H. Barlow, Harpurhey; Dr. Ringrose Atkins, Cork; Dr. Woakes, London; Mr. A. Stewart, London; Dr. Gowers, London; Dr. F. Parsons, Hastings; Mr. J. D. Mann, Manchester; Dr. J. B. Harrison, Manchester; Dr. Matthews Duncan, Edinburgh; Dr. A. Wahlucht, Manchester; Dr. More Madden, Dublin; Dr. Bernard, Derry; Mr. W. Berry, Wigan; Dr. Farquharson, London; Dr. Wiltshire, London; Mr. Waddy, Gloucester; W.; Mr. A. E. Wilmott, Escrick; Dr. J. W. N. Mackay, Elgin; etc.

LECTURES

ON THE
DIAGNOSIS AND TREATMENT OF HIP-DISEASE
IN CHILDREN.*Delivered at the Hospital for Sick Children.*

By HOWARD MARSH, F.R.C.S.,

Assistant-Surgeon to St. Bartholomew's Hospital, and to the Hospital for Sick Children, Great Ormond Street.

LECTURE IV.

At the close of the last lecture, reference was made to the apparatus invented by Dr. Taylor of New York. The splint is shown in fig. 12. Another plan for treatment is that invented by Mr. Thomas of

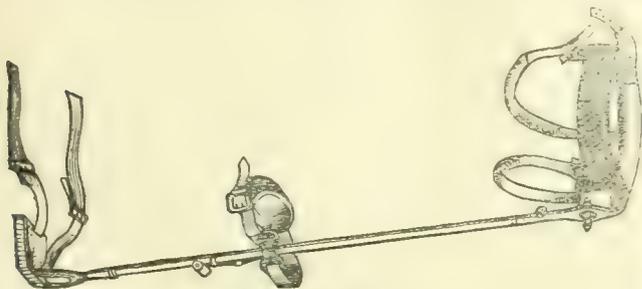


Fig. 12.

Liverpool. The splint he uses is sketched in fig. 13. His object is to keep the joint completely fixed while the patient is allowed to walk about on crutches and with a patten on the opposite foot to raise him slightly off the ground. It consists of a flat piece of malleable iron, one inch by

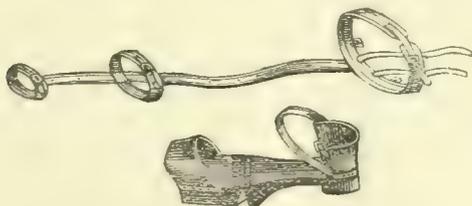


Fig. 13.

a quarter of an inch for adults, and three-quarters of an inch by three-sixteenths of an inch for children, and long enough to reach from the lower angle of the shoulder-blade, in a perpendicular line downwards, over the lumbar region and the pelvis, slightly external to the posterior superior spinous process of the ilium, over the prominence of the hip, and along the course of the sciatic nerve to a point slightly internal to the centre of the extremity of the calf of the leg. The iron must be modelled to this track to avoid excoriations. This iron forms the upright portion. The upper cross-piece, which buckles round the chest, is made of hoop-iron firmly riveted to the upright. It is modelled of an oval form, to prevent rotation of the splint and inversion of the limb. Two other pieces of hoop-iron are fastened to the upright—one at its lower end and the other a little below the fold of the buttock. This splint, when padded and adjusted to the limb (see fig. 14), maintains the joint at perfect rest. Should deformity be present, the splint is adapted to the distortion, and then is very gradually straightened as the parts yield, and in this manner the limb is brought into its natural position. A wooden clog, made by Maw and Son, like those worn by draymen (fig. 13), is more convenient for raising the opposite limb, than the patten shown in fig. 14. Mr. Thomas has very carefully studied his subject, and has insisted on numerous practical points of importance that I cannot introduce here. I can only shortly allude to his invention, and for full particulars of its use refer you to his published work. Although I am convinced that distortion may be best removed by means of the weight, I have no doubt Mr. Thomas's splint

is also useful to correct it. I have often used it with the best results for fixing the joint in cases in which movement produced severe pain. It enables us to move patients safely from room to room, even when the disease is still acute.



Fig. 14.

have yet been recommended, and it has the great advantages of being very simple and by no means expensive.

Before leaving the subject of mechanical treatment, let me refer to the practice to which some surgeons resort for the removal of deformity of long-standing by wrenching or forcibly straightening the limb. Some years ago, I often used this method, and saw others use it also, and for a time I found no reason to think it was unsafe; but further experience has convinced me—1. That forcible straightening is wholly unnecessary; for the weight used continuously will remove any deformity that can be set right by wrenching; 2. That it is attended with considerable danger, and may be followed by disastrous results. Let it be remembered that, in applying it, you use the femur as a lever of the second kind, whose fulcrum is the acetabulum, and the violence with which the joint-surfaces are thus forced together may do great mischief. This is shown by the acute pain and the spasmodic startings of the limb that by no means rarely follow. I remember one case in which a large psoas abscess was rapidly developed after the hip had been wrenched, and the patient died of pyæmia three weeks subsequently. I have been told of three other cases in which fatal pyæmia resulted; of one in which the femur, atrophied by long disuse, was broken just below the trochanter; of another in which, death having occurred some weeks after the wrenching, it was found, at a *post mortem* examination, that the pelvis had been fractured. Let me, therefore, advise you, on the two grounds I have mentioned, not to employ wrenching, but to trust to the weight and pulley.

Subcutaneous division of the tendons of any muscles around the joint that are felt to be tense has been much recommended. Perhaps there is no harm in the practice, but I have found it scarcely ever necessary.

Formation of Abscess.—Unless disease be checked by early treatment, suppuration commonly occurs; and, even in cases that are well managed from their outset, it can by no means always be avoided. Abscess seems to be formidable in nearly direct proportion to the early date of its formation. Prognosis must generally be very guarded if suppuration ensue early in the course of disease; but, when it occurs, say, twelve months or more after disease has set in, it is of much less serious augury. Indeed, I have seen many cases in which disease obstinately persisted, with repeated relapses, until an abscess formed, but underwent speedy cure after the abscess was opened. In such instances, recovery may have been delayed by the presence of inflammatory products inapt for absorption, but which have been cleared away by suppuration. Should pus have formed in the cavity of the joint, either from inflammation of the synovial membrane, or as the result of mischief in the ends of the bones, it may take various routes to the surface. Probably, it most commonly leaves the joint either through the inferior part of the capsule, where this structure is thin, or through the

cotyloid notch; sometimes it escapes by an opening at the back of the neck of the femur; sometimes it makes its way into the bursa under the psoas tendon, which, in many instances, communicates directly with the joint by a large opening. The situation in which matter may be detected affords no help in the diagnosis of hip-disease; on the contrary, it is well to remember that abscess depending on disease elsewhere often bears a deceptive appearance of having originated in hip-disease. Thus, as you know, abscess resulting from caries of the spine often tracks its way down to the close neighbourhood of the hip-joint, either in front, in the upper part of Scarpa's triangle, or behind, under the gluteus, or on the outer side, beneath the tensor fasciæ femoris. I do not think the situation in which sinuses form can be trusted to tell us whether disease is limited to the femur, or whether it also affects the pelvis. No doubt, if many openings form above Poupart's ligament and over the ilium, the probability is that the pelvis is diseased; but, on the other hand, in many instances in which the pelvis is extensively carious, all the resulting sinuses open in the thigh. In some instances in which the floor of the acetabulum is perforated, matter collects within the pelvis, between the internal surface of the bone and the obturator fascia, where it may be easily felt as a prominent swelling by the finger passed into the rectum. Occasionally, an abscess thus formed in the pelvis bursts into the intestine, and then pus escapes with the motions, while feces are passed through some of the sinuses about the hip. I have seen this condition in three cases, all of which ended fatally.

Abscesses that form in hip-disease may be conveniently classed under three heads, in respect to the period at which they are developed.—First are those which occur in the course of a few days in cases of rapidly destructive and violent inflammation of the joint, attended with urgent pain, high fever, and great constitutional disturbance. In some instances, a large abscess has been found within ten days from the commencement of disease. Here matter must be let out at the earliest possible moment. If it be left, the patient may quickly sink. Secondly, are those abscesses that occur in chronic cases and are themselves chronic and "cold", that form slowly and come slowly to the surface. Many produce no severe pain or other urgent symptom; others cause much pain while they are still imprisoned in the joint, or are shut in by the deeper structures, but little or none when they escape into the cellular spaces of the limb. These are by far the most common. Thirdly, there are the abscesses that Sir James Paget has termed "residual" (*Clinical Lectures and Essays*, p. 310). These make their appearance about the joint long after the subsidence of disease within it. They arise "where pus produced long previously has been wholly or in part retained, and become dry and in some form obsolete, or where adhesions become inflamed, and residues of pus, degenerating under inflammation, initiate or take part in a renewed suppuration". I have notes of two cases in which abscess of this kind formed in adults aged 23 and 30 respectively, who, having had hip-disease in early childhood, had for many years considered themselves cured. The abscesses were attended with no other sign of renewed disease. Many instances of similar abscesses, though their formation was not so long delayed, might be related. They are, indeed, by no means rare. I have quoted the words of Sir James Paget respecting these cases, in order to insist on their precise significance; that they do not mean renewed disease in the joint, and may be treated and will heal like common chronic abscesses.

I believe the general rule should be to open abscesses as soon as they can be detected. As to the kind I mentioned first—those that occur early in the most acute cases—there can be no doubt as to the necessity for their early evacuation; if they are left, the worst results will follow. As to those that form the second and third varieties, the same rule of opening them early is, I think, the best. It is true that, in one case in fifty perhaps, absorption may take place; but this event is so rare that it may be left out of consideration in framing a general rule. If left, these abscesses almost invariably, though it may be very slowly, increase, and at length form a large bed in the muscular interspaces of the limb. In opening these abscesses, you may often employ the aspirator with advantage, if you will use some simple form of this instrument with a large sized needle, so that its canal will not be soon blocked if pus be curdy or flaky. But the emptying will have to be repeated several times, and perhaps you will at last be compelled, by the repeated accumulation of the pus, to lay the sac freely open. The best method of dealing with all these abscesses, however, appears to be by the antiseptic method of Professor Lister. Under the carbolic spray, a free incision may be made, the sac emptied by gentle pressure, and a drainage-tube inserted. By this means, the abscess-cavity may be kept drained empty, and thus be under the most favourable condition either for obliteration or for transformation, if there be diseased bone in connection with it, into a sinus. Lister's gauze forms a highly

convenient and comfortable dressing. Of course, a number of these abscesses, since they result from bone-disease, do not rapidly close; but much is gained by converting them into sinuses. Many, however, in cases in which the bone is not affected, have ceased to discharge in some six weeks or two months. Lister's dressing need not be continued beyond about a month; after that time, when the sac will be lined with granulations, oakum laid over linen spread with ointment forms a very satisfactory dressing. Poultices, by their warmth and moisture, sometimes relieve pain and tension; but they are so objectionable in many ways, that they should be very seldom used.

An excellent method of opening deep-seated abscesses near important blood-vessels, as in Scarpa's triangle, is that devised by Mr. Hilton (*Lectures on Rest and Pain*, 2nd edition, p. 115). A small incision is made through the skin and fascia, and through this a director is cautiously pushed into the cavity of the abscess, when pus will be seen escaping along its groove. A pair of dressing forceps with closed blades is then passed along the director into the abscess, and its blades are separated so as to tear the abscess open, and, as they are withdrawn, to dilate the tissues and provide a free outlet to the surface.

Excision.—In cases in which there is prolonged free suppuration, depending on affection of the bones forming the joint, the question of excision must be raised. Personally, I have had so little experience of this operation, that I shall not on this occasion attempt anything like a full discussion of its value. But let me say that the results I have observed have made me rather unwilling than very ready to perform it; for while, in some few instances which I have seen in the practice of other surgeons, the wounds have soundly healed, and the patients have been able to walk on the limb with the help of a high boot, in many more the wound has never closed, suppuration has remained as copious as it was before the excision, and the patients have either sunk from exhaustion or amyloid disease of the internal organs, or have recovered not more quickly or with a better limb than, I think, they would have done without the operation. Its advocates say that the unsatisfactory results of excision of which many complain are owing to postponement of the operation till the chance of doing good has passed by, and that it ought to be performed as soon as suppuration has set in. I have no doubt that his statistics will be the best who performs the operation earliest and in the greatest number of cases; but even his table will contain many instances of failure, and will present a high percentage of recoveries only because the bad results are numerically outweighed by cases that would have done well without operation. It would be very useful if all who have largely resorted to excision of the hip would publish the results in detail and show their cases. I think conclusions carefully drawn from sufficiently large numbers would be disappointing. The condition of the bones that are cut must always have an important influence on the result of excision. Most surgeons at present decline to excise the knee, elbow, or the other large joints, while active inflammation is going on; that is, excision is not employed as a means of checking suppuration in inflamed bone; yet this is the purpose with which it is almost always resorted to in the case of the hip. It is this circumstance—or, in other words, the fact that the operation is performed through inflamed cancellous bone—that, in a large number of cases, prevents repair. Nevertheless, no one could truthfully deny that the operation has often succeeded, and it must be confessed that it affords in some cases the best chance that can be offered to the patient.

The best general rule, however, that can be laid down seems to be that, when a patient with continued suppuration is losing ground, especially if albumen appear in the urine, or enlargement of the spleen or liver be detected, the joint should be not forthwith excised, but carefully explored through a sufficient incision behind the trochanter. Sometimes you may be fortunate enough to find the head of the femur necrosed and lying loose in an abscess of the joint. If this be removed, speedy recovery will usually follow; or you may find a sequestrum derived from some other source. In both cases, your operation—which is one for necrosis, and not properly speaking an "excision"—will do great good, just as other operations for necrosis commonly do. In other cases, though you remove no bone, you may do good by providing free drainage from the joint. If you find the head or neck of the femur carious, you may remove it or any part of the acetabulum that is in the same state, and you may thus diminish the discharge; and, if you can do this, you may also arrest the advancing amyloid degeneration of the viscera; but, in the latter case, you must be prepared not rarely to find that the mischief in the bones still spreads more widely, and that nothing has been gained.

Complications of Hip-Joint Disease.—Amyloid degeneration of the internal organs is by far the most fatal attendant on hip disease. If suppuration continue to be profuse for many months together, you will probably detect enlargement of the spleen and liver and

albuminous urine, and, unless suppuration can be arrested, many of these patients will lose ground, grow extremely pale and anæmic, and at length die with general anasarca. A very large proportion of fatal cases of hip-disease take this course. Note, however, that, although there is a considerable amount of albumen in the urine and considerable enlargement of the liver and spleen, patients may recover, if suppuration can be checked. This may be effected sometimes by cod-liver oil and tonics with iron, and change of air; sometimes by an operation for the removal of diseased bone. I believe the joint should always be explored when albumen is detected, in order that any loose bone that is present may be removed, and any pent-up matter be provided with a free outlet, or even that carious bone may be cut away, though, as I have said, the latter measure is of doubtful value, since the neighbouring bone is unsoft. Amyloid disease, in its earlier stage, does not seem to add to the danger of an operation. I have seen children recover very favourably in spite of it, and then it has, as suppuration ceased, disappeared. In its later and far advanced course, however, operations become extremely perilous, just as they are in Bright's disease, and I have known several cases in which patients died within a few days after operations done under these circumstances. As to the medicinal treatment of amyloid degeneration, there is, I am afraid, not much to be said. No medicine that I know of exerts any distinct influence on its course. Iron, quinine, and cod-liver oil seem, as tonics, the most appropriate that can be used, but, in my experience, they have done very little. In fact, since the condition is directly induced by suppuration, nothing but the arrest of this can check its course.

Another complication is acute general tuberculosis, rapidly proving fatal by the development of tuberculous meningitis. Some six or eight cases have occurred in which, in the course of chronic hip-disease, either during suppuration or after the abscess had healed, and when the patients were convalescent (one boy had so far recovered that he had been bound as an apprentice), meningitis in a very acute form set in and was quickly fatal. I suppose there can be little doubt that the source of the mischief in these instances lay in the caseous products of suppuration at the joint. Thus general infection must be remembered as one of the by no means remote dangers of hip-disease.*

Diagnosis.—In conclusion, a few remarks may be added on differential diagnosis. There are many affections with which hip-disease may, unless care be taken, be easily confounded. It is not a year ago since I saw a child with double hip-disease who had been put through a long course of blisters on the knees, in the belief that he had disease of these joints. And, a few weeks since, a case was sent up as an obscure form of paralysis, with wasting of the muscles of the thigh, in which well marked hip-disease existed. But there are three conditions respecting which mistakes are especially apt to occur. These are "congenital dislocation" of the joint, infantile paralysis of the limb, and disease of the lower half of the spine or of the pelvis.

Congenital Dislocation.—What is the origin of the defect that passes by this name is not at present clearly known. Probably it is in fact a congenital malformation in a majority of instances, though this has never, I think, been demonstrated by specimens in new-born infants. Some cases, however, that are placed under this head are really the result of injury in early childhood, while in others the defect has been produced by abscess in the joint followed by absorption of the head of the femur and of the border of the acetabulum, and subsequent displacement of the upper end of the femur on the dorsum ilii (*St. Bartholomew's Hospital Reports*, 1876). But, though its cause be thus still in question, the condition itself has often been described. I think it is more common than is generally supposed; at least I have notes of nearly thirty cases that have come under my own notice. These are its main features. It is much more frequent in females than males: of fourteen cases noted in the paper alluded to, eleven were in the female sex and only three in males. It is often double, but, in a majority of instances, it is confined to one side; of the fourteen cases, it was double in five and unilateral in nine. In some examples, the head of the femur is nearly normal, while in others it and the chief part of the neck are absent, so that the bone ends above in a mere stump. In dissected specimens derived from persons who have lived to adult life, the acetabulum has been found small and shallow, and webbed over by loose fibrous tissue. In some cases, the femur is so loosely connected with the pelvis that it slides about on the dorsum ilii, so that the limb can be lengthened or shortened through a range of as much as three inches; but in many more it is fixed by a kind of interosseous ligament, and perhaps a capsule, to some point above or above and behind the natural situation of the acetabulum. The affected limb, whether on one or both sides, is always rather undersized, often short independently of displacement, and defective in muscular development; but all these deficiencies may be very slight. Lameness is always considerable, the patients, when

the displacement is double, walking with the peculiar "roll" that has been so often described: with a "drop" towards the affected side when it is single. Forward curvature of the lumbar spine (lordosis) is usually well marked. The limbs commonly occupy a normal direction; the heel comes down to the ground and the toe points forward, without inversion or eversion of the limb, though, in rare instances of double displacement, the thighs are so much adducted that they tend to cross each other in walking, and the patients, with their heels drawn up, balance themselves on the ball of the toes. As the patient lies recumbent, the limb can be fully extended and all trace of deformity disappears. If the upper end of the femur be loose, the limb may be drawn down into greater length than its fellow, and then pushed up till it is considerably—often two inches—too short. All the movements of the joint are perfectly, perhaps abnormally, free, except abduction, which is generally somewhat limited. The great trochanter of the femur can be felt to be displaced and may occupy any position on the dorsum ilii, either sliding widely or being fixed either above and a little behind, or directly above the normal situation of the acetabulum, or close to the anterior superior iliac spine, where I have found it in three or four cases. The position of the trochanter should always be ascertained while the patient is standing, and the weight of the body is resting on the limb. The history of a case of congenital dislocation is quite unlike that of hip-disease. The defect is usually first noticed while the child is learning to walk, when he is found to be lame. The lameness continues, but the patient uses his limb with perfect freedom, and there is neither night-screaming nor pain. Thus the observation of four points in these cases of congenital dislocation will always enable you to recognise them: the lameness commencing from the time at which walking began; the absence of pain, though the child is constantly on the limb; the freedom of movement between the femur and the pelvis; and, lastly, the more or less considerable displacement of the trochanter in respect to the side of the pelvis.

Infantile Paralysis will not be mistaken for hip-disease if you will observe that in it the limb moves with perfect freedom in every direction; that it is often or always colder than its fellow; that the extensors of the leg are weak, so that the foot is carried in a position tending towards talipes equino-varus; and that, though the child is about all day on his limb, he complains of no pain in it.

The diagnosis between *disease of the spine* and of the hip is often difficult, because many of the symptoms of the one are also met with in the other. Thus, as I have mentioned above, you may find that a patient has one limb habitually flexed on the trunk, so that he walks "on his toe"; that the pelvis and femur are locked, so that they move together in flexion and extension; that the patient complains of pain at the knee; that there is no trace of angular curvature of the spine and no tenderness over the spinous processes;* yet the case may undoubtedly be one of spine-disease, and not one of disease of the hip; for, on further investigation, you discover, on putting the child through some exercises to test the freedom of movement of the spine—making him pick up some object off the floor, climb on a chair or sofa, or raise himself from the recumbent posture—that his spine is stiff and painful on movement; and you may perhaps notice that he does not willingly stand without support, but places his hands on a chair or some convenient object and leans forward, so as to transmit the weight of his trunk through his arms instead of through his spine. The crucial test in such a case will be to determine whether the enarthrodial or ball-and-socket movements of the hip-joint are free. If, on semiflexing the limb and rotating the femur in the acetabulum, you find that movement is unimpaired, the case is not one of hip-disease, but of disease of the spine.

* I mention this symptom of tenderness on pressure, or of jarring on the spine, because, although it is very commonly depended upon, I believe it to be very untrustworthy.

PETERBOROUGH.—There were 345 deaths in the year, which gives a death-rate of 19.16 per 1,000 living. The greatest mortality in any month of the year occurred in April, from bronchitis and pneumonia. The mean for the year was lower than in 1875, when it was 22.2 per 1,000. There were 151 deaths under five years of age, so that as many as 43.8 per cent. of the total deaths occurred during that age-period. Dr. Thomson says that, although the general sanitary condition of the town has much improved of late, yet the water-supply is bad; and that many of the houses of the working classes are in bad order, partly from the neglect of landlords, but chiefly from the destructive habits of the inmates. He gives the results of his analyses of water from a large number of wells, and condemns most, but found it wholesome in a few. He also says that the sanitary inspector has done a large amount of practical work during the year.

ON NON-INSTRUMENTAL AIDS TO LABOUR.*

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I.—WHEN MAY WE, WITH ADVANTAGE, RUPTURE THE MEMBRANES BEFORE FULL DILATATION OF THE OS?

MANY a shrewd practitioner, with but little knowledge of the science, has acquired from experience very considerable skill in the art of obstetrics, more especially in many little details whereby a normal but a tardy labour can be facilitated. Such experience, however, is blind and liable to error, until the scientific basis on which it rests is understood. Before even the science of midwifery existed, it was found that a change in the position of the patient was often very effectual in accelerating a lingering labour. Under such circumstances, it was a common resource to get the patient out of bed, make her kneel on the floor, or sit between a couple of chairs. This is often of great service, and a scientific explanation can be given why it should be so. But there is one condition, where the labour is certain to be tedious, and where an ignorant midwife or medical attendant is very likely to try the above plan, with the result of only aggravating the evil. In this case, the cause of delay is a pendulous abdomen; and a knowledge of the normal axis of the uterus directs the attendant to lay the patient on her back and apply a binder. This illustration is a good example of a non-instrumental aid to labour, and also of the precision which is given to treatment, by scientific knowledge, as compared with the blind and oftentimes bungling actions of empiricism.

There are many ways by which an enlightened and experienced obstetrician can thus materially help on labour. Some, as the one referred to, are described in books; of others no mention is made, but they are left to be acquired by experience; and more, the result of such experience is at times found to be entirely at variance with the principles laid down by the authors of our text-books. Such is the case in the question, which I propose to discuss on the present occasion: When may we, with advantage, rupture the membranes before the full dilatation of the os? I may mention that this question has reference only to normal labour, where the head presents, and there exists no contraction of the pelvis, but where the progress of the first stage is retarded.

As a part of the history of our art, it is interesting to observe how exaggerated were men's ideas regarding the importance of retaining intact "Nature's wedge", and how patiently and reluctantly former practitioners would wait, under the dread of being meddling, for Nature to do what they could readily have done, even when convinced that the non-rupture of the membranes was the cause of delay.

There is still remaining, at the present day, much of the dread of having too early recourse to this simple operation. In the face of the fact that much, and often long-continued, ineffectual exertion is often due to the integrity of the membranes, even before full dilatation of the os, and the other fact that such ineffectual work is often productive of serious after-complications, there is certainly a want of discussion on this point in our recent works. Leishman speaks of it where there is unusual thickness and resistance of the membranes: "But before we decide on rupturing them, we should be sure that the proper function of the membranes has been effected in producing dilatation of the os." Playfair recommends puncture before completion of the first stage only when the liquor amnii is excessive in amount; and renews the oft-repeated and considerably exaggerated caution: "If we evacuated the liquor amnii prematurely, the pressure of the head on the cervix might produce irritation and seriously prolong the labour." This latter point is a question upon which the members of this Society might with profit express the results of their experience: in how far they have observed that irritation is produced, and the labour delayed, in cases where the membranes have ruptured or been punctured before, or early in the first stage. The term irritation is vague in the extreme, and conveys no definite idea to the mind.

Before entering on the discussion of our question, it is well to define what is the exact meaning in which various terms are to be employed. By *full dilatation* of the os is meant, not obliteration, but only that degree which we know will permit the ready passage of the head; whilst the state in which the uterus and vagina are one continuous canal should be designated as *complete obliteration* of the os. The term *os* itself should be confined to the lumen of the *cervix*, and the latter term be always employed when speaking of the state of the tissues which compose it. *Dilatation* also should be limited to speaking of the size of the os, while we speak of *expansion* of the cervix.

* Read before the Aberdeen, Banff, and Kincardine Branch.

In reference to the puncture of the membranes, I have stated practice is at variance with teaching. Whilst our books say that this should not be done, except in rare cases, until the full dilatation of the os, many practitioners have found that by experience they can recognise certain favourable conditions, especially in multiparæ, where it is of great advantage to evacuate the waters when the os is not more than half dilated. We have seen that formerly there existed a very exaggerated idea of the function of the amniotic bag; that its purpose was supposed to be the dilatation of the whole length of the parturient canal; and that it should only be punctured when protruding at the external orifice. Modern opinion now regards the integrity of the membranes as no longer of any value after the full dilatation of the os; and it remains to be seen whether their true function should not be further curtailed, and that what at present is still empirical in practice does not rest on pure scientific grounds. The question must be answered by direct observation, and not by any imaginary views regarding the action of "Nature's wedge", the fetal head being quite as much a wedge of nature as the bag of waters.

In discussing obstetric problems involving the first stage, it has been too exclusively the custom to take the degree of dilatation of the os, and the softness or dilatibility of the tissues, as the criterion of the amount of progress made in the process of labour. This, it is easy to show, is an error; and in forming an opinion, we must take cognisance of something more. It is a matter of common experience to find that the membranes rupture spontaneously while yet the os is but slightly dilated, and that the head at once descends and comes into contact with the whole lower segment, the parturient ring being in close relation to the head. Again, it is likewise a matter of common experience that the membranes give way when the os is of the same size as in the first case, and yet the head does not come into close relationship with the parturient ring; the cervix of the lower uterine segment in this case has not in its upper part been expanded to the full diameter of the head. If the finger be introduced well through the os, it is possible to feel the head resting on a ring of firm tissue. Sir James Simpson describes this as an adventitious band of fibres which delays the first stage. It is nothing more than the unexpanded structure of the lower uterine segment. It is evident that, although the os was of the same size in both cases, yet that the mechanism of the first stage was, in the first instance, in advance of the second; and that the difference lay in the degree of expansion of the lower segment, not in the dilatation of the os.

Next, take, what is also a matter of common experience, the condition of parts after delivery. The cervix is found hanging in the vagina, open, loosely relaxed, and elongated; while above, the walls of the uterus are firm and contracted, barely admitting the finger. From this observation (see also Matthews Duncan on *Mechanism of Natural and Morbid Parturition*), together with an examination of Braune's section of the frozen body of a female in the second stage of labour, it is evident that what occurs in the process of the first stage is not the mere opening up of a canal or tube which has been simply constricted in its middle; but, in addition to a constriction, there also exists a diaphragm, obstructing the lumen of the passage, and this obstruction is overcome by longitudinal as well as lateral stretching of this diaphragm. In easy labour, the constriction and diaphragm disappear simultaneously; but it frequently occurs that the disappearance of the first is in advance of the second, and the canal is dilated to its full, whilst the diaphragm has only been strained. No increase in the size of the os has taken place.

By studying the mechanism of the first stage, we can readily understand the production of these two effects of expansion and longitudinal stretching. By muscular contraction, the contents of the uterus are exposed to a uniform pressure. This force, Schulz has called the "internal uterine pressure". It is exerted on the waters, and must, therefore, be equal in all directions; and as the lower portion of the uterus is the weaker, it must yield. This, then, is the expansive force. But, as the uterus also tends to shorten itself in its longitudinal diameter, there is also a longitudinal direction given to the force, whereby it becomes expulsive. This, from the tendency of the uterus to assume its original form, Schulz terms the "form restitution power"; but, as its direction is in the axis of the uterus, I would speak of it as the *axial* force: a term more congenial to our language.

When the membranes are yet entire, this axial force can act only through the ovum as a whole, waters and fœtus; and, therefore, at a disadvantage in proportion to the quantity of the liquor amnii. When this is large, as in hydramnios, the disadvantage is at its greatest; the force, in fact, being entirely converted into the uniform internal pressure. When the relative proportion between the quantity of waters and the size of the fœtus is less, as we find it normally, then the axial force is brought to bear on the fœtus; the fundus, acting on the breech,

presses the child downwards, and the head is brought to bear on the lower uterine segment. When the internal uterine pressure is greater than the axial, the waters are forced downwards past the presenting part, which recedes. When, however, the axial force is the greater, and can act through the foetus, the contrary effect results; the water is forced upwards, and the head is brought into close proximity with the lower portion of the uterine walls. When the child is thus forced down during a pain, the uterine walls closely surround the head, and the membranes being still entire, the liquor amnii is divided into two portions; that in front of the head is called the forewaters. If the division be complete, then the entirety of the membranes is really a disadvantage; for now the forewaters but impede the more powerful action of the axial force. If the separation be incomplete, then the expansive action is only obtained, the internal pressure being still in excess of the axial. If the reverse be the case, the forewaters are but forced back above the head. By the mode of action, the internal uterine pressure is the force which tends to expand the lower uterine walls. Acting, in fact, like a glove-stretcher, its expulsive power can only act on the entire ovum, and is, therefore, at a disadvantage. The axial force is exerted mainly through the foetus, and can exert its full strength only after the membranes are ruptured.

It seems, therefore, evident that the function proper of the bag of waters should be limited to that of expansion only. But the full dilatation of the os is effected, not by expansion alone, but also by longitudinal stretching. When, therefore, we find dilatation tardy from defect in degree or direction of the power alone, and not from any inherent character of the tissues, when once it is evident that the lower segment of the uterus is well expanded, the rupture of the membranes is the most effectual means of favouring the dilatation, by bringing the axial force into full action, and this irrespective of the degree of the size of the os.

By the researches of Dr. Matthews Duncan on the Power of Natural Labour, a beginning has been made to place this subject on a more purely scientific and accurate basis; but we are not yet in a position, and it requires qualifications which few possess, to follow up the subject as he has done. He has, however, shown mathematically, what has been long practically known, that partial evacuation of the liquor amnii is an efficient way of improving the power of the uterus, even when defective in amount. "It is a common belief," he says, "that the uterine pains increase in strength after the evacuation of the liquor amnii. Whether this be true or not, as commonly believed, I do not here consider. But it is certain that, if the uterine contractions remain of the same force after as before the partial evacuation of the liquor amnii, the power of the labour or the extruding force will be increased, as the curvature of the contracting organ is increased." (*Researches in Obstetrics*, page 315).

Having laid down the basis of our knowledge, it remains only to discuss the diagnosis of the conditions which warrant us in having recourse to rupture of the membranes before the full dilatation of the os. The first point is the determination of the degree of expansion of the lower uterine segment. We have seen that the size of the external os is no criterion of expansion. The os, in fact, may be very small, and yet expansion may be complete. It is by the internal os that we can best judge, but this is hard to reach, and difficult to determine its exact site. There is one means, however, of ready access, whereby we can form a proximate opinion: it is the degree of dilatation or updrawing of the vaginal *culs-de-sac*. This is a point which has been entirely left out in the consideration of the progress of the first stage. It is a matter of common experience to find, in the class of cases where we feel something is required to promote a labour with tardy dilatation of the os, that the upper part of the vagina is well expanded and drawn up, greatly increasing the perceptible diaphragm of the cervix, which alone obstructs the continuity of the developed canal. Now, we know that the longitudinal muscular fibres of the vagina run upwards, and are continuous with those of the body of the uterus, and that the attachments of the uterus in their upper portion correspond with the internal os. This portion, then, cannot undergo expansion without carrying with it the tissues which are in connection therewith. Consequently, we find that, as the first stage of labour advances, the upper part of the vagina is dilated until it seems to coincide pretty closely with the upper part of the bony canal. When, therefore, a considerable portion of the lower segment of the uterus can be felt in the vagina, and not merely through its walls, expansion is certain to be complete, whatever may be the size of the parturient ring; and the tissues composing it are those of the cervix proper, and not the uterus. Under such circumstances, I believe the membranes may be ruptured with advantage. It is, however, unnecessary in many cases to wait for the full development of the condition above described. I have taken the extreme state as being most readily under-

stood, and indicating the direction in which our observations should be made.

Another class of cases, or it may be only an additional character to those of the first, are where the action of the uterus seems to be effecting, not steady dilatation, but extreme thinning of the tissue of the cervix; and also where the head is felt to be in close contact with the parturient ring, there being little or no bag of waters.

The next point to be considered is the quantity of liquor amnii; not the actual quantity, as is generally referred to when speaking of it being present in excess, but the proportion its amount bears to the size of the child, and also to the capacity of the amniotic sac. This latter is rarely quite filled; otherwise, it would remain much more tense than it usually does in the intervals between the pains. If it be nearly or entirely distended, it will interfere with the power of restitution of form, by preventing alteration in the form of the uterus, and consequent action on the foetus, even though the actual quantity of waters is not greater than ordinary. In this circumstance, it must be regarded as really in excess, quite as much as where there is excess in actual quantity. Undue tension, therefore, of the membranes during a relaxed state of the uterus must be regarded as unfavourable to the mechanism of labour, and as warranting an earlier rupture of the membranes than under other circumstances.

The liquor amnii must also be considered in excess, irrespectively of actual quantity, if it be unduly great in proportion to the size of the child. Here, again, it interferes with the action of the force which restores form, or the axial force. If, therefore, the parts of the child be not recognisable externally with ordinary facility during a relaxed state of the uterus; if *ballotement* be unusually facile, and especially can be felt during a pain, the probability is that there is a true excess of liquor amnii; and this condition would fully warrant the rupture of the membranes before the full dilatation of the os; the other conditions being favourable to the operation.

I have discussed the subject apart from the state of rigidity or dilatation of the cervix, conditions which undoubtedly must be taken into consideration in determining any line of treatment in the first stage; but the subject of rigidity is one which requires discussion by itself, and would only tend to complicate and obscure the question.

ON THE TREATMENT OF ACUTE RHEUMATISM.*

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NEXT, what evidence have we that salicin and salicylic acid have any specific action in acute rheumatism? I take it that a specific remedy should—1. Cut short the disease; 2. Prevent relapses while under its influence; 3. Ward off complications.

1. *Influence in Cutting Short the Disease.*—We have already seen that, in a certain number of cases, these remedies have failed—salicin in 19.4 per cent., salicylic acid in 20 per cent.—and this without respect to dose.

2. *Prevention of Relapse.*—Under salicylic acid, relapse is mentioned in four cases; but these are not conclusive, as the acid had been previously stopped. My friend Dr. Shingleton Smith, however, tells me that a patient of his had a relapse while taking the soda-salt. A case of my own gives very definite evidence of the occurrence of relapse under salicin. A young man was admitted into the Bristol General Hospital, suffering from a well marked first attack of rheumatic fever. Under twenty-grain doses of salicin every hour, the temperature was normal in two days; the dose was then gradually reduced to twenty grains every three hours. The temperature remained normal for six days; but then, while the patient was still taking twenty grains every three hours (the largest dose that Dr. Maclagan gave in any of his first series of cases), there was a relapse. This lasted five days, though the dose was increased to twenty grains every two hours, and, for one day, to twenty grains every hour. For nine days, the temperature was normal, and the patient went out, still taking fifteen grains three times a day; he then was readmitted in another relapse.

3. *Prevention of Complications.*—The following have occurred:—*a.* Heart-complications:—Under salicin, endocarditis came on in three cases, pericarditis in four; under salicylic acid, endocarditis developed in one case. *b.* Lung-complications:—Under salicin, bronchitis and oedema, pneumonia, pleurisy; under salicylic acid, bronchitis, collapse, pneumonia. *c.* Hyperpyrexia:—These remedies have already con-

* Concluded from page 126 of last number.

tributed quite their proportion of those formidable cases of rheumatic fever in which there sets in a rapid rise of temperature, ending, if unsubsided, in death : salicin, four cases ; salicylic acid, four cases.

These various complications have occurred without any apparent reference to dose ; they have come on under small doses ; they have appeared under large. Hence we see that salicin and salicylic acid have failed to cut short the disease ; have failed to prevent relapses ; have failed to avert complications ; and, therefore, I consider that we have conclusive evidence that they are not specifics. To what, then, is their power due ? They probably act simply as antipyretics. They have a very marked effect in other febrile conditions. In one hundred and sixty-four cases of typhoid fever, Reiss found that the reduction of temperature by the acid was very marked, and the duration of the disease was shortened, the average being only 13.1 days. If these results be confirmed, typhoid fever is cut short by one-half, and a specific action may just as fairly be claimed for the drug in this disease. In pneumonia, the effect of a large dose was very great, the temperature falling nine degrees or more—from 104 deg. to 95 deg., or even lower. As to the removal of the joint-affection by an antipyretic, we have a parallel in the disappearance of the pain from the joints that often follows the use of the most powerful antipyretic we possess—the cold bath. Indeed, Esmarch, several years ago, treated acute rheumatism by keeping ice constantly applied to the joints, with the result of lowering the temperature, easing the pain, and shortening the disease in a more marked way than by any other treatment.

There are certain *disadvantages* connected with the use of salicin and salicylic acid : the first is, that the dose is very large and very frequent ; the next is that uncomfortable and even dangerous effects are produced in some cases ; these I have no time to enumerate. Salicin has been said to be free from these ill-effects, but this is contrary to my own experience. I have found it cause deafness, noises in the ears, headache, extreme giddiness, repeated nausea and vomiting ; several times so severe that the powders had to be stopped.

B. Treatment of Complications, with Special Reference to Hyperpyrexia.—I now proceed to the second division of the subject—the treatment of complications. The preventive effect of various remedies I have already discussed, and have concluded that no treatment will ensure the patient against the occurrence of any given complication. We may assume, however, that any remedy which shortens the disease will in the same proportion lessen the liability to complications of every kind ; and, if our future experience accord with the past, we are justified in concluding that the chance of complications is least under salicin and salicylic acid, because the duration of rheumatic fever has been shorter under these remedies than it has been under any other plan of treatment.

I will not detain you by a detailed description of the treatment of the various affections of the heart, lungs, and other parts, which may occur in rheumatic fever, and which must be managed on the principles that guide their treatment in other diseases. The one complication to which I wish to direct attention is Hyperpyrexia.

It is well known that, in acute rheumatism, as in other diseases, there may set in a rapid rise of temperature to a height incompatible with life, accompanied by evidence of profound nervous disturbance, and usually, in rheumatic fever, by disappearance of pain from the joints. The temperature may reach 110 deg., 111 deg., or nearly 112 deg. This has happened under all kinds of treatment : under alkalies, iron, quinine, bleeding, and, lastly, under salicin, salicylic acid, and salicylate of soda. Whatever view is taken of the pathology of this condition—a subject which cannot be discussed here—it has been found practically that treatment directed simply to the reduction of the temperature may save the patient's life. You are aware that a temperature above 106.5 deg. in rheumatic fever was formerly invariably fatal, and that it is to Dr. Wilson Fox that we owe the treatment by the cold bath that has succeeded where every other method has failed.

In the case which I am about very briefly to relate, salicin failed to control the disease. It is true that the dose—ten grains every three hours—was small ; but the same dose has been given by others with reputed marked effect ; and, in other cases in which hyperpyrexia has occurred, this objection cannot be urged.

The patient was a labourer aged 36 ; he was admitted into the Bristol General Hospital on May 24th, 1876, with a well marked first attack of rheumatic fever. For five days, he took salicin without improvement. On the evening of the sixth, Mr. Harsant, the house-surgeon, found him delirious, with a temperature of 103 deg. ; he at once put him into a cold bath ; but, as the man was apparently dying, took him out in fifteen minutes, when the axillary temperature was 104 deg. Ten minutes later, the temperature had fallen to 102 deg.

Within two hours, it was 105 deg., and the patient was again in violent delirium.

At 10.30 P.M., I arrived at the hospital, and found the patient delirious and violently moving the affected joints. The surface of the body was very dusky, dry, and pungently hot ; the face dark and the eyes staring ; the pulse very small and rapid, just perceptible at the wrist ; the axillary temperature 108.6 deg. From this time, the temperature was taken in the rectum. I had the patient again put into the bath. In ten minutes, the temperature was 109.5 deg. ; that was the highest point. The following table shows the effect of the bath.

Time.	Bath temp.	Temp. of patient.	Pulse.
10.40 P.M.	88 deg.	108.6 deg. (ax)	?
10.50 "	70 "	109.5 "	?
10.55 "	70 "	109 "	?
11.5 "	65 "	108 "	156
11.10 "	61 "	106 "	156
11.15 "	62 "	103.6 "	156
11.18 "	63 "	102 "	148

Time in bath, thirty-eight minutes ; the temperature fell from 109.5 deg. to 102 deg., or 7.5 deg. in twenty-eight minutes, and, after removal from the bath, fell four degrees in ten minutes, thus coming down to 98 deg. ; giving a total fall from 109.5 deg. to 98 deg., or 11.5 deg. in forty minutes.

During the whole time that the patient was in the bath, his aspect was that of a man who might die at any moment ; he was pulseless at the wrist, and the heart was beating 156 in the minute ; most of the while he was struggling more or less violently, at times quiet and almost comatose ; the surface was intensely dusky throughout. Once the heart failed, and the patient seemed in the act of dying ; but stimulants were applied, and the heart quickly recovered its rapid action. Towards the end, the patient struggled less, and became rather more observant. Brandy and ammonia were given freely during the bath. In twenty minutes after removal to bed, the patient was almost rational. When I left at 1 A.M., the temperature was 99.5 deg., the pulse 104, the skin very much less dusky, and the patient perfectly quiet. From this time, there was steady, though slow, progress. Although the temperature several times rose to 103 deg., no attempt was made to control it by means of ice-bags or other cooling appliances ; and the result justified the treatment, as there was no elevation of temperature above 103.2 deg. There was no return of the acute joint-affection ; merely slight occasional pains, chiefly muscular and tendinous. No quinine was given, nor any medicine, for nearly three weeks.

At what point ought the cold bath to be used ? Dr. Wilson Fox (*Treatment of Hyperpyrexia*, p. 27) considers " 107 deg. as the extreme limit to which the temperature should be allowed to rise before the external employment of cold is commenced". Death has occurred, however, before this height has been reached—at 105.8 deg. and 106 deg. Spontaneous recovery has never been known to occur when the temperature has passed 106.5 deg. ; at this point, therefore, we may begin active treatment. It is important to remember that the bath should be prepared and everything got ready before this ; for the final rise of temperature is often very rapid, and the patient may die before the treatment can be applied. In my case, the temperature went up 5.5 deg. in an hour and a quarter—from 104 deg. to 109.5 deg.

There is another practical point to be borne in mind : that there is almost always a considerable fall of temperature after the patient is removed from the bath, so that it is not safe to bring the temperature down to normal in the bath. I remember, in the early days of this treatment, how a friend of mine reduced the temperature of a rheumatic patient to normal in the bath, and, to his consternation, found it would not stop there, but kept going down till it reached 93.2 deg. ; there it was fortunately brought to a stand. The amount of this subsequent fall varies, but the average may probably be safely taken as four degrees. In accordance with this, I removed the patient from the bath when the temperature was 102 deg., and the subsequent fall, occurring in the next ten minutes, was exactly four degrees, bringing the temperature down to 98 deg.

If it be our misfortune to meet with a case of hyperpyrexia in acute rheumatism, we have two facts to remember and to act upon—and I am induced to insist upon this the more strongly because I have lately met with attempts to disparage the treatment—1. That the patient *must die* if left alone ; 2. That the *only* treatment which has succeeded is the effectual external application of cold.

In concluding my brief survey of what has been done in the treatment of rheumatic fever, I quote Sir Thomas Watson :—" You may be sure, when men's opinions concerning the treatment of a disease which is of common occurrence and easy recognition are thus unsettled and diverse—1. That no specific for that disease has yet been found ; 2. That the disease is not very obedient, or not steadily obedient, to any remedial plan."

I sum up in the following propositions.

1. We have no specific for rheumatic fever.
2. Salicin and salicylic acid appear to have had more influence over the disease than any other remedies, and they therefore deserve an extended trial.
3. These drugs lessen the chance of complications in the same proportion as they shorten the disease.
4. The value of statistics of limited numbers in acute rheumatism is small, owing to the uncertainty of the disease.

[Since the above paper was read, a wider experience of the effects of salicin and salicylic acid has been in accordance with the views I have expressed as to the mode of action of these remedies—that it is simply antipyretic. In cases of typhoid fever, I have met with as marked an effect on the temperature as in rheumatic fever, but without evidence of any specific action on the disease. To quote one example: in the case of a boy about twelve years old, 20-grain doses of salicin every hour for six hours reduced the temperature in twelve hours from 104.2 to 97 deg.; and a similar effect was produced on other occasions, yet the duration of the disease was apparently not influenced.—In comparing the effects of these drugs in acute rheumatism and in typhoid fever, it is important to remember that; while in rheumatic fever the characteristic lesions are peculiarly erratic and fugacious, in typhoid fever there is a definite local lesion that must run a more or less protracted course.]

CASE OF CÆSAREAN SECTION POST MORTEM: TRANSPOSITION OF VISCERA.*

By EDWARD BUCKELL, M.R.C.S.Eng., Winchester.

ON June 14th, at 11.45 A.M., I was hastily summoned to attend upon E. G., a single woman, twenty-seven years of age, who had been taken suddenly ill in the public street, and was removed into an adjoining tradesman's shop. On arriving within ten minutes from the time of receiving the message, I was informed that she had been removed in a carriage to her friend's house, whither I at once proceeded. In the meantime, she had been conveyed into the house and placed on a bed on the first floor. On entering the apartment, I found her lying supine, with limbs extended, face, arms, and hands livid, frothy mucus running from the mouth and nostrils; her eyes staring and fixed, pupils dilated, and with no trace of pulsation or respiratory movement discernible; in a word, to all appearances she was quite dead. The person who carried her from the vehicle to the house along the garden-path believes she actually expired before she reached the house, she having given a deep convulsive sigh when midway and shown no sign or movement afterwards. However, I at once endeavoured, by recognised modes, to excite respiratory movements, applying as well sponges dipped in boiling water to the region of the heart. Having spent ten minutes in fruitless endeavours at resuscitation, and finding that the poor woman had been expecting her accouchement very shortly, I examined *per vaginam*; discovering the os uteri to be dilated to the size of a florin, the head presenting, and the membranes, which were entire, easily felt. The vagina was moist with free mucous discharge, but there had been no hæmorrhage. It was clear, therefore, that, during her morning's walk, her labour had commenced.

On applying the stethoscope to the abdomen, the pulsations of the foetal heart were clearly heard. I conferred, therefore, immediately with the friends on the advisability of performing the Cæsarean section, with the view of saving the life of the child. After some delay, it was agreed to leave the matter in my hands. In the meantime, the foetal circulation had lost much of its power and regularity; still it was readily made out. As nearly as I could reckon, the mother had now been dead twenty or thirty minutes when I commenced the delivery by making an incision with a pocket-bistoury from the umbilicus to the pubes, through the abdominal walls, exposing at once the globular surface of the uterus, which was then cut through. The placenta being found attached to this portion of the uterine wall, I passed my hand through it and seized the body of the child, removing it without trouble at once. This operation occupied about three minutes. The pulsation in the cord was scarcely perceptible, and the heart itself beat very feebly. Without delay, I commenced, at about 12.15, endeavours to excite respiratory movements by means of direct inspiration alternated with Hall's and Sylvester's modes. At the expiry of rather more than an hour—for it was 1.30 P.M. before I left the house—I had managed to induce pretty regular breathing and pulsation in the child. I may remark that considerable advantage was derived from the alter-

nate use of hot and cold sponges applied to the chest of the infant. At this date, the child is still living, and has perfectly free action of both heart and lungs. It has also made satisfactory growth, and bids fair to live.

In the *Transactions of the Obstetrical Society of London*, ten cases of the ordinary Cæsarean section are recorded, with two recoveries of the mother; of six living children removed three survived the month, and may be living now. The child in this present case commenced life some time after her mother had ceased to breathe. Instances are rare in this country of the *post mortem* performance of the Cæsarean section; the circumstances under which it is likely to be successful rarely occur. Many diseases fatal to the mother are so to the child. Death from causes not directly affecting the child's life is generally sudden, and the doctor is rarely summoned in time to attempt the rescue, though he should consider this his first duty after finding that the mother has irretrievably gone.

In Cazeaux's *Midwifery* (8th edition, Paris, 1870, p. 1,070), five instances are given of children removed alive from the uterus from ten to thirty minutes after the death of the mother, and it is there said that "after half an hour success becomes very rare". From other less accurately determined accounts, it would not appear impossible that intrauterine life may be maintained under some circumstances for two hours or more after the death of the mother.

POST MORTEM EXAMINATION.—Eight hours after death, I made a *post mortem* examination of the body. The woman, who had been a domestic servant, was of middle height, fair complexion, fairly proportioned, and well nourished. The mammary glands were fully developed and rather hard. On the right side there was a second smaller nipple about one inch and a half below the normal one, but it did not seem supported by any corresponding glandular structure. On removing the sternum and portions of the ribs in the usual way, the heart was discovered to the right side in place of the left. The liver was transposed, occupying the left hypochondrium, the right lobe becoming the left and the left the right. The stomach was found on the right side, with its natural relation reversed, *i.e.*, the cardiac end being to the right of the pyloric. The spleen was placed on the right side instead of the left. The thoracic aorta was on the right side of the spine, with the œsophagus in front and to the left. The small intestines terminated on the left side, the colon ascending from the left and terminating on the right, the sigmoid flexure turning towards the rectum from right to left. Of course, the ilio-cæcal valve and vermiform appendix were in the left side. The time allowed for the autopsy was so limited as not to admit of more minute and careful investigation; but I forwarded the heart and lungs to Dr. J. C. Ewart, the curator to University College Museum, from whom I have since received the subjoined notes. I will only add that there existed a considerable thinning and dilatation of the convex wall of the aorta, rendering the semilunar valves incompetent, and hence probably the sudden death.

There existed considerable pleuritic adhesions, more particularly on the left side, those on the right being more recent, and not by any means so extensive. During life, the woman is reported as having complained of shortness of breath occurring in paroxysms, often preventing her from lying down in bed, more especially so on first retiring; otherwise she had enjoyed good health. Her mother had, it appears, also died suddenly from hypertrophy of the heart, it having been found enlarged on *post mortem* examination, but not displaced.

Dr. Ewart writes:—"The heart is so transposed that the left ventricle is at the right side and in front, the right ventricle at the left side and behind. The right auricle, larger than usual, is at the left side and in front, its auricular appendage overlapping the root of the aorta. The left auricle is at the right side and behind; the pulmonary artery passes from the left side across and in front of the root of the aorta, and then, lying parallel to the ascending part of the aorta, passes to the lungs. The aorta springs from the posterior part of the left ventricle under and at the left side of the pulmonary artery, and, bending first to the left and then to the right, passes backwards and downwards to disappear behind the root of the right lung. The vena cava inferior enters the posterior part of the right auricle in the usual way; but there are two *superior venæ cavæ*, the normal right one entering the auricle at the left side, and the other arching round the right side of the left auricle to pass into the right auricle posteriorly. All the valves of the heart are normal in number and position, with the exception of the aortic semilunar valves, which are rough and very much thickened, and apparently only two in number. The right ventricle seems normal, but the left ventricle is dilated and its walls are considerably hypertrophied. This is perhaps the result of the abnormal condition of the aortic valves. At first it might appear that we have been describing a condition of things similar to that mentioned by Mr. Quain in his work on

* Read before the Southern Branch.

the *Arteries*: but, on careful consideration, it is evident that we have not here an example of what is sometimes found; viz., a persisting right aortic arch, but that we have a simple transposition—a complete turning of the heart and large vessels, so that its posterior surface is anterior, and the left ventricle is carried to the right side. It is interesting to note that, although in this case nearly all the viscera had undergone a corresponding change, the lungs were in their normal position, the large three-lobed lung occupying the right side."

The heart and lungs are now in the museum of University College, London. I ascertained that the woman was not left-handed, and there had been no discovery during life of the existence of such an unfrequent arrangement of viscera.

THE PATHOLOGY OF URÆMIA AND THE SO-CALLED URÆMIC CONVULSIONS.

By F. A. MAHOMED, M.D.,

Pathologist to St. Mary's Hospital; Assistant-Physician to the London Fever Hospital; etc.

I HAVE to thank Dr. Maclagan for his criticism of my theory of uræmia, to which, if I may be allowed, I should like to make some reply. Before referring to his arguments in detail, I may state that I was perfectly aware of Traube's theory of œdema of the brain, nor do I claim any originality for the suggestion of *œdema* as a cause for the symptoms of uræmia, as will be seen by a reference to my paper, in which I refer to it as a very well known and debated question among pathologists. I was especially anxious to avoid a discussion on mere theories, and to confine myself to the observation of facts; for that reason I forbore to quote any of the old arguments, or refer to the past writings on this subject, but only mentioned the very strong support which this hypothesis had received from the recent observations of Sir William Gull and Dr. Sutton on the hyaline exudation surrounding capillaries in Bright's disease, observations which I cannot but think go far to demonstrate an actual condition of what might almost be called chronic or fibrous œdema.

Dr. Maclagan divides his objections into general and special, and I will follow his clear and methodical plan and answer them in detail. First, as to the *general* objections.

1. Dr. Maclagan objects to study the pathology of convulsions in uræmia apart from convulsions generally. I think, on the other hand, that we can only form a true theory of the cause of convulsions in those cases in which they cannot be associated with any discoverable lesion, by studying as closely as we are able the cases in which convulsions occur associated with definite and well ascertained lesions; if we can place by future observations the convulsions of uræmia among these, I believe we shall certainly advance our knowledge of the cause or causes of convulsions generally.

2. Objection is taken to my separation of convulsions from all the other nervous symptoms associated with uræmia. This separation is not mine, but is made by disease. It is not a complete one, however; I take it that the conditions of œdema of the brain and capillary hæmorrhage may occur simultaneously in many cases, and therefore the symptoms produced by each must be coincident. Symptoms of localised disease, such as convulsions and transient paralysis, or even aphasia, I should claim as those arising from capillary hæmorrhages more or less numerous; while the more general symptoms of depressed vitality or nerve-force, which resemble those of compression of the brain, are those which I would leave œdema to account for; supposing it to exist, that it should produce both cerebral anæmia and "malnutrition of the nervous centres" are results which few will deny. To return, however, to Dr. Maclagan's objection, it is impossible to treat different symptoms produced by different lesions as due to one and the same cause. Though hemichorea may precede or follow cerebral hæmorrhage causing hemiplegia, would Dr. Maclagan describe hemiplegia and hemichorea as the same disease, due to the same lesions, and decline to consider them apart? or would he not rather take the association of hemichorea with well ascertained lesions as likely to throw more light upon the pathology of that obscure disease chorea than merely leaving it to purely theoretical generalisations?

The *special* objections offered appear to limit themselves to one; namely, that Dr. Maclagan fails to distinguish between the conditions of capillary hæmorrhages and miliary aneurisms. Again, Dr. Maclagan credits me with ignorance of a very generally known condition; but, in this case, he will find that I have particularly, and more than once, referred in my paper to Charcot and Bouchard's miliary aneurisms, and I take especial trouble to distinguish between the two conditions of capillary hæmorrhage and capillary aneurisms: practically, the great

difference between them appears to be that the hæmorrhages produce convulsions, and the aneurisms do not. Why this should be so is not clear, but it is not very difficult to conceive that blood outside a vessel is a somewhat different condition from blood inside a vessel, and that the pathology of the two should be also different.

Finally, Dr. Maclagan sums up the evidence against my supposition under two heads: first, that I do not accept the theory of "malnutrition of the nervous centres" as a sufficient cause for the convulsions in Bright's disease. To this I would reply that there are many other conditions in which malnutrition of the nervous centres occurs, and to a greater extent, without giving rise to convulsions; and that many, if not all, of those conditions in which they are ascribed to malnutrition are conditions in which the term is used in lack of any other discoverable cause for them. Dr. Maclagan must excuse me, however, if I decline to enter into a discussion of the numerous theories of the pathology of convulsions. Secondly, he says that I substitute for malnutrition "an agency whose existence has not been proved, and whose competence to produce convulsions is at least doubtful". This, in some measure, I admit, but bring what I consider powerful evidence in support of it; and I have only to ask all pathologists to put it to the crucial test of *post mortem* observation, by which *alone* it can be affirmed or denied.

THERAPEUTIC MEMORANDA.

CARBOLIC ACID FOR TINEA TONSURANS.

THE treatment of tinea tonsurans by the local application of carbolic acid, so ably advocated by Dr. Lee, is of older date than Mr. Rhodes seems to suppose; for it has been used, both alone and in combination with sulphur, and also with sulphur and a salt of mercury, for many years, both by the late Mr. Startin, the late Mr. Nayler, and by me, as have also those closely allied bodies creasote and liquor carbonis detergens; and it is a method of treatment very generally recognised, I believe. The application has been made with almost the frequency which Dr. Lee considers essential, and for the reasons mentioned by him. I am bound to confess, however, that these substances, though of indisputable efficacy in the great majority of cases, nevertheless do not seem to have the power of arresting the complaint in those instances in which there exists, as it were, a congenial soil for the development of the disease in some condition of defective nutrition of the skin, often connected with general disposition to low inflammatory action.

WYNDHAM COTTLE, M.A. Oxon., F.R.C.S. Eng.,
Senior Assistant-Surgeon to the Hospital for Diseases of the Skin,
Blackfriars.

SURGICAL MEMORANDA.

FATAL CASE OF HÆMOPHILIA IN AN INFANT.

HAVING observed in the JOURNAL of July 14th the record of a case of hæmophilia, occurring in the practice of Mr. MacCormac of St. Thomas's Hospital, in a man aged 42, I am induced to give the details of the following case in an infant.

On June 23rd, 1877, A. D., aged seventeen months, received a wound, which divided the ala of the left nostril, by falling on the sharp edge of a zinc bath. He was brought to me by his father as soon as the accident happened. On examination, I found he was bleeding pretty freely from the wound, which was stitched up; cold water and pressure by means of a pad of lint and a bandage were applied, whereby I succeeded in arresting the flow of blood; and after waiting some little time without any sign of its recurrence, the patient was sent home. Early on the following morning, however, I received an urgent message to attend at once, as the child was bleeding as badly as ever, and had been doing so for some time. On arrival, I found the patient saturated with blood. I at once removed the dressing, and applied the liquor ferri perchloridi fortior, which for some hours had the desired effect. The hæmorrhage, however, returned during that and the following days in spite of the various styptics which, each in its turn, was tried without success. Seeing that my patient's life was in imminent danger, as a last resource, and after consultation with my partner, the introduction of a hare-lip pin and the application of a twisted suture was resorted to; but notwithstanding this, a continuous oozing was kept up, and eventually the little patient sank from exhaustion on the 28th, five days after the accident. In this case, the hæmorrhagic diathesis was strikingly well marked, and appeared to run in the family of the mother, as she, on two occasions, nearly lost her life from hæmor-

rhage following the extraction of a tooth; and her brother, from a slight cut on the finger, well nigh bled to death.

PHILIP E. HILL, M.R.C.S.Eng., Surgeon to the Crickhowell Dispensary.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

KING'S COLLEGE HOSPITAL: DR. JOHNSON'S WARDS.

Stricture of the Oesophagus.—A woman, forty years of age, and markedly emaciated, complained of great difficulty in swallowing. Her illness commenced four months previously to admission with difficulty in deglutition, which had gradually increased, and during the last three weeks she had become rapidly worse, so that she was able to swallow nothing but a little milk and beef-tea, and had suffered much from hunger. An oesophageal bougie, when passed, met an obstruction opposite the thyroid cartilage, and could not be passed further. There was no difficulty in respiration, and the lungs and heart presented no signs of disease. On laryngoscopic examination, a white mass was seen situated between the larynx and pharynx. She frequently complained of pain towards the left side of the larynx. As the stomach-tube could not be passed, a No. 10 elastic catheter was used, and this easily slipped past the obstruction. The stomach-pump was then attached to the catheter by means of a piece of elastic tubing; and strong beef-tea, eggs and milk, etc., were injected. This method of feeding has been repeated at intervals, and has been followed by a considerable amelioration of the patient's condition.

DR. FERRIER: OUT-PATIENT DEPARTMENT.

Hemichorea.—A woman, twenty-three years of age, complained of a troublesome jerking of the right arm, often, she said, as violent "as if it would tear out the arm from its socket". This illness followed her confinement six weeks ago; she had never had chorea previously, but seven or eight years ago she was attacked with "rheumatics", which, however, did not prevent her moving about. A sister, aged twenty-eight years, had, while pregnant, been attacked with a fit, followed by general and violent chorea; there had also been considerable mental disturbance after her confinement, necessitating her removal to an infirmary. The patient was much distressed and frightened by her sister's illness; and three days after her own confinement, which was long and trying, choreic movements commenced in her left arm and leg; these have been accompanied by burning sensations in the left side of the body and in the back. Muscular power was much diminished in the left hand, but there was no anaesthesia. When the woman held out her arms, constant irregular movements were seen in the left arm and hand; so also with the left foot and leg when the patient sat down and held out both feet. The left side of the face twitched somewhat, and, when standing erect, the body swayed from side to side. There were no signs of heart-disease. Dr. Ferrier considers that the pathology of chorea has yet to be made out, and is not much inclined to give credit to the theory of embolism or thrombosis. In the course of Dr. Ferrier's physiological experiments, a monkey, in whom the lateral portions of the cerebral hemisphere were exposed, became choreic on the opposite side of the body, and subsequently developed epileptic convulsions. The symptoms of chorea differ from those of sclerosis in being more constant and irregular, not simply coming into prominence when a voluntary effort is made, as in sclerosis. In paralysis agitans, again, the movements may be described as constant and vibratory in character. The patient was ordered liquor arsenicalis.

Cutaneous Hemianæsthesia.—A woman of nervous manner complained of numbness of the left side of the body, arm, and leg; also of "flushing heats". When her eyes were shut, on touching with a needle the corresponding points on the two hands, she said she did not feel the touch on the left side; but if the needle perforated the skin, she could feel the prick. Similar anaesthesia was found in a less marked degree on the left side of the face. Sight was equally good on both sides. Hearing, as tested by the watch, was fair on both sides, rather more acute in the right ear. A vibrating tuning-fork, placed on the bridge of the nose while the woman closed her ears, was longest audible in the right ear. The sensibility of the tongue, both to touch and taste, was diminished on the left side. Smell was tested by holding

tincture of assafoetida to each nostril alternately, the eyes being closed; the patient seemed hardly to perceive it at the left nostril. Taste and tactile sense appeared to be diminished on the left side of the tongue. The woman was also liable to attacks of headache, with dysaesthetic ocular phenomena, described as "wheels of brightness". She suffered from dysmenorrhœa and slight menorrhagia; no abnormal condition of the uterus was found, but there was marked tenderness in the left ovarian region. As usual in cases of neurosis dependent upon ovarian irritation, there was tenderness over the fourth dorsal vertebra. Dr. Ferrier expressed his belief that many cases of hemianæsthesia would be found if they were more frequently looked for. In this class of cases, hystero-epilepsy (Charcot) is frequently met with, and such attacks may often be arrested by firm pressure over the ovary affected.

Cross Paralysis.—A woman aged 32 was attacked last January with a fit, accompanied with loss of consciousness; the face was drawn to the left side, and the left arm and leg were paralysed both as to motor power and sensibility; she also lost the power of speech for a week. When examined, on making her show her teeth and by watching the features while she was speaking, it was evident that the right side of the face was partially paralysed, especially in its lower parts, while the left arm and leg were much weaker than the right. This condition of hemiplegia on one side, with paresis of the face on the other side, both having occurred at the same time, indicated a probable lesion in or near the pons Varolii.

Facial Neuralgia.—A woman, forty-three years of age, of nervous temperament, complained of a sense of oppression at the back of her head and violent facial neuralgia, accompanied with loss of sleep. This appeared to have followed the mental shock and depression due to the illness and death of her mother. She was ordered bromide of potassium.

Fits, with Disease of the Heart.—A woman aged 40 complained of attacks apparently epileptoid, and attended by partial syncope; consciousness was lost in these fits, and there was struggling; sometimes the tongue was bitten. Examination showed signs of both aortic and mitral regurgitation. There was no family history of neuroses; and cerebral anæmia, due to the defective circulation, appeared to be an important element in the causation of the attacks. Dr. Ferrier ordered a mixture of digitalis and bromide of potassium, and remarked that while the bromide would lessen the conductivity of the nerve-fibres, as indicated by its action in rendering the mental powers dull, the digitalis would render the nervous centres less excitable to reflex action, and increase the muscular strength of the heart.

MR. WOOD'S WARDS.

Sarcoma of the Lower Jaw.—A man, thirty years of age, was operated on a month ago for the removal of a tumour of the lower jaw. A single semilunar incision was made in the line of the lower jaw, the saw was then applied to the bone behind the lateral incision, and, by reflecting the face upwards, the bone was removed with the tumour. The mass proved to be a mixed form of sarcoma, consisting partly of round cells and partly of spindle cells. The tongue was not involved and the features were but little disturbed. The man is now convalescent, and there is as yet no sign of return of the disease.

Impermeable Stricture of the Urethra.—A man, the subject of a stricture of long standing, was admitted to the hospital with complete retention of urine. The attempt to pass a catheter was made, but failed. A hot bath was used without relief. To relieve the urgency of the case, a fine aspirator needle was passed into the bladder, above the pubis; 36 ounces of urine were thus drawn off. The smallest size elastic catheter was then passed into the bladder, without the stilette, and tied in. Hot fomentations were then applied, and an aperient draught ordered, to be followed by a sedative draught of morphia.

Strumous Disease of Joints.—A lad presented strumous disease of the wrist-joint, and phthisical changes in one lung. The joint was painted with iodine and placed on a straight splint; the hand was then placed in a sling, ice being at the same time constantly applied by means of an ice-bag hung round the boy's neck.

Salicylate of Quinine. in doses of two to five grains, is being tried by Mr. Wood in cases of chronic suppuration attended with high temperature; the results have yet to be observed.

Recto-vaginal Fistula.—The woman, in her last confinement, was delivered by forceps, three times applied during labour. No immediate ill results followed, and she convalesced; at the end of a fortnight, however, sloughing occurred. When admitted to hospital, the recto-vaginal septum had almost entirely disappeared; a fistula also opened from the bladder and urethra into the vagina. The edges of the fistula were pared, the adjacent mucous membrane was dissected up, a median flap was drawn over the opening, while lateral flaps were united over this by means of wire sutures. There has been no sloughing, and the

patient is doing well. Great attention has been paid to cleanliness, and the patient has been kept in the prone position, in order that the urine in the bladder may be prevented from finding its way through the fistula.

Amputation of the Foot: Quick Recovery.—Mr. Wood amputated a boy's foot for disease of the ankle-joint. Dry dressings were applied; union occurred by the first intention, and he was discharged within three weeks of the operation; in another fortnight he was walking about. No special antiseptic method was employed, but great attention was paid to cleanliness.

BIRMINGHAM GENERAL HOSPITAL.

PALATO-PHARYNGEAL TUMOUR, REMOVED BY PARTIAL EXCISION OF THE UPPER JAW.

(Under the care of Mr. ALFRED BAKER, Senior Surgeon to the Hospital.)

JOHN TAYLOR, aged 19, a warehouseman, residing at Wednesbury, was admitted into the Birmingham General Hospital in March 1877, suffering from a tumour projecting outwards into the upper part of the neck and inwards into the pharynx.

Family History.—His father is living, and quite healthy. His mother died after a confinement. His three sisters and two brothers are in good health, and none of his relations are known to have been the subjects of tumours.

Personal History.—He had always been strong and healthy; had never had syphilis, nor had he received any injury to the face or neck. His attention was first attracted to a small swelling, like a marble, under the lower jaw, on the right side, near the angle, about two years and a half ago. This gradually enlarged, without uneasiness, for six months, when it had attained the size of a walnut. A surgeon, who then saw it, examined the swelling and the interior of the mouth, in which latter part he found nothing abnormal. Iodine was applied externally for about six months, when the patient became sensible of slight difficulty in swallowing. His throat was then examined, eighteen months ago, and a swelling was found at the back part of the mouth on the right side, to which iodine was applied also. Homeopathic aid was sought, but both the external and the internal swellings steadily enlarged. His powers of mastication and deglutition became impeded, but he never had the slightest pain. He had eaten heartily, had swallowed well, though slowly, and had not lost in weight.

He became an out-patient on November 27th, 1876, when a diversity of opinion amongst the members of the surgical staff led to the progress of the case being watched for a time, before any decision was arrived at as to the propriety of operative interference. As no complication arose, the tumour simply increasing in size, and he and his father were anxious for its removal, he was admitted into the hospital for that purpose.

On admission, he was well grown, looked healthy, was fair and ruddy, with grey eyes. A tumour, as large as a small hen's egg, projected outwards and upwards in the neck below the right angle of the lower jaw; the skin over it was free from discoloration, and the tumour was freely movable beneath it and upon the subjacent tissues; it was rounded irregularly, somewhat nodular, was of firm consistence, and would bear rough handling. The surrounding parts were slightly full, and the angle of the jaw was not so easily felt as on the left side. In the interior of the mouth, there was a large tumour growing from the right side above and behind the soft palate, depressing the velum palati, anterior pillar of the fauces, and tonsil; and, pushing forward the junction of the cheek with the gum so as to almost cover the last molar tooth on that side, it projected deeply into the pharynx below the margin of the soft palate, and extended towards the left side so as nearly to touch the left tonsil and the teeth of the left upper jaw. It could not be separated and raised from the soft palate; it was quite painless on pressure; was of firm though varying consistence, being in some parts cartilaginous, in others elastic. The mucous membrane covering it was slightly injected, but otherwise healthy. It appeared to be connected, if not contiguous, with the outer tumour; since pressure on the one part caused the other to move correspondingly, showing intimate union, if not continuity, of growth. He could breathe quite freely through either nostril; but the pterygoid plate of the sphenoid encroached a little on the right nasal cavity, and gave a sense of elastic yielding under pressure, as though part of the growth were situated beneath it. The angle of the lower jaw on the right side was pushed outward.

Operation.—On March 28th, after an anæsthetic had been given, laryngotomy was performed, as a preliminary step, to avert the risk of suffocation from hæmorrhage during the operation. Through the laryn-

geal tube respiration was then carried on, and chloroform administered, so as to leave the mouth and parts concerned in the operation without any interference. The right upper jaw was next partially excised by Ferguson's simple incision through the upper lip into the nostril, the orbit and zygoma being left untouched. The bone being removed, the tumour was found to be developed between the layers of the soft palate; and, on the free incision of the upper or nasal layer, it was seen to be encapsuled, and was completely enucleated by traction and separation with the finger, aided by pressure on the cervical portion of the mass. During this procedure, the tumour broke up, owing to its unequal consistence; but the whole was removed, and the lower guttural surface of the velum palati was left intact.

The tumour was found to extend beyond the pharynx, above and behind the tonsil, and between the pillars of the fauces into the right digastric space, separating the tissues in its growth, but being firmly attached to none.

So little hæmorrhage followed, that no ligature was required. The wound in the lip was united by twisted suture.

Microscopic examination of the growth, which was one tumour as large as a swan's egg, showed that the softer parts consisted of pure myxoma, whilst the denser parts displayed the same stellate cells, with an intercellular fibrillar matrix very closely resembling newly formed cartilage.

The patient steadily recovered. The wound in the lip healed by direct adhesion, and the cavity left by the removal of the bone gradually filled up. He began to eat meat on April 25th, and was dismissed from the Hospital on May 20th with no deformity, beyond slight prominence of the right angle of the lower jaw and flattening of the cheek from absence of teeth.

REMARKS.—This case, though allied to the naso-pharyngeal tumours ably described by Mr. Prescott Hewett in Holmes's *System of Surgery*, was really a deviation from the type, in being developed between the layers of the soft palate, and in not hanging loose into the pharynx. It was consequently palato-pharyngeal. This circumstance explained the physical peculiarities noted: the inseparability of the tumour from the palate, and the impossibility of passing the finger between it and the velum palati.

From the projection of the growth outwards into the digastric space, bleeding might be reasonably expected when the connections of the tumour with the surrounding parts were severed; and it was feared that a sudden rush of blood might suspend the operation by invading the glottis and threatening asphyxia. Hence, I decided to open the larynx first, and thus to ensure free respiration to the patient, a proceeding in which my own judgment was strengthened by the recommendation of Mr. John Marshall, who had resorted to the same means of avoiding the risk of suffocation from bleeding in an operation on the mouth. As the result proved, this step was unnecessary on the score of hæmorrhage in this particular case; but it added much to the comfort of the patient and of the operator, since it permitted continuous anæsthesia to be maintained through the artificial opening, whilst fingers and instruments were employed freely in the mouth, nose, and throat, without inducing those struggles from impending suffocation which at times embarrass a surgeon and retard the completion of an operation.

REVIEWS AND NOTICES.

A SYSTEM OF MEDICINE. Edited by J. RUSSELL REYNOLDS, M.D., F.R.S., F.R.C.P., Professor of the Principles and Practice of Medicine in University College, etc. Volume IV, containing Diseases of the Heart. London: Macmillan and Co. 1877. Pp. 814.

THE Editor explains, in the preface, the reasons which have delayed the present volume, and compelled him to divide the remaining subjects of his *System* into two volumes, of which this is one. There is a painful interest attached to the present work, because, whilst its pages were passing through the press, two of its authors, Drs. Begbie and Sibson, have passed away, and a third, Dr. Peacock, was laid aside for a while by an attack of paralysis. Good as the previous volumes of this work were, we do not hesitate in saying that this is the best of all. The articles on the Size and Weight of the Heart, and its Lateral and Partial Aneurisms, and Adventitious Products are contributed by Dr. Peacock; whilst the Form and Position of the Heart and Great Vessels, the Malpositions of the Heart, and the articles on Pericarditis, Adherent Pericardium, and Endocarditis, were written by the late Dr. Sibson; and Dr. Begbie, now, too, alas! the *late*, wrote Hydro-pericardium and Pneumopericardium. The article on Angina Pectoris and Allied States, including certain kinds of Sudden Death, is from the pen of Professor W. Tennant Gairdner; Dr. Gowers contributing the

portions on Fatty Disease of the Heart, on Atrophy, Hypertrophy, and Dilatation of that organ, and on Fibroid Disease of the Heart; as well as a paper on Carditis, and the concluding pages of Dr. Sibson's Endocarditis. Lastly, Dr. Hilton Fagge writes on Diseases of the Valves of the Heart with his usual ability.

As the volume on Diseases of the Heart and Large Vessels in Ziemssen's *Cyclopadia* appears almost simultaneously, a reviewer is almost tempted to draw comparisons between the two books. He soon, however, discovers that it is neither easy nor fair so to do; since, although covering common ground, they differ widely in their plan and execution. The present work is far more statistical and tabular than the German one, or than any of the previous volumes in Dr. REYNOLDS'S *System*. It is, however, by no means dry. Indeed, portions of Dr. Gairdner's paper are of almost thrilling interest; and Dr. Sibson's papers are illustrated by capital diagrams and sketches. We suppose that Dr. Reynolds considered the subject of Wounds of the Heart to be a branch of surgery, for we can find no mention of it except casually. Its medico-legal importance would, we think, justify its insertion in a future edition. It is fair to state that Rupture of the Heart is treated by Dr. Gowers under Fatty Degeneration.

"This accident", he says, "occurs in a considerable proportion of the cases of fatty degeneration, both simple and associated with overgrowth of fat. Conversely, fatty degeneration is by far the most common cause of rupture. Spontaneous rupture never occurs in a healthy heart; and the number of cases due to any other cause, as abscess or aneurism, or deep endocardial ulceration, is very small. Out of one hundred cases of rupture collected by Quain (Lumleian Lectures, *Lancet*, 1872), in seventy-seven fatty degeneration was detected by the microscope; and, of the remaining cases, in all but two, either softening was noticed, or the state of the heart was not mentioned..... The accident occurs chiefly in the old. Of the cases collected by Quain, two-thirds were over sixty. The mean of forty-eight cases has been found to be sixty-eight years. Most collections of cases have shown the accident to be more frequent in the male sex, but Quain's statistics give an equal number in each sex. Occasionally, hereditary predisposition has appeared to influence the occurrence, and even the seat of rupture, perhaps by similarity of vascular distribution. A classical instance is the death of George II, and his relation, the Princess of Brunswick, of rupture of the right ventricle..... It is, however, far more frequent in the left ventricle than elsewhere. All statistics agree in showing that the left ventricle is the seat of rupture in three-quarters of the cases, and that it is at least twice as frequent in the anterior as in the posterior wall. The usual seat is near and parallel to the septum, and not far from the apex. About 12 per cent. of the cases occurred in the right ventricle; about 6 per cent. in the right auricle; while only 2 or 3 per cent. have occurred in the wall of the left auricle and in the septum." Dr. Gowers gives "unusual efforts, such as running to catch a train, lifting a weight, cough, straining at stool, and emotional excitement" as the immediate causes.

One striking omission in Dr. Reynolds's work is that of any mention of what are called "functional diseases". No doubt, these are casually mentioned under other disorders, and under the various forms of structural disease. Dr. Reynolds may say, and justly, that what we mean are neuroses, and that many of them are accompanied by real organic disease of either heart, lungs, kidney, stomach, or of some pelvic organ. But so many cases of palpitation, and pain in the cardiac region, and stoppage of the heart's action occur in comparatively young and apparently organically healthy people from moral and mental causes—overwork, sexual excitement, and other reasons—that some notice of them ought not to be omitted from any volume on diseases of the heart. Otherwise, the busy practitioner must either find time to hunt through all the volumes of this system, and then choose between a variety of ailments; or both he and his patients must do as best they can without the guidance of this or any other system of medicine except their own. This fault is common to most works of medicine large and small. The rare and difficult matters of pathology and practice are dealt with at length, and with accuracy and precision, so far as our knowledge goes. The common maladies, which are, perhaps, even less known and more puzzling on account of their frequency, and the absence of *post mortem* examinations, are either not noticed at all, or passed over in a paragraph. Perhaps the Horatian maxim—"Difficile est propriè communia dicere"—explains this. We throw out the suggestion that Dr. Reynolds should add an article on neuroses and functional derangements of the heart to the next volume, to be incorporated in reprints of this one. If Dr. Handfield Jones would undertake this task, we know of no one more fitted to do it well. The relations of the organic diseases of the heart to epilepsy, chorea, and various forms of insanity and mental disease should not be omitted from such an article. We

have, as in duty bound, pointed out one or two omissions and defects; but we feel that it is incumbent on us to declare that the impression which the reading of this volume has left on our mind is that it is exceeded in value by none of the previous volumes of Dr. Reynolds's *System*. To ordinary readers, the names of its writers are almost sufficient guarantees of the accuracy of this statement.

SEA-AIR AND SEA-BATHING, THEIR INFLUENCE ON HEALTH: A Practical Guide for the Use of Visitors at the Seaside. By CHARLES PARSONS, M.D., Dover. 12mo, pp. 119. London: J. and A. Churchill. 1877.

THIS appears to be a very good sensible guide, which furnishes judicious advice to all who visit the seaside. It contains chapters on the theory and the practice of sea-bathing—on warm and other varieties of salt-water-baths, including local ones. Then follows a chapter devoted to the examination of the influence of sea-air on the constitution. Next is given an outline of the affections in which sea-air and sea-bathing are useful. Another chapter gives very useful hints on food, clothing, and exercise; while the two other chapters give the counter-indications to sea-bathing, and some account of the ailments and discomforts which sometimes accompany it. We observe that Dr. PARSONS attributes bilious attacks mainly to over-eating, caused by increase of appetite. This little book seems, however, to assume that sea-air is good for all; and it does not give a word of advice or consolation to the numerous class of invalids who describe sea-air as too strong for them, or as too exciting, and who find it impossible to sleep well while within reach of the sound of the ocean. Nevertheless, we can strongly recommend this book to the use of all those who wish to have within a small compass a rational explanation of the influence of sea-bathing on the constitution.

DIE ECHINOCOCCEN-KRANKHEIT. Von Dr. ALBERT NEISSER. Berlin. 1877.

To produce a valuable *brochure* of this sort, it is by no means necessary that the author should have done original work in the way of investigation. All that is required is laborious and honest literary research, combined with accuracy of statement. Speaking generally, Dr. NEISSER appears to possess these qualities in an eminent degree; nevertheless, he has done but scant justice to English literature, and where he has quoted well-known names, he has rarely spelt them correctly. Thus, Dr. Murchison's name is about a dozen of times spelt Murchinson, and, by way of variation, once Murchinsau (p. 170). It is never correctly rendered. In like manner, we have quotations from papers by Lathau, Caylay, Barret, Durrand, Lettson, Russel, Hewitt, Beynolds, Anstic, Bryaut, Gillivray, and so forth. The able surgeon of the Bendigo Hospital, Australia, will hardly feel flattered at the omission of his distinctive prefix.

Despite these blemishes, Dr. Neisser has produced a little treatise of high value. To have given a careful analysis of 983 cases of hydatid disease, and to have supplied references to all of them, demands our acknowledgments. The table showing the distribution of hydatids throughout the organs of the body (p. 25) is especially interesting. The proportion and preponderance of liver cases, 45.765 per cent., closely corresponds with those furnished by Davaine, who found 165 out of a total of 373, and by Cobbold, who found 161 in 327. Taken together, the French and English cases, 700 in all, make the proportion of liver cases 46.4 per cent. In like manner, there is a pretty close correspondence between the tables of all three authors as regards the proportion of bone cases, so to say, and of cases affecting the organs of circulation.

Lastly, we have only space to repeat the statement that, although Dr. Neisser's method of treatment of the literature of the echinococcus-disease is admirable in all respects, it fails to do justice to the writings of many well-known authors and investigators; amongst whom may be mentioned Hearn, Begbie, Thudichum, Cobbold, and particularly also Nettleship, whose successful rearing of the sexually mature tapeworm (*Tania echinococcus*) formed the subject of a careful paper communicated by Dr. Cobbold to the Royal Society in 1866. Other disfigurements, from sheer carelessness, are conspicuous throughout the text where English references happen to be given.

WE regret to hear of the death, on July 8th, at Antigua, West Indies, of the Honourable Thomas Nicholson, M.D., in the seventy-eighth year of his age, for many years member of the Executive Council of that island. Dr. Nicholson has long been a correspondent of this journal, and was highly esteemed in the Island of Antigua, where he spent the greater part of his life.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 terminate on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 4TH, 1877.

METROPOLITAN PROVIDENT DISPENSARIES.

THE Conference of Representatives of Metropolitan Provident Dispensaries, which assembled on July 28th, at the rooms of the Medical Society of London, under the presidency of Mr. Timothy Holmes, enjoyed, as Sir Charles Trevelyan remarked, "all the advantages of unanimity"; and was not, therefore, fertile in exciting debate or closely contested resolutions and amendments. The time has, however, passed when the value of a discussion on medical relief could be estimated by the brilliancy of the arguments put forth, with regard to the abuses of hospitals and free dispensaries, or the necessity and utility of the provident system. The profession is fairly convinced upon these points, and their demonstration is needed only by very different audiences. The worth of such public expressions of opinion must now be measured by the probability of their resulting in some practically effective line of action; and, judged by this standard, the meeting of Saturday last is perhaps one of the most interesting and hopeful that has yet been convened on this subject. The points which, by previous arrangement, were suggested to the meeting for discussion, were as follows.

1. What steps should be taken to increase the number of efficient provident dispensaries in London?
2. What should be the relations of the provident dispensaries to the hospitals?
3. Is it possible to secure a correspondence between the different provident dispensaries in London, so that a member of a provident dispensary, when he removes to another district, can, without delay and without entrance fee, immediately obtain medical relief in the provident dispensary nearest his new residence?

These three important questions formed the subject of a concise and telling paper by Dr. Ford Anderson, and also of interesting speeches by Sir C. Trevelyan and several eminent professional men, who were present; and the final outcome of the meeting was the following resolution, proposed by Dr. Nankivell, and seconded by Mr. Jabez Hogg: "That a Committee be appointed to report upon the best means of giving effect to the views expressed at this meeting; that the Committee be composed as follows: 1. Representatives of free hospitals, dispensaries, and other cognate institutions in the metropolis; 2. Representatives of the metropolitan provident dispensaries; 3. The members of the Medical Committee of the Charity Organisation Society; and that Mr. Timothy Holmes be asked to act as Chairman of the Committee."

From the tenour of this resolution, and, still more, from the whole tone of the meeting, we perceive, with extreme satisfaction, that in the matter of medical relief, the necessary interdependence of a reformed charitable system, and an efficient provident system, is beginning to be adequately recognised. At present, one of the chief obstacles to success is the difficulty of creating one of these things without having previously created the other. Private professional fees are high; and the lower classes, as well as the upper, will, as Dr. Rogers remarked, be slow in outgrowing their at one time most legitimate distrust of Poor-law out-patient relief. Unless, therefore, we can point to efficient provident dispensaries as a substitute, we shall have little success in urging the limitation of medical charity, either upon the governing

bodies of hospitals, upon the philanthropic public, or upon the poor; while, on the other hand, we are taught by Dr. Ford Anderson's figures how impossible it is that provident dispensaries should be numerous or prosperous so long as they are "undersold" by the medical charities. Only by cordial co-operation between the administrators of medical charity and the advocates of medical providence can a solution of the problem be arrived at. In Manchester, the hospitals co-operate with the provident dispensaries, and the central council of the latter contains representatives from the governing bodies of the former; consequently, the number of recipients of gratuitous medical relief has been diminished by 45 per cent. In London, the medical charities, and especially the largest and richest, hold themselves aloof from the advocates of providence and of reform; consequently, out of twenty-eight London provident dispensaries, the sixteen which publish returns, and which are probably the largest and most flourishing, number only 33,444 members, and these are to be found chiefly in the suburbs, where the charities are not easily accessible. At present, in fact, the establishment of metropolitan provident dispensaries has outstripped the reform of metropolitan medical charities; and whether or not the persistence of the latter in offering indiscriminate relief can be entirely accounted for, as Mr. Holmes suggested, by legitimate and praiseworthy competition, certain it is that all large and satisfactory progress depends upon entirely altered relations between such charities and those who would reform them. All who have at heart the independence and higher well-being of the poor, must, in the words of Sir Charles Trevelyan, "have the courage of their opinions"; they must lose no opportunity of educating the popular mind; and they must not only courageously expose the abuses of the out-patient system, and, by the pressure of public conviction, force upon them a sense of their duties and responsibilities, but they must also be ready to co-operate with and conciliate them, even at the cost of some concessions. We also notice, with great pleasure and interest, that the advisability of making provident dispensaries entirely self-supporting was urged by Sir Charles Trevelyan, by Mr. Caffyn, and by Mr. Alsager Hay Hill. It has usually been supposed, and was, moreover, stated by several speakers at the Conference, that existing dispensaries have found it impossible to eliminate from their constitution the eleemosynary element; and this is no doubt, in a limited sense, true, inasmuch as existing dispensaries derive their income in part from charitable subscriptions, and require, for their working expenses, the full amount of that income. It must be remembered, however, that the semi-provident, semi-charitable dispensary meets the wants of only a very small section of the community. The regular money payment, and, still more, the habit of forethought which it requires, prevents it from commending itself in any way to the unhappily vast class of demoralised poor; while, on the other hand, it is quite sufficiently a charity and quite sufficiently pauperising to be deeply distasteful to the *élite* of the proletariat and to the poorer members of the lower middle class. Not only have institutions of this mongrel type been uniformly discredited both by theory and practice, but *they are manifestly incapable of adequate extension and multiplication*. Provident dispensaries, if they are to be successful, must, as Dr. Nankivell said, be thoroughly useful to the poor, and at least not injurious to the profession. For this, a sufficient income is a *sine quâ non*; and, in the earlier days of the movement, a sufficient income was doubtless only to be obtained by the help of the honorary members. We owe, therefore, a deep debt of gratitude to those who, availing themselves of such means as were forthcoming, inaugurated one of the most beneficent of modern philanthropic institutions; but we cannot help doubting the expediency of perpetuating and multiplying a class of charities which, taking providence as their *raison d'être*, would, nevertheless, fail to command the sympathy of the very men whose self-denying thrift and independence are so splendidly evidenced by the benefit club and the trades-union. Moreover, we have yet to ascertain what income might accrue to a well-managed and well-served provident dispensary, if, resolutely refusing extraneous aid and adopting a graduated scale of fees

proportionate to the incomes of its members, it sought and obtained the co-operation, not only of the poorest section of the lower middle class, but also of the better class of artisans, whose medical clubs, as at present constituted, provide no kind of treatment for their wives or their children. Again, Mr. Caffyn is, no doubt, right in his opinion that the very term "dispensary" is repellant to the independent poor; and also that intelligent members of the "Foresters" and "Odd Fellows" clubs would be invaluable on any committee for the consideration of questions of medical relief.

We cordially sympathise with the chairman in his opinion that, throughout the earlier conferences and writings upon out-patient abuses, the suitability of candidates for free hospital relief was considered far too exclusively from the point of view of income and earnings. It would, no doubt, be much if peculiarly ineligible patients were rigidly excluded from the out-patient waiting-rooms, but it would, on the other hand, be a great misfortune if the hospitals came to be regarded as the legitimate resort of those, and of those only, who were too destitute to subscribe to a provident dispensary. We are inclined to agree with Mr. Holmes that if an efficient provident dispensary were affiliated to every general hospital, the hospital patients might then be advisably selected according to the nature and gravity of their maladies rather than according to the smallness of their means, and the hospitals would, more and more, become great consultative centres for the treatment of serious and difficult cases, while patients having trivial ailments would be treated at the provident dispensary, or, if utterly destitute, would be referred to the dispensaries of the poor-law. With the exception of accidents, hospitals would, as a rule, receive only those who were sent to them from the dispensaries or by members of the profession; and we fully endorse the suggestion that if such a system were carried out, poor-law, as well as provident, dispensaries might logically claim hospital help for cases of special gravity and complexity.

Perhaps, however, one of the most valuable suggestions which was offered to the meeting in Chandos Street, was that of a "Central Council" and "Association of Dispensaries", similar in many respects to that which was described by Dr. Ford Anderson as already existing in Manchester. It is evident, as was urged by Dr. Anderson and by Mr. Alsager H. Hill, that a council composed of a proper proportion of representatives from provident and from charitable dispensaries, and organised with the express object of perfecting constitution and working of the former and of gradually reforming the latter, might have an incalculably salutary effect upon the administration of medical relief both in London and in the country at large. It would be able, as Dr. Ford Anderson indicated, to decide upon the social and medical conditions which constitute suitability for hospital or for dispensary treatment. It might, by means of a published list, protect the public from those inefficient, fraudulent, or merely pseudo-provident, institutions, against which such strong warnings were uttered on Saturday by Sir Charles Trevelyan. It might form a central body of reference to which application might be made for information and advice as to the best modes of establishing and managing new dispensaries. And, lastly, it might, by a simple method of uniform transferable tickets, enable the subscribers to a dispensary in one district of London, or even, perhaps, other large towns, to derive from another dispensary the benefits which they would otherwise forfeit by change of residence. Unions of this kind are not unknown, and their working is so far satisfactory as to encourage us in the hope that the system may be extended to the institutions now under consideration, since the chief advantages of centralisation might thus, we think, be combined with all that is most valuable in local effort, local administration and local support. How far the establishment of such a council should precede, or how far it must—so to speak—wait for the multiplication of provident dispensaries and the inauguration of some preliminary measures of reform in the medical charities, is a question which, with many others, we confidently leave to the consideration of the committee originated last Saturday.

SENATE AND CONVOCATION OF THE UNIVERSITY OF LONDON.

As was anticipated, the extraordinary meeting of Convocation held last Friday was numerously attended, and the questions submitted to the members were ably, fully, and temperately discussed. The graduates at whose requisition the meeting was convened found the course they had pursued amply justified by the results, as will be seen from the detailed account of the proceedings which we publish at another page.

The votes taken decided, by large majorities, three questions at the least. First, in the opinion of Convocation, the Senate had, from a moral and equitable point of view, acted *ultra vires* in adopting Russell Gurney's Act, without referring the matter to Convocation. Secondly, Convocation reaffirmed the vote it recorded in May last, that it was inexpedient to admit women to degrees in medicine until the question of their admission to all degrees had been submitted in an amended charter for the consideration of Convocation. And thirdly, Convocation asked the Senate not to take any further action under the Russell Gurney Act.

Amongst the points specially brought out by the debate were the opinion given by Mr. Farrer Herschell, Q.C., M.P., of the effect of the Senate's vote upon the constitution of Convocation, and Mr. Russell Gurney's views as to the question of women being admitted to the governing bodies of the Universities in which they might have obtained their medical degrees. Both these points were mentioned by Dr. Tilbury Fox in his opening speech, and doubtless influenced considerably the votes at the division upon his resolution. Mr. Herschell had detected a slip in the Act. It is enacted that no woman, by reason of her registration under the Act, shall become a member of the governing body, which in the case of the University of London is Convocation; but it is not *registration* that constitutes any one a member of Convocation; *graduation* alone confers that privilege. In fact, a graduate need not be registered at all, and may yet be a member of Convocation. The Act doubtless meant that the degree entitling to registration should not, in the case of women, give them a seat on the governing body. Mr. Russell Gurney wrote saying that the Act would not have been allowed to be passed unless it had contained this stipulation, which turns out to be a dead letter; and consequently he, however, had assented to it.

It now remains to be seen what the Senate will do.

THE PUBLIC HEALTH (IRELAND) BILL, 1877.

THE Public Health (Ireland) Bill, after a parliamentary incubation of nearly two years, has reached another stage: it has been before a Select Committee for no less than eight days. We have not yet seen a copy of the Bill as altered by the Select Committee; but we have heard sufficient to enable us to state that, although many useful provisions have been introduced, yet the Bill is far from perfect, and will make no material alterations in the present unsatisfactory state of things in Ireland. It could scarcely be expected that the Select Committee, constituted as it was, and without power to take evidence, *could*, even if it desired, do much to improve the Bill. It was manifest from the first that the reference to the Committee was a mere sham. The Government carefully avoided nominating any medical members of Parliament upon the Committee, and also excluded English and Scotch members. It is quite clear that, in the case of a Bill dealing, as this does, with a large number of medical questions, the best medical strength which the House possesses should have been brought to bear upon it. It is also certain that valuable advice could have been afforded by English and Scotch members, who have had larger experience in the working of sanitary measures than their Irish fellow-members. There were, no doubt, a few members of the Committee who did know something about the matter under consideration; but these few could have little influence among so many. We believe

that the report of a Committee possessed of little or no technical knowledge, and without any evidence whatever before it as to the requirements of sanitation in Ireland, will have little weight with the House of Commons. We believe that the sittings of the Select Committee must have been to a great extent a waste of the members' time; and that, as nearly all well-informed members were excluded from its deliberations, the House will have to take the opinion of these members after the Bill is reported to the House. The whole proceeding has been conducted with an unseemly haste which is not creditable to the Government. The Select Committee might have been appointed four months ago, and the whole measure been deliberately gone through. The Bill, as it now stands, will only stereotype the existing state of confusion and inefficiency.

We have frequently pointed out that the Local Government Board of Ireland have no organisation whatever by which they can supervise sanitary work throughout the country, and no provision exists in the Bill for compelling the Board to exercise such supervision. Unless some such provision is introduced, the whole system must inevitably be as inoperative as hitherto. We have so often dwelt upon the inferior position in which the dispensary medical officers of Ireland have been placed by the administration of the Act of 1874, that it is unnecessary here again to refer to it.

We have to point out, moreover, that so long ago as in May last Sir Michael Hicks-Beach, in reply to a deputation from the Irish Medical Association, stated that, *before* the Bill went into Committee, he hoped to be in a position to state what could be done with regard to the matters the deputation had laid before him; and that the "defects complained of might be remedied". Up to the present, Sir Michael Hicks-Beach has not given the information he promised "if able". It is now August; the Bill has passed through one Committee (a select one), and is about to go before another (of the whole House). Under these circumstances, the authorities of both the British and Irish Medical Associations have considered it necessary further to interrogate Sir Michael Hicks-Beach. We anxiously await his final reply, which, if unfavourable, must compel the friends of sanitary advancement who have seats in the House of Commons to take measures to prevent such an ineffectual measure as the Irish Public Health Bill from becoming the law of Ireland. To a communication from the Chairman of the Parliamentary Bills Committee of the British Medical Association, Sir Michael Hicks-Beach has this week returned a very unsatisfactory (because purely dilatory) reply.

MADLE. TIETJENS, according to the last reports, is going on favourably. She could have sung had she been in London on the 26th, but was advised to defer any appearance in public so long as any symptoms of chronic peritonitis were present.

DOCTORS CROOKSHANK and SCHOFIELD, having arrived at Shumla with ample stores and an ambulance waggon, rendered great service, and, says the correspondent of the *Daily News*, are attending to the wants of the sufferers with unwearied zeal.

THE Select Committee of the House of Commons on the Lunacy Laws concluded their labours this week. They will simply lay the evidence before Parliament, and ask to be permitted to sit again next year in order to consider their recommendations.

AT the Leeds Assizes this week, the medical student named William M'Irvine, whose committal we have already recorded, was convicted of forging the name of a medical practitioner at Sheffield to certificates given under the Registration Act. Mr. Justice Manisty sentenced the prisoner to twelve months' imprisonment. The precedent is a very important one, as the prosecution was an official one. We have many times lately called attention to irregularities in the signature of certificates of death, hardly less culpable than this.

THE library of the Medical Society of London will be closed from August 6th to September 5th.

DR. GEORGE HARE PHILIPSON, M.A., F.R.C.P., has been placed upon the Commission of the Peace for the town and county of Newcastle-upon-Tyne.

PRINCE ALBERT VICTOR OF WALES.

IT is gratifying to be able to state that during the past week the course of the illness of the Heir Presumptive has been perfectly satisfactory. On the morning of Saturday last, the twenty-second day of the illness, the temperature fell to 100.5 deg., and since that date the deferrescence of the feverish symptoms has gone on quite regularly. It seems now to be considered very doubtful whether the fever was not contracted at Marlborough House after all, the incubation-period having been almost too short to allow the supposition that the disease was taken during the Prince's stay of six days only in Norfolk. It is suggested that perhaps this illness should be discussed in connection with the unsanitary condition of the neighbouring building, the War Office, and the known badness of the surrounding drainage system. At any rate, Marlborough House will receive a thorough overhauling upon the departure of the Prince and Princess of Wales from town at the approaching termination of the London season. Some of the defects of construction of Marlborough House are irremediable; others might be much improved by a little liberality of expenditure. The passages and closets of Marlborough House are often little short of poisonous, and nearly always stuffy.

THE LATE MR. WARD HUNT.

WE learn from Homburg that the unexpected death of Mr. Ward Hunt appears to have been due to an aggravated recurrence of the symptoms for the relief of which he visited that place. He had for some time been liable to gouty attacks, and had suffered severely from œdema of the extremities and dyspnoea. While at Homburg, under the care of Dr. Deetz, he lost the œdema, and was able to walk slowly; and on Sunday, July 22nd, was sufficiently well to take a drive. On the following Tuesday, the weather, from having been very warm, changed to wet and cold; and the symptoms returned, being accompanied with albuminuria. In spite of the careful attention of Dr. Deetz, matters went on from bad to worse, the dyspnoea and the indications of implication of the kidneys becoming more intense, until death took place at 11 A.M. on Sunday. During the last few hours of his life, he was visited by Dr. Holman of Reigate, who happened to be in Homburg at the time, and who co-operated with Mr. Hunt's medical attendant in a fruitless endeavour to avert the fatal event. We learn that Mr. Hunt bore his illness very patiently, but towards the end showed some restlessness, which, however, passed off before death.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE total amount already received on account of the Hospital Sunday Fund is about £26,300, though there are still several amounts to come in. Some of the amounts received show a decrease, others an increase, as compared with last year; for instance, the receipts at Quebec Chapel were £321, as compared with £356 last year; Union Chapel, Islington, £78, as compared with £96 at the previous collection; St. Andrew's, Wells Street, £133, as compared with £175; All Souls', Langham Place, £62, against £91; St. James's, Piccadilly, £151, against £183; Paddington Parish Church, £175, against £242; Oratory, Brompton, £30, against £48; St. Jude's, South Kensington, £132, against £236; St. Paul's, Onslow Square, £177, as compared with £101; Kensington Parish Church, £312, against £241; St. Margaret's, Westminster, £145, against £59; St. George's, Hanover Square, £151, against £98. The largest collection of the year was that at St. Peter's, Eaton Square, £425, against £420 last year; and next to this came St. Stephen's, Westbourne Park, with £420.

ROYAL MEDICAL BENEVOLENT COLLEGE.

THE annual report of the Royal Medical College refers, among other matters, to a fact of some interest which the Council desire to mention before concluding their report, though they are not yet in a position to speak very definitely about it. A lady, Miss Eliza Morgan, died recently, leaving most of her property to charities, and making the College the residuary legatee; and she attached to her bequest to the College the condition that it should be applied "more especially for the benefit of the daughters of decayed medical men". The College is quite competent, under its Act of Incorporation, to receive the bequest for the purpose defined by Miss Morgan; but, as there have hitherto been no funds available for the daughters of medical men, it will be necessary to determine the way in which this money is to be applied for the benefit of such. The sum which will be received cannot yet be stated exactly, but very nearly so. There is a sum of £1,800 consols already invested in the names of trustees, a small balance in money in hand, and a small balance to be received. Probably a total of £2,000 stock will be what will have to be dealt with. This is a very handsome bequest in itself, but rather a small sum with which to originate a new operation of the Society, and it requires some consideration to settle the mode in which it may be made most useful for its purpose. By the next annual meeting, the Council hope to have decided on the rules which they would recommend for the adoption of the governors. The school at Epsom continues to be successfully administered, and the report contains a very satisfactory list of honours achieved by former pupils at the colleges and medical schools. Thus, in March last, three of the Epsom boys went to Cambridge to compete at three different colleges for Natural Science Scholarships. They were all open Scholarships, and of the value of £60 a year in each case, and all three of the boys were successful: L. H. Armstrong at Clare, G. B. Hoffmeister at Caius, and H. B. Shaw at Sidney Sussex College. We see with great satisfaction that the special attention which is given to the subject of natural science at the Epsom College has already achieved satisfactory results. The current income of the College appears to fall short of its requirements, and a special appeal is made for funds to complete the new infirmary and to furnish a five-court for the boys.

DEATH AFTER CHLOROFORM.

AN inquest was held at the Town Hall, Dawlish, before H. Michellmore, Esq., coroner, touching the death of Sarah Crudge, a young woman, aged 23, belonging to Devizes, who died suddenly, soon after undergoing an operation. Mr. F. M. Cann, surgeon, said the deceased came to him on account of having a squint. After seeing the deceased two or three times, he agreed to perform an operation on the eyes. It was rather a peculiar case; he did not like to give chloroform. It was not from any dislike to administering chloroform that he said this; but from the fact that, in operations of this kind, it might be necessary, after administering it once, to let the patient come round and administer it again. Deceased rather disliked the idea of the operation being performed without the use of chloroform, and he therefore told her she must wait. He subsequently performed the operation as described; but previously to his doing so, he examined her and considered her a fit subject for chloroform. Deceased inhaled about four drachms of chloroform during the operation. After the operation, deceased spoke to him and appeared perfectly right. He saw deceased again between nine and ten o'clock. She was then sound asleep and appeared to be going on all right, her pulse being quiet and regular, and nothing unusual about her. When called at half-past eleven o'clock to see deceased, he found her dead. Mr. H. S. Gaye of Newton had made a *post mortem* examination of the body of the deceased. On examination of the brain, he found it softer than natural, and coagulated blood in several places. The other parts of the body were healthy. He believed death to have resulted from effusion of blood on the brain. He thought death was accelerated by the vomiting caused by the administration of chloroform. The chloroform would not have caused

death, and it was evident that there was previous disease of the brain. The quantity administered was small for an adult, and it might be assumed that at least half was not inhaled. Even if it had been, there was nothing unusual in the dose. He had not a shadow of doubt that long sustained disease of the brain was the cause of death. The jury found that deceased died from disease of the brain, hastened by the effects of chloroform, properly administered, and exonerated Mr. Cann from all blame.

POPULATION IN SWEDEN AND NORWAY.

THE Swedish Government has just published a statistical report upon the population of Sweden. In 1870, the figure of population amounted to 2,347,308 persons of both sexes; in 1825, 2,711,252; in 1850, 3,482,541; at the beginning of 1876, it amounted to 4,383,291. The population of Norway, which was, in 1801, 803,038, amounted at the end of 1875 to 1,817,237, which gives an increase of 108.8 per cent. during the seventy-four years, and a total population of the two united kingdoms exceeding 6,000,000.

POLLUTED WATER.

AT the meeting of the Barnet Rural Sanitary Authority, on Thursday week, a letter was read from Dr. Saunders, Medical Officer of Health, who said he had investigated the case of three deaths which occurred in one house at Kenwood's Farm, Finchley. One child was attacked with erysipelas, another with inflammation of the umbilical cord (a newly born infant), and a third with diphtheria. These three children died, and three others were removed to the hospital suffering from diphtheria. The house in which these cases occurred was a farmhouse, occupied by a person named Wilson, a farm-labourer, in the employ of a Mr. Jelly, who rented the farm from Lord Mansfield. There was nothing in the sanitary condition of the dwellings to account for the disease; but the water-supply, which was pumped from a well on Lord Mansfield's park, was polluted. This well also supplied Lord Mansfield's dairy and house adjoining it, and he had obtained some evidence from the occupiers that they had suffered from diarrhoea at different times, and notably at the time the children of Wilson were suffering. The Board ordered a copy of the letter to be sent to Lord Mansfield.

THE ADULTERATION OF SPIRITS.

MR. ISAAC, MR. ASHBURY, and MR. HERSHELL have brought in a Bill to amend the Sale of Food and Drugs Act, 1875, which proposes to enact that, in determining whether an offence has been committed under Section six of the Act, by selling to the prejudice of the purchaser, whether wholesale or retail, spirits reduced by admixture with water, regard shall be had, not only to the extent of such admixture, but also to the price at which the spirits so reduced are sold.

THE EDINBURGH REVIEW ON METROPOLITAN MEDICAL RELIEF.

THE new number of the *Edinburgh Review* contains an article upon "Metropolitan Medical Relief". It is founded chiefly upon Sir Charles Trevelyan's excellent pamphlet on the same subject, upon Dr. West's new work on "Hospital Organisation", and upon the last report of the Manchester and Salford Provident Dispensaries' Association. We shall not attempt to analyse the article; those who are interested in out-patient administration will, no doubt, read it for themselves; but it is gratifying to us to find that a subject to which we have long endeavoured to call attention is noticed in such an influential quarter. A few years ago, the *Westminster Review* entered at length into the causes of hospital abuse and the various remedies which have been proposed. The *Quarterly Review* has, within the last four years, devoted two articles to the consideration of the medical charities of London. And now the *Edinburgh Review* has directed the attention of its readers to the same subject. In addition to these leading Reviews, more than one of the first-class monthlies, such as *Fraser* and *Macmillan*, have discussed in their columns the question of out-

The general public is at length being aroused to the importance of the subject. It is now many years since this journal first drew attention to the pauperising influence of indiscriminate medical charity, to the injustice done to many members of our profession by the free-handed manner in which the hospitals scatter their bounty, and to the necessity of devising some means whereby the poor who are not paupers may contribute to the cost of their own medical treatment. But for long the question made little progress, notwithstanding the action of the Metropolitan Counties Branch and other medical organisations in endorsing our views. It was regarded as a scheme whereby the medical men proposed to restrain charity and to enrich themselves. In many instances, the early advocates of self-supporting dispensaries had the mortification of seeing them run down by the indiscriminate relief offered by the medical charities. But gradually the facts of the case have dawned upon the public mind, and, indeed, they are so strong that no one who enters seriously into the subject can doubt that there is great need of reform. Now that apathy has given place to active inquiry, now that Manchester, Birmingham, and Liverpool are on the alert, we confidently expect that reforms will be carried out. What may be the exact shape which these reforms may take we will not attempt to indicate; it is obvious that they must vary with the nature of the institution to be reformed, and with the character of the place and its population. But these are minor considerations, and will easily be adjusted as soon as the public and the medical profession are agreed upon the general principle. As the *Edinburgh Reviewer* remarks:

"The investigations and discussions—and we may add also the changes which have already been made in some few hospitals and dispensaries—have removed obstacles, and thrown light upon the path. A forward movement might now safely be made along the whole line of the medical charities, a movement in which they would carry with them all that large share of their work which is truly beneficial, and leave behind only that by which they are themselves over-weighted, and which is a stumbling block in the way of those who resort to them."

OVARIOTOMY IN NEW YORK AND LONDON.

ONE curious fact is brought out by the recent dispute between Drs. Marion Sims, Peaslee, Emmet, and Thomas. From May, 1872, to December, 1874, in the New York Women's Hospital, there were thirty ovariectomy operations, and one half were fatal:

By Dr. Sims	...	11	...	7
By Dr. Thomas	...	11	...	4
By Dr. Peaslee	...	6	...	4
By Dr. Emmet	...	2	...	0
		30		15

Last year's results in the Samaritan Hospital in London are a very striking contrast to the results in New York:

By Mr. Spencer Wells	...	40	...	4
By Dr. Bantock	...	7	...	1
By Mr. Thornton	...	8	...	0
		55		5

SANITARY LEGISLATION IN AMERICA.

By an Act of the General Assembly of North Carolina, the State Medical Society is constituted the Board of Health for the State. The following are the principal provisions of the Act.

"The Board of Health of the State of North Carolina shall take cognisance of the interest of health and life among the citizens of the State. They shall make sanitary investigations and inquiries in respect to the people, the causes of diseases, especially of epidemics, and the sources of mortality, and the effects of locations, employments, conditions, and circumstances on the public health, and they shall gather such information in respect to those matters as they may think proper for diffusion among the people. They shall be considered the medical advisers of the State, and shall advise the government in regard to the location and sanitary management of any public institution, and shall

call its attention to such sanitary matters as in their judgment affect the industry, prosperity, happiness, health, and lives of the citizens of the State. They shall make to each regular session of the General Assembly, through the Governor, and in the month of — of such session, a report of their doings, investigations, and discoveries, accompanied with such suggestions in regard to legislative action as they may deem just and necessary."

The said reports are to be published for distribution among the members of the General Assembly, and other Boards of Health, and for general circulation.

"County medical societies in affiliation with the Medical Society of the State of North Carolina, and organised in accordance with the constitution of the said State Medical Association, are hereby constituted boards of health for their respective counties, and shall be under the general direction of the Board of Health of the State of North Carolina created by the first section of this Act.

"The competent legal authorities of any county in this State or any incorporated town or city shall, whenever in their judgment it becomes expedient to do so, invest the Board of Health, thus created, of any county with such execution, duties, and powers for the public health, and under such rules and stipulations as shall be agreed upon between the two parties; and all questions relating to salaries and expenditures shall be reserved to the legal authorities of the county, city, or town, as the case may be.

"No board of health or advisory or executive medical body for the exercise of public health functions shall be established by authority of law in any county, town, or city of this State, except such as are contemplated by the provisions of this Act. The object of the prohibition is to secure an uniform system of sanitary supervision throughout the State. But nothing in this article shall be so construed as to prevent the State Board of Health, established in accordance with the provisions of this Act, from accepting and executing any special powers that may be granted them by the General Assembly of the State."

SALICYLIC ACID AND RHEUMATISM.

AT a recent meeting of the Paris Academy of Medicine, M. Hérard related seven cases of acute articular rheumatism treated by him with salicylic acid. These cases are exactly like those reported by M. Sée; only they prove, perhaps, even more strongly than the former set of cases, that salicylic acid only affords necessary relief against the febrile and the painful elements of the disorder, that is to say, that relapses are very frequent when its use is given up. M. Hérard explained the relapses, in his cases, by his timidity in not having employed salicylic acid long enough, and intends to be more persevering on another occasion. M. Hardy brought forward four cases in support of M. Sée's opinions, also very similar to those reported by his colleague. M. Hardy, however, seemed to think that M. Sée had been extremely fortunate in his experiences; and, without wishing to invalidate his statements, could not help thinking that no medicine yet known could cure fifty-two cases of rheumatism out of fifty-three. M. Hardy and M. Hérard both were of opinion that further experimentation is necessary, for it is not yet proved that salicylic acid and salicylate of soda are specific for acute rheumatism and its different varieties. The trials hitherto made, however, constitute a very encouraging result and justify further trial.

EXPERIMENTS ON DIGESTION.

IN a series of observations and experiments on a case of gastric fistula, F. Kretschy (*Deutsch. Archiv für Klin. Med.*, vol. xviii) arrives at some interesting conclusions. A servant-girl, twenty-five years of age, otherwise healthy, suffered from fistula of the stomach, resulting from an abscess, itself the result of caries of the seventh left rib, which had burst simultaneously externally and into the cavity of the stomach. The external opening of the fistula was situated underneath the left seventh rib in the extended nipple-line. Its diameter was three centimètres, and it exhibited pouting folds of mucous membrane, very red, and bleeding easily. A sound could without difficulty be introduced from without inwards; and, on the other hand, a quantity of rice-soup, of which she had partaken, was forced through the opening externally. The fistula was of five months' standing at the commencement of the

experiments. Kretschy made the following observations on the case.

1. On the normal duration of the digestive process. As the course of gastric digestion is indicated by the degree of acidity of the contents of the stomach, it was ascertained how long the acid reaction continues after food, how the acidity increases, how it falls, and when the fistula ceases to discharge. The degree of acidity was ascertained by testing with a solution of soda of known strength. It was found that the digestion of breakfast took five hours and a half, that the maximum of acidity was reached at the fourth hour, and that then it fell, until, within an hour and a half, a neutral reaction was reached. The digestion of the midday meal lasted seven hours. The maximum acidity was reached at the sixth, and in the seventh a fall to neutrality took place. Even in the fifth hour numerous microscopic bands of muscular tissue were recognised, and also starch-granules. The evening digestion lasted from seven to eight hours.
2. Influence of menstruation on the digestive process. On the day before the menses appeared, there were decided fluctuations in the acid curve. On the day of their appearance, a neutral reaction was never obtained the whole day. The evening digestion was not delayed. On their cessation, the normal acid curve at once returned.
3. Influence of alcohol on the digestive process. The patient partook of three cubic *centimètres* of alcohol in one hundred of water to her dinner. The alcohol rendered the process slower.
4. Influence of coffee at dinner. The acid curve was lower, and the neutral reaction set in about an hour later.
5. Pepsine, taken just before dinner, did not shorten the process.
6. Distilled water, taken moderately, exerted no acid reaction on the gastric juices; high spring water (*hochquellen Wasser*), on the other hand, rendered the gastric juices acid under like circumstances.
7. Alcohol is converted into aldehyde in the stomach. This observation was confirmed in experiments on a dog with an artificial gastric fistula.

EDINBURGH UNIVERSITY CLUB.

THE quarterly dinner of this Club was held at St. James's Hall Restaurant on Wednesday, August 1st; Henry Rutherford, Esq., in the Chair. A congratulatory telegram was sent to the newly created graduates of the medical faculty of the University. Some excellent songs were given by Drs. Cock, Percy Boulton, and Shears; and, under the genial and suitable conduct of the Chairman, the meeting, though not large, was a very agreeable one.

THE PUBLIC HEALTH.

THE Registrar-General's return for the week ending Saturday, July 28th, says that during last week, 5,722 births and 3,291 deaths were registered in London and twenty-two other large towns of the United Kingdom. The natural increase of population was 2,431. The mortality from all causes was at the average rate of 21 deaths annually in every 1,000 persons living. The annual death-rate was 16 per 1,000 in Edinburgh, 21 in Glasgow, and 18 in Dublin. In London, 2,429 births and 1,430 deaths were registered. Allowing for increase of population, the births exceeded by 98, whereas the deaths were 314 below, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the two preceding weeks had been equal to 21.4 and 21.2 per 1,000, further declined last week to 21.1. The 1,430 deaths included 27 from small-pox, 51 from measles, 25 from scarlet fever, 4 from diphtheria, 23 from whooping-cough, 24 from different forms of fever, and 184 from diarrhoea. Thus to the seven principal diseases of the zymotic class 338 deaths were referred, against numbers increasing from 210 to 332 in the five preceding weeks. These 338 deaths were, however, 205 below the corrected average number from the same diseases in the corresponding week of the last ten years. The fatal cases of small-pox, which had been 32 and 35 in the two preceding weeks, declined to 27 last week; of these, 17 were recorded in the Metropolitan Asylum Hospitals, and the remaining 10 occurred in private dwellings. Of the 27 fatal cases, 13 were certified to be unvaccinated, 4 to be vaccinated, and in the remaining 10 cases information as to vaccination was

omitted from the medical certificates. The number of small-pox patients in the Metropolitan Asylum Hospitals, which in nine preceding weeks had steadily declined from 964 to 588, further declined last week to 530. The deaths from diarrhoea in London again rose, and were equal to an annual rate of 2.7 per 1,000; the rate from this disease was equal to 4.7 in the east group of districts, whereas it did not exceed 2.2 in the rest of London. In Greater London, 2,939 births and 1,665 deaths were registered, equal to annual rates of 35.1 and 19.9 per 1,000 of the population. Four fatal cases of small-pox were registered in the Outer Ring, of which 3 occurred in West Ham and 1 in Hendon. Two deaths from scarlet fever were registered at Hampton.

THE VITAL VALUE OF PLUGGING.

A CASE is reported from the Midland Counties in which a lunatic made a murderous assault with a carving-knife upon a publican at whose house he was lodging, and inflicted a very severe wound in the neck. The wound is said to have been ten inches long and three inches or four inches deep, but fortunately neither the windpipe nor the great vessels were divided. The medical man who was called to the patient found him lying "in a lake of blood", and immediately proceeded to arrest the hæmorrhage by plugging the wound with lint, and securing the plug with a bandage. This mode of dealing with an extensive lacerated wound of the neck is scarcely *secundum artem*, and it is a pity that some injudicious person has written to a local newspaper in praise of it. The gentleman who treated the case has great reason to pray, "Save me from my friends". Indeed, the less that is said about "plugging" a lacerated wound in this situation the better, and we are not disposed to quote the fulsome sentences that are contained in the paper before us. It is satisfactory, however, to learn that the patient is going on well, and that "in a short time the doctor hopes to be able to bring the edges of the wound into position with each other, and then to treat it as a simple and ordinary wound, until a perfect cure further attests the vital value of his happy treatment by 'plugging'."

SCOTLAND.

THE managers of the Edinburgh Royal Infirmary have agreed to proceed with the erection of the remaining sections of the building, including the pathological, engineer, service, and laundry departments; and have accepted the estimate of Messrs. Beattie and Son, the contractors for the other portions of the work already executed, for the mason and carpenter work.

THE death-rate of Edinburgh continues remarkably low; last week it was again at the annual rate of 16 per 1,000, the total number of deaths having been 64: a third of this mortality was due to diseases in the chest. The deaths from zymotic diseases numbered only 4. There were no deaths from fever either last week or the week before. There was no death from diarrhoea. Two of the fatal cases of zymotic diseases were from diphtheria, one from measles, and one from whooping-cough.

PROFESSOR LISTER.

IN taking leave of his class of clinical surgery on Thursday of last week, Professor Lister, after the close of the lecture, addressed a few words of advice and encouragement to the students. He earnestly invited them all, he said, before they entered on the responsible practice of their profession on their own account, to take further opportunities than they had yet had of practising under the superintendence and supervision of others, by filling hospital offices, house-surgeons, and similar appointments. In the next place, when they did enter into practice on their own account, he should strongly urge upon them to keep always in mind that, however degraded it might be in the practices of too many of its practitioners, their profession would always be an exalted profession, perhaps second to none in that respect. It was,

on the one hand, fraught with the deepest scientific interest, and, on the other, it was a profession of pure beneficence, and in this respect would vie with the clerical calling. But, if a profession of a lofty character, it was also a profession presenting temptations to the degradation and debasement of those who practised it. There were peculiar temptations in it to quackery in one form or another. They would find that their patients would repose most unlimited confidence in them; and being thus implicitly trusted, and having no one to overlook them, they were constantly liable to profess what they did not know, and sometimes to do what their best feelings would tell them ought not to be done. Against these temptations he urged them to maintain constant vigilance; and few things would better enable them to do that than following out what he had just advised, namely, to take further opportunities of practising under the superintendence of others. Dr. I. B. Balfour then made a short speech on behalf of himself and fellow-students, expressing their regret at losing Professor Lister, and their hearty good wishes for his continued success and prosperity. In a brief reply, Mr. Lister expressed his pleasure that, under the risk he ran of having his motives in leaving Edinburgh for London quite misunderstood, so large a number of Edinburgh students did really believe what was the truth—that it was only a sense of duty that had made him come to the decision to leave that school. He need hardly tell them what a wrench it was to leave a school in which he had received great kindness, and to take a cold plunge into what might prove to be a sea of troubles. He had always found his students hitherto courteous and attentive, and he was led to hope that his reception elsewhere would not be so unpleasant as had, in some places, been predicted for him. He thanked them most heartily for the present expression of their kind feelings towards him, and wished them all every happiness and prosperity.

ARBROATH INFIRMARY.

THE annual meeting of contributors took place on Monday. The report of the directors states that the number of patients admitted into the infirmary during the past year was 178, and the number of out-door patients 972. On both of these there was an increase of about 25 per cent. Partly in consequence of this, the income had been less than the expenditure by about £200. The treasurer's account showed that the charge was £1,188. It was resolved that an effort should be made to obtain additional subscriptions. It was reported that the endowment fund, exclusive of the Panmure annuity, amounts to £8,175. The late Dr. R. W. Bruce had bequeathed £500 with a view to the appointment of a resident surgeon.

HEALTH OF GLASGOW.

THE last fortnightly report of the Medical Officer of Health for Glasgow showed a death-rate of 20 per 1,000, compared with 21 per 1,000 in the fortnight preceding. With reference to the death-rate of the second week of the fortnight (19 per 1,000), it is pointed out that, owing to the closing of the registrar's offices on Fair Saturday, a number of deaths which would have been registered have been carried over to next week. Eight deaths from fever occurred. Two cases of small-pox were reported, one in the eastern and one in the western district, neither being traceable to its origin. A curious case of the death of a woman from glanders was mentioned. She was the wife of a cab-owner, among whose horses the disease existed, and is supposed to have had the malady communicated to her while feeding one of the animals, the discharge from the nostrils being highly infectious. It was mentioned that, while last month there were ninety-two cases of small-pox, the number in the city at present was only ten.

A VORACIOUS FISH.

ONE morning last week, a gentleman, while bathing near Portobello, had one of his legs seized by some large fish. On finding himself thus attacked, he gave a sudden jerk, got his limb free, and made for the shore as quickly as possible. It was then found that there were about

a dozen tooth-marks on the fore part of the leg between the calf and the ankle, and the same number on the back, from all of which blood flowed freely. There were several long and severe scratches on the outside of the limb, which would appear to have been caused by the teeth while the gentleman was tearing his leg free from the mouth of his assailant. The bather was at the time in only about four feet of water, but the tide was at or near dead ebb.

IRELAND.

DURING the first six months of the present year, the mortality in Dublin from measles reached the unusually high number of one hundred and ninety-two. Twenty deaths were recorded last week in Dublin from measles, the deaths in the past three weeks amounting to fifty-two from this disease alone.

NURSES FOR THE SICK POOR, BELFAST.

THIS estimable Society, formed in 1874, has lately published its third annual report, and another year's experience has still further proved the practicability of extending the inestimable advantages of skilful nursing to the poor in their own homes. There are now five nurses employed, and the ladies who visit the patients at their own homes direct the nourishment to be given to them, and superintend the nurses. A point of especial importance is, that the Committee have made arrangements by which each nurse attends at the dispensary attached to her district once a week, gets new patients from the medical officer, receives directions as to the treatment he wishes carried out, and reports to him any change in the condition of the parties she is nursing. Each medical officer is furnished with printed orders, which he can fill up and send to the nurse at any time he wishes her attendance. That the medical men in whose districts the nurses have been placed appreciate their services, is shown from the fact that 254 patients (half the number attended) have been sent to the Society by them during the past twelve months.

BELFAST WORKHOUSE.

At a meeting of the Belfast Board of Guardians on the 24th ult., the overcrowded state of the departments in the workhouse for the accommodation of idiots, imbeciles, and lunatics, was brought forward, when it was determined that steps should at once be taken to remedy the matter complained of.

LOCAL GOVERNMENT BOARD FOR IRELAND: ANNUAL REPORT.

THE fifth annual report of the Local Government Board for Ireland was issued this week, and from it we learn that the average daily number receiving relief in the various workhouses throughout Ireland amounted to 43,235, and for those receiving out-door relief an average of 31,600. Hence it appears that, supervening on the decrease noticed in last year's report, there has been a further decrease in the number of workhouse inmates, accompanied by a small increase in the number receiving out-door relief. The total number of deaths in the workhouses in the twelve months ending January 27th, 1877, was 10,129, being a decrease of 1,204 deaths, as compared with the number last year. Fever caused 612 deaths; lung-disease, 1,633; and small-pox, but 2 deaths, against 41 in the preceding year. The total admissions for medical treatment into the workhouses during the year ended September 29th amounted to 45,531, of whom 6,576 were suffering from fever, or other contagious disease, from which it appears that a decrease of 2,436 had taken place in the total number admitted in sickness during the year, and a decrease of 1,439 in those suffering from fever or other dangerous contagious diseases. During the past year, there were 481,331 dispensary tickets issued, and 189,419 visiting tickets, being a total of 670,750 cases attended by the dispensary medical officers; 114,487 cases vaccinated; and 1,116 certificates given

in the case of dangerous lunatics. The total expenditure of poor-rates for all purposes, viz., relief, medical relief, burial-grounds, registration of births, deaths, and marriages, sanitary measures, and expenses under Superannuation Acts, was £1,045,505, being 1s. 6½d. in the pound on the valuation. With respect to vaccination, 114,487 cases were performed, being a decrease of 22,853 from that of the preceding year. This decrease, the Commissioners observe, appears remarkable, but admits of explanation to a certain extent, by the fact that during the presence of small-pox in districts, the panic which exists causes the inhabitants to avail themselves of the protective influence of vaccination; but when the alarm subsides owing to the cessation of the disease, parents are not so prompt in bringing their children, so that in the year following an epidemic of small-pox, there is a considerable reduction in the number of persons vaccinated. That this explanation, however, is not altogether satisfactory is acknowledged by the Commissioners. Since July 1876, several cases of small-pox were introduced into various localities in Ireland from England, but owing to the prompt precautions which were adopted, the disease spread to a very limited extent. The annual grant of £400 to the National Cow-Pock Institution having proved insufficient, the Government increased it to £1,200, with the understanding that the supply of vaccine lymph which hitherto had been paid for by the poor-law unions, should in future be gratuitous. A very material change is now being made in the mode of collecting lymph, which previously had been collected almost entirely on ivory points, but now is stored in capillary tubes, and submitted to microscopic examination and approval before distribution, proper registers being kept so as to enable the source of the supply to be ascertained in every case in which inquiry may be found to be necessary on the occasion of complaint or otherwise. In reference to the Public Health Act, although exceptional cases of neglect and indifference on the part of local sanitary authorities have caused, in some places, an unfavourable impression as to the shortcomings of the law and its administration, which are not warranted by the facts, yet as the Commissioners point out, that it could not reasonably have been expected that a measure like the Act in question, would at once work a complete reform of the sanitary conditions throughout the whole country, as it was obvious that some localities would adopt sanitary reforms more readily and with more promptitude than others, and that a complete amelioration in these matters could only be a question of time. The Board, indeed, consider that great and satisfactory progress has been made by sanitary authorities in Ireland in applying expenditure to the two important objects of sanitation, namely, the provision of pure air and pure water for both the urban and rural population of the country. Loans to the extent of £41,085 have been recommended by the Board for water-supply and sewerage; and as it is estimated that loans for sanitary purposes to the amount of £181,080 will probably be applied for next year, these facts are sufficient guarantees that the "Public Health (Ireland) Act, 1874," has not been inoperative hitherto, and is not likely to become so.

ROYAL COLLEGE OF SURGEONS OF IRELAND.

THE election of a Professor of Ophthalmic and Aural Surgery, in room of the late Mr. Wilson, and a Professor of Midwifery, in room of the late Dr. Cronyn, took place on Thursday. There were four candidates for the Ophthalmic Chair, and six for that of Midwifery. To the former, Mr. H. R. Swanzy was elected, and to the latter Dr. William Roe.

HOSPITAL FEES.

THE adjourned meeting of the Physicians and Surgeons of the Dublin Clinical Hospitals, to receive the report of the Honorary Secretaries and adopt finally a scale of fees for hospital practice, was held at the King and Queen's College of Physicians on Monday last. The meeting was largely attended, representatives from all the hospitals being present. The chair was occupied by the President of the College of Physicians. The report of the Honorary Secretaries having been read, it

was agreed, after considerable discussion: First, that the hospital clinical fees, from the 1st October next, be raised as follows: For six months, eight guineas; for three months, five guineas; for nine months, twelve guineas. Second: That the practice of taking perpetual pupils' fees be abolished. The latter proposition, which was at first put forward as an amendment, gave rise to an animated debate; its supporters laying stress upon the fact that the perpetual pupil system compelled students to attend but one hospital during their course. This, to those desirous of retaining perpetual pupils, was one of the chief advantages of the system. A division being taken, the amendment was carried by 18 to 4, and, on being put as a substantive resolution, was carried unanimously. It was finally resolved, *nem. con.*: "That the report as adopted, signed by each hospital physician and surgeon, be printed; and that copies be furnished to each hospital; and that the original document, so signed, be lodged with the Registrar of the College of Physicians." Whatever opinion may be held as to the immediate necessity or desirability of increasing the scale of fees in the clinical hospitals of Dublin, their staffs are to be congratulated on the unanimous adoption of the scheme, which at one time appeared on the verge of collapse from lack of unanimity and the clashing of "school" interests. The agreement thus entered into is a strictly honourable and binding compact. By putting all the hospitals on an equitable monetary footing, it will inspire a healthy rivalry in the clinical teaching, and, we trust, improve the class of students generally. Although such an occurrence would, we hope, be extremely improbable, we hold that any infringement or repudiation of this contract, by any of the present contracting parties or their successors, unless unanimously agreed to, should be looked upon as an unjustifiable breach of faith.

SANITARY PROGRESS IN IRELAND.

WHILE, as shown by the recently published Report of the Local Government and Taxation of Towns Inquiry Commission (Ireland), improvements have undoubtedly been effected in the sanitary condition of some parts of the country, the real progress made in sanitation in Ireland is far from being satisfactory. This is due partly, no doubt, to the acknowledged defects in the administration of the sanitary laws, and partly to the difficulty in convincing the poorer inhabitants that accumulations of decomposing filth can be otherwise than healthy. Both these factors have been recently strikingly exemplified in the case of a single union in the county Tipperary. The executive sanitary officer of one town in this district said, at a meeting of its Sanitary Board, that he did not consider that in all Ireland there was a more abominable place with regard to sanitation. In several parts of the town, there were heaps of filthy stuff, looked on as manure; and from one of these places, the doctor had told him, seven cases of typhus and putrid fever had come. The sub-sanitary officer, when informed that heaps of manure should not be allowed in front of these people's houses, replied that, if such was the case, "there would not be a bit of manure left in the village", as the people had no other place to keep it. Although there is more fever in this place than in any other part of the county, we do not suppose that there is much probability of these baneful nuisances being removed. The sub-sanitary officer seems so familiar with the existing state of things, that he does not appear to view it in the same light as the executive officer—in fact, he does not consider manure-heaps nuisances. However, the doctor's attention is to be called to the subject. In the same union, a woman was summoned by the sanitary authority on June 19th, 1877, to abate a nuisance which she had notice to do six months previously—viz., on December 16th, 1876; the nuisance consisting in allowing a heap of manure to remain in her yard. Subsequently to December 16th, 1876, typhoid fever broke out, one case proving fatal. Thus six months were allowed to elapse before any action was taken, and then the case was dismissed because—as the Local Government Board explain, in answer to a dignified statement of the above facts which has been addressed to them—the offence should have been more clearly stated on the face of the summons.

MEDICAL RESEARCH.

THE Scientific Grants Committee of the British Medical Association has recommended to the Committee of Council that the following new grants be made towards the expenses in aid of researches in medicine and allied sciences for the year 1877-78: viz., to

Mr. W. H. Gaskell, Cambridge, a grant of £30 in aid of a research upon the nature of the reflex action of the vascular system and muscles, and reflex vaso-motor action generally.

Mr. Langley, M.B., St. John's College, Cambridge, £25, for research upon the changes produced in the salivary glands by nerve influence.

Professor Rutherford, F.R.S., £50, on the action of cholagogues.

Dr. Braidwood (Birkenhead), £40, for engravings to illustrate the third report upon the life-history of contagium.

Dr. Pye, £8 15s., for continued research upon the investigation of the relation that the retinal circulation bears to that of the brain.

Mr. Bruce Clarke, for continued research upon syncope and shock, £10.

The Scientific Grants Committee will meet again, to consider further applications for grants in aid of research, at Manchester, on Thursday, the 9th instant, before which date communications should be addressed to the General Secretary of the Association, at the office of the Association, 36, Great Queen Street, London, W.C.

MANCHESTER MEETING.

THE PONT-Y-PRIDD COLLIERY ACCIDENT: MEDALS.

THE medals and addresses awarded to the medical men who gave their services at the recent colliery accident at Pont-y-Pridd will be presented by the President of the Association at the General Meeting on Wednesday, August 8th, immediately after the conclusion of the Address in Medicine.

THE ABUSE OF HOSPITALS.

WE understand that arrangements have been made for fixing Thursday afternoon, in the Public Medicine Section, for reading Mr. Nelson Hardy's paper on Hospital Out-patient Reform. Mr. Holmes, Dr. R. J. Lee, Dr. Joseph Rogers, and other members of the profession who have given attention to the question, will, it is understood, take part in the discussion, and a resolution will be moved to appoint a committee of the Association to consider what steps should be taken for the purpose of procuring a reform of the out-patients' departments of hospitals.

PROPOSED IRISH GRADUATES' ASSOCIATION.

DR. JAMES THOMPSON of Leamington writes to us:—It is proposed to hold a meeting in the Medical Theatre of Owens College on Wednesday, August 8th, 1877, at 5 P.M., to consider the advantage of forming an association of those who hold Irish qualifications. Dr. Balthazar Foster of Birmingham has consented to preside. The attendance of medical men holding such degrees is requested.

THE ACADEMY OF SCIENCES OF PARIS AND THE EXPERIMENTS OF M. PASTEUR AND DR. BASTIAN.

WE have received from Dr. Charlton Bastian a statement of proceedings, including a copy of correspondence, with reference to the investigation, by a Commission of the French Academy of Sciences, of the dispute between him and M. Pasteur respecting the action of boiled liquor potassæ on the production of bacteria.

Dr. Bastian says: In further reply to a communication of mine to the Academy of Sciences of Paris on July 10th, 1876, and as his latest contribution to a controversy which grew out of it, M. Pasteur, at the meeting of the Academy of July 29th, 1876, threw down the following definite challenge. The discussion having been raised, according to M. Pasteur, by my statement, "that a solution of boiled potash caused bacteria to appear in sterile urine at 50 deg. cent. after it had been added to the latter in quantity sufficient for exact neutralisation", he

then said: "I defy Dr. Bastian to obtain, in the presence of competent judges, the result to which I have referred with sterile urine, on the sole condition that the solution of potash which he employs be pure, i.e., 'made with pure water and pure potash, both free from organic matter'. If Dr. Bastian wishes to use a solution of impure potash, I freely authorise him to take any in the English or any other *Pharmacopœia*, being diluted or concentrated, on the sole condition that that solution shall be raised beforehand to 110 deg. for twenty minutes, or to 130 deg. for five minutes.....This is clear enough, it seems to me, and Dr. Bastian will understand me this time."

At the meeting of February 12th, my reply was read. The essential part of it was as follows. "During the last week, I have repeated my experiments several times, and with a degree of precaution going much beyond the severity of the conditions prescribed by M. Pasteur.....I repeated them at first with liquor potassæ which had been previously raised to 110 deg. Cent. for sixty minutes, and afterwards with liquor potassæ which had been raised, in the same manner, to 110 deg. Cent. for twenty hours. The results have been altogether similar to those produced upon sterile urine by liquor potassæ which has been raised only to 100 deg., when added in suitable quantity; that is to say, in twenty-four to forty eight hours the urine was in full fermentation and swarmed with bacteria."

After the reading of this reply, M. Pasteur asked the Academy to appoint a Commission to report upon the subject in dispute; and at the next meeting of the Academy (February 19th), it was announced that MM. Dumas, Milne-Edwards, and Boussingault had been appointed a Commission to express an opinion on the matter.

From the correspondence, it appears that, on hearing of the appointment of the Commission, Dr. Bastian wrote on February 27th to M. Dumas offering to go to Paris for three days to perform his experiments before the Commission. In consequence, however, of the miscarriage of a letter addressed to Dr. Bastian by M. Dumas about the middle of April, stating that the Commission was ready to receive him, the arrangement for a visit to Paris had to be deferred until the close of the summer session in July. In the missing letter, a duplicate of which was afterwards sent to Dr. Bastian, M. Dumas wrote: "The Commission places itself at your disposal, and offer you any laboratory which you may be pleased to select for performing the experiments. After visiting them, you will choose that which suits you best. M. Pasteur begs you to consider his quite at your disposal. Before entering on any examination of the question, the Commission thinks that it would be proper, in the first place, to see the experiments performed by the authors themselves. If, at a later period, a contradictory comparison should be instituted, the Commission will fix the conditions, in order to give its opinion a sure foundation."

In reply to this, Dr. Bastian wrote to M. Dumas on May 24th as follows.

"I am anxious to define (1) what I understand to be the object of the Commission, and (2) to explain to what extent I am prepared to submit to its judgment. I desire to do this in order that I may have the honour of learning from you whether I am correct in this understanding, and whether my submission to the extent to be specified is all that the Commission will expect from me. I. I gather from the *Comptes Rendus* of February 19th that the Commission has been appointed so that it may 'express an opinion upon the fact' under discussion between M. Pasteur and myself; and the fact in question seems to me to be this: 'whether previously boiled urine, protected from contamination, can or cannot be made to ferment and swarm with certain organisms by the addition of some quantity of liquor potassæ which has been heated to 110 deg. Cent. for twenty minutes at least'. M. Pasteur asserts that he has not seen fermentation occur under these conditions, whilst I assert that I have; so that the point of principal importance would seem to be to ascertain whether such positive results can be reproduced before the Commission. I learn, therefore, with much satisfaction that the Commission will allow to each of us the opportunity of reproducing before it the facts upon which we found our respective opinions. This, indeed, I regard as an essential condition of the inquiry. 2. If the Commission proposes to limit itself to reporting upon this mere question of fact, I will freely submit to its decision. If, however, it does not propose thus to restrict itself, and is empowered to express an opinion upon the interpretation of the fact attested, and on its bearings upon the 'germ-theory of fermentation' or 'spontaneous generation', then I must respectfully decline to take part in this wider inquiry. I feel compelled to adopt this decided position, because my stay in Paris must be limited to three or four days."

In concluding, Dr. Bastian proposed to visit Paris on July 14th. Not having received a reply to his letter, Dr. Bastian wrote again on June 21st, asking for one; and was informed by M. Dumas that the Commission would be at his disposal on July 15th, and that it desired to

limit the inquiry, if possible, to the experiments of M. Pasteur and Dr. Bastian on urine treated with liquor potassæ. Dr. Bastian wrote in answer to this, on July 6th, that he did not find in it a distinct acceptance of the conditions mentioned in his letter of May 24th, viz. : 1. The limitation of the report to the questions of fact mentioned; 2. The assurance that no new experiments should be demanded from either M. Pasteur or himself without the full concurrence of both. To this, M. Dumas replied on July 12th : "The Commission is ready to hear you; but it desires, with you, that the examination be confined to the matter in dispute between you and M. Pasteur. It would be only if you should desire to proceed further, that it would have to determine whether time allowed further proceedings, your visit being very short."

Having been thus assured of the acceptance of his conditions, Dr. Bastian went to Paris, and on July 15th met the Commission at M. Pasteur's laboratory in the Ecole Normale Supérieure. The members present were MM. Dumas and Milne-Edwards; M. Boussingault having been compelled to withdraw by a domestic affliction. M. Milne-Edwards objected to Dr. Bastian's second condition, stating that he could not take part in any Academy Commission which had not full power to vary the experiments at discretion. On the other hand, Dr. Bastian contended that the shortness of his stay in Paris prevented him from consenting to the initiation of new experiments; and that he had come to Paris to repeat certain well-defined experiments before the Commission.

After an interview with M. Pasteur, Dr. Bastian proposed to M. Dumas, on July 16th, that for the present the opportunity should be given to M. Pasteur and himself of simply repeating their experiments; and that, after the Commission had expressed its opinion as to any variations in the experimental conditions which they might desire, he should return to Paris to perform such modified experiments.

M. Van Tieghem was appointed a member of the Commission, in place of M. Boussingault. Dr. Bastian—who had suggested the names of MM. Frémy, Trécul, Robin, or Würtz—remarks that, by the appointment of M. Van Tieghem, a former pupil and present colleague of M. Pasteur, the Commission was left without a member representing his (Dr. Bastian's) views or holding a neutral position.

On July 17th, Dr. Bastian received a note from M. Van Tieghem, stating that the Commission would meet at 8 A.M. the next day, in M. Pasteur's laboratory, and inviting him to attend with a view to the performance of the experiments. Dr. Bastian thus describes what took place.

"I made all the necessary arrangements that afternoon in M. Pasteur's laboratory for the performance of my experiments, and the next morning at eight o'clock M. Pasteur and I were at the appointed place. M. Van Tieghem was also there, and shortly afterwards M. Milne-Edwards arrived. He, apparently, had had no communication with M. Dumas since the time of my interview; and when told, in reply to a question of his, of the proposition which I had made to M. Dumas, M. Milne-Edwards very hastily expressed his disapproval of it, and at once, without listening further, left the laboratory. He was followed by M. Van Tieghem. I remained, and after one hour M. Van Tieghem returned. He informed me that, having waited in vain for the arrival of M. Dumas, M. Milne-Edwards had at length gone away. I remained in conversation with M. Van Tieghem for nearly an hour in an upper room of M. Pasteur's laboratory. When we came down, much to my surprise, we learned from M. Pasteur that M. Dumas had arrived; that he had been told of the departure of M. Milne-Edwards; and that he also had then left, saying that the Commission was at an end; but without in any way communicating either with his colleague, M. Van Tieghem, or with myself."

UNIVERSITY OF LONDON.

AN extraordinary meeting of Convocation was held on July 27th, in compliance with two requisitions, each signed by twenty members and addressed to the Chairman of Convocation. The object of the meeting was to consider the recent action of the Senate in adopting, without the previous concurrence of Convocation, Russell Gurney's Act (Victoria 39 and 40, cap. 41), by which the University is permitted to admit women to medical degrees. By its action in this matter, many graduates considered that the Senate had infringed the constitutional status and privileges of Convocation. In the unavoidable absence, through severe indisposition, of the Chairman (Dr. Storrar), F. J. Wood, LL.D., was called by acclamation to the Chair. The clerk of Convocation read the provisions of the charter under which the meeting was convened, as well as the requisitions with the appended signatures, addressed to the Chairman.

Dr. CARPENTER, Registrar of the University, on behalf of the

Senate, laid before the House an opinion obtained from the law officers of the Crown upon the question submitted to them : "Whether, if the Senate desire to avail itself of the power conferred on the University by the Act 39 and 40 Victoria, cap. 41, to grant degrees in medicine to women, it is or is not competent to do so without the concurrence of Convocation." Their answer was the following :—"We do not find in clause 21 of the charter any power given to Convocation to interfere in any way with the powers given to the Senate of conferring degrees in medicine, and we therefore think that it will be competent to the Senate to grant degrees to women without the concurrence of Convocation."

Dr. TILBURY FOX then moved the following resolution :

"This House regrets that the Senate has, by adopting a Permissive Act of Parliament (Act 39 and 40 Victoria, cap. 41), without reference to, or consultation with, Convocation, materially altered the constitution of the University, and has thus practically superseded the privileges of Convocation."

He said that he supposed no one present would attempt to question the purely legal right of the Senate to admit women to medical degrees under the "Russell Gurney Act" of last session without the concurrent approval of Convocation, and in accordance with the opinion of the law officers of the Crown. But the act of the Senate bore the aspect of a very unfair transaction when the character of the Russell Gurney Act, and the circumstances under which it was adopted, were considered, and particularly when it could be shown that its application in the University was opposed to the spirit and intentions of the charter. In the first place, it had been said, and by those in the Senate who ought to have known better, that the Senate had no choice in the matter, but were compelled to put the provisions of the Act in force. The answer to this assertion was, that the Act was simply permissive, that it did not apply to the University in any special manner, but to eighteen or nineteen other medical licensing bodies, none of whom, except one Irish body, had thought it necessary to take any notice of it. There was no reason why the Senate of the University of London should have adopted the Act. Again, the mere accidental passage of this Permissive Act gave the Senate opportunity and power to do in the medical Faculty what some of them wished to do, but could not, in regard to the other three Faculties of the University, without the consent of Convocation. The Senate now wished to admit women to all Faculties, but they could not do this without coming to Convocation for its consent to accept a new charter. Was it not manifestly unjust, therefore, in consequence of the accident of the passage of a merely permissive Act, that the Senate should deal with one section of the University in an exceptional manner? It might be fairly urged that Parliament, in making the Act permissive, intended that it should be used with certain qualifications, or, in other words, fairly. Admitting, therefore, that the Senate was legally right in its action, it was abundantly clear that, upon moral and equitable grounds, its adoption of the Act was bad. Upon this point a very decided opinion had been given by Mr. Farrer Herschell, Q.C., M.P., who had, moreover, called the speaker's attention to a very important legal point in reference to the effect of the adoption of the Act upon the constitution of the University. Mr. Herschell, after expressing his regret that he should not be able to be present at that meeting, went on to say that, if present, he should support the view that the Senate ought not to have adopted the Act of last session without communication with Convocation, and he continued :

"There can, of course, be no question that they had a legal right to do so. As the executive body, it lay with them to exercise the power given by the Act or not. But there is no doubt that the intention, in depriving the Senate of the power of accepting a new charter without the consent of Convocation, was to prevent any fundamental change in the nature of the University, or in its operations being made without the concurrence of the latter body. And no one can deny that a change of considerable importance has been made by the adoption of the Act of last session, because its effect, coupled with the Medical Act of 1858, is, I suppose, to give the University the power to grant degrees of M.B., M.D., or M.S. to women; for those are the only 'qualifications for registration' which the University can give, as appears from Schedule A (10) of the Act of 1858. It may, indeed, be said that, although degrees may, by the adoption of the Act of last session, be granted to women, yet the proviso to Section 1 of that Act would prevent the women obtaining such degrees from taking any part in the government of the University; and would, therefore, exclude them from Convocation. Even assuming this to be the case, I think the change is none the less fundamental. It is wholly beyond the powers of the existing charter, and but for the Act could only have been done by virtue of a new charter; and, I think, the Act, being permissive only, should only have been adopted by the same authority

which could accept a new charter; viz. the Senate and Convocation combined. But I would call your attention to the very singular wording of the proviso. I cannot doubt that its intention was what I have stated above; but it is so worded as certainly to leave open the contention that women receiving degrees would become members of Convocation. The proviso says 'that no person who but for this Act would not have been entitled to be registered shall, by reason of such registration, be entitled to take part in the government of the Universities mentioned in the Medical Act (including the University of London). Now, the membership of Convocation results from the degree, not from registration under the Medical Act, which has nothing to do with it. It may be said, therefore, that it is nowhere provided that the 'qualification', i.e., the 'degree', which the University is empowered to give to women shall not have all its natural consequences and *inter alia* the right to a part in the government of the University, it being provided only that such persons shall not, by reason of registration (which the section itself distinguishes from *qualification*), have any such right.

"I think it very likely that this wording is a piece of blundering; but, if there be anything in the point I have suggested, the constitution of Convocation itself may be fundamentally affected."

In a second communication, Mr. Herschell remarks: "On considering further the legal point to which I alluded, I am more and more convinced there is a great deal in it. It is, to say the least, *very doubtful* whether the Courts would not hold that the female graduates become members of Convocation. It is possible that they might hold otherwise, to carry out the apparent intention of the clause; but it is, to say the least, *very possible* that they might hold themselves unable to do so. It would depend a good deal on the constitution of the Court before whom the question came. If this be so, surely in such uncertainty on this point, the Act ought not to be adopted."

It would be seen, therefore, that the question under discussion was a very serious one. The Senate, it appeared, made a most fundamental change in the constitution of the University by the adoption of the Act, and that was against the spirit and intention of the charter, if it were done without the concurrent consent of the House.

Mr. Herschell further said: "Do not be led away by the statement that the Law Officers of the Crown had advised the contrary. It was worth little unless you saw the exact terms of the opinion." Now, what did these gentlemen say? Why, the "women are under a special statutory disability which would prevent their taking any part in the government of the University". But they concluded as follows: "The proviso just referred to enacts that no person who, but for this Act, would not have been registered, shall, by reason of such registration, be entitled to take any part in the government, etc. It is obvious that there is a slip in the words of the proviso. It ought, we think, to be construed as if the words 'the qualification for such registration' had been used instead of the words 'such registration'." Dr. Fox had a letter from Mr. Russell Gurney himself, showing that there was no slip in the proviso, and in which he said that the proviso was given to him as the condition on which the Bill would be allowed to pass, and he consented to it.

Therefore, the opinion of the Law Officers of the Crown that women would not become members of Convocation with all privileges upon the adoption of the Russell Gurney Act was based upon an untenable basis, and Mr. Herschell's contention turned out to be correct. A fundamental change would be made in the University, consequently, by the Act of the Senate. He had said enough to show that the Senate was straining its powers to an unconstitutional extent, and he hoped that that House would not be content to be shorn of all its privileges save one, viz., that of occasionally nominating a Senator; but it would firmly assert its just right, and so prevent the further progress of a new *regime*, which must be productive of disastrous results to the University.

Dr. CURNOW seconded the resolution, and said the Senate had superseded the powers of Convocation by making use of the Act, instead of making the admission of women to degrees the subject of a special or supplementary charter.

Mr. A. P. HENSMAN moved as an amendment:

"That the Senate, by adopting the Act, which permits it to grant degrees in medicine to women, has promoted the best interests of the University."

He said that the medical graduates, having abandoned the legal ground, had taken high moral grounds for their charge against the Senate. But he challenged any one to show that the charter, even by implication, supported the view that the consent of both the Senate and Convocation must be obtained before any constitutional change could be made. They had been told this Act of Parliament was a mere accident. But in this country Acts of Parliament overrode

charters; and if the Senate were of opinion that the adoption of the Act would further the interests of the University, they were bound honestly and fairly to adopt it. The action of the Senate in opening up a medical career to women, by inviting them to compete for degrees was most praiseworthy, and was but following up the policy of Convocation itself.

Mr. T. DE COURCY ATKINS seconded this amendment.

Sir WILLIAM JENNER said that, as a member of the Senate, he regretted that so-called Liberal members combined to put down and ignore the voice of Convocation; and he, for one, would join heartily in a vote of censure on the Senate.

Mr. J. L. GODLEE, in an able speech, said that, as an Arts Graduate, he was pleased to support the views propounded by Mr. Herschell.

Mr. W. SHAEN supported the amendment, and admitted that the admission of women to medical degrees would be a serious alteration in the constitution of the University; but that alteration was made, not by Convocation, but by Parliament. The Act of Parliament unquestionably threw a great responsibility on the University, which, for all practical purposes, meant the Senate, that being the governing and executive body. Whatever might be done, he hoped Convocation would never take such a suicidal course as to carry the differences between the Senate and that house to any external authority, and, above all, to the Home Office. He asked why the constitutional part of the question had not been previously brought forward.

Mr. JULIAN GOLDSMID, M.P., contended that, the Act being permissive, the Senate ought not to have adopted it without first consulting Convocation.

Mr. W. FOWLER, though strongly in favour of degrees in all faculties being granted to women, disapproved of the Senate practically superseding the power of Convocation by means of a quasi-new charter.

Mr. T. TYLER supported the resolution.

Mr. J. G. FITCH, as a member of the Senate, defended the course it had pursued, which, he maintained, was in consonance with the declaration of Convocation that women should be admissible to all degrees. To all who watched the signs of the times, it must appear absolutely certain that eventually women would be admitted to all degrees.

Mr. E. H. BUSK read an amendment, which he subsequently put to the meeting.

Dr. R. QUAIN, as a member of the Senate, said, in reply to the question addressed to him and other medical graduates by Mr. Shaen as to why the constitutional point had not previously been brought forward, that it was not necessary to do so until the Senate had ignored the vote of Convocation passed at the meeting in May last; and, in the second place, the medical graduates relied on the vigilance of their legal colleagues, who, no doubt, would have discovered the flaw, if doing so would have been in accordance with their personal feelings in this matter. He repudiated the notion that the resolution was a vote of censure upon the Senate; it was simply an expression of regret at what the Senate had done, without consulting Convocation. He thought the way out of the difficulty would be that the Senate should put aside action upon a permissive Act of Parliament; and, if they desired to give degrees to women in all faculties, they should apply in the constitutional form for a new or supplemental charter, and upon that point take the opinion of Convocation.

Mr. T. S. OSLER, a member of the Senate, said he thought the conduct of the Senate had been quite constitutional, and observed that it was himself who had scrupled about the possible infringement of the rights of Convocation, and it was at his instance that the Senate had obtained the opinion of the law officers of the Crown. At the same time, eminent legal opinions, including that of Mr. F. Herschell, Q.C., M.P., had been cited, to the effect that women who took degrees would thereby become members of Convocation, so that the constitution of the Lower House would really be affected by the Senate's concession to the other sex. Under these circumstances, he did not wish to commit himself to definite action in the future.

Mr. W. THYNNE, and Mr. J. H. PAYNE, in a short but telling speech, continued the discussion.

Upon a division, the amendment was rejected by 143 to 82 votes.

Mr. E. H. BUSK then moved, and Mr. W. FOWLER seconded, the following amendment:

"That this House, having learned that doubts have been expressed whether degrees granted to women by virtue of the powers conferred on the University by the Act of 39 and 40 Vict., cap. 41, will not constitute the holders thereof members of Convocation, and that the Senate is about to apply for a new charter empowering them to grant to women degrees in all faculties, by which the rights of women holding degrees will be fully determined, requests the Senate to refrain from availing itself of the powers conferred by the Act until after an

opportunity shall have been afforded to Convocation to consider the terms of the proposed charter."

Mr. JAMES ANSTIE, Mr. H. M. BOMPAS, Dr. C. H. FAGGE, and Mr. J. STEVENS having spoken, the House divided, and the amendment was lost by 113 against 77 votes. The original resolution was then put and carried by 114 to 71 votes. The result of the division was received with cheers.

Dr. CURNOW next moved :

"That it be referred to the Annual Committee to confer with the Senate in reference to the foregoing resolution, and to ask them not to take any further action under the Act of 39 and 40 Vict., cap. 41."

Mr. RICKMAN J. GODLEE seconded this proposition.

It was met by one for adjournment, which was negatived by a show of hands. Upon a division, Dr. Curnow's motion was carried by 88 ayes to 52 noes.

A vote of thanks to the Chairman was carried by acclamation, after which the meeting, which had lasted four hours, terminated.

During the course of the discussion, Sir W. Jenner asked if there existed any means by which a limit might be put to the length of speeches and duration of the meeting, as it was impossible for himself and his medical professional brethren to find time for attending these protracted meetings.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

THE following report has been issued by Mr. Prescott Hewett, the late President of the College.

In fulfilment of my duty as President of the College, I present the following annual report to the Council, with a view to its publication for the information of the Fellows and Members. It is written on the same plan as that of my predecessors, and I alone am responsible for the statements made in it.

At a meeting of Fellows of the College, held on the 5th of July 1876, Mr. John Simon, Dr. George Murray Humphry, and Mr. Luther Holden, who, in rotation, had retired from the Council, were re-elected, and Mr. Claudius Galen Wheelhouse was elected a member of Council in the place of Mr. George Southam, deceased.

By the death of Sir William Fergusson, Bart., the profession has lost one of its most distinguished and valued members. Ever at his post, Sir William Fergusson to the very last devoted all his energies to the affairs of the College, and in the Council he was one of its leading members.

In the Court of Examiners only one change has taken place. At the expiration of the term of office of Mr. Spencer Smith, Dr. Humphry was elected. In the Board of Examiners in Anatomy and Physiology there have been two changes, Mr. A. E. Durham and Mr. T. P. Pick having been elected members of the Board in the place of Mr. Holden and Mr. Cooper Forster, who did not offer themselves for re-election. The remaining members were re-elected. Dr. Peacock having resigned the office of Examiner in Medicine, Dr. J. S. Bristowe was elected. In the Board of Examiners in Dental Surgery, Mr. F. Le Gros Clark was re-elected. Mr. Quain having resigned his office as the representative of the College in the General Medical Council, Sir James Paget, Bart., was elected as his successor. Mr. Flower and Mr. Parker were re-elected Joint-Professors of Comparative Anatomy and Physiology. Mr. R. B. Carter was re-elected Professor of Surgery and Pathology, Mr. Erasmus Wilson Professor of Dermatology, and Mr. B. T. Lowne was elected Lecturer on Anatomy and Physiology. Since July 1876, four members of the College of the required standing have been elected to the fellowship.

The results of the College examinations are thus enumerated.—Numbers examined for primary membership: Approved, 546; referred, 246; total, 792.—Numbers examined for pass membership: Approved, 432; referred, 137; total, 569.—Numbers examined for primary fellowship: Approved, 44; referred, 43; total, 87.—Numbers examined for final fellowship: Approved, 27; referred, 10; total, 37.—Numbers examined for diploma in dental surgery: Approved, 27; referred, 10; total, 37. The numbers, excepting in the examination for the fellowship, where a slight diminution has taken place, show a considerable increase; and, at the same time, a great improvement on the part of the candidates is exhibited in the smaller number of rejections in the present year.

The scheme for a Conjoint Examination Board in England has, after several amendments, and subject to legal consideration on the part of the College, been sanctioned in general terms by the General Medical Council.

In reference to proficiency in vaccination, the Council decided that on and after the 1st of May, 1877, candidates for the final examination

for the diploma should be required to produce certificates of instruction in vaccination, sanctioned by the Local Government Board.

The following answer, embodying the opinion of the Council, was drawn up by the President and Vice-President in reply to a letter from the General Medical Council relating to the causes of the large proportion of rejections at professional examinations, and forwarded to the registrar of that Council, viz.:

"Royal College of Surgeons of England, January 29th, 1877.

"SIR,—With reference to Dr. HAWKINS'S letter of the 20th of July last, requesting, on behalf of the General Medical Council, certain information principally relating to the causes of the large proportion of rejections at professional examinations, I am desired to acquaint you that the Council, having referred the several questions contained in such letter to the Court of Examiners and the Board of Examiners to report thereon, and having considered the report of these bodies, has adopted the following answers to those questions. As regards questions 1 and 2, the Council finds that the failures of candidates, whether at the primary or at the pass examinations, are not particularly in any one subject or any one part of the examinations, but are equally (or nearly so) in all the subjects and parts, and that the candidates who fail in one subject or one part are very generally found at fault in other subjects or other parts. The annexed paper gives some of the evidence on which the above statement is founded. As regards question 3, the Council does not see in the above any reason for changing either the subjects or the conduct of the examinations. As regards question 4, the defects which lead to the rejection of candidates are, exclusively, defects of professional knowledge; but these defects are evidently, in many cases, more or less attributable to the candidate's having entered upon his professional studies at a time when his general education was inadequate. As regards question 5, the Council is not prepared to say that students of average intelligence and fair industry cannot within the time now generally allowed qualify themselves to pass their examinations; but the Council can easily suppose that the time is found insufficient in proportion as either the intelligence or the industry of the student falls below a fair average. As regards question 6, the Council is of opinion that the attainments, general and professional, with which candidates present themselves for examination, are now, on the whole, higher than they were ten or fifteen years ago. As regards question 7, the Council has from time to time taken steps to promote such improvements of curriculum as it has thought necessary with regard to those parts of professional education for which it is more particularly responsible, and has not at present any suggestions to offer with respect to professional education in general.

"I am, Sir, your obedient servant,

"W. J. C. Miller, Esq."

"EDWARD TRIMMER, *Secretary*."

The President, for the time being, of the College, was, at the invitation of H. R. H. the Prince of Wales, appointed a Commissioner in the British section of the Paris Exhibition for 1878.

Certain preparations of the Hunterian Collection having, by the lapse of time, become so deteriorated as to be valueless to the College, the Council was authorised by the trustees of the Hunterian Collection to remove these preparations from the Museum, on condition that they were replaced by specimens of equal value, and that the discarded specimens were offered, in the terms of the Royal Warrant, to the trustees of the British Museum. One specimen only was accepted.

The best thanks of the Council were given to Sir James Paget, Bart., for his Hunterian oration, on the 13th of February; and also to the officers of the College for the successful and most efficient manner in which all the arrangements connected with the presence of H. R. H. the Prince of Wales and other distinguished visitors, both at the oration and festival, were carried out on that day.

The President and Vice-Presidents had an interview with the Secretary of State for War, for the purpose of bringing under his consideration the grievances of which the Militia surgeons complained as relating to them under Her Majesty's recent warrant.

At an extraordinary meeting of the Council, it was decided that section VI of the proposed new regulations for the fellowship, relating to the separate examinations of candidates for such fellowship who are members of not less than ten years' standing, should be struck out, in consideration of the very strong memorial on the subject from the fellows of the College. The legal requirements with respect to the proposed new regulations for the fellowship not having been as yet completed, the Council cannot at present give effect to them.

At an extraordinary meeting it was resolved that the Council of the College of Surgeons, regarding women as not eligible to become members or fellows of the College, is, therefore, not prepared to admit them to be examined for those qualifications, whether at the examinations as now conducted, or with the proposed machinery of joint

examinations. But it was also resolved that the Council, if legally authorised, would be willing to take part in special joint arrangements under which women should be able to acquire the registrable titles for practice; and the Council authorised the President and Vice-Presidents to take such steps as they may find expedient in order to promote the amendment of the law which may be necessary for this purpose. The President and Vice-Presidents are accordingly now engaged in the consideration of the best mode of giving effect to the decision of the Council in this matter.

The Jacksonian prize for 1876 was adjudged to Mr. William Harrison Cripps. The College medal was awarded to Dr. Peacock for the large and very valuable collection of rare specimens presented by him to the Museum.

A committee appointed by the Council to consider certain questions relating to the diploma in dental surgery, brought under the notice of the Council by a memorial from the Association of Surgeons practising dental surgery, and by a counter memorial from a great number of the licentiates in dental surgery of the College, have arrived unanimously at the conclusion, and have recommended accordingly, that the dental licence should in itself be deemed a sufficient qualification to enable the holder to undertake the appointment of lecturer on dental anatomy, dental physiology, or dental surgery, or of the post of surgeon to a special dental hospital, or the dental department of a recognised hospital. And, looking to the special arrangements necessary for such appointments, the committee were of opinion that it is expedient that certificates should not in future be received from teachers unless, in addition to any other qualification they may possess, they also hold the licence in dental surgery of the College. The committee further unanimously recommended, with a view to giving greater importance to the dental licence, and thereby meet the objections of the Association, that the dental board should gradually increase the severity of the test by which the said licence is obtained. The question is still *sub judice*, but will probably be determined by the Council in July next.

The efficiency of the different departments of the College, referred to by my predecessor in office, has been fully maintained by those who have charge of them.

HOSPITAL CONSTRUCTION AT ALDERSHOT.

HOWEVER well adapted for the shelter of patients requiring treatment for the grave injuries usually met with during a military campaign, wooden huts similar to those in existence at Aldershot are by no means appropriate for the housing of the sick of the considerable force which, during time of peace, is maintained at our principal camp of instruction. This inappropriateness is, of course, more strikingly manifested in the winter than in the summer months of our notoriously fickle climate; and in practice it must be extremely difficult, if not impossible, to preserve even an approximately equable temperature in one of these huts throughout a period of twenty-four hours. Notwithstanding all the precautions taken by medical officers to neutralise, as far as possible, the ill-effects of sudden changes of temperature by the provision of an ample supply of clothing, bedding, and fuel, their patients, especially those suffering from serious pectoral affections, are not, we fear, so satisfactorily circumstanced as is desirable. Then, again, from an administrative point of view, detached huts, each capable of accommodating only nine patients, are obviously objectionable. For these considerations, as well as for others, which we need not now specify, we are glad to learn that a change is at length about to be made.

A hospital of very considerable architectural pretensions, constructed of brick faced with stone, is in course of erection, and will, it is hoped, be completed two years hence, on the eastern portion of the elevated ground which intervenes between the permanent barracks and the South Camp at a point nearly equidistant from the two. Although completely exposed on all sides, and consequently likely to be rather more bleak than could perhaps be wished, the site has the following compensatory advantages; namely, a good outfall for drainage, a dry sandy soil, and a situation which, while convenient, is at the same time sufficiently removed from any thoroughfare and its attendant noises.

The new building is being constructed on the pavilion principle, with a frontage, facing the north, of about five hundred feet, and a depth of about two hundred feet. Accommodation will be provided for two hundred and fifty-four patients at an estimated cost of £45,000. The front central portion is to consist of a basement and two storeys surmounted by a clock-tower, and will be set apart for administrative purposes, affording offices for the principal medical officer and other functionaries, waiting-rooms for the sick, a dispensary, kitchen, and

barrack-accommodation for thirty-two members of the Army Hospital Corps. In the same line as, and connected with, the central block by a corridor traversing the whole length of the hospital are four smaller blocks, which will contain wards for sick officers, cases under "observation", prisoners, patients suffering from ophthalmia, and, lastly, an operating theatre. The pavilions, seven in number, will be separated from each other by an open-air interval of sixty feet and project at the rear of, and at right angles to, the corridor already alluded to. The latter is to be furnished with numerous doors, so placed as to afford ready means for the interception of currents of air, which, if unimpeded, might be the carriers of noxious emanations from one part of the hospital to another. The central and flank pavilions will be formed of one storey only, the former having also a basement for kitchen, out-offices, cellar, etc.; its ground-floor constituting a dining-room and library. The four remaining pavilions will be of two storeys, which, with the exception of the upper storey of that on the left of the centre, will, together with the flank pavilions, furnish the general wards of the hospital.

Nine spacious wards will thus be provided, each capable of accommodating twenty-four patients, who will individually enjoy a cubic space of 1,288 feet, the actual dimensions being ninety feet long by twenty-four feet broad and fourteen feet high. Three doorways leading off from each ward will communicate, one with the transverse corridor, one with a bath-room, and one with a water-closet, both of which adjuncts will be built on to the southern corners of the pavilion. The number and size of the windows, six in either side-wall, and a specially large one occupying the greater part of the southern wall, are noticeable features of the wards. Ventilation will be secured by natural inlets, and extraction by tubes communicating with Banner's cowls, which contrivances will also be adopted for the purification of the water-closet pipes. Warmth and dryness will be maintained by hollow walls, thick felt placed beneath the slates of the roof, and two large stoves in each ward, at the back of which fresh air from without will be introduced and heated prior to being diffused through the apartment.

We are much mistaken if this hospital will not prove to be a model of its kind. Much forethought and ability have evidently been brought to bear upon its conception, and apparently no expense is being spared upon its construction. On this point of money-expenditure we would, however, venture to offer a suggestion. We do not yield to anyone in our desire that the man who voluntarily places his services at the disposal of his country as a soldier should have, when really ill, all the most approved appliances of modern science devoted to his treatment and care. At the same time, the fact is patent that many of the inmates of a military hospital are there, not because the trifling ailment from which they suffer necessitates hospital treatment in the sense in which people in civil life seek and obtain such treatment, but because complaints, often of an insignificant nature, compel a soldier to obtain temporary exemption from the active duties of his calling; and this exemption can, as a rule, only be compassed by his admission to hospital. The requirements of this class of patients would, we believe, be amply met by the provision of some description of building of a less elaborate and costly character than that we have just described. Should it be intended, as we believe it is, to erect yet further hospital accommodation at Aldershot, we trust that our suggestion will be borne in mind; nor would it be in the direction of building alone that a classification of sick, such as we refer to, would conduce to sound economy. The general administration of the hospital would also, we should think, be facilitated and cheapened without detriment to the soldier.

A YEAR'S WORK BY THE METROPOLITAN BOARD OF WORKS.

THE Report containing an account of the proceedings of this Board during the year 1876 has lately been printed, and sets out the numerous Acts of Parliament which the Board has to carry out. The only Act passed in 1876 conferring additional powers on the Board was that termed the Various Powers Act, which authorised the making of a new street from Sun Street to Worship Street, and the charging the maintenance and lighting of the Chelsea Embankment on the metropolitan rates. The borings at Crossness pumping station have been carried to a depth of 891 feet, as the Thames water at present used is too salt for the purpose, and the quantity required daily is 866,500 gallons, so that a large sum—perhaps £10,000 a year—would be payable if the water were supplied by a water-company. The division of the City sewage is at length nearly completed, so that this sewer will finish the system of intercepting main drainage for the metropolis. The Board has also approved about twenty-eight miles of sewers to be

made by the vestries and district boards, and have connected four hundred and eighteen branch sewers with the main outfall system.

The works completed during the year are the Charing Cross and Victoria Embankment approach, which was opened on March 18th, the gross outlay having been above £50,000; and Great Eastern Street, Shoreditch, which was opened on October 12th. The chief works now in progress are the Old Street to New Oxford Street Improvement, on account of which £747,000 have been paid; the Harrow Road Improvement, £162,000; the Chancery Lane Improvement, £5,000; and some others. Additional improvements are also proposed to be made as soon as the sanction of Parliament has been obtained. The parks and commons under the control of the Board have received proper care and attention; and all Bills submitted to Parliament which affected the metropolis were carefully scrutinised by the Board, and many important modifications of objectionable clauses were obtained. This was the case especially as regards the Gas Bills and the amalgamation of the Imperial with the Gaslight and Coke Company, when it was arranged that the sliding scale of dividend should be adopted, and the new capital raised partly by borrowing and partly by shares, which were to be sold by auction to the highest bidder, instead of being allotted at par to the shareholders. Reference is also made to the water-supply, and to an investigation of the ordinary pressure in the water-mains as regards the use of hydrants for extinguishing fires, when the conclusion was arrived at that a sufficient pressure cannot be insured so long as the companies remain independent. For this and other reasons, the Board consider that the water-supply of London should be under the control of a responsible public body. An account is also given of the action of the Board as regards cattle-diseases, slaughter-houses and offensive businesses, the storage and sale of petroleum and explosive substances, the toll-bridges, infant life protection, railway bridges, the supervision of streets and buildings, and especially on the reports made to them under the Artisans and Labourers' Dwellings Act. The Board also print a balance-sheet showing that their total receipts during the year, including the balance on January 1st of £737,015, amounted to the large sum of £3,143,981, and their expenditure to £2,557,341, leaving a balance at the end of the year of £586,640.

The points to which we shall give some special consideration are, the borings at Crossness, the ventilation of sewers, and the Board's action under the Artisans' Dwellings Act. First, as regards the borings at Crossness, there is considerable doubt, even if the greensand should be found to exist in that locality, whether or not a sufficient supply of water can be obtained. The results of the borings at Meux's brewery are certainly not encouraging, as the layer of greensand was too thin to give a large quantity; and, the rock beneath being non-water-bearing, the work was discontinued. As the future water-supply of the metropolis is a matter of great importance, the results of the borings at Crossness will prove of considerable utility, independently of the money value at present involved in the operations.

As regards the ventilation of sewers, a separate report was made by the Clerk to the Board, giving first a chronological sketch of the action taken by the former Commissioners of Metropolitan Sewers by means of shafts or tubes placed at each end of the street and carried above the summits of the houses, which the Engineer to the Board reported upon somewhat unfavourably; also of suggestions received from various authorities and persons for effectually carrying out the object in view, and a recapitulation of the heads of a report presented to them by their engineer in 1869. The results of the inquiries seem to be that some provision for the ventilation of sewers is absolutely necessary; that the best method of preventing the escape of offensive effluvia is to wash away the decomposable matter as quickly as possible; and that it is inexpedient to incur a large expenditure for ventilating sewers by means of furnaces or gas-jets. There is also a list of methods of ventilation which have been tried, such as ventilation by means of rain-water pipes, which is generally very objectionable to the inhabitants of the houses; by charcoal ventilating grates, which have been advantageously used; by deodorising the sewer-air with sulphurous acid or chlorine, which was partially successful; and by other means which we need not mention.

Under the heading of Artisans and Labourers' Dwellings, we find a long report of the action taken by the Board in regard to the twenty-three official representations which they had received by the medical officers of health of various metropolitan districts. In the summary, it is stated that the schemes decided upon will lead to the demolition of many thousands of the wretched habitations of the metropolis, and consequent improvement in the physical and moral condition of the inhabitants of the several areas. The net cost of the schemes prepared by the Board is estimated at £175,000, exclusive of the Hill-top scheme. The Whitechapel and Limehouse scheme (Nos. 2 and 3),

the St. George-the-Martyr scheme (No. 6), the Whitechapel schemes (Nos. 7, 8, and 9), part of the Islington scheme (No. 11), that for Clerkenwell (No. 12), for St. Luke's (No. 13), for St. Giles's (14), the St. Martin's and Strand scheme (No. 17), and the Westminster scheme (No. 20), were those adopted by the Board, the consideration of the others being postponed or negatived. The above list shows that each quarter of London will benefit by these schemes being carried out.

There are many others matters of great interest in this Report to which we cannot allude, but sufficient has been stated to show the enormous amount and variety of work undertaken by the Board and its officers. There seems but little to complain of, except that now and then something seems to fall dead from the first, such as the Infant Life Protection Act, which might have been made highly useful if due energy had been bestowed upon it; but, as the Board has no medical officer attached to its staff, which we certainly think a matter for regret, it is scarcely likely that the provisions of this Act will be carried out by its present staff. The Board has shown commendable activity in carrying out the powers conferred by the Slaughter-house and Offensive Businesses Act, and should not allow the Infant Life Act to remain a failure.

HOSPITAL AND DISPENSARY MANAGEMENT.

ST. ANDREW'S COTTAGE HOSPITAL.

FOR some time past, there has been a warm discussion going on in the town of St. Andrew's, N. B., as to the most suitable plan to adopt for carrying out a scheme, in which all the inhabitants are interested, of erecting a cottage hospital to the memory of Drs. Adamson and Bell, two members of the profession whose memories they desire to perpetuate. Without detailing the points at issue, we may state at once that we consider that the views of Dr. Archibald ought to commend themselves to the inhabitants for adoption. Experience has abundantly proved that the old idea of converting a cottage into a hospital, whether its construction renders it suitable for such a purpose or not, is gradually becoming obsolete. If a suitable building can be procured at a reasonable outlay which, for a comparatively small sum, can be turned into a cottage hospital, well and good. Under such circumstances, this plan is commended in preference to the erection of a new building, providing the requirements of the district do not exceed eight beds; but, should a larger hospital be required, then it will be equally economical and much preferable, for sanitary and other reasons, that a new one should be built. It cannot be doubted that the committee of the Bell-Adamson Memorial will be well advised, if they decide to erect a pavilion cottage hospital on a similar plan to that adopted by the authorities of the Ross Memorial Cottage Hospital, Dingwall. The ultimate expense will not be much greater, and the advantages gained should outweigh every other consideration. It appears to us that the situation and construction of the villa which the Committee wish to convert into a cottage hospital are alike open to objection, even supposing so large a number of the inhabitants were not opposed to the scheme. It is of the utmost importance that such an institution should be unanimously supported by the inhabitants from the first, and this, coupled with the objections to the proposed site, should decide the Committee to build at once. We are informed that it will not be difficult to select a site in the suburbs suitable for the purposes in view, and which would be within easy reach of the medical officers. On all these grounds, we hope to hear that it has been decided to erect an entirely new hospital.

A VOICE FROM THE OUT-PATIENT DEPARTMENT.

A LETTER from an out-patient of the London Hospital, recording his experience of *several months' attendance*, and published in an East London paper, is suggestive. In the first place, he does not like the ordeal of waiting his turn to see the physician, and justly remarks on the loss of time thus entailed on the bread-winner of a family. Then there is the discipline of the porters in attendance keeping order, who offend him by frequently repeating "Stand back, you men, and keep quiet", an injunction probably much needed in a large assemblage. In the consulting-room, he complains bitterly of being obliged to see the physician's assistant, instead of the physician himself, at his often repeated visits; and also of the rapid despatch of "old cases", each being seen rapidly as follows. "How are you?" "About the same, sir." "Repeat medicine."—"Does the medicine do you good?" "I think it does a little." "Repeat medicine." He also complains of difficulties at the dispensary in getting his medicine. He concludes, however, by expressing his appreciation of the benefits derived from the

hospital; and had his attendance been less frequent and of shorter duration, perhaps he would have appreciated it more. From the general character of large out-patient departments, it can be readily understood what difficulties and trials a patient has to meet with; and these do not so much indicate a fault in any special out-patient department as in the general plan followed in most. How can the difficulties complained of be obviated? The keeping order in waiting-rooms is, of course, essential, and patience must be exercised in this matter on all hands. The evils appear principally to arise from attempting to accomplish too much. If only such an amount of work were undertaken as can be efficiently performed by the physician and his assistants, such complaints would not recur. If long attendances were disallowed, or even really discouraged, the number of "old cases", now necessarily handed over to assistants, would be diminished, and the pressure in each department lessened. In private practice, physicians do not find such cases as chronic bronchitis, phthisis, women at the climacteric period, etc., frequently returning through long-continued periods; and surely there is no reason, philanthropic or otherwise, why an out-patient, receiving gratuitous advice, should remain under *continuous treatment* longer than middle-class patients who pay for such benefits. The practical indication seems to be to avoid long-continued attendances. It would seem to be part of a medical officer's duty to direct the patient when to revisit him, and when to cease so doing; and it seems probable that the more energetic exercise of this prerogative would remove many of the complaints referred to.

CLUB MEDICAL AID REMUNERATION.

SIR,—I find, as the result of a twelvemonth's special account, carefully kept for the purpose, that the remuneration for club medical aid, at 4s. each member yearly, averages rather less than 6d. for each visit and each mixture; that many of the visits are beyond the first milestone; that the cases treated include fractures and dislocations; and that, in a few instances, I was called up at night. Such payments cannot be regarded as remunerative; and I am sure that, if club surgeons would keep an account for themselves, the present degrading rate of remuneration would soon come to an end. No combination would be necessary; men would simply refuse to do unremunerative work. My contention is that, without such an account, men are apt to suppose that "somehow or another" the clubs are remunerative. They see the money every three or six months; but they forget what they have had to do and to put up with to earn it. At such times, the work and worry are "out of sight and out of mind". Now, although I am certainly not in a position to turn away bread from my door, yet, with the fact staring me in the face that I was rendering medical aid for less than 6d. each visit and each mixture, I have felt obliged, in my own interest and putting aside more æsthetic considerations, to refuse my services any longer on such terms, regardless of what others may do; although I hope that in time they will, by the "inexorable logic of facts", be reduced to the same conclusion and course of action as myself. This expectation may by some be regarded as visionary; but my own experience, upon which that expectation is based, is a reality, as I hope others will ascertain for themselves. Since refusing to continue my services as "club doctor" at the munificent rate of 6d. a visit or mixture, I have been asked for my services as medical officer by two other clubs, who, breathless with their fit of generosity, offered 5s. a year, instead of 4s. each member; that is, 7½d. instead of 6d. each visit or mixture. I was "foolish enough" (to use the words of a club member, who kindly hoped that I was "doing well") to refuse the extra bit of bait, and quietly placed in the hands of those deputed to wait on me the following tariff; and it is with the hope and expectation that others, who, like myself, think they may as well play as work for nothing, will find it useful as a guide, with or without modifications, for their own course of action, that I now publish it. It is essentially equitable, whereas the simple rate per head *per annum* tariff is purely arbitrary, and this vice is not atoned for by its mere simplicity. My conditions of club medical aid on the present system are:

1. The exclusion of all persons whose incomes exceed, either at the time of joining or subsequently, the sum of 30s. weekly;
2. A yearly subscription from each member of 6s., with 1s. mileage beyond the first milestone;
3. A fee of 2s. 6d. for every proposed member examined, whether passed or rejected;
4. A fee of 10s. 6d. for attendance between 10.30 P.M. and 7.30 A.M., whether at surgery or patient's house (mileage in addition);
5. A fine of 1s. for fresh cases on Sundays and public holidays;
6. Members of clubs not to be obliged to join the medical aid departments of such clubs.

I must repeat that this tariff is based upon the present system of so much per head *per annum*; but I am strongly inclined to the system

of members of medical aid clubs being allowed to select their own medical attendants, whose charges shall be paid out of a medical aid fund. This is the only system that can give mutual satisfaction, because it is the only one that allows perfect freedom to the clubs, on the one hand, and to the profession on the other. I need scarcely say that, with a strict scrutiny by a competent secretary, the clubs need have no fear of being overcharged. By this plan, that mutual curse, as applied to medical aid—a hard and fast contract, by which the clubs are sure to gain and the profession tolerably certain to lose—would be avoided. The first condition of my tariff is as important to the welfare of the profession as all the rest put together. The value of your space and my own time warn me that I must stop for the present.—Yours faithfully,
W. J. MARSH.
Shrewsbury, June 18th, 1877.

ASSOCIATION INTELLIGENCE.

BRITISH MEDICAL ASSOCIATION: FORTY-FIFTH ANNUAL MEETING.

THE Forty-Fifth Annual Meeting of the British Medical Association will be held in Manchester, on Tuesday, Wednesday, Thursday, and Friday, August 7th, 8th, 9th, and 10th, 1877.

President.—M. M. DE BARTOLOMÉ, M.D., Senior Physician to the Sheffield General Infirmary.

President-elect.—M. A. EASON WILKINSON, M.D., Senior Physician to the Manchester Royal Infirmary.

An Address in Medicine will be given by WILLIAM ROBERTS, M.D., F.R.S., Manchester.

An Address in Surgery will be given by T. SPENCER WELLS, F.R.C.S., London.

An Address in Obstetric Medicine will be given by ROBERT BARNES, M.D., F.R.C.P., London.

The business of the Association will be transacted in Six Sections, viz.:

SECTION A. MEDICINE.—*President*: Sir William Jenner, Bart., M.D., K.C.B., F.R.S. *Vice-Presidents*: Samuel Crompton, M.D.; Wilson Fox, M.D., F.R.S.; Henry Simpson, M.D. *Secretaries*: Julius Dreschfeld, M.D., 292, Oxford Road, Manchester; F. T. Roberts, M.D., F.R.C.P., 53, Harley Street, London, W.

SECTION B. SURGERY.—*President*: Edward Lund, F.R.C.S. *Vice-Presidents*: W. Adams, F.R.C.S.; F. A. Heath, M.R.C.S. *Secretaries*: S. M. Bradley, F.R.C.S., 272, Oxford Road, Manchester; Henry Morris, F.R.C.S., 2, Mansfield Street, London, W.

SECTION C. OBSTETRIC MEDICINE.—*President*: W. O. Priestley, M.D., F.R.C.P. *Vice-Presidents*: A. H. McClintock, M.D., LL.D.; James Whitehead, M.D. *Secretaries*: David Lloyd Roberts, M.D., 23, St. John Street, Manchester; John Thorburn, M.D., 333, Oxford Road, Manchester.

SECTION D. PUBLIC MEDICINE.—*President*: Surgeon-Major F. S. B. De Chaumont, M.D., *Vice-Presidents*: Alfred Aspland, F.R.C.S.; W. H. Corfield, M.D., F.R.C.P. *Secretaries*: William Armistead, M.B., Station Road, Cambridge; John Haddon, M.D., Monk's Hall, Eccles, Manchester.

SECTION E. PHYSIOLOGY.—*President*: Arthur Gamgee, M.D., F.R.S. *Vice-Presidents*: John Cleland, M.D., F.R.S.; Thos. Lauder Brunton, M.D., F.R.S. *Secretaries*: Joseph Coats, M.D., 33, Elmbank Street, Glasgow; William Stirling, M.D., University, Edinburgh; A. B. H. Young, M.B., Owens College, Manchester.

SECTION F. PSYCHOLOGY.—*President*: J. C. Bucknill, M.D., F.R.S. *Vice-Presidents*: H. Rooke Ley, M.R.C.S.; G. W. Mould, M.R.C.S. *Secretaries*: P. M. Deas, M.B., County Asylum, Macclesfield; T. Claye Shaw, M.D., Middlesex County Asylum, Banstead.

Local Secretaries. { Dr. LEECH, 96, Mosley Street, Manchester.
C. J. CULLINGWORTH, Esq., 260, Oxford Street, Manchester.
Dr HARDIE, St. Ann's Place, Manchester.

On Tuesday, the Meetings of the Committee of Council, and the First General Meeting, will be held in the CONCERT HALL. On Wednesday, Thursday, and Friday, the General Meetings will be held and the Addresses in Medicine, Surgery, and Obstetric Medicine delivered, in the CHEMISTRY LECTURE ROOM, OWENS COLLEGE. The Sections will meet in OWENS COLLEGE.

Luncheon will be provided daily in Owens College, from 1 to 2 P.M.

Tuesday, August 7th: Meetings in Concert Hall.

- 11 A.M.—Service at the Cathedral: Sermon by the Lord Bishop of Manchester.
 12.30 P.M.—Meeting of Committee of Council.
 2 P.M.—Meeting of Council, 1875-76.
 3 P.M.—General Meeting.—President's Address.—Annual Report of Council, and other business.
 8 P.M.—Reception and Soirée by the President of the Association and the Council and Senate of Owens College. Dr. Arthur Ransome will give an Address on the Present Condition of State Medicine in England.

Wednesday, August 8th: Meetings in Owens College.

- 9.30 A.M.—Meeting of Council, 1876-77.
 11.30 A.M.—Second General Meeting.
 11.30 A.M.—Address in Medicine.
 2 to 5 P.M.—Sectional Meetings.
 8 P.M.—Soirée by the Mayor and Corporation of Manchester, at the Town Hall.

Thursday, August 9th: Meetings in Owens College.

- 9 A.M.—Meeting of the Committee of Council.
 10 A.M.—Third General Meeting.—Reports of Committees.
 11 A.M.—Address in Surgery.
 2 to 5 P.M.—Sectional Meetings.
 6.30 P.M.—Public Dinner of Association in the Assize Court Hall.

Friday, August 10th: Meetings in Owens College.

- 10 A.M.—Address in Obstetric Medicine.
 11 A.M.—Sectional Meetings.
 1.30 P.M.—Concluding General Meeting, Reports of Committees, etc.
 4 P.M.—Garden Party by President and Reception Committee at Manley Hall.

PAPERS.

The subjoined classification of the papers in Sections is subject to alteration, which will be duly announced in the Daily Journals.

SECTION A.—MEDICINE.

Special Subjects for Discussion. Aortic Aneurism.—The Treatment of Pleuritic Effusion.

- ALLBUTT, T. Clifford, M.D. The Treatment of Pleuritic Effusion.
 ASPLAND, A., F.R.C.S. The Effects of Chloral-Hydrate.
 BAKER, Benson, M.D. Filirious Concretions in the Heart and Large Vessels, with Cases.
 BARLOW, W. H., M.D. Infantile Paralysis.
 BARLOW, Thomas, M.D. 1. Case of Cirrhosis of the Liver in a Child 18 months old.—2. On a Case of Ascites in a Child treated by Poison of Copalua.
 BARLOW, Thomas, M.D., and PARKER, R. W., M.R.C.S. Notes on Pleuritic Effusion in Childhood.
 BARNES, H., M.D. The Value of Paracentesis of the Chest in the Treatment of Pleuritic Effusion.
 BIANCHI, Leonardo, M.D. The Treatment of Professional Cramp.
 BRADBURY, J. B., M.D. Hydatid Tumour of the Left Kidney successfully treated by Aspiration.
 BRAIDWOOD, P., M.D. Recent Researches on Pyæmia.
 BRAMWELL, Byron, M.D. 1. Abstract of Case of Aneurism treated by Iodide of Potassium.—2. Abstract of Seven Cases of Pernicious Anæmia.—3. Abstract of Cases of Cerebral Tumour.
 CARTER, William, M.B. The Treatment of Fifty Cases of Acute and Subacute Rheumatism by Salicylic Acid and the Salicylates.
 CLARK, Andrew, M.D. 1. A Series of Portraits of Phthisical Diseases of the Lungs.—2. A Speedy Method of Treating Hay-fever.—3. Renal Inadequacy.
 CORMACK, John C., L.K.Q.C.P. A Porcupine Boy successfully treated for his Disease.
 CULLINGWORTH, Charles, M.R.C.S. A Case of Cancer of the Stomach in an Infant five weeks old.
 DAY, W. H., M.D. Observations on Renal Affections in Children.
 DESSAHELD, Julius, M.D. On Spinal Hemorrhage.
 DRYSDALE, C. R., M.D. 1. Primary Syphilide in Females.—2. Syphilitic Aphasia.
 ELAM, Charles, M.D. Observations on Certain Forms of Paralysis.
 FARQUHARSON, Robert, M.D. Some Points in the Art of Prescribing for Children.
 FOSTER, Balthazar, M.D. On Sudden Death in Diabetes Mellitus.
 FOTHERGILL, J. Alfred, M.D. When not to give Iron.
 FOX, F. L., M.B. On a Case of Paralysis of the Diaphragm, with peculiar Laryngeal symptoms.
 FURLONG, N., L.K.Q.C.P. Three Cases of Contagious Catalepsy.
 FOX, Wilson, M.D., F.R.S. Paracentesis in Pleurisy.
 GAIRDNER, William T., M.D. A Case of Preternatural Sleep with Choreic Movements: Sequel to a Paper read at the Meeting of the Association in Edinburgh in 1875.
 GLYNN, T. R., M.B. Notes on a Case of Embolic Obstruction of the Left Posterior Cerebral Artery, and on Two Cases of Cerebral Tumour.
 GOODHART, James F., M.D. Paracentesis in Pleurisy.
 GOWLES, W. R., M.D. On some Points in the Clinical History of Cholera.
 GRIFFITHS, Thomas D., M.D. On Anteversion of the Liver simulating Enlargement.
 HADDON, John, M.D. On Pleural Effusions, their Diagnosis and Proper Treatment.
 HAYTHORN, Robert, M.D. A New Departure in the History of Medicine.
 HARRISON, J. Bower, M.D. On Laryngismus Stridulus.
 HOWARD, Benjamin, M.D. Artificial Respiration.

- JACOB, E. H., M.B. One Hundred Cases of Acute Rheumatism treated by Salicin and the Salicylates.
 JAGIELSKI, Victor, M.D. Value of Koumiss in the Treatment of Nausea, Vomiting, and Inability of Retaining other Food in the Stomach.
 JESSOP, Surgeon-Major C. M. Position an Auxiliary in the Treatment of Cholera.
 LEE, Robert J., M.D. On the Importance of Preserving a Vacuum in the Pleural Cavity after Paracentesis of the Thorax and the Insertion of the Drainage-Tube; with Description of a Method by which Continuous Aspiration may be effected.
 LEECH, D. J., M.B. Abstract of Cases of Pleurisy treated by Paracentesis.
 LIEBREICH, Oscar, M.D. The Use and Abuse of Chloral.
 MAHOMED, F. A., M.D. Some Indications for the Diagnosis and Treatment of Aortic Aneurism.
 MANN, J. D., L.K.Q.C.P. On Current-Measurements in Electrotherapeutics.
 MYRTLE, A. S., M.D. The Continuous Current in certain Neuralgias and in Spasmodic Asthma.
 PEATSON, J. C., M.D. Case of Poisoning by the Internal Administration of Chloroform as a Fluid.
 PHILIPSON, G. H., M.D. Two Cases of Abdominal Aneurism: one cured by Compression, the other by Iodide of Potassium.
 REYNOLDS, J. Russell, M.D., F.R.S. Some Affections of the Nervous System dependent upon a Gouty Habit.
 ROBERTS, F. T., M.D. Notes from Cases illustrating the Diagnosis and Treatment of Internal Aneurism.
 ROBERTS, John, M.D. Gangrene of the Ascending Colon.
 ROSS, James, M.D. On a Case of Posthemiplegic Chorea.
 SEMPLE, Robert H., M.D. On our Present Knowledge of Diphtheria.
 SIMPSON, Henry, M.D. 1. The Treatment of Aortic Aneurism.—2. Abstract of Laryngeal Cases.
 SQUIRE, William, M.D. On Infantile Pneumonia.
 THOMPSON, James, M.D. Chyluria.
 TIBBITS, Herbert, M.R.C.P.Ed. Medical Electricity: its Scope and its Limitations as a Remedy.
 WAHLTUCH, A., M.D. Cases of Asthma Nervosum successfully and permanently treated by Arsenical Inhalations and Galvanisation of the Pneumogastric Nerve.
 WILLIAMS, William, M.D. A Case of Paralysis occurring on the same side as the Lesion in the Brain.
 WOAKES, Edward, M.D. Noises in the Head: their Diagnostic and Therapeutic Value.
 WOOD, T. Outterson, M.R.C.P.Ed. On a Case of Aneurism of the Middle Cerebral Artery.
 YEO, I. Burney, M.D. Pleurisy of the Apex.

SECTION B.—SURGERY.

- Special Subjects for Discussion.* Wednesday: Excision of the Knee.—Thursday: Treatment of Stricture of the Urethra.—Friday: Antiseptic Surgery.
Demonstration.—On Thursday, at 12.30 P.M., Dr. L. Sayre of New York will demonstrate his method of treating Lateral Curvature of the Spine, in the Lecture Theatre of the Medical School.
 ADAMS, William, F.R.C.S. On the Treatment of Hip-Joint Disease by Extension with Motion, as practised by the American Surgeons, instead of long continued Rest and Immobility.
 ANDREW, Edwin, M.D. Extirpation of the Lacrymal Gland in Obstruction of the Nasal Duct.
 ATKINSON, E., M.R.C.S. Stricture of the Urethra, with Special Reference to Urethrotomy.
 BOWRING, G., F.R.C.S. Surgical Cases.
 BERRY, William, M.R.C.S. The Treatment of Spina Bifida.
 BRADLEY, S. M., F.R.C.S. 1. Evolution of Cancer.—2. Alveolar Sarcoma.
 BROWNE, Lennox, F.R.C.S.Edin. Illustrative Cases of the Value of the Galvano-Cautery in Diseases of the Throat, Nose, and Ear; with Description of a Convenient Battery.
 CALLENDER, G. W., F.R.S. On Pain, and its Avoidance after Operation and other Wounds.
 CHIENE, John, F.R.C.S.Ed. Retropharyngeal Abscess.
 COUPLAND, Sidney, M.D., and MORRIS, Henry, M.B. Stricture of the Intestine as a Cause of Intestinal Obstruction: with Remarks on Diagnosis and Treatment.
 DURHAM, Arthur E., F.R.C.S. On Internal Urethrotomy by Aid of a New Urethrotome.
 EMMYS-JONES, A., M.D. Hypopyon Keratitis.
 EVANS, R. W., L.R.C.P.Ed. On Skin-Grafting.
 HAMILTON, D. J., F.R.C.S.Ed. Fat-Embolism following Injuries of Bone and other Parts, as an Explanation of many so-called Deaths from Shock.
 HAMILTON, Robert, F.R.C.S. Anhydrous Dressing of Wounds.
 HARDIE, James, M.D. 1. Some Cases of Rhinoplasty.—2. On Amputation of the Thigh by Oblique Circular Incision.—3. On the Treatment of the Earlier Stage of Hip-Disease by Incision of the Capsular Ligament.
 HARRISON, Reginald, F.R.C.S. A Case of Ununited Fracture of the Thigh treated by Operation.
 HEATH, F. A., M.R.C.S. Cases in Surgery.
 HIGGINS, Charles, L.R.C.P. Clinical Remarks on Cases of Tumour of the Orbit.
 HILL, Berkeley, F.R.C.S. Surgical Cases.
 JESSOP, T. R., F.R.C.S. Antiseptic Surgery.
 JONES, T., F.R.C.S. Notes of a Case of Multiple Exostosis in a Boy Nine Years of Age.
 LOWNDES, Frederick W., M.R.C.S.Eng. The Prevalence and Severity of Syphilitic Disease among Merchant Seamen.
 MARTIN, A., M.D. 1. On Transfusion.—2. A Successful Case of Removal of the Spleen.
 PARKER, Rushton, F.R.C.S. Large Prostatic Calculus with Natural Perforation for the Urine: Removal by Recto-Urethral Lithotomy.
 REEVES, H. A., F.R.C.S.Eng. 1. The Immediate Treatment of Piles.—2. A New Method of Exploring the Female Urethra and Bladder.
 ROUSSEL, Dr. 1. Treatment of Wounds.—2. Hernia.
 STEWART, Alexander, F.R.C.S.Ed. Why Dental Caries is so general; and how to prevent it.
 STOCKS, A. W., M.R.C.S. 1. A Case of Complete Restoration of the Ulna after Necrosis of the Shaft.—2. A Case of Multiple Ulcers with Hernia.
 TAYLOR, Charles Bell, M.D. 1. Internal Syphilitic Ophthalmia.—2. On certain cases of apparently hopeless Blindness in which Sight was restored by Treatment.
 TRIVAN, W. F., F.R.C.S. Internal Urethrotomy.

- WALKER, H. F., M.R.C.S. The Effects of the ...
 WALKER, G. L., M.R.C.S. ...
 WARTENBERG, V. A., M.R.C.S. On the After-Treatment of Excision of the Knee.
 WEST, JAMES L., M.R.C.S. The Value of the ...
 WHITEHEAD, W., F.R.C.S.Ed. Use of the Speculum Clamp in Disease of the Rectum.
 WOLFE, J. R., M.D. Removal of a Large Tumour from the Orbit, with Preservation of Sight.

SECTION C.—OBSTETRIC MEDICINE.

- Special Subjects for Discussion.*—Transfusion of Blood.
 ATHILL, Lombe, M.D. Treatment of Chronic Endometritis.
 BAKER, J. W., M.R.C.S. Treatment of Placenta Prævia.
 BERNARD, W., F.K.Q.C.P. Uterine Hand-spray Apparatus.
 CARRINGTON, D., M.D. Chenopodium Vulvaria, L. (C. Oidium, Curtis) as an Antiseptic and Uterine Stimulant.
 CHAMBERS, Thomas, F.R.C.P.Ed. The Treatment of Uterine Flexions by the Intra-uterine Stem: with Cases.
 CHRISTIE, David, L.R.C.P.Ed. 1. A New Kind of Midwifery Forceps.—2. An Instrument for the Prevention of Post Partum Hæmorrhage.
 DUNCAN, J., Matthews, M.D. The Investigation of the Condition of the Uterus by the Carbolised Hand at long Intervals after Delivery.
 ELLIOTT, John, M.B. Statistics of the Waterford Lying-in Hospital.
 GRIFFITH, G. de Gorrequer, L.R.C.P. On Reflex, Eccentric, or Irritative Albuminuria, especially as bearing on Women.
 GROSHOLZ, F. H. V., L.K.Q.C.P. Obstetrics in the Country.
 HEWITT, Graily, M.D. Abnormal Softness of the Multiparous Uterus as a Factor in the Etiology of Uterine Distortion, and as a Cause of Impairment of Power of Lactation.
 HICKS, J. Braxton, M.D., F.R.S. Hæmorrhage from the Retroflexed Uterus, and its Treatment.
 HIME, T. W., M.B. The Treatment of Versions and Flexions of the Uterus.
 IRWIN, J. A., M.B. Hysterical Retention of Urine.
 McCLINTOCK, A. H., M.D. Fetal Therapeutics.
 MADDEN, T. More, M.D. The Constitutional Treatment of Certain Uterine and Cervical Diseases.
 MILLER, Hugh, M.D. Peculiar Crowing Inspiration in a New-born Child.
 ROBERTS, D. Lloyd, M.D. Transfusion.
 SIMS, J. Marion, M.D. On Battey's Operation.
 THORBURN, John, M.D. Latent Gonorrhœa as an Impediment to Marriage.

SECTION D.—PUBLIC MEDICINE.

- Special Subjects for Discussion.*—Hospital Out-Patient Reform.—The Contagious Diseases Acts.
 ANNINGS, Bushell, M.D. On the Infective Constituents of Vaccine Lymph.
 ARMISTEAD, William, M.B. Influences affecting the Propagation of Diphtheria.
 BURDETT, Henry C., Esq. Home Hospitals: their Scope, Object, and Management.
 DOLAN, T. M., L.R.C.P.Ed. The Etiology of Typhoid Fever; with Special Reference to the Discussion in the French Academy of Medicine.
 DRYSDALE, C. R., M.D. Overpopulation and Health.
 FOX, Cornelius, M.D. A Comparison between the Frankland and Armstrong Processes and the Wanklyn, Chapman, and Smith Process of Water-Analysis.
 HADDON, John, M.D. The Incubation and Duration of Infection.
 HARDY, H. Nelson, F.R.C.S.Ed. Hospital Out-Patient Reform: its Helpers, its Hinderers, and its Passers by.
 LOWNDES, Frederick W., M.R.C.S.Eng. The Prevalence and Severity of Syphilitic Disease among Merchant-Seamen.
 MARTIN, Robert, M.D. The Sanitary Condition of Manchester, Past and Present.
 MONCKTON, D. Henry, M.D. Provident Dispensaries: Eleven Years' Study and Experience of them.
 NOTTER, J. Lane, M.D. The Chemical Theory of Contagium compared with the Corpuscular Theory, with Special Reference to the Action of Disinfectants.
 PARSONS, Francis H., M.D. The Highlands of Hastings and St. Leonard's as a Health-Resort: with Notes on the Chalybeate Water of St. Andrew's Spa.
 RANSOME, Arthur, M.D. On Epidemic Cycles.
 ROGERS, Joseph, M.D. Poor-Law Medical Relief in the Midland Counties.
 SCOTT, Adam, Esq. The Dutch Laws for Compulsory Registration and Stamping out of Infectious Disease.
 SMART, Sir William R. E., M.D., K.C.B. Scurvy as it was.
 TIBBITS, Edward T., M.D. On the Hygienic and Therapeutic Influence of Habits and Character in Medical Men.
 VACHER, Francis, L.R.C.P.Ed. 1. A Villa-Hospital.—2. Notes on the History of Contagium.

SECTION E.—PHYSIOLOGY.

- BRUNTON, T. Lauder, M.D., F.R.S.
 FLEMING, William J., M.B. 1. The Physiology of the Turkish Bath: an Experimental Inquiry into the Effects of Hot Dry Air upon Man.—2. Demonstration of a Simple Form of Transmission-Sphygmograph.—3. Demonstration of a Metronome recording by Transmission.
 McKENDRICK, J. G., M.D.
 MAJOR, Herbert C., M.D. The Histology of the Brain of Apes.
 RUTHERFORD, William, M.D., F.R.S. The Changes of the Circulation in Asphyxia.
 STIRLING, William, D.Sc., M.D. The Ganglionic Structures in the Tongue.

SECTION F.—PSYCHOLOGY.

- Special Subject for Discussion.*—The Best Method of Treating Habitual Drunkards.
 ATKINS, Ringrose, M.D. 1. Pathological Illustrations of the Localisation of Brain-Function.—2. The Morbid Histology of the Spinal Cord in Five Cases of Insanity.
 CASSELLS, James P., M.D. The Education of Deaf-mutes and Defective Hearers.
 CLOUSTON, Thomas S., M.D. A Case of General Paralysis at the age of 17.
 DEBAS, P. Maury, M.B. Some Notes on General Paralysis of the Insane.
 KERR, Norman, M.D. Habitual Drunkards: what shall we do with them?
 MERSON, John, M.D. The Use of Chloral-Hydrate in Convulsions.
 MITCHELL, William J., M.D. Respiration of Ascending and Descending Rhythm.

MOULD, George W., M.R.C.S. The Best Mode of Treating and Dealing with Habitual Drunkards.

SAVAGE, George H., M.D. Hysteria and Insanity.
 SHUTTLEWORTH, George E., M.D. Intemperance as a Cause of Idiocy.

No paper must exceed twenty minutes in reading, and no subsequent speaker must exceed ten minutes; all speeches at the General Meeting must not exceed ten minutes each.

GENERAL ARRANGEMENTS.

The Council of the Owens College have most kindly granted the use of the College as a place of meeting for the sections, and for all other purposes of the Association. The School of Medicine, which forms one of the blocks constituting the College, will be used as a Museum, and will make a most excellent place for the exhibition of all kinds of preparations, instruments, etc.

The Physiological Laboratory will be devoted to the use of physiological instruments, of which there will be a very fine collection.

One of the rooms will be set apart for the exhibition of microscopical specimens, and this will form a special feature in this year's Museum. At no previous Meeting, probably, has such an excellent series of rooms been at the disposal of the Museum Committee.

The Museum of the Sanitary Association will be situated in the College grounds, and thus the whole work of the Association will be carried on in one place.

There will be two Reception Rooms, one at Owens College and one in the town. This arrangement has been made to enable members to obtain full information of what is going on, without obliging them to go to the College, which is situated above a mile from the centre of the town. The two Reception Rooms will be in direct connection by messengers or telegraph. A large building, the Concert Hall, has been taken for the Town Reception Room.

Members' attention, the meeting on particularly requested to proceed on their arrival to the Reception Room at the Concert Hall, where Tickets will be issued and all necessary information afforded.

The Concert Hall Reception Room will be open from 10 A.M. to 6 P.M. on Monday, August 6th, for the convenience of members arriving on that day, and in order to relieve the pressure on Tuesday.

HOSPITALS.

Royal Infirmary.—The medical and surgical staff will be in attendance to receive visitors on Wednesday, Thursday, and Friday, from half-past 9 to half-past 10 A.M.

Salford Royal Hospital.—One of the Honorary Staff will be in attendance to receive members of the Association from 9 to 10 A.M. on each day of the meeting.

St. Mary's Hospital for Women and Children, Quay Street, Deansgate.—Dr. D. Lloyd Roberts, Physician to the hospital, and Mr. J. H. Ewart, one of the Surgeons, will attend at 10 o'clock A.M., on Wednesday and Thursday, to receive visitors and to point out any cases of interest.

Sick Children's Hospital, Pendlebury.—Special omnibuses will be provided for the accommodation of members desirous of visiting the hospital, which is some distance from the city; they will start from the Reception Room (Owens College) at 12 noon on Thursday. The Chairman of the Board of Management (J. H. Agnew, Esq.) will be present to receive guests, who will be invited to luncheon in the hospital. Members desirous of availing themselves of this arrangement, are requested to leave their names at the Reception Room on or before the previous evening (Wednesday).

Royal Eye Hospital, St. John Street, Deansgate.—Operations will be performed at half-past twelve on Wednesday, Thursday, and Friday, for the special convenience of those members who are interested in ophthalmic surgery.

Lock Hospital.—The Staff of this Hospital will be in attendance on Tuesday and Thursday from ten to twelve o'clock.

Ear Institution.—Dr. Pierce will exhibit patients with interesting forms of ear-disease at 10 A.M. on Wednesday.

Barnes Convalescent Home, and the Royal Lunatic Asylum, Cheadle.—Members will be received at the Barnes Home by Dr. George Reed, and at the Royal Lunatic Asylum by Mr. Mould, on Thursday, August 9th. Omnibuses will leave the Owens College gates at 10 A.M. on Thursday for Cheadle, and luncheon will be provided at the Barnes Home at one o'clock. Notice of intention to join in this visit must be given at the Reception Rooms before 6 P.M. on Wednesday.

The abovementioned hospitals will be open to members during the whole meeting. The following will also be open each day.

Clinical Hospital for Women and Children, Park Place, Cheetham Hill Road.

Manchester Southern Hospital for Women and Children, Clifford Street, Oxford Road.

SOIRÉES, ETC.

On Tuesday, the first day of the Meeting, there will be an exhibition of Medical and Dietetic Plants at the Botanical Gardens; and the President of the Association and the Council and Senate of the Owens College will give a reception and soirée in the evening, at which Dr. Ransome will deliver an Address on the Present Condition of State Medicine in England.

An extremely interesting feature of this *soirée* will be a collection arranged by Professor Boyd Dawkins, illustrating the history of man in Britain from the pleistocene to the historic period. There will also be a series of fossils, illustrating the ancient carboniferous flora of Lancashire.

The Mayor and Corporation have intimated their intention of inviting the Association on Wednesday to a *soirée*, which they will give at the Town Hall. This building, which has been in course of construction for the past eight years, and has cost nearly a million, is just completed. It is probably the finest building of the kind in the world; and its splendid architectural proportions and magnificent decorations will, doubtless, be highly appreciated by all who visit Manchester.

The owners of all the most important warehouses, cotton mills, and other works in and round Manchester, have most kindly signified their intention of allowing members of the Association to visit their various places. Several of those which are not usually open to visitors will be shown at the time of the Association Meeting to members.

EXCURSIONS, ETC.

Members desirous of attending the Excursions are earnestly requested to apply for tickets as early as possible; or, if more convenient, to communicate with the Honorary Secretary of the Excursions Committee, Dr. IRWIN, Brooks Bar, Manchester.

On Saturday, August 11th, excursions will be made to the following places.

Macclesfield.—Thomas Unett Brocklehurst, Esq., High Sheriff of the County of Chester, has very kindly offered to entertain to luncheon at his seat, Henbury Park, near Macclesfield, those members who may avail themselves of a proposed excursion to Macclesfield. Members joining this excursion will have an opportunity of inspecting, under very favourable circumstances, the delicate and beautiful processes of the manufacture of silk in all its stages. The County Asylum will also be visited. After luncheon, it is proposed to arrange driving excursions: 1. Through the Park of Lord Stanley of Alderley, to Alderley Edge; 2. To Buxton, by the celebrated Cat and Fiddle Inn, the highest inhabited house in England.

Lancaster.—The medical men of Lancaster have notified to the Reception Committee that they will be glad to entertain fifty members of the Association. The County Lunatic Asylum will first be visited, and then the Royal Albert Asylum for Idiots and Imbeciles, where a luncheon will be provided. The visitors will afterwards be conducted over the Ripley Institute, St. Mary's Church, and Lancaster Castle.

Southport.—The medical men of Southport invite one hundred members of the Association to visit them on the 11th of August. The Aquarium, Winter Gardens, Pier, Glacierium, and the New Sewage Works, are the principal objects of interest here; and the Local Committee are making every arrangement to give a hearty welcome to those members who may visit Southport on this occasion.

Blackpool.—Dr. Leslie Jones and a few friends at Blackpool, supported by the public companies of that town, invite as many members of the Association as would like to go. A special train will be provided, free of cost; and a most attractive programme, including an Evening Concert, at which Miss Edith Wynne and Mr. De Jong will appear, has been arranged for the entertainment of their guests. At 4 o'clock P.M., Dr. Cocker, the Mayor of Blackpool, will entertain the whole of the party to dinner.

Woodhead Water-Works.—These are probably the largest artificial water-works in the world. The reservoirs cover about five hundred acres, and supply a population of about one million in the valleys of the Irwell and Mersey, besides the numerous works situated therein. Luncheon will be provided at a convenient point *en route*.

Northwich.—An excursion will be made to visit the salt-mines at Northwich. One of these mines will be illuminated for the occasion. Mr. Williams, surgeon, of Northwich, kindly invites the party to luncheon.

Castleton.—Professor Boyd Dawkins has undertaken to conduct an excursion to Castleton, in Derbyshire. The Winnats, a beautiful mountain gorge, the Speedwell Mine and Cavern, with subterranean river and waterfall, Peak Caverns, Peveril Castle, and other interesting places in this locality will be explored; and a special visit will be paid to the recently discovered cave-deposits containing remains of prehistoric times.

Professor Boyd Dawkins will give a short address, and explain the nature of the deposits.

Excursion to English Lakes.—Messrs. Cook and Son have undertaken to organise tours of seven days (with extension if desired) through the English lake district, similar to the one they superintended to the Scotch lakes after the Edinburgh meeting. The Excursions will be arranged in three sections, starting from Manchester, Lancaster, and Southport, on Saturday, August 11th. Arrangements will be made by which members who join other excursions fixed for that day can afterwards avail themselves of the excursion to the lake district by meeting the party at places along the route.

Arrangements are being made for a visit to one of the coal-mines, near Manchester.

NOTICES OF MOTION.

Mr. F. W. LOWNDES, 62, Mount Pleasant, Liverpool, hereby gives notice that he will move:

"That the British Medical Association nominate a deputation to Mr. Secretary Cross to request that a Government inquiry be made into the state of our large mercantile sea-ports, especially Liverpool, Bristol, Hull, and Cardiff, with reference to the subjects of prostitution and venereal diseases; and also to suggest means for diminishing the prevalence of prostitution and venereal diseases."

Dr. HADDON, of Monks Hall, Eccles, hereby gives notice that he will move:

"That a Committee be appointed, consisting of members eminent in the several departments of medicine, surgery, midwifery, etc., who shall endeavour to make the JOURNAL a perfect epitome of the science as well as the practice of medicine, and at the same time utilise the members in clearing up disputed points in the diagnosis or treatment of disease, so as to increase the value of the JOURNAL, and, if possible, raise it to a higher place in the medical literature of the day. Such Committee to be responsible for the management of the JOURNAL, and any correspondence admitted to its columns."

FRANCIS FOWKE, *General Secretary*.

36, Great Queen Street, W.C., August 1st, 1877.

SOUTH WALES AND MONMOUTHSHIRE BRANCH:
ANNUAL MEETING.

THE seventh annual meeting of this Branch was held at the Shire Hall, Brecon, on July 11th; TALFOURD JONES, M.B., President, in the chair. Eighteen members attended and several visitors.

New Members.—At the meeting of the Council, A. L. A. Forbes, M.D. (San Francisco); Josiah Williams, L.R.C.P.Ed. (now with the Ottoman Army); — Morgan, Esq. (Clydach); and — Marshall, M.B. (Brecon Infirmary) were elected members of the Association. Mr. A. O. H. Phillips (Swansea Hospital) was declared a member of the Branch.

Report of Council.—The following report was read.

"It is now many years since the Association met at Swansea. Since then, it has grown alike in numbers, power and influence. There appear to be good reasons arising from the long period which has elapsed since the parent Association was welcomed within our limits and the large number of members we now muster, why the profession associated in our Branch should take into their consideration the propriety of sending to the Committee of Council an invitation to the Association to visit some town in South Wales; and indications are not wanting that a cordial invitation so sent would not be unwelcome.

"Your Council also desire to bring before the Branch the conduct of members of our profession, who, during the course of operations undertaken for the release of the imprisoned colliers at Tynnewydd, willingly shared the dangers of the mine. While Her Majesty the Queen and people of all classes have testified their sympathy and offered their congratulations to the rescuers, we think this Branch should not omit the duty, or forego the pleasure, of offering to our professional brethren—and among them are some of our own associates—our earliest congratulations, and also of expressing our confident expectation that, in the distribution of marks of honourable distinction, the medical staff will not be forgotten. Your Council would also suggest that some congratulatory resolution should be adopted by the meeting and transmitted to Mr. H. N. Davies, as head of the medical staff during the eventful days of imprisonment and rescue.

"The Council have considered the selection of the place where the next annual meeting will be held, and suggest Neath for the consideration of the general meeting. The natural attractions of the neighbourhood, its ready accessibility from the principal towns in our district, and the fact that some "good men and true" live there, seem to point it out as a place eminently worthy of selection for the annual meeting in 1878.

"Your Council regret to know that Dr. Sheen, who has so actively and advantageously discharged during recent years the greater part of the secretarial work, has been laid aside by ill-health. They are

however, very thankful to learn that he is just resuming work, after a somewhat lengthened but enforced illness, and trust that he will soon be quite restored to health, and to a long career of useful and profitable work."

The report of the Council was unanimously adopted.

President's Address.—The PRESIDENT delivered an address on Ophthalmic Therapeutics, referring especially to the management of the diseases of the eye more commonly requiring treatment. A most cordial vote of thanks was accorded to the President for his address, which was characterised as most interesting and valuable.

Communications.—1. Dr. FORBES gave a short address on the Use of the Ophthalmoscope, and a description of Landolt's, which appears to possess some advantages over any other form of the instrument.

2. Mr. EVAN JONES gave the history of a case of Hydatids of the Liver, and showed the morbid specimen.

3. Surgeon-Major GARDNER (a visitor) exhibited a specimen of Aneurism of the Arch of the Aorta, which had dissected its way down the course of the oesophagus, had perforated that tube near its lower end, and permitted fatal hæmorrhage into the stomach.

4. Dr. WILLIAMS showed a specimen of Imperfection of the Urethra and Absence of the lower portion of the Rectum (the latter represented by a fibrous cord of three-fourths of an inch in length), ending fatally at nine days old. No interference was permitted. The case was somewhat increased in interest by its being the second in the same family. The subject of the first was relieved by operation, and is still living.

5. Dr. DAVIS, for Dr. GRIFFITHS, showed a gold plate, having three false teeth and hooks attached, which was swallowed during sleep, and, having been retained for many days, was, without any complication and without aperients, got rid of *per vias naturales*.

Dinner.—The annual dinner was held at the Castle Hotel, at 3 P.M. In addition to the members, there were present the Rev. Hugh Bold (Chairman of Quarter Sessions), Mr. George Overton (High Sheriff), Mr. Powell (Castle Madoc), Mr. Robert Smith, Mr. J. M. Bowen, Rev. Herbert Williams, Rev. Rees Price, the Mayor (Mr. Wm. Games), and other gentlemen.

WEST SOMERSET BRANCH: ANNUAL MEETING.

THE thirty-fourth annual meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, July 12th, 1877, at 2.30 P.M. Fourteen members were present.

The retiring President, Dr. FARMER, delivered an appropriate address at the expiration of his year of office; and introduced his successor, SAMUEL FARRANT, Esq., who then took the chair, and acknowledged the honour done him by electing him as President.

Report of Council.—The following report of Council was read, received, and adopted.

"At the return of another anniversary, your Council, in the performance of their duty of reporting to you on the condition of the Branch, are happy in being able to tell you that, like the healthy branch of a vigorous tree, its growth has steadily progressed during the past year; and, with its growth, its strength and power of action may also be deemed to have proportionately increased; thus, not only subserving its own useful purposes in West Somerset, but also imparting strength and adding to the power of its giant parent, whose force at this moment may be reckoned at over seven thousand strong.

"The number of members in the Branch twelve months ago was fifty-six; two members have since removed from the district, and one has allowed his subscription to lapse; but, to set against this loss, six fresh members have joined the Branch, so that the number now on the list is fifty-nine.

"At the autumnal and spring meetings, held severally at Dulverton and Taunton, useful and interesting questions were discussed and papers read. The following is a list of subjects, viz.:—Question as to the remedial effects of salicylic acid; A Case of Poisoning by Belladonna Liniment; Paper on the Advantages of Village Hospitals and Provident Dispensaries; A Case of Alphas Universalis; A Case of Hydrocephalus; Question as to the best mode of Feeding Infants artificially; A Case of Hydrophobia or its Eikon; Paper on Minehead as a Winter Residence; Paper on Osseous Remains of an Infant.

"The visit to Dulverton is memorable not only as the first ever made by the Branch to that neighbourhood, but also for the cordial and hospitable welcome which was given to the members who attended. It well exemplified the advantages of a Society of this kind; it brought out good feeling and good fellowship between medical men living both near to and distant from each other, and at the same time afforded opportunities of professional intercourse which under no other circumstances could be enjoyed.

"On the subject of obtaining legislative restriction for habitual drunkards, this Branch has for some years past manifested great interest, and has at different times taken steps with a view to attaining so desirable an object. The Council have now to report that the petition to the House of Commons which was agreed upon at the last general meeting was duly presented, but they are sorry to announce that, from the pressure of other business before Parliament, the Habitual Drunkards Bill was yesterday withdrawn.

"The Council feel sure they will only be echoing the sentiments of every member of the Branch by giving expression to the regret felt that the President-elect chosen at the last annual meeting is prevented by ill-health from assuming the presidential office. Under the circumstances, it was unanimously agreed at the last annual meeting to ask Mr. Farrant to take the chair for the ensuing year, and the Council have now much pleasure in reporting that the request has been complied with. The Council consider that the thanks of the meeting are due to Mr. Farrant for accepting the office of President upon such a short notice as it was in their power to give him.

"The Treasurer's accounts presented herewith show that the annual subscription of 1s. 6d. from each member has more than sufficed for the current expenditure. The balance now in hand is £8:7:11; against £7:1:4 at the last annual meeting.

"It being necessary under the By-laws of the Association that the names of representatives of Branches in the General Council for the ensuing year shall be sent to the General Secretary five weeks before the annual meeting of the Association, the Council, at a meeting held on June 23rd, empowered your Secretary to send the following names as representatives of this Branch for 1877-78, viz.: Mr. S. Farrant, Dr. Meredith, and Dr. Kelly; and the Council now ask for an expression of approval of their action in this proceeding."

The Treasurer's Balance-Sheet and Accounts, audited by Mr. Cornwall, were received and adopted.

Next Annual Meeting and President-Elect.—It was resolved that the next annual meeting be held at Bridgwater; and that F. J. C. Parsons, Esq., be President-elect.

Intermediate Meetings.—It was resolved that during the year there be an autumnal and spring meeting as usual; and that they be held at Taunton.

Council of the Branch.—It was resolved that the following, with the President, ex-President, President-elect, and the Honorary Secretary, be the Council for the ensuing year, viz.: H. W. Randolph, Esq.; R. Nash, Esq.; R. B. Robinson, Esq.; W. L. Winterbotham, M.B.; J. Meredith, M.D.; and H. Alford, Esq.

Secretary and Treasurer.—It was resolved that W. M. Kelly, M.D., be re-elected Honorary Secretary and Treasurer.

Votes of Thanks.—The thanks of the meeting were voted to Dr. Farmer as President, to the Council, and to Dr. Kelly as Secretary and Treasurer, for their services during the past year.

British Medical Benevolent Fund.—The claims of this fund for continued and increased support were brought before the meeting by Dr. Kelly, the local Secretary. He mentioned a recent case in Taunton where substantial help in the form of a cheque for £20 had most opportunely come from this fund on proper application being made. Several new subscriptions were promised.

Vote from the Branch Fund.—An urgent case of distress, arising from the death of a medical man in a neighbouring town, leaving a widow and small family totally unprovided for, was considered. It was resolved that the Treasurer be empowered to send the widow £5 out of the balance of the Branch fund which he had in hand.

President's Address.—Mr. FARRANT delivered an address on Pyæmia, in which there was condensed a large amount of valuable information.

A Vote of Thanks to the President for his address was carried with acclamation.

Cases.—The following were related.

1. Two cases of Bites by Animals: one by a Rat, and another by a Badger. By W. LIDDON, Esq.

2. A bad case of Poisoning by Carbolic Acid, successfully treated. By FREDERICK FARMER, Esq.

3. A case of Osteo-Sarcoma of the Humerus, and Amputation at the Shoulder-joint. By W. LIDDON, Esq.—A preparation of the diseased part was shown by Mr. Liddon; and a microscopic specimen of its structure was exhibited by G. W. RIGDEN, Esq.

Discussion followed the reading of these cases.

Dinner.—This usual festive conclusion to a very pleasant meeting followed in due course.

NORTH WALES BRANCH: ANNUAL MEETING.

THE twenty-eighth annual meeting of this Branch was held at the Corsygedol Hotel, Barmouth, on Wednesday, July 11th, at 1 P.M.

A telegram was received from the President, stating his inability to be present. ROBERT ROBERTS, Esq., the President-elect, then took the chair, and delivered an able and interesting address on the Practical Experience of Country Practice.

Report of Council.—The following report was read by Dr. EYTON JONES, Honorary Secretary.

"Your Council has much pleasure in presenting you with its twenty-eighth annual report.

"A very successful meeting was held last year at Bangor, attended by twenty-one members, presided over by Dr. Richards, who delivered an able and interesting address on matters affecting the profession, which has been since inserted in the JOURNAL.

"The intermediate meeting held at Wrexham was attended by seventeen members, and an able paper by Mr. R. W. J. Evans on the Use and Abuse of Stimulants in the Treatment of Disease was read and fully discussed.

"The parent Association still continues to flourish and increase in numbers, and, through its Parliamentary Bills Committee (of which our able editor Mr. Ernest Hart is Chairman), to bring before the legislature all questions affecting the well-being of medical men in particular, both in civil and military life, as well as to urge upon it the adoption of all measures tending to lessen human sickness and mortality. Parliament has by large majorities again confirmed the value of the Contagious Diseases Acts, which, in addition to lessening the amount of communicable disease prevalent in our seaport and military towns, has restored to their families and homes numbers of fallen women. Through police agency, in the year 1875, three hundred and seventy-four were restored to their homes.

"After forty-five meetings of the different examining bodies in England, the conjoint scheme of examination has at last been agreed to: with the proviso that, at the end of five years, any examining body wishing it can withdraw.

"Mr. Gathorne Hardy's Army Medical Bill may be regarded as a failure, for he stated in March last in the House of Commons that, for fifty appointments in the English army, there were only twenty-three candidates; whilst in the Indian Medical Department twenty-seven appointments were vacant, for which forty-nine candidates offered themselves; and, on inquiry, it was shown that the average number of marks of the candidates for the latter appointment were 4,800, for the former 3,570, showing unmistakably the preference given by the best men for the Indian service, notwithstanding the drawback of continual service in a tropical climate and its attendant risks. So far, the substitution of the unification system for the regimental has been a failure, mainly depending on the introduction of the short service system. Surely, it might be made optional whether the short or continual service might be selected by each candidate.

"We must all sympathise with the militia surgeons, who, by successive schemes, have been deprived of the privileges guaranteed to them by former Warrants; and in all instances without any compensation further than exemption from the expenses of messes and bands. In some instances, the pay of £250 *per annum* will be reduced to £28.

"A deputation of certifying factory surgeons waited without avail on the Home Secretary to protest against the fees of 6d. offered to them for the examination of each child.

"Through the representation of the National Council, the Cruelty to Animals Bill, passed in August last, was shorn of many of its objectionable features. Yet, the fact that numerous applications made by members of the Physiological Society under the Act have been refused, points to the probability that, if such obstructions are often raised, English physicians and surgeons will have to study physiology in other countries, and the great renown gained by English physiologists since the days of Harvey, Bell, and Hunter will be transferred to Continental medical men untrammelled by such deterring Acts.

"Whilst the profession hail with pleasure the efforts of the General Medical Council to elevate the standard of medical education, yet we feel that, whilst it receives annually £6,000 from the profession to supervise their interests and advise the Government, it should endeavour by amendment of the 40th Section of the Medical Act and other means both to protect the public from designing quacks and also control the interests of the profession, who pay dearly for their control. As it is the duty of a chemist and druggist to sell medicines, and the duty of an apothecary to select them, we cannot but hope that the Medical Acts Amendment Bill introduced by Dr. Lush will settle and determine the *questio vexata* of counter-prescribing. At present, the 14th Section of

the Apothecaries' Act, put into operation, shows what can be done to check it.

"The profession cannot but approve of the resolution arrived at by the General Medical Council in favour of procuring legal sanction for giving credentials of qualifications to competent midwives.

"It is evident that the registration of colonial graduates acting as ship-surgeons should be settled; an alteration in the Merchant Shipping and Passenger Act would probably settle the difficulty.

"It is high time that, as the nineteen medical corporations are represented on the Medical Council, the profession at large, through the instrumentality of the British Medical Association, should also be represented.

"The inquiry into the outbreak of scurvy in the Arctic expedition has proved that the blame did not rest with the medical officers of the expedition. It shows that combatant officers will do well to respect the functions of medical officers, and attribute just weight to medical recommendations.

"Since our last annual meeting, many bright and noble ornaments of the profession have gone to their rest, carrying with them the love and admiration of their surviving brethren; notably, Sir William Fergusson, Sir James Bardsley, Dr. Francis Sibson, Dr. Rumsey, Dr. Carr, and our twice President Thomas Taylor Griffith. *Pax manibus.*"

President-elect: Places of Meeting.—Dr. William Jones of Ruabon was appointed President-elect for 1878. Llandudno was selected as the place of meeting; the intermediate meeting to be held at Corwen in March.

Branch Council.—Dr. Richards of Bangor, Drs. Pritchard and Hughes of Conway, Messrs. Davies of Llanfairtalhaiarn, Davies of Colwyn Bay, and T. E. Jones of Llanrwst, were appointed the Council of the Branch for the ensuing year.

Representatives in the General Council.—Drs. Williams and R. W. I. Evans of Wrexham, and Drs. Roberts of Chester, were elected representatives in the General Council of the British Medical Association.

Parliamentary Bills Committee.—Mr. Walker of Corwen was elected the Parliamentary representative.

Secretary and Treasurer.—Dr. Eyton Jones was elected Honorary Secretary, and Dr. Lloyd Roberts Treasurer.

The Colliery Accident in South Wales.—The following resolution was proposed by Dr. REES of Carnarvon, seconded by Dr. W. WILLIAMS of Liverpool, and carried unanimously: "That the members of the North Wales Branch of the British Medical Association here assembled at their annual meeting beg to express their unqualified admiration of the heroic labours undertaken by their South Wales medical brethren for the rescue of the entombed Pontypridd miners, and to congratulate them on the successful issues of their medical treatment."

New Members.—The following were elected: Mr. Thomas Davies (Machynlleth); Mr. J. Hunter Hughes (Nevin); Dr. Ed. Jones (Caerfynnon, Dolgelly); Mr. Richard Edmunds (Bangor, near Wrexham).

Communications.—I. A paper on Skin-Grafting was read by Mr. R. W. I. EVANS.

2. A paper on Abdominal Aneurism was read by Mr. J. H. LLOYD of Barmouth; and the patient was exhibited and examined by those present.

3. Mr. JONES MORRIS related a Case of Amputation of the Lower Limb for Gangrene after Pneumonia.

4. Dr. WILLIAMS of Liverpool read a paper on a Case of Paralysis occurring on the same side as the Lesion.

5. Cases of Acute Rheumatism successfully treated by salicylate of soda; by Dr. WILLIAMS of Wrexham.

6. Case of Traumatic Tetanus successfully treated with extract of Calabar bean; by Dr. WILLIAMS of Wrexham.

7. A Case of Idiopathic Tetanus in an Infant successfully treated by Calabar bean; by Dr. EYTON JONES.

8. The Use of Chrysophanic Acid in Eczema and Psoriasis; successful case; by Dr. LODGE of St. Asaph.

Dinner.—Twenty-two members and four guests afterwards adjourned to partake of a hurried but most excellent dinner, in consequence of the place of meeting being far from the homes of most of the members present.

BATH AND BRISTOL BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held on Wednesday, June 27th, at the Library, Park Street, Bristol, at 5.30 P.M.; Dr. GOODRIDGE, President, in the chair. There were present forty members and two visitors.

New Members.—Mr. Bernard Kendall, M.R.C.S., L.S.A., Surgeon-Major, was elected a member of the Association and of this Branch.

Mr. C. Pooley proposed, and Dr. R. W. Falconer seconded, G. F. Rossiter, M.B.Lond., of Weston-super-Mare, for election at the next ordinary meeting.

New President: Address.—Dr. GOODRIDGE, after a few remarks, resigned the chair to Dr. H. MARSHALL, President-elect, who read an address on the Relations between the Medical Profession and the General Public.

It was proposed by Dr. FFFFF, and seconded by Mr. SKEATE: "That the thanks of the meeting be offered to Dr. Marshall for his very able and interesting address." This was carried unanimously.

Report of Council.—Mr. BOARD read the following report for 1877.

"It is with much satisfaction that your Council reports to you that the affairs of the Branch are in a thriving condition; and, although our expenses have been rather larger this year, we have a considerable balance after all demands have been settled. Our losses amount to seventeen. Of these, five have resigned membership, four have left the neighbourhood, and two have been removed from the list. We lament the loss by death of six members, viz., Dr. Martyn, Mr. Lawrence, Mr. W. Smith, Mr. Adye, Mr. W. Cooper, and Mr. James Taylor, all old members of this Association, who will be much missed by us and by all who knew them. By the death of Dr. Martyn, the profession in Bristol and Clifton has lost one of its brightest ornaments, while the public have lost the services of a most accomplished physician, cut off in the prime of manhood. Dr. Martyn's contributions to medical literature, if not voluminous, were always of sterling value, and were the result of much laborious and conscientious work. In microscopic anatomy, both normal and pathological, he was thoroughly at home; and some of his conclusions upon debatable points have obtained general acceptance both in this country and abroad. Dr. Martyn was a man of a remarkably complete and harmonious intellectual development, conversant with a great variety of subjects in science, art, and general literature. In all things, he was an acute and careful observer and a judicious critic, and it was scarcely possible to talk with him upon any subject without deriving instruction. In conversation, he had a happy facility of appreciating and entering into the views of others, although those might differ entirely from his own; and this, combined with his wide range of information and his calm judgment, gave a singular charm to his society. Dr. Martyn took his medical degree at Edinburgh in the year 1852, having studied partly at that seat of learning and partly at University and King's Colleges, London. Settling in Bristol, he soon found scope for his activity in the appointment of physician to the General Hospital, and this post he continued to hold to the last. He was also actively interested in the Nurses' Institution at Clifton, as well as in other organisations, having for their object the nursing of the sick or the care of the children of the poor. With the Bristol School of Medicine he had been connected for more than twenty years as one of the staff of lecturers; while most of the local institutions, literary, scientific, or professional, shared the benefits of his work and counsel. Although not of the most robust constitution, Dr. Martyn was able to pursue his various labours without serious interruption until the early spring of last year, when threatening chest-symptoms compelled him to desist. Not many weeks afterwards, a terrible trial befell him in the illness and death of his wife, who had accompanied him to Hastings. This event had a very unfavourable effect upon his own health, and for a time he was seriously ill. But he recovered in a great measure, and was contemplating, after some months of complete rest, a cautious return to his work, when, on July 27th, in the middle of the night, a sudden and profuse hæmorrhage from the chest closed within a few minutes his active and useful life. He died at his brother's house near Kimbolton, having just completed the forty-eighth year of his age. The esteem in which he was held by his patients, his professional brethren, and others, has since found expression in the raising of a sum of over £500, wherewith to endow a scholarship at the General Hospital, to be known as the Martyn Memorial Scholarship.

"The following papers have been read before the Branch during the session: The Use of the Forceps in the First Stage of Labour, by Dr. Swayne; Recovery after Eighty Grains of Tartar Emetic, by Mr. F. Mason; Cancer viewed in the light of Physiology, by Mr. C. Steele; Case of Acute Rheumatic Hyperpyrexia under Salicin, successfully treated by the Cold Bath, by Dr. E. M. Skerritt; Spontaneous Rupture of Spleen, by Dr. Skerritt; Notes on Boracic Acid, by Dr. J. K. Spender; Sclerosis of Spinal Cord, by Mr. J. S. Bartrum; The Position of Alcohol from a Richardsonian point of view, by Mr. John Moir; Case of Aneurism of Arch of Aorta, in which Tracheotomy was performed, by Mr. Crisp; Notes on the Physiological Pathology of the Brain, by Dr. J. G. Davey; Case of Paraplegia, or Spinal Exhaustion, by Mr. J. S. Bartrum; Case of Abdominal Abscess, by Mr.

R. S. Fowler; Diagnosis and Treatment of Miscarriages, by Dr. A. E. A. Lawrence; Epidemics of Typhoid Fever at Bristol Lunatic Asylum, by Mr. G. Thompson. In addition to these, we have had two nights devoted to discussion on the Treatment of Acute Rheumatism, by Dr. Skerritt, and the Treatment of Hæmorrhage during and after Operations, by Mr. Dobson. The interest taken in the latter, and the amount of discussion to which they have given rise, convince your Council that the plan proposed by Dr. Brabazon, of setting apart two evenings during each session for this especial purpose, has proved to be a great success; and your Council recommend that this course be continued. The attendance at the meetings has been good throughout the session.

"A statement has been made that members living at Weston-super-Mare are prevented by the railway regulations from attending our meetings on a Thursday, while they could do so on Wednesday. The Council have, therefore, thought it well to recommend that the day of the ordinary meetings be altered from Thursday to Wednesday.

"The financial report is perfectly satisfactory, showing a balance of £22 : 14 : 1; and your Council recommend that the sum of five guineas be given to the British Medical Benevolent Fund.

"The scrutineers appointed to examine the voting papers report that the following gentlemen are elected to fill up the vacancies in the local councils:—*Bristol*: Dr. Swayne, Dr. Davey, Dr. Brittan, Mr. W. M. Clarke, Mr. Collins; *Bath*: Mr. Bartrum, Mr. Skeate, Dr. Spender, and Mr. Waugh."

It was proposed by Mr. LAWRENCE, seconded by Mr. CHADWICK, and resolved: "That the report and financial statement now read be adopted."

President-elect.—Dr. DAVIES proposed, and Mr. PRICHARD seconded: "That Dr. Hensley be President-elect." The motion was carried with acclamation.

Vote of Thanks.—It was proposed by Mr. PRICHARD, seconded by Mr. STONE, and carried unanimously: "That the best thanks of the Branch are due to and are hereby tendered to Dr. Goodridge for his able conduct in the chair during the past year."

Secretaries.—It was proposed by Dr. GOODRIDGE, seconded by Mr. W. M. CLARKE, and carried: "That the thanks of the Branch are due to the Secretaries for their services during the past year, and that they be requested to continue in office."

Conjoint Meeting with Gloucestershire Branch.—Mr. W. M. CLARKE proposed, and Dr. DAVEY seconded: "That an invitation be sent to the Gloucestershire Branch to meet the members of this Branch at such a meeting as was held last year; the time and place of meeting to be arranged by the Presidents and Secretaries of the two Branches." This motion was carried.

Vote of Thanks.—Dr. MARSHALL proposed a vote of thanks to the Committee of the Library for their kindness in giving the use of their room. This was carried unanimously.

Representatives in the General Council.—The following gentlemen were elected by ballot to serve on the General Council of the Association: C. H. Collins, Esq.; J. G. Davey, M.D.; E. L. Fox, M.D.; H. F. A. Goodridge, M.D.; H. Marshall, M.D.; F. Mason, Esq.; A. Prichard, Esq.; E. Skeate, Esq.; J. K. Spender, M.D.; R. N. Stone, Esq.

CORRESPONDENCE.

THE CONTAGIOUS DISEASES ACTS.

SIR,—I am not anxious on the eve of my holiday to begin a paper war; but, as you have attacked me in no very measured terms, I claim the privilege of a reply.

Your attack resolves itself into three main points: first, that, in my statistics of *primary sores*, I have not included cases of ulcer penis and ulcer penis non syphiliticum. (In both cases, the same disease is intended.) This distinction in the old Army Reports, you say, was made because the nomenclature was then different, and so far defective. But, if words have any meaning, to include among primary sores other sores said distinctly *not* to be syphilitic, or separated therefrom, would be clearly a contradiction. To do so were to imply, not a different nomenclature, but ignorance or culpability on the part of the medical men of the army. But, even were I wrong altogether, the fact that the disease was more severe in 1859 than in 1837-46 is incontrovertably affirmed by the army authorities themselves. The Army Report, which I also quoted, furnished the following summary of the venereal diseases.

Per 1000.	In 1850.	In 1877-46.
Dragon Guards	402.5	206.1
Royal Artillery	371.4	392.6
Foot Guards	337.0	250.3
Infantry Regiments	399.4	277.5

These are not my figures nor conclusions; but they prove a point for one year which I sought to extend over several.

In your second point, you call into question the "general means" I have drawn, and illustrate your meaning by figures which savour much of Stock Exchange operations. Here again you have entirely overlooked the object of the tables. I wished to prove that either the army had greatly deteriorated in morality, or that the results obtained under the Contagious Diseases Acts had never attained to the low figures which obtained for the army in earlier years. To prove this, the general means, however convenient to use, may be entirely set aside. The fact is patent, that, after passing over several phases of rise and fall, the rise between 1837 and 1872 was as follows.

	Primary Sores.		Gonorrhoea.	
	1837.	1872.	1837.	1872.
Foot Guards	69	170	59	67
Dragoons and Dragon Guards..	20	80	68	88
Infantry	34	54	58	88

I have excluded 1873, because, from your own admissions (BRITISH MEDICAL JOURNAL, November 23rd, 1873, p. 610), you acknowledge that, owing to hospital stoppages, the statistics of the army are not to be depended upon for the future, either as regards the amount of syphilis or the working of the Acts.

Your third point admits also of a ready reply. I took the numbers as given by the army authorities; and, if in some places the Acts did not extend over the whole year, still, *pro tanto*, they should have been in measure more favourably situated than unprotected districts, and afforded better results. This, however, is not the case. Still, if we exclude Cork, Curragh, Shorncliffe, Windsor, Winchester, Canterbury, and Colchester, to please you, the argument still applies. The number of venereal cases per 1,000 would be, for stations a whole year under the Acts (1868): Woolwich, 191; Aldershot, 237; Chatham and Sheerness, 280; Portsmouth, 340. For unprotected districts, same year: London, 133; Edinburgh, 157; Fermoy, 186; Limerick, 290; Manchester, 312; Belfast, 329; Warley, 330; Dublin, 333; Isle of Wight, 346; Preston, 379. Thus positively the lowest number of cases occur among *unprotected* districts, and the Isle of Wight and Preston only exceed those in the worst of the protected districts. This very disparity proves my conclusion that there are mightier influences in operation than those of the Contagious Diseases Acts to direct the extension or diminution of venereal diseases.—Your obedient servant,
Montague Square, July 30th, 1877. C. H. F. ROUTH, M.D.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE WEST BROMWICH BOARD OF GUARDIANS AND MR. DOWNES.

PROBABLY the most painful incident which has ever formed the subject of public comment in connection with the Poor-law Medical Officers Superannuation Act has recently occurred in the West Bromwich Union, Stafford. It would appear that Mr. Downes, late district medical officer of Handsworth, in that union, who passed his examinations over fifty years ago, and who has reached the mature age of seventy-eight years, was compelled, by the severe suffering caused by an attack of lumbago and sciatica, to resign last March the appointment which he had held for upwards of forty years. Mr. Downes's office was not a lucrative one; for he had charge of the sick poor of a district containing 16,041 persons, situated on an area of 7,680 acres, and for which onerous obligations he was paid in the munificent sum of £60 a year, which was supplemented by an addition of £18 a year for filling the position of vaccination officer. From this amount had to be deducted the cost of all medicines and appliances which, by the terms of his contract, he was bound to supply and dispense.

It is not very much to be wondered at that Mr. Downes has not secured sufficient provision for the short period which, in the course of nature, he is likely to live; and not caring to become one of those whose ailments he had spent so many years in trying to relieve, he recently applied for superannuation allowance. On the subject coming before the Board, Mr. Joesbury moved that £35 a year should be granted him, and remarked "that Mr. Downes had been a faithful servant of the Board; that no complaint had been ever made against him; that his district was a very large one, and his salary such as not

to allow of his making any provision for his old age; and that he knew as a fact that he was in very straitened circumstances". On being seconded, this was opposed by Mr. Oldbury, on the ground that there was no single instance where an application for a superannuation allowance had been granted; and that, if the Board acceded to the request, it would be establishing a dangerous precedent. Mr. Hampton, who followed him, denounced the application as nothing less than one for out-door relief; and further said (insultingly) that, if it came through the proper channel (? the relieving officer), he should be inclined to entertain it. Mr. Hinds, another guardian, said that to grant the application would be one of the most disgraceful things they could do. Ultimately, after several members of the Board had indulged in much unseemly ribaldry and vulgar insolence, it was put to the vote and lost.

It is obvious that, if the Poor-law Medical Officers' Superannuation Act is to be other than a mere specimen of legislative permissiveness, some course must be followed, and that speedily, to put a stop to such discreditable procedures as that which has been enacted by this Board. We would advise that the facts of the case should be laid before the Local Government Board, and the good offices of that board solicited in favour of Mr. Downes. We also hold that it would be desirable that some independent member should ask how it has happened that an old gentleman of 78, borne down by years and infirmities, should have been allowed to continue in his appointment, the duties of which, *malgré* any complaint, he must have been for a long period disqualified efficiently to perform; that is, if out-door medical relief is to be other than an empty form of medical assistance. As a similar misstatement has been made at other Boards as an excuse for refusing superannuation, we would inform Mr. Oldbury that in several instances superannuation has been granted, in amounts varying from £40 to £200 a year.

PUBLIC HEALTH DEPARTMENT.

SIR,—Having advised the school authorities in my district when a child absents itself from sickness of an infectious nature to demand, on the return of that child, a medical certificate as to its freedom from infection, is it my duty, as medical officer of health, to furnish the certificate in all cases, even when attended by other medical men, as the School Board maintain that they cannot demand a certificate from parents who object on the ground of having to pay for it, and that it is my duty to see to it in all cases? They say it is specified in the Local Government Board orders as to the duties of medical officers of health (Section iv, Clause 4). The former medical officer of health refused, on the ground of its robbing other practitioners of their fees. By answering in the JOURNAL whether it is one of our duties or not, you will oblige, yours truly,
CHARLES W. THORP.

* * Section iv, Subsection 4, of the General Order referred to, is as follows. "The medical officer of health, in cases requiring it, shall certify, for the guidance of the sanitary authority or of the justices, as to any matter in respect of which the certificate of a medical officer of health or a medical practitioner is required as the basis or in aid of sanitary action." The words seem clearly to restrict the giving of a certificate to a matter for which it is required for the guidance of the sanitary authority or the justices. He is, therefore, not legally required to give a certificate for the guidance of the school authorities.

OBITUARY.

FREDERICK TICEHURST, M.R.C.S. ENG.

It is with much regret that we announce the death of Mr. Frederick Ticehurst, which occurred at his residence at Hastings last week.

Mr. Ticehurst was a native of Battle, and his medical education was obtained at Guy's Hospital. He entered the profession in 1832. At the age of twenty-five, Mr. Ticehurst commenced practice in Hastings; and, during forty-five years of active professional life, he became thoroughly identified with the public life of the town, and in no small degree assisted in its development as a watering-place and sanatorium. At the Hastings Infirmary and Dispensary, he worked hard for many years; and, on his retirement, was appointed consulting surgeon, which office he held till his death; he continued to take an active interest in the medical charities of the town to the end of his life.

Mr. Ticehurst, besides being a justice of the peace for the borough, was five times Mayor of Hastings, and for ten years filled the post of Borough Coroner with ability and tact.

In the year 1849, a public testimonial and valuable presentation of plate was made to Mr. Ticehurst "in acknowledgment of his unwearied professional exertions among the sick poor during the visitation of cholera; and in the discovery and prevention of a further attempt at murder by poisoning at Guestling". The cases of poisoning here referred to excited much interest at the time of their occurrence. Three members of a family had died in succession without suspicion being excited; a fourth member of the household came under the care of Mr. Ticehurst, and, after careful observation, he found reason to suspect arsenic as the cause of illness. An inquiry was instituted,

which ended in the conviction of the mother of the family for wilful murder.

In all the relations of life, as a medical practitioner, as a public man, and as a social friend, Mr. Ticehurst was a man eminently characterised by energy, ability, and practical good sense, outspoken when wrong was to be overcome and the weak required succour, and self-denying in his endeavour to promote the well-being of many.

In his death, Hastings has lost one of its foremost medical practitioners and one of its most useful public men, and his death will be mourned by many in both public and private life.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, July 26th, 1877.

Brown, Alexander Stewart, Leamington
Collet, Golding Bird, Western Ophthalmic Hospital
Devis, Charles James, King's Heath, Birmingham
Harran, James, Nelson Street, Leicester
Instone, Samuel Vaughan, Addison Road, Kensington
Stewart, Howard Douglas, St. James Garden Square Crescent

The following gentlemen also on the same day passed their primary professional examination.

Cuthbert, Charles Firmin, St. Bartholomew's Hospital
Haslam, William F., St. Thomas's Hospital
Robins, Harvey, St. Mary's Hospital
Rusher, James B., St. Bartholomew's Hospital
Sutton, Leonard W., St. Thomas's Hospital

UNIVERSITY OF LONDON.—The following are lists of the candidates who have passed the recent First B.Sc. Examination.

First Division.

Atkins, Alfred Hodgetts, private study
Bell, Herbert Irving, private study
Cross, Charles Frederick, King's and Owens Colleges
Dixon, Samuel, Owens College and private study
Edmonds, Henry, private study
Edmunds, Lewis Humfrey, University College
Fowler, Walter, Caius College, Cambridge
Gill, Ernest Compton, private study
Gwinnell, Wintour Frederick, Royal School of Mines
Harlock, Edward, Owens College
Harrison, Hugh Erat, University College
Hill, William Havelock, University College
Horrocks, William Heaton, Owens College
Jackson, Moses John, University College
King, Alfred John, Owens College
Lane, Frederick Herbert, Epsom College
Larmor, Joseph, St. John's College, Cambridge
Marriott, Hyde, Owens College
Martin, Sidney Harris Cox, University College
Morris, Samuel Sheppard Oakley, private study
Parker, Thomas Jeffery, Royal School of Mines
Pearce, Herbert, University College
Pearson, George Henry Spencer, private study
Rowe, Richard Charles, M.A., Trinity College, Cambridge
Stoddart, Frederick Wallis, University College, Bristol
Taylor, Duncan, private study
Thomas, William Henry, Royal College of Chemistry
Walker, Daniel, Owens College and private study
Webb, Malcolm, Owens College

Second Division.

Blore, Isaac, The Leys, Cambridge
Bose, Pramatha Nath, University College
Drew, Edwin, private study
Hickson, Sydney John, University College
Hind, Henry Robert, private study
Patchett, Isaac, private study
Sparkes, Arthur Lee, B.A., private tuition
Thom, Peter, University of Aberdeen

Preliminary Scientific M.B. Examination.

First Division.

Adey, Edwin Leonard, Guy's Hospital
Ballance, Charles Alfred, St. Thomas's Hospital
Barron, Alexander, Owens College
Batterham, John Williams, Westminster Hospital
Berry, Harry Poole, Guy's Hospital
Blore, Isaac, The Leys, Cambridge
Cassal, Charles Edward, University College
Clegg, Joseph, Owens College
Corbould, Henry Francis, Charing Cross Hospital
Crookshank, Edgar March, University College
Cuffe, Robert Ernest Gillhurst, St. Mary's Hospital
Currie, Oswald James, Guy's Hospital
Dakin, William Radford, Owens College
Day, Donald Douglas, St. Bartholomew's Hospital
Dixon, George Parsons Naylor, St. Bartholomew's Hospital
Edmunds, Lewis Humfrey, University College
Grayling, Arthur, St. George's Hospital and Epsom College
Griffiths, Philip Rhys, University College
Gross, Charles, Guy's Hospital
Hardy, Henry Louis Preston, London Hospital and private study

Harper, Charles Skinner, Guy's Hospital
Harris, Thomas, Owens College
Hill, George William, King's College and private study
Holman, Frederick Matthew, University College
Hoole, Henry, Charing Cross Hospital
Horrocks, William Heaton, Owens College
Horrocks, William Henry, Owens College
Hughes-Jones, John, St. Bartholomew's Hospital
Hutchinson, Jonathan, London Hospital
I'Anson, Leonard Frank, Epsom College
Jefferson, Arthur John, St. Thomas's Hospital
Jones, Robert, St. Bartholomew's Hospital
Lane, Frederick Herbert, Epsom College
Lane, William, Guy's Hospital
Lewers, Arthur Hamilton Nicholson, University College
Maddison, William Thomas, King's College
Marriott, Hyde, Owens College
Martin, Sidney Harris Cox, University College
Miller, Herbert Percy, University College
Moline, Paul Frank, University College
Mortimer, Desmond Ernest John, Westminster Hospital
O'Kane, Michael, Guy's Hospital
Prothero, Richard, Liverpool Medical School and St. Bartholomew's Hospital
Purton, Lionel Philip, University College
Rice, Bernard, St. Bartholomew's Hospital
Rice, Edward, St. Bartholomew's Hospital
Roberts, Richard Pritchard, University College
Rogerson, John Thomas, Owens College
Rygate, David John, London Hospital
Sellers, William, University of Edinburgh
Shaw, Harold Bailey, Epsom College
Smith, John, Guy's Hospital
Stephens, Lockhart Edward Walker, Epsom College
Stoddart, Frederick Wallis, University College, Bristol
Thomson, St. Clair, private tuition and study
Treherne, Francis Harper, St. Bartholomew's Hospital
Udale, Joseph James, Guy's Hospital
Webb, Malcolm, Owens College
Whitelegge, George Henry, University College
Whiting, John, St. Bartholomew's Hospital

Second Division.

Barker, Alfred James Glanville, University College
Bose, Pramatha Nath, University College
Collins, William Job, St. Bartholomew's Hospital
Day, John Roberson, University College
Dobell, Edmund Jesse, University College
Dobson, Joseph, private study
Downing, Charles, University College
Fletcher, John, Owen's College
Gray, John Alfred, St. Bartholomew's Hospital
Hickman, Francis, University of Edinburgh
Hickson, Sydney John, University College
Hill, William Havelock, University College
Hosker, James Atkinson, private study
Laurent, Eugene Arthur, University College
Lister, Joseph Herbert, Guy's Hospital
McDonagh, James Samuel, University College
Maitland, Alfred Derwent, University College
Maude, Frederic, St. Bartholomew's Hospital
Morley, Richard Basil, Leeds School of Medicine
Newsholme, Henry Wilkinson, University College
Pemberton, Thomas Pemberton, Queen's College, Birmingham
Rabbeth, Samuel, King's College
Richmond, John, Guy's Hospital
Salmon, Arthur Guy, St. Bartholomew's Hospital
Sanders, Charles, St. Bartholomew's Hospital
Scarth, Isaac, Owens College
Shaw, John Alexander, University College, and private study
Shaw, Lauriston Elgie, University College
Wills, Arthur Thomas, Owens College

MEDICAL VACANCIES.

The following vacancies are announced:—

COSFORD UNION—Medical Officer for the Bildeston District.

COVENTRY UNION—Medical Officer for the Workhouse.

MANCHESTER TOWNSHIP—Resident Assistant Medical Officer at the Crumpall Workhouse.

NORTH WITCHEFORD UNION—Medical Officer for the Fourth District. Salary, £50 per annum, and fees. Applications to be made on or before the 7th instant.

ST. IVES UNION, Hunts.—Medical Officer and Public Vaccinator. Salary, £68 per annum, and fees. Applications to be made on or before the 7th instant.

TAMWORTH UNION RURAL SANITARY AUTHORITY—Medical Officer. Salary, £120 per annum. Applications to be made on or before the 17th instant.

TAMWORTH UNION—Medical Officer for the Workhouse. Salary, £105 per annum. Applications to be made on or before the 18th instant.

WILTS COUNTY ASYLUM—Assistant Medical Officer. Salary, £110 per annum, with board, residence, and washing. Applications to be made on or before the 21st instant.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

TEALE.—On July 26th, at 2, Belvoir Terrace, Scarborough, the wife of *John W. Teale, of a daughter.

DEATH.

***TICEHURST, Frederic, M.R.C.S.Eng., J.P.**, at Hastings, where he had practised for forty-five years, on July 20th, in the 68th year of his age.

OPERATION DAYS AT THE HOSPITALS.

- MONDAY.....** Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
- TUESDAY.....** Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
- WEDNESDAY..** St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
- THURSDAY....** St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
- FRIDAY.....** Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
- SATURDAY....** St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the *BRITISH MEDICAL JOURNAL*, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO PRINT NAMES WHOSE NAMES ARE NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the *JOURNAL*, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

REGISTRATION OF FOREIGN DEGREES.

SIR,—Is an M.D. of a foreign University, obtained before the passing of the Medical Act, entitled to registration, being duly qualified in medicine and surgery?—Yours truly,
M.D. JENA.

* Yes, if the holder of the degree were practising in Great Britain before the passing of the Medical Act.

RED CROSS WORK.

SIR,—As you have done me the honour to quote my letter published in the *Times*, I hope you will allow me to defend myself from your subsequent criticism, by pointing out that my argument was not directed against Red Cross work in general, but against the special distribution of it advocated by Mr. Slade. According to him, relief should be sent to the Turks because they neglect their own wounded, while no help should be given to the Russians because they provide proper ambulances. Such action is somewhat equivalent to supporting the children of a drunkard and leaving unhelped the family of a sober man earning the same wages, the wages in each case being assumed to be inadequate; but, indeed, the above analogy is incomplete, as no rivalry is involved, while in the present case we are asked to supplement the funds of the one combatant, and so to do indirect injury to the other. The much larger question, of giving equal relief to two adverse armies who have made equal provision for their wounded, is quite distinct from the point referred to, and I have not attempted to discuss it.—I am, yours obediently,
AUGUST 1877. F. J. SILLIEN.

THE SECRETION OF MILK.

SIR,—In answer to your correspondent "Sceptic", I would wish to direct his attention to the action of Calabar bean as a lactagogue. He will find the following case quoted in *The Doctor* for June.

"Dr. Munroe (*Charleston Medical Journal*), wishing to restore the secretion of milk after it had disappeared from the breast for about three days, thought the dilating power of Calabar bean might be made useful. He accordingly applied an ointment of the strength of twenty grains to the ounce, and washed off carefully before the baby was allowed to suckle. After two applications, the baby not having been put to the breast meanwhile, the milk returned in full flow."—Yours truly,
JULY 1877. ORTHODOX.

* It is quite unnecessary for our correspondents "Sceptic" and "Orthodox" to refer to the two journals quoted by the latter, as they will find the original document at page 554 of the *BRITISH MEDICAL JOURNAL* for October 28th, 1876, in the form of a "Therapeutic Memorandum" by Dr. William Munro.

VOLUNTEER SURGEONS.

SIR,—Can any of your readers give me information about the questions which candidates are asked who present themselves for examination for the volunteer medical service, and what are the best books for a busy practitioner to read?—I am, etc.,
CONGLETON, June 24th, 1877. A VOLUNTEER SURGEON.

ANOTHER "Volunteer Surgeon" asks whether it is necessary for the surgeon of a battalion of volunteers to reside at head-quarters.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the *BRITISH MEDICAL JOURNAL*, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

MEDICAL TITLES AND UNIVERSITY DEGREES.

WE have received a number of letters, several of considerable length, on the much debated question of medical titles and University degrees. It is impossible, from the pressure of important matters on our space, to publish them in full; and we therefore give summaries of them.

"A Graduate" admits that the public have long used the word "doctor" in a vulgar sense to signify practitioner. If a claim be made by licentiates to be merely known as doctors in this colloquial and vulgar sense, there is no objection; but when they claim to place "Doctor" on their door-plates and cards, they are assuming an academic title to which they have no legal right. The public apply the term "lady" to every ordinarily well bred woman; but it is not usual for untitled ladies to have "Lady" on their cards. If M.D.s and licentiates of Colleges of Physicians are doctors, it is only in the colloquial and vulgar, not in the strictly academic and ethical sense. No corporation can bestow a title which is beyond its legal powers; and if any of the Colleges claim the right to confer the title "Dr." in the legal sense, the authority for their doing this should be pointed out.

"M.D.Q.U.I." writes mainly to defend his University against the remarks of "An M.D. and Master in Arts". He maintains "that the M.D. degree of the Queen's University is a mark of honest work, an evidence of professional knowledge, a distinction that must be earned". The examinations have been deemed not unworthy of commendation elsewhere by men of the highest eminence. Referring to the objection to granting the M.D. degree without Arts training, "M.D.Q.U.I." says that all our Universities do require certain Arts examinations to be passed, though they do not all require a degree in Arts. He thinks that "the man who writes 'M.D.' after his name and does not possess the title to do so, ought to be discouraged". But the use of the prefix "Dr." by a Licentiate of the College of Physicians is a very different matter: it is a matter of courtesy, and the usage can hardly prejudice the interests of M.D. In conclusion, he suggests to all who are agitated by the burning question of professional titles, that the public think but little of these matters. What is wanted is, that men who profess the divine art of healing shall really and truly possess, not this or that title, but the knowledge and the skill which their profession implies and the public necessity demands.

"L.S.A." has read the discussion in the *JOURNAL* on the assumption of the title of "Dr." by Licentiates of Colleges of Physicians, in spite of the manner in which they have been told by the London College that they have no right to the title, and of the fact that professional opinion is against them. Referring to the protest of one of the correspondents against the hardship of being obliged to drop a title which he has used and by which he has been addressed for several years past, L.S.A. says that the case is no doubt a hard one, but it is the penalty of having in a weak moment assumed a title to which he had no right. A man might as well conclude that he is entitled to call himself "Sir William Jones" because he is addressed as "Sir", "Dear Sir", "My dear Sir". In reply to the assertion that the prefix "Dr." does not imply the possession of the title of M.D., "L.S.A." relates a case in which a candidate for admission to a club in the town in which he resides, who gave in his card having on it "Dr. —", was placed on the notice-board as "William Jones, Esq., M.D." A reference to the *Medical Register* and *Medical Directory* proving the absence of any University degree, he was not elected. "L.S.A." suggests that one method (however undesirable) of meeting the case of the so-called doctors, would be for every medical man, whether surgeon or apothecary, to assume the title of Dr., to which they are as much entitled as Licentiates of Colleges of Physicians. The proper remedy would be for the College of Physicians to refuse their licence to any candidate not already in possession of a degree of some University, or to strike off from their lists the names of any licentiates who falsely assumed the title of Dr.

"B.A., M.B., Dub., M.R.C.S. Eng." writes at considerable length in reply to "Gamma". Referring to the suggestion that the obtaining of a degree after ten or twenty years' hard work would be a pledge that the holder had "kept pace with science" and "become a ripened scholar and a finished workman", he remarks that the degree cannot be a proof of what a man has done during his practice, as all British degrees of M.D. are obtainable at twenty-five years of age (and this is nothing new) after periods of study varying from four to seven years. So also the F.R.C.S. and M.R.C.P. are obtainable at twenty-five years, after five years of medical study. These, however, are not comparable. The F.R.C.S. is the badge of a highly accomplished surgeon, a "finished workman" in surgical art. The M.R.C.P. indicates not only that its possessor is a highly educated physician, but that he will practise only as a pure physician or obstetric physician; while the M.D. is merely the stamp of an University graduate. On the other hand, the Fellowships of the Colleges of Physicians and of the Royal Society are valuable honours—the more so as they are difficult of attainment—which are conferred upon youthful and successful workers in the cause of medicine and of science. It is, therefore, a mistake to say that a graduate can attain no higher title, and therefore has no future stimulus to work. Again, there is no especial credit in "keeping pace with science"; all are expected to do so. A man who has established himself a social position by twenty years' work should look for his reward in that position with its emoluments, and not expect the profession to seek him out for its special honours. He denies that "swarms of young men holding the M.D. openly vie with general practitioners in keeping open shops". He has only known of two such instances—not from English or Irish Universities. He accredits "Gamma" with sincerity in his endeavour to improve the condition of the profession, but says that he has not succeeded in "hitting the right nail on the head". The M.D. degree is, and should be, a mark of high educational acquirement, rather than of experience, practice, or means; and therefore it would be equally unjust to strip the young graduate of his hard earned distinction (even with which he finds it hard enough to face the world) as to give it to even the most experienced and materially successful practitioner, who has not received the education of the degree or passed its examinations. "There is evidently something wanting to put a stop to the present scandal of non-graduates assuming the title of Doctor; and I think most of the profession, like myself, would rejoice if all men practising as physicians were justified in using that appellation; but the remedy would appear to be rather in insisting on the higher education and methodical training, than in depriving the M.D. of those essentials which have so long recommended it to the public."

"X. V. Z." says that the ancient distinctions between graduates in medicine and general practitioners have passed away. Of physicians there are two different

classes, those in consulting practice, and the University graduates or licentiates and members of Colleges of Physicians in general practice, who are technically called or call themselves physicians. The title of Doctor is thus valueless as indicating a particular professional status; but its assumption by Bachelors or by Fellows, members or Licentiates of Colleges of Physicians, is unlawful. The desire for the title of Doctor is an innocent one; and it is surely inconvenient that those who wish for the title should not be able readily and legitimately to obtain it in this country. It would be well if some British Universities—besides those of Durham and London—would freely open their degrees to every registered practitioner, independent of all restrictions as to age, who could pass the necessary examinations. Such a course would not, he thinks, be opposed by graduates who are really physicians, and would do away with all excuse for the assumption of the title of Doctor on the ground of some Continental diploma.

"A Member of the Association" asks: How is a Licentiate of the Edinburgh and Dublin Colleges of Physicians to let the public know that they are physicians? I presume door-plates are used by all for the purpose of letting the public know what the owner is. There appears to be two ways: either to follow ancient custom and use the prefix "Dr.", or merely to put on the Christian and surname, and add after it Physician, or Physician and Surgeon, as the case may be, leaving the courteous public and professional brethren to address the physician as "Dr."; and the men who think that none but graduates should be called "Doctor", to address him "Mr."; and to point out to the unlearned the difference between a physician and a M.D.; . . . The public as a body do not know the difference between a physician and a M.D.; but they do know that a physician is a man possessing a special qualification in medicine; and why should some M.D.s, who perhaps never spent a week in an University town in their lives, wish the public to look upon them as of equal social standing with the graduate in Arts and medicine of Oxford, Cambridge, or Dublin?

"A General Practitioner" writes: Are not both parties in the controversy evading the real question? Is it, or is it not, right that general practitioners, when advanced in years, should exchange general for consulting practice? and if it be for the good of the public and the profession that they should do so, is it desirable that they have some means of letting the public know that they are so practising? Thirty years ago, a man with an M.D. qualification who practised generally in England, was considered a black sheep. Few men in the provinces took any other qualification than the M.R.C.S. and L.S.A. Would it not be better for the younger men to act courteously to their seniors, to encourage them rather than oppose them, in leaving the routine work to the juniors, and using their time and talents in a more profitable manner?

H. B. K. writes: That a physician is a doctor of the healing art there ought to be no question; but of course it does not follow that he is a *Medicine Doctor* unless he have graduated at an University besides. A member of a College of Physicians is a physician by universal consent, and by the Royal charter of the College to which he belongs; or, in common parlance, he is a "Doctor". As such, he merely intends to convey to the public that the special walk in life which he has chosen to follow is the discrimination and treatment of "internal diseases". A surgeon is at liberty to subjoin "surgeon" to his name; then why may not a physician assert what his "line of country" is, by prefixing the simple contracted form "Dr." to his name?

SIR,—I am a registered L.S.A., obliged by family affliction to take up practice. The difficulty I labour under until such time as I can obtain a surgeon's diploma, is how to designate myself so as to let the public know I am a qualified medical man, and at the same time avoid the assumption of titles I have no right to. Kindly direct me, and you will greatly oblige, yours sincerely,
LEX.
Mr. —, L.S.A.

VENTILATION OF SEWERS AND CESSPOOLS.

THE question of obtaining thorough ventilation for sewers and cesspools is one continually being mooted, but not satisfactorily settled. The present plan of inserting vent-pipes, so as to allow the surface of noxious gasses previously pent up in sewage receptacles below the level of the earth, is certainly a great improvement; but, owing to the pipe and its contents being cold, there is not enough draught to cause sufficient circulation. The idea occurred to me that, if the vent-pipe could be carried up by a kitchen chimney, for example, and so arranged that the fire would heat the tube, a thorough ventilating apparatus would be attained, for, by allowing an ingress, pure air would rush in over the sewage and carry up the heated exit pipe all noxious gasses. This principle could be easily applied to private houses, and in large towns would not be difficult of application, for the high chimneys, and the furnaces connected with them offer the necessary conditions for fixing and heating ventilating pipes. The sewer-gas, instead of escaping into the street, would then be driven back by the ingress of pure air, and escape readily up the heated ventilating tubes. I do not know whether this plan has ever been suggested, and therefore offer it as one which would be inexpensive, efficient, and easy of application. I intended to read a paper on this subject at the approaching meeting of the Association at Manchester, but my engagements prevent my leaving home.—I am, etc.,
ALFRED E. WILMOT.
Escrick, July 25th, 1877.

W. ASKS for information as to the practical working of "Rickett's ventilating globe-lamp" for gas in small rooms; also, whether a mineral oil-lamp (duplex) fouls the air more than a moderator (colza oil), the amount of light being equal, or to anything like the extent that gas does.

"LEPROSY IN ENGLAND."

SIR,—Could Dr. Haden or Hayden, who lived some years ago in Burdett Road, Stepney, and who attended Johanna Crawley, Salmon Court, Salmon Lane, Stepney, in her last illness, in 1874, kindly communicate to me any particulars of that illness, and of her state at the time of her death, I should feel greatly obliged. She was an Irish woman who had never left these islands, and yet suffered from true leprosy, as is recorded by Dr. Owen Rees in the *Guy's Hospital Reports* for 1868, and as Dr. Haden (or Hayden), as I have been informed by her daughter, recognised when he saw her. The case is one of great importance, being the only one, among several recorded instances, arising among English residents, that will stand the test of careful analysis, as a case of true leprosy, the others not being, from the descriptions given, proved to be so, although the fact that she spent thirty years of her life in a district near the West India Docks, and crowded by people in constant communication with the East and West Indies, make it impossible for us to look on her case as necessarily an indigenous and autochthonous one, although she herself may not have known the actual source of contagion.—I am, yours faithfully,
W. MURKIN.

317, Battersea Park Road, July 10th, 1877.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

VOMITING CONNECTED WITH DYSENTERY-RHODIA TREATED SUCCESSFULLY BY APOMORPHIA.

SIR,—I can recommend your correspondent to make trial of the hydrochlorate of apomorphia in the above-mentioned case. Recently, it has proved eminently successful in two obstinate cases of a similar character. At the present time, I am giving it to a young woman of twenty years, the subject of vicarious disease, in which vomiting has been incessant for four or five consecutive days every three weeks during a period of three years. In this instance, the effect is satisfactory as regards the almost immediate cessation of the violent retching and vomiting, relief being obtained after the first or second dose. By means of this potent alkaloid, I shall hope to effect an alteration in this poor girl's miserable state. Dose: the sixtieth part of a grain every one or two hours, according to the severity of the attack. One grain dissolved in one ounce of alcohol affords a convenient form for dispensing; sixty minims of which, with seven fluid drachms of distilled water, for a mixture; one teaspoonful to be given in half an ounce of water.—I am, etc.,
WM. PROWSE, M.R.C.S. Eng.
Cambridge, July 29th, 1877.

P.S. The alkaloid can be obtained of any pharmaceutical chemist.

THE letters of Mr. R. W. Parker and Mr. J. V. Solomon have been handed to the General Secretary, to whom all business communications should be addressed.

WE are very sorry to see the subjoined notice appearing in public newspapers in connection with the name of a well known member of the profession.

"One of the most successful of our English oculists, Mr. Jabez Hogg, has set on foot a movement for the establishment of a self-supporting eye-hospital for the working classes, where they shall be able, on payment of a fee, to obtain skilled attendance when suffering from disease of this most important organ. Several subscriptions have been received towards providing a suitable building; and in the meantime Mr. Hogg will see patients at x, Bedford Square, in the forenoon. A joint committee of working men and subscribers will be elected to manage the institution."

A CANCER-CURE.

THE *Boston Medical and Surgical Journal* publishes the following literal copy (names only being omitted) of a note recently received by a prominent Boston surgeon from a town in New England. "May 22 the 1877

"Dear Sir I have in my hands A Receipt for Curin Cancers without the use of the Knife or Plaster which I want to Sell to Some of you Surgeons for the Poor human Race that Sufer Pane by Plasters and the wife and this Soothes the pane this is no humbug Nor am i a impostor Nor a Scoundral and if you want a Recermentation of my Cariture you Can have it this has Cured Cancers on a lady Brest after all Doctors had given her up And it was as Big as a pint Bole it took all the Pane out, And took the Cancir of and i think it Cant Be Beat I Can almost Chaling the world to Beat it there is no Pane nor Sufferin A Bout it I do this Because i think you Aught to have it And if you want it you write to me at once i have the Receipt and the Proof of what it has don for those that have Ben Cured By its use It is a 15,000 dollar Receipt "Yours Truly"

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. M. A. Eason Wilkinson, Manchester; Dr. W. O. Priestley, London; Mr. W. D. Husband, York; Dr. F. A. Mahomed, London; Dr. W. Roberts, Manchester; Sir Michael Hicks Beach, London; Mr. Lowndes, Liverpool; Dr. Joseph Rogers, London; Mr. E. Lund, Manchester; Mr. Horace Turner, Norwich; Dr. Wm. Rutherford, Edinburgh; Dr. Bell Taylor, Nottingham; Mr. Sergeant, London; Dr. Braidwood, Birkenhead; Dr. J. Milner Fothergill, London; Dr. W. Fairlie Clarke, Southborough; Dr. Herbert Major, Wakefield; Dr. Warner, London; Dr. J. W. Moore, Dublin; Dr. Tilt, London; Dr. De Chaumont, Netley; Dr. Edis, London; Mr. William Prowse, Cambridge; The Secretary of Apothecaries' Hall; Dr. Stephenson, Aberdeen; The Registrar of the University of London; Mr. G. Eastes, London; The Registrar-General of England; Dr. Joseph Bell, Edinburgh; The Registrar-General of Ireland; Mr. Howard Marsh, London; Dr. A. S. Taylor, London; The Secretary of the Obstetrical Society; Dr. James Russell, Birmingham; Dr. Bradbury, Cambridge; Dr. J. Hughlings Jackson, London; Dr. Macleod, Glasgow; Dr. Thin, London; Mr. E. Turner, London; Dr. Routh, London; Dr. Galabin, London; Dr. S. J. Knaggs, Newcastle, New South Wales; Dr. H. M. Dolan, Halifax; Dr. Clifford Allbutt, Leeds; Mr. William Donovan, Leicester; Mr. A. W. Stocks, Salford; Dr. Farquharson, Kingussie; Mr. Gilmore Barnett, Bristol; Mr. Wright, London; Mr. Larkin, Bilston; Dr. Charlton Bastian, London; Dr. James Murphy, Sunderland; Dr. Philipson, Newcastle-on-Tyne; Mr. Kingzett, London; Our Dublin Correspondent; Mr. R. W. Parker, London; Dr. Day, London; Mr. T. Holmes, London; An Associate, Maidstone; Mr. J. V. Solomon, Birmingham; Mr. Ranking, Tunbridge Wells; Dr. D. Fraser, Paisley; Dr. Parsons, Dover; Dr. Hime, Sheffield; Dr. Warner, London; Dr. C. B. Fox, Chelmsford; Mr. Spencer Wells, London; Dr. Symes Thompson, London; Mr. N. Hannah, Ashton-in-Makerfield; etc.

BOOKS, ETC., RECEIVED.

A Hand-Book of the Theory and Practice of Medicine By F. T. Roberts, M.D. Third Edition. Two Vols. London: H. K. Lewis. 1877.

PRESIDENT'S ADDRESS,

DELIVERED AT

THE FORTY-FIFTH ANNUAL MEETING OF THE
BRITISH MEDICAL ASSOCIATION,*Held in MANCHESTER, August 7th, 8th, 9th, and 10th, 1877.*

BY

M. A. EASON WILKINSON, M.D., F.R.C.P.,

Senior Physician to the Manchester Royal Infirmary.

My first duty, gentlemen, is to thank you for the honour you have conferred upon me in electing me President of this Association; my next is to give you now a hearty welcome to Manchester.

It is twenty-three years since we met here under the Presidency of Mr. Wilson. Many important changes have taken place in our city since then, the effect of which, I trust, will be to make this meeting second to none, whether in local interest or in general scientific information. If we have seemed tardy in showing our desire to receive you here, it has been due to untoward causes which have been rather our misfortune than our fault. It is only after several years of negotiating that the desirable union of the Manchester Royal School of Medicine with the Owens College has at last been effected. It is, therefore, only lately that, through the liberality of the Council and Senate of that Institution, we have been able to provide suitable accommodation for the reception of such a large and influential meeting as was sure to assemble from our Association, which now numbers seven thousand members, and these from the four quarters of the globe, and embracing the most distinguished men in our profession.

Before proceeding to the subject of my address, I must make a few personal references, which I know will receive your sympathy. First, of Mr. Southam, whose untimely death we much deplore. He always stood in the van of those who strove to advance the interests of his profession, and his loss will be especially felt by the younger members, for whom his advice and help were ever ready. He was beloved by the students of the school of medicine, of which he was the first dean, and was honoured in being made President of the Council of the British Medical Association. We have next to lament the loss of one who took a deep and active interest in all that concerned the Association, and whose energy and perseverance, combined with great foresight, materially tended to create its present high position. You know that I refer to Dr. Sibson, whose cultivated mind, amiability of character, conscientious and unflinching devotion to his profession, with unimpeachable honour and integrity, have endeared him to us all, and have rendered his name a beacon-light for the guidance of the rising generation.

Another name must be added to the list of those who have passed away since the Association last met. Sir William Fergusson, under whose presidency we assembled at our last meeting in London, has been taken from us, but not till he had obtained the highest honours open to our profession in this country. As a student in Knox's dissecting-rooms when Mr. Fergusson was demonstrator, I learned to admire the beauty of his dissections and the brilliancy of his demonstrations, which were only surpassed by his future career as an operator.

There is still another name to be added to the list of those who have been called from our ranks: Mr. Whipple, who was President of the Association at Plymouth in 1871, and one of our vice-presidents at the time of his death. He distinguished himself as an operator, and practised for more than forty years in Plymouth and the surrounding country, beloved and respected.

I refrain from further details respecting the careers of these several eminent men, as their connection with medicine and

surgery, and their achievements in their several walks, will be brought before you in the different Sections.

The loss to medical education and to science experienced through the retirement of Sir Robert Christison from the Chair of *Materia Medica* in the University of Edinburgh, where he has laboured so long and done so much to advance our knowledge on this subject, ought not to be passed over. The success of the meeting in Edinburgh was, for the most part, due to the share he took as your President. Looked upon as one of the first, if not the first authority on poisons in Europe, Sir Robert's advice has been sought in numerous cases involving most difficult and delicate points, and his judgment has always been valued as of the highest importance. His career as a teacher, extending as it has done over a period of more than fifty years, the never failing regularity with which he attended to his duties, and the clearness and originality of his lectures, are themes deserving more praise than I am competent to bestow. We can only join in the hope that he will long be spared to give us the benefit of his great and varied experience.

In our profession, no one need be at a loss to find a subject for the Annual Presidential Address to the Association. It happens that, in this town especially, the question of hospital defects and their remedies is greatly engaging the attention of the local medical men.

Reports recently presented to the Trustees of the Manchester Royal Infirmary by Mr. Netten Radcliffe of the Local Government Board, and by Mr. Field, an engineer of eminence in sanitary matters, have condemned the buildings as defective in construction and drainage, and inadequate in accommodation. I have, therefore, thought the subject a suitable one to be brought before the Association, seeing that everything which applies to our special case has a general bearing upon hospital construction everywhere.

Our infirmary owes its origin to several public spirited men, who, in the year 1752, chose Mr. Joseph Bancroft, a merchant of Manchester, as the first treasurer, he having offered, if no one would join him, to defray the expenses of a hospital for one year, provided Charles White, then practising here as a surgeon, would give his professional assistance. Mr. White at once fell in with this proposal, and a house in Garden Street, Shude Hill, was engaged. This was opened for the relief of out-patients in June 1752, and, in the following month, for in-patients. During the first year, seventy-five of the latter and two hundred and forty-nine of the former were admitted.

In 1753, the good arising from this institution became so manifest that the trustees determined to erect a more suitable building, and land was purchased from Sir Oswald Mosley, situated on the south-west outskirts of the town, removed from all noise and bustle of the business then carried on, with an unimpeded view of the country to a distance of eight or ten miles. This situation became surrounded in the course of time by dwelling-houses, then by mills, around which cottages sprang up in badly drained streets. The rapid growth of the population, and the extension of manufacturing interests, soon placed the infirmary in the centre, instead of on the outskirts, of the town. It has, indeed, been alleged that the original site of our hospital was surrounded by mills and warehouses; but this is a mistake.

The original building was of red brick, and was a modest, unpretending structure; it was one of the first provincial hospitals built in England. It was constructed with a central corridor, there being small wards of low elevation on each side, and was at first intended to accommodate forty patients; but, on further consideration, the place was extended to receive eighty. This was opened in 1755, and, ten years later, the lunatic hospital and asylum was founded and erected. The benevolent minded were as liberal in their subscriptions to this part of the charity as they had been to the infirmary, and, to all intents and purposes, the two charities were considered one.

In 1781, the plan of having patients attended at their own homes was introduced. At the same time, public baths were

erected in connection with the infirmary. The north or "dispensary wing" was added in 1792. The expense was, to a great extent, defrayed by special collections in churches and in chapels of every denomination throughout the town and surrounding country. The idea of Hospital Sunday was evidently derived from this circumstance. The sum of nearly £4,300 thus obtained stands in remarkable contrast to the sums now collected, if we consider the enormous increase of wealth and population.

In the year 1825, it was proposed to embellish the exterior of this modest brick building by encasing it in stone. For want of funds, this could not be accomplished till, in 1831, a portion of a bequest from the late Mrs. Hall was devoted to the purpose. By way of further embellishment, four massive pillars were placed in the centre of the building facing Piccadilly, giving an almost palatial aspect outside, while, alas! darkening the wards and preventing a proper circulation of air, so as to render the hospital decidedly unhealthy.

No attention seems at this time to have been paid to the drainage either of the building itself or of the grounds surrounding it, there being then no corporate body in existence with power to compel attention to these matters. The pond in front of the infirmary was in such a state that, according to the reports of the Weekly Board, it had frequently to be cemented to prevent the exudation of water into the cellars of the building. The consequence of all this was, that the ground under and around the infirmary became saturated with sewage and other drainage; the stone encasement of the walls naturally prevented the escape of the effluvia which were thus confined within the building itself. We now know it as an inevitable consequence of this condition of things that erysipelas and other diseases of blood-poisoning should recur. Indeed, to such an extent was this the case that, during the spring and autumn months, no capital operations were performed unless absolutely necessary.

In 1847, the attention of the Weekly Board was directed to the unhealthy and overcrowded state of the hospital, and it was determined that a south wing should be erected, the corner stone of which was laid in that year, and the building was completed in 1848.

In 1851, mainly through the liberality of Madame Goldschmidt, then "Jenny Lind", the north wing, which bears her name, was erected; and, in 1854, this aggregation of upwards of a century was crowned with a dome, which is in truth, architecturally, the best part of the Manchester Royal Infirmary.

It must be remembered that hospital construction was at this time in its infancy. Considering the rapid strides made during the last few years in the treatment of disease, we may ask whether, in the construction of our hospitals, all has been done that can be done to obtain the best results; in other words, to put our patients under the best possible conditions for the successful application of our improved treatment. Inasmuch as the advantages of medical skill, good diet, and careful nursing more than counterbalance any disadvantage of being removed from home and friends, the applicants for the benefit of our hospitals increase year by year; and the question comes to be considered, have we yet, in the construction of our hospitals, succeeded in obtaining the hygienic conditions best calculated to benefit those under our care, and on a sufficient scale to accommodate all who apply for relief?

Now, the sanitary state of a hospital may be taken as the best criterion of its fitness for the end. Build a hospital on a plan which all are agreed is the best, give the requisite amount of cubic space to each bed, provide everything necessary for the comfort of the patients, in the shape of skilled medical attendance and nurses; but, at the same time, place it in the midst of a crowded manufacturing city, over immense drains from which mephitic gases are constantly escaping into the building, and where the external circulation cannot be properly developed, and you ought not to be surprised at finding the number of deaths from blood-poisoning excessive.

We all remember the discussion excited by the essay on *Hospitalism* of the distinguished professor Sir James Simpson.

So impressed was he with the high mortality attributable, in a great degree, to preventable causes, that he went the length of declaring that: "If our present medical, surgical, and obstetric hospitals, instead of being crowded palaces with a layer of sick to each flat, were villages or groups of cottages with one, or, at most, two patients in each room, a great saving of human life would be effected." In fact, the Cottage Hospitals in various parts of the country showed results that were most gratifying and seemed to confirm the truth of this dictum. Nevertheless, in a large manufacturing city like ours, drawing patients from all parts of a densely populated district, such a plan would be wholly impracticable.

In providing hospital accommodation, we have to consider the site, the value of ground, the number of sick to be accommodated, the amount of space to be allowed to each bed, the amount of fresh air and light at our disposal, the possibility of conveying thither the sick and wounded, the convenience of the administrative body, and the accessibility for medical officers, students, and patients' friends.

As regards the site of our present infirmary, I think it is generally agreed by the Medical Staff that we could not be more unfortunate. No legitimate excuse can be urged for retaining it in the midst of the foul air, smoke, and bustle of our densely crowded city. The convenience of the Consulting Staff and of the Medical School would be as well consulted in a purer atmosphere, and, if recovery of the sick be the object aimed at, this would be greatly facilitated.

I think we must all agree with Miss Nightingale when she says: "Fresh country air is better for the sick than impure town air, and hence the question narrows itself within the compass of accessibility; any site which can be obtained with pure air and sufficiently convenient means of access will fulfil the required conditions."

The question of removing the Manchester Infirmary has been long under consideration, but has never taken definite shape until within the last year, when the continued complaints of the acting Medical Staff regarding the unhealthiness of the present building have awakened public attention to its importance.

Miss Nightingale has said, and I think wisely, that if a new hospital be wanted, the true way to proceed is, first, to determine in what district it should be; next, to look out the possible sites; and lastly, to have each site examined by competent men, with a view to select the best. She goes on to say that the evil consequence arising out of any other course is, that party spirit becomes the leading motive, especially among those who are not sufficiently acquainted with the subject, whereby the cause that we all have at heart suffers. Such has to some extent been the case here.

When removal was first suggested, several sites were proposed; but conflicting interests brought out such strong feelings that the hope of removal has for a time been checked, while means are being taken to patch up still further the building already patched to death.

Now, apart from the defects in regard to position and drainage, the building itself is constructed on a plan which is faulty. The porticos and their columns deprive a number of the wards of the amount of light requisite for ordinary convenience; the partial Block System prevents that free circulation of external air which is absolutely necessary for avoiding stagnation within. The central corridors, besides acting as shafts for the conveyance of poisonous particles from one extremity of the building to the other, necessitate the placing of beds along dead walls, thus interfering still further with the supply of light and air to the patients.

I have thus endeavoured to give you some idea of the imperfections of our infirmary as to site and construction, and of the means which should be taken to remedy them. I have discussed the matter in no factious spirit, but have endeavoured to put plainly before you a question which, although local in character, yet brings us face to face with some of the most important questions connected with modern hospital hygiene.

Originally, hospitals were built for the helpless, the infirm, the sick, and the aged; many such may be seen in different parts of this country and on the Continent. These houses were generally attached to some monastic or other religious foundation. The medical treatment was probably, in a great many respects, faulty, as compared with our own times. It is only of late years that architects, and those interested in the subject of building, have been convinced that, in constructing a hospital, something more is required than room for beds and a tolerable amount of light.

Only a few years ago, it was not at all uncommon, in passing through some of the Continental hospitals, to find the wards dark and heated by stoves, with no attempt at ventilation; the windows had double sashes, and during the winter these were never opened, but were plugged so as to prevent the slightest admission of air. The floors were covered with beds, and it was impossible to make your way through the wards without disturbing the patients. Indeed, it is not long since the Local Government Board in this country condemned the plans of a hospital on the Pavilion System, with water-closets and bath-rooms at the end of the ward; and they compelled the authorities to place the water-closets in the middle of the building and in immediate proximity to the kitchen, leading, of course, to the presence of noxious odours there. All this has been changed of late; and the same department insists now upon having temporary hospitals, with the most perfect arrangements for isolation, drainage, and ventilation. In such a case, one would have thought that, with the scientific medical skill at their disposal, there could have been no hesitation.

To cure the sick as rapidly and effectually as possible should be the object of every medical man, and, consequently, we should endeavour to aim at a consensus of opinion as regards hospital construction. Every town in the kingdom of any size has its hospital, and medical men are absolutely required both to know what is best in hospital construction, and to rest their opinion upon such solid grounds as shall be convincing against opponents.

There is no doubt that a very large majority of those who have studied the question earnestly and practically give their decided voice in favour of the Pavilion System. When the infirmary here was in process of rearrangement thirty years ago, I strongly urged the adoption of this plan, but I was defeated. Time has shown that a mistake was made in the matter, and means have lately been suggested to rectify this.

I need not tell you that all the proposed improvements have been made with reference to the Pavilion plan. There are a number of modifications of the system which it would be a waste of time to enumerate; but the first principle is, to have each ward completely open to the air on each side, with drains running outside, and ventilated, with bath-rooms and other conveniences projecting from the building at one end, and nurses' rooms and administration at the other. These could be multiplied indefinitely, and, provided land was cheap, would require to be only of one story; there would be no objection, however, to two or even more.

In connection with the subject of hospital construction it may not be amiss briefly to touch upon the scheme, lately agitated in London, for providing hospital accommodation for the well-to-do classes. This proposal has received the support of some of the leading medical men in the metropolis, and has been favourably noticed by many important journals.

Considering the size of some of our existing hospitals, and the conveniences already established in them, would it not be better to add wards to them for the reception of paying patients who should be attended by their own medical men? Some objections which are now put forward in regard to management, etc., might thus be got over, and all the advantages of hospital treatment might be obtained with a minimum of expenditure. The Hopkins Hospital in Baltimore, United States, recently endowed through the munificence of a gentleman of that city, and in process of erection, is arranged upon this basis; and other hospitals on the continent of Europe carry out the same idea. I do not see why, with special arrangements, the same

ends might not be attained as are now being striven for by the promotion of the "home hospitals".

A city approaching in size to ours, needs a general hospital of at least five hundred beds, in order to accommodate all classes of disease. Without this, you cannot meet the various requirements of a large community, nor can you have a perfect School of Medicine and Surgery.

It must not be forgotten that Manchester is the seat of the largest English School of Medicine out of London. Inaugurated in the early part of this century by the energy of Mr. Jordan, who was the first provincial lecturer recognised by the medical corporations as qualifying for examination, it became expanded into a school by the late Mr. Turner. The love of teaching, and the desire to advance the profession by thoroughly educating the candidates for admission into it, alone actuated those men, who were associated with the illustrious Dalton, Sir James Bardsley, and others; and, through their united endeavours, the Pine Street School became the educational centre for the North of England.

Friendly rivalry was at that time strong among the medical men; and encouraged, I believe, by the success of the above-mentioned school, another was established in 1850 in Chatham Street, under the direction of the late Mr. Southam, the late Mr. Dumville, and Dr. Watts. This latter also prospered, and, in 1853, it was thought advisable to unite the two. From that date to the present, we have had but one medical school in Manchester. To the pioneers in this work, we owe a deep debt of gratitude.

Now we come to an important period, as I believe, in the history of Manchester and of Medicine. The promoters of the united school being anxious to place themselves under the best conditions for the education of the students under their charge, took steps in 1872 to bring their institution more closely into connection with the Owens College, which was then becoming celebrated as a school of scientific education. The Owens College owes its existence to the liberality of John Owens, a prosperous Manchester merchant, who left his property to the late Mr. George Faulkner and other trustees, for the purpose of founding a college after the models of the older English Universities. Mr. Faulkner accepted the trust, and, having purchased some property in Quay Street, he presented it with the buildings thereon to the College. The lectures of the Owens College were here begun in 1851, and were carried on until the class-rooms were found to be inadequate to accommodate the number of students who assembled to avail themselves of the advantages offered by the institution. About this time, Her Majesty, by Royal Warrant, affiliated the College to the London University. Great interest was taken in the young College, and benefactions flowed in from all sides, providing a number of valuable scholarships. Its progress was not rapid, but sure; and, in 1867, a movement was inaugurated for extending the then limited accommodation. Land was bought in Oxford Road; and, to be brief, on October 7th, 1873, the present buildings were opened by the Duke of Devonshire, President of the College. Mr. Waterhouse, with his skill and anxious desire to carry out the wishes of the staff of professors, has given them accommodation which has no rival, I believe, in its suitability for their various requirements. The laboratories are second to none in Europe; it has even been said that they are the first, having been specially planned under the supervision of the distinguished professors in these departments; they possess all the most recent and perfect apparatus for the purposes of scientific research.

Under such circumstances, we cannot wonder that the governing body should have been desirous of adding another Faculty to those already in existence. A large bequest by the late Miss Brackenbury, for the purpose of founding a medical school in connection with the College, gave an impetus to negotiations which had been begun between the authorities of the College and the Manchester Royal School of Medicine, tending to this object. These efforts were successful. An appeal to the public soon brought the additional necessary funds; and in

October 1874, the best appointed medical school in the provinces was opened. The advantages of the union have not only accrued to the Medical School, by providing increased accommodation and greater facilities for experimental medicine, but also to the College, in thus rapidly increasing its numbers, and adding to its area of usefulness.

The infirmaries authorities are now invited to take their share in furthering the cause of Scientific Medical Education; to do this effectively, the disadvantages under which we have so long laboured from having a defective hospital must be remedied.

It is unnecessary that I should occupy more of your time when there is so much that is interesting to be brought before you during the meeting of our Association.

I have dwelt at length on the subject of hospitals and their connection with medical education, holding, as I do and have long done, the deep conviction that it is a question of the highest importance in all its bearings, and this not only to medical men, but to every member of the community. I believe I shall have the sympathy of this great and influential meeting in the views I have expressed and in the statements I have made.

Allow me in conclusion, gentlemen, to offer you once more our sincere welcome to Manchester.

ADDRESS IN MEDICINE,

BY

WILLIAM ROBERTS, M.D., F.R.S.,

Physician to the Manchester Royal Infirmary; Professor of Clinical Medicine in Owens College; etc.

THE DOCTRINE OF CONTAGIUM VIVUM AND ITS APPLICATIONS TO MEDICINE.

GENTLEMEN,—The notion that contagious diseases are produced by minute organisms has prevailed in a vague way from a remote age; but it is only within the last twenty years—since the publication of Pasteur's researches on fermentation and putrefaction—that it has assumed the position of a serious pathological doctrine. In the last decade, startling discoveries of organisms in the blood have given this doctrine the support of actual observation; and its application as a guide in the treatment of wounds by Professor Lister has made it a subject of universal interest to medical practitioners.

The resemblance between a contagious fever and the action of yeast in fermentation—or the action of bacteria in decomposition—is in many points so striking that it is difficult to avoid the impression that there is some real analogy between them. If, for example, we compare the action of yeast with small-pox, this resemblance comes out very distinctly, as the following experiment will show. I filled two pint bottles, A and B, with fresh saccharine urine, and inserted a delicate thermometer in each. A was inoculated with a minute quantity of yeast, but nothing was added to B. Both bottles were then placed in a warm place in my room, at a temperature of about 70 deg. Fahr. In order to get a correct standard of temperature for comparison, I placed beside these a third bottle, C, filled with water, and inserted a delicate thermometer in it. All these bottles were carefully swathed in cotton-wadding, for the purpose of isolating their individual temperatures, and to obviate, as much as possible, the disturbing effects of the varying temperature of the room. For twelve hours no change took place; but, at the end of this time, A began to ferment, and the thermometer marked a distinct elevation of temperature. On the second day, A was in full fermentation, and its temperature was 2.7 deg. above B and C. This disturbance continued for five days, the temperature ranging from two to three degrees above the companion bottles. The disturbance then subsided, and the temperature fell to an equality with B and C, and a considerable sediment, composed of yeast, settled at the bottom. In the meanwhile, B showed little alteration; but, on the sixth day, it began to ferment, the temperature went up, and for more than a week its thermometer stood about two degrees above A and C. Finally, the temperature in B declined, the disturbance subsided, and the newly formed yeast settled to the bottom of the vessel.

This fever in a bottle resembled small-pox in the following points,

A period of incubation intervened between inoculation and the commencement of disturbance; then followed a period of disturbance accompanied by elevation of temperature; this was succeeded by a subsidence of the disturbance and a return to the normal state. Great multiplication of the infective material (or yeast) took place during the process, and, after its conclusion, the liquid was protected from further infection with the same contagium. We likewise notice that the contagium of fermentation, like that of small-pox, may take effect either by direct purposive inoculation or by fortuitous infection through the atmosphere. In both cases, the infective material has the power of preserving its activity for an indefinite period. The comparison fails in at least one important point—in the fermented urine, sugar is replaced by alcohol and carbonic acid; but we are not aware that any pronounced chemical changes occur in the blood or tissues during an attack of small-pox. I would, moreover, carefully guard myself against being supposed to suggest that the enhanced temperature in the fermenting urine is a real analogue of the preternatural heat of fever.

Let me direct your attention to another example—a kind of partial decomposition or fermentation which takes place in boiled hay-infusion when it is inoculated with the *Bacillus subtilis*. The *Bacillus subtilis* is a very common bacterium found in vegetable infusions and in curdling milk. I hope you will take note of this little organism; for I shall have to refer to it more than once in the course of this address. I took a flask containing hay-infusion, which had been sterilised by boiling, and inoculated it with a drop of fluid swarming with *Bacillus subtilis*. After the lapse of twenty-four hours, the previously transparent infusion became turbid. This turbidity increased, and, on the second day, a film or crust formed on the surface of the infusion. On the third and subsequent days, the crust broke up and fell in pieces to the bottom of the vessel. In about a fortnight, the turbidity passed away, and the original transparency of the infusion was perfectly restored, so that it looked exactly as it did before the process began, except that there was now a sediment consisting of the spores of the little organism at the bottom of the flask. In this case, again, there was the same succession of events: a period of incubation, followed by a period of disturbance, succeeded by a period of subsidence, and, finally, restoration to the normal state. There was also great increase of the infective material and immunity from further attack by the same contagium.

The yeast-plant and the *Bacillus subtilis* may be taken as representatives of a large class of organisms in regard to which we are only beginning to realise their vast importance in the economy of Nature and in the life of man. They are, as I shall presently show, the essential agents in all fermentations, decompositions, and putrefactions. We may group them together for the convenience of description under the general designation of *saprophytes*, a term intended to include under one heading all the organisms associated with the decomposition and decay of organic matter. The yeast plant and its allies, and all the numerous species and varieties of bacteria, belong to this group. In size and form, they are among the smallest and simplest of living things, but their vital endowments are wonderful.

All the organisms hitherto found associated with infective inflammations and contagious fevers belong to the tribe of bacteria, and we cannot advantageously enter on a study of that association without a knowledge of the origin and attributes of these organisms. This brings us into a field of active controversy. It has been alleged, as you know, on high authority, that these organisms, under certain conditions, depart entirely from the universal law of generation, which is expressed in the aphorism *omne vivum ex vivo*, and that they may arise spontaneously by a process of abiogenesis. It is also alleged that these organisms are not the actual agents of decomposition, but are merely associated with that process as secondary or accidental accompaniments. I propose to lay before you evidence that both these allegations are unsustainable, and to prove that bacteria, like other organisms, arise from pre-existing parent germs, and in no other way, and that they are the actual agents in all decomposition and putrefaction.

The first proposition I shall endeavour to establish is this: that organic matter has no inherent power of generating bacteria, and no inherent power of passing into decomposition.

I have here placed before you samples of three sets of preparations, out of a large number in my possession, which serve to substantiate this proposition.

The first set consists of organic liquids and mixtures which have been rendered sterile by a sufficiently prolonged application of the heat of boiling water. They are composed of infusions of vegetable and animal substances, fragments of meat, fish, albumen, and vegetables floating in water. They are contained in oblong glass bulbs, and are protected from the dust of the air by a plug of cotton-wool inserted into the necks of the bulbs, but freely open to its gaseous elements

which pass in and out through the cotton-wool. They are all, as you see, perfectly transparent and unchanged, though most of them have been in my possession for several years.

The second set consists of organic liquids which have been simply filtered under pressure through unglazed earthenware into sterilised flasks. They include acid and neutralised urine, albuminous urine, diluted blood, infusions of meat and of hay. As these preparations were obtained by a method which is in some respects new, I will describe it to you. A piece of common tobacco-pipe, about six inches long, served as the filter. This was secured by India-rubber piping to the exit-tube of one of the little flasks used by chemists for fractional distillation. The flask is first charged with distilled water, and then a tight plug of cotton-wool is inserted into its neck. The flask is next set a-boiling briskly over a lamp. The steam rushes through the cotton-wool plug and through the tobacco-pipe, clearing both these passages of any germs they might contain. When the water has nearly boiled away, the end of the tobacco-pipe is hermetically sealed with melted sealing-wax. After a little more boiling, the flame is withdrawn and the neck of the flask is instantly closed with a tight vulcanite cork. The apparatus is now ready for action, and the tobacco-pipe is immersed in the liquid to be filtered. When the flask cools, a vacuum is created within it, and this serves as a soliciting force to draw the liquid through the earthenware into the flask. The process of filtration is very slow; it takes two or three days to charge the flask. When a sufficiency has come over the apparatus is removed and placed on a shelf for a few days until the pressure inside and outside the flask is equalised. The vulcanite cork is then withdrawn, and the exit-tube is separated and sealed in the flame of a lamp. In this way, you obtain a sterilised flask charged with the filtered organic liquid, and protected from outside contamination by a plug of cotton-wool. Preparations obtained in this way, if due precaution have been used in the manipulation, remain permanently unchanged; organisms do not appear in them, and decomposition does not ensue.

The third set of preparations are in some respects the most significant of the three. They consist of organic liquids which have been simply removed from the interior of the living body, and transferred, without extraneous contamination, into purified glass vessels. I will not detain you with the methods employed to obtain them; it is sufficient to say that, by the use of proper precautions, it is possible to convey blood, pus, urine, ascitic fluid, pleuritic effusion, blister serum, or the contents of an egg into sterilised glass vessels without contact with any infecting agency. Preparations thus obtained are exhibited in these flasks; they are protected from air-dust by a simple covering of cotton-wool. All of them are absolutely free from organisms and from any signs of decomposition.

What meaning can we attach to these preparations? You all know that liquids and mixtures such as these speedily decompose and swarm with organisms when left to themselves exposed to the air. They are of most varied composition, and the most apt of all known substances to breed bacteria and to become decomposed. They have been exposed to the most favourable conditions in regard to warmth, moisture, and air. Many of them have been in my possession several years, and all of them for several months, yet they are wholly barren and without sign of decomposition. I venture to say that these preparations substantiate in a positive manner the proposition with which we started; namely, *that organic matter has no inherent power of generating bacteria and no inherent power of passing into decomposition.*

A second proposition is likewise established by these preparations; namely, *that bacteria are the actual agents of decomposition.*

In all the preparations, the absence of bacteria coincides with the absence of decomposition. If I were to cause bacteria to appear in them either by purposive infection or by exposing them to the unfiltered air, decomposition would infallibly follow. The filtration experiments supply a new and telling argument on this point. Some of the liquids became decomposed and full of bacteria while the filtration was going on, but the part which came over into the flasks remained without further change, showing that decomposition cannot go on without the actual contact of the living organisms.

We have next to ask ourselves what are the sources and what is the nature of the fecundating influence which causes organic liquids, when abandoned to themselves without protection, to become peopled with organisms. In regard to their source, the answer is not doubtful. If I remove the covering of cotton-wool from any of these preparations, and admit unfiltered air, or a few drops of any ordinary water, however pure, or anything that has been in contact with air or water, organisms make their appearance infallibly in a few hours. As to the nature of the infective agents, we can say positively that they must consist of solid particles, otherwise they could not be separated by filtration through cotton-wool and porous earthenware. Is it not a most natural

inference that they are the parent germs of the brood which springs up at their impact? They are, however, so minute that we cannot identify them as such under the microscope; but Professor Tyndall has demonstrated that air which is optically pure—that is, air which is free from particles—has no fecundating power.

It is contended in some quarters that these particles are not living germs of any sort, but simply particles of albuminoid matter in a state of change which, when they fall into an organic liquid, communicate to it their own molecular movement, like particles of a soluble ferment, and so produce decomposition which, in its turn, provides the conditions necessary for the abiogenic generation of bacteria. Filtration through porous earthenware furnishes a complete answer to this theory; for I found on trial that the soluble ferments passed with ease through the porous earthenware. If, therefore, this theory were true, the filtered liquids, if already commencing to be decomposed, would go on decomposing, and would develop bacteria after filtration; but instead of that they remain unchanged and barren. We are absolutely driven to the conclusion that these particles are living germs: no other hypothesis squares in the least degree with the facts of the case.

We may formulate this conclusion in a third proposition as follows: *The organisms which appear as if spontaneously in decomposing fluids owe their origin exclusively to parent germs derived from the surrounding media.*

But how, you will ask, has it been possible, in the face of this evidence, to maintain, with a show of success, the contrary opinion that bacteria can and do, exceptionally at least, and in certain media, arise spontaneously. This opinion is based on two undoubted facts, which, taken together, seem at first sight to stand in direct contradiction with the propositions I have enunciated. The first fact is that bacteria are invariably killed when exposed to a temperature of about 140 deg. F., or any higher temperature. The other fact is that certain liquids, such as neutralised hay-infusion and milk, often produce bacteria after having been boiled—sometimes after having been boiled for two or three hours—and when there was no possibility of subsequent infection. It seemed at first sight a fair inference from these two facts that the apparition of organisms in boiled liquids was due to spontaneous generation, or abiogenesis. It does seem difficult to believe that any living thing can survive a boiling heat for several hours—and yet such is undoubtedly the truth. When I published on this question in 1874, I advanced more than one line of proof which appeared conclusive that germinal particles of some sort did, under certain circumstances, survive a boiling heat; and that the instances referred to were examples of such survival, and not of a *de novo* generation. But I was not then able to explain the apparent contradiction involved in these experiments.

Since then, a new and surprising light has been thrown on this subject by the researches of Professor Cohn of Breslau, and we are now in a position to offer a complete solution of the riddle. All the confusion has arisen from our having failed to distinguish between the growing organism and its seed or spore. You are all familiar with the immense difference in vital endurance between the seed and the growing plant. The same difference exists between a spore and its offspring. Some spores have an extraordinary power of resisting heat. Mr. Dallinger and Dr. Drysdale, in the course of their inquiries into the life-history of septic monads, demonstrated that while the living monads are killed by a heat of 140 deg. F., the spores of one variety, which are so minute that they cannot be seen, except in mass, by the highest powers of the microscope, are capable of germinating after being subjected to a heat of 300 deg. F. for ten minutes! If the spores of monads can resist this tremendous heat, there is no reason why the spores of bacteria should not be able to survive the feebler heat of boiling water. The development of bacteria in hay-infusion, after having been boiled continuously for several hours in hermetically sealed vessels, seemed to furnish the very strongest attainable evidence in favour of the abiogenic origin of these organisms; and yet, by a singular fatality, the investigations of Cohn have shown that this evidence, rightly interpreted, supplies a crowning argument against that view.

Cohn had the curiosity to examine the organisms which arose under these extraordinary circumstances. Did he find a new birth? On the contrary, he recognised a familiar form: none other than our old acquaintance the *Bacillus subtilis*. He followed it through all the stages of its development. It first appeared some twenty-four hours after the boiling, in the form of innumerable short moving rods. On the second day, these rods shot out into long threads; on the third day, there appeared on the threads, at perfectly regular intervals, strongly refractive oval bodies, which he identified as spores. Finally, the threads broke down and the spores were set free. In many hundred observations, he saw this one organism and no other, and witnessed the successive stages of its development occurring with the constancy of a physical experiment.

Now, let me ask if this looks like an act of abiogenesis. The evolutionist demands, for the transformation of one organic type into its next descendant, myriads of generations, and I know not what lapse of ages. But here, if this be a case of abiogenesis, we see accomplished at one leap, in a single generation, and in seventy hours, not merely the bridging over of the gulf between the dead and the living, but the development of a specifically distinct organism, with definite form, dimensions, and mode of growth, and furnished with a complete provision for the reproduction of the species! I need scarcely say that such a feat would be, not only without parallel in the history of evolution, but would be wholly contradictory to that theory.

The only group of bacteria, so far as is known, which form spores are the *Bacilli*; and Cohn remarks that in all the various cases in which he had observed organisms to arise in boiled liquids, they belonged in every instance to the *Bacilli*.

Before leaving this part of my subject, I wish to suggest certain considerations in regard to the nutrition and function of saprophytes, which appear to me to render it in the highest degree improbable that spontaneous generation should ever be discovered in this quarter. If it be assumed that the occurrence of abiogenesis, at some time in the past history of the globe, is a necessary postulate in science, and I see nothing unscientific—looking to the law of continuity in the operations of nature—in the supposition, that it is occurring at the present day somewhere or other on the earth's surface, but certainly not in decomposing liquids.

Saprophytes are, as is well known, destitute of chlorophyll, and, like all such plants, they are unable to assimilate carbonic acid. They obtain their carbon exclusively from more complex compounds which have been prepared for them by pre-existing living beings. It is, therefore, manifestly impossible that the primordial forms of life could have belonged to this group; for if we throw ourselves back in imagination to that remote era when life first appeared on the globe, we should find ourselves in a purely inorganic world—amid conditions in which saprophytes could not possibly live nor obtain nourishment. The special function of saprophytes in the order of nature is to destroy, not to create, organic matter; and they constitute the last, not the first, link in the biological chain. For if we regard the order of life as it now proceeds on the earth's surface, we may describe it as beginning with the chlorophyll body, and ending with the saprophyte. The chlorophyll body is the only known form of protoplasm which obtains all its nutriment from inorganic sources: here integration is at its maximum, and disintegration at its minimum, and the resultant of the nutritive operations is increase of organic matter. The saprophyte, on the contrary, feeds on nutriment prepared for it by other beings: here integration is at its minimum, and disintegration at its maximum, and the resultant of the nutritive process is decrease of organic matter. What takes place in a decomposing liquid, under the action of saprophytes, is progressive disintegration, and finally a breaking up of all the organic compounds it contains into carbonic acid and ammonia; and the process ends with the mutual destruction of the organisms themselves. Organisms could not, therefore, begin in this way. The primordial protoplasm must have been either the chlorophyll body itself, or a body having a similar mode of nutrition.

If the search for contemporary abiogenesis is to be continued, as doubtless it must be, for science is insatiable, it appears to me that the inquirer should endeavour to realise the conditions under which abiogenesis must have occurred in the first instance. For, if the process be going on amongst us at this day, it may be assumed as probable that it still proceeds on the original lines laid down at the dawn of life. If ever I should be privileged to witness an abiogenic birth, I should certainly not expect to see a saprophyte: I should rather expect to see a speck of protoplasm slowly formed, without definite shape or dimensions, and nourishing itself, like the chlorophyll body, on a purely mineral diet. The more one reflects on this subject, the more clearly does it appear that the spontaneous origin of saprophytes is logically impossible. Speaking as an evolutionist, I should rather infer that saprophytes were a late development; probably a degradation from some algal forms which had found their profit in feeding on waste organic matter, and which gradually lost their chlorophyll through want of use, and with it their power of feeding on an exclusively mineral diet.

We now approach the more practical side of our subject: that which concerns us as practitioners of medicine and students of pathology. I have already directed your attention to the analogy between the action of an organised ferment and a contagious fever. The analogy is probably real, in so far at least that it leads us to the inference that contagium, like a ferment, is something that is alive. We know of nothing

in all our experience that exhibits the phenomena of growth and self-propagation except a thing possessed of life.

This living something can only be one of two things: either it is an independent organism (a parasite) multiplying within the body or on its surface, or it is a morbid cell or mass of protoplasm detached from the diseased body and engrafted on the healthy body. Possibly, both these conceptions may have their application in the explanation of different types of infective diseases. In regard to the latter conception, however—the graft theory—which has been so ably developed by my friend Dr. Ross, I will only say that it has not, as yet, emerged from the region of pure speculation. It lacks an established instance or prototype; and it fails to account for the long-enduring dormant vitality so characteristic of many contagia, which conforms so exactly with the persistent latent vitality of seeds or spores, but which contrasts strongly with the fugitive vitality of detached protoplasm.

If, then, the doctrine of a contagium vivum be true, we are almost forced to the conclusion that a contagium consists (at least in the immense majority of cases) of an independent organism or parasite, and it is in this sense alone that I shall consider the doctrine.

It is no part of my purpose, even if I had the time, to give an account of the present state of knowledge on this question in regard to every contagious disease. My object is to establish the doctrine as a true doctrine; to produce evidence that it is undoubtedly true in regard to some infective inflammations and some contagious fevers. In an argument of this kind, it is of capital importance to get hold of an authentic instance; because it is more than probable—looking to the general analogy between them—that all infective diseases conform in some fashion to one fundamental type. If septic bacteria are the cause of septicæmia—if the spirilla are the cause of relapsing fever—if the *Bacillus anthracis* is the cause of splenic fever—the inference is almost irresistible that other analogous organisms are the cause of other infective inflammations and of other specific fevers.

I shall confine my observations to the three diseases just named: septicæmia, relapsing fever, and splenic fever; merely remarking that, in regard to vaccinia, small-pox, sheep-pox, diphtheria, erysipelas, and glanders, the virus of these has been proved to consist of minute particles having the character of micrococci; and that, in regard to typhus, scarlet fever, measles, and the rest of the contagious fevers, their connection with pathogenic organisms is as yet a matter of pure inference. For further details, I must refer you to the able Reports of Dr. Braidwood and Mr. Vacher on the Life-history of Contagium, made on behalf of this Association, and published in the JOURNAL in the course of the past and present years.

SEPTICÆMIA.—We will first inquire how it stands with this doctrine in regard to traumatic septicæmia and pyæmia. You are all aware that foul ill-conditioned wounds are attended with severe, often fatal, symptoms, consisting essentially of fever of a remittent type, tending to run on to the formation of embolic inflammations and secondary abscesses.

The notion that septicæmia is produced by bacteria, and the *rationale* of the antiseptic treatment which is based thereupon, is founded on the following series of considerations.

1. It is known that decomposing animal substances—blood, muscle, and pus—develop, at an early stage of the process, a virulent poison, which, when injected into the body of an animal, produces symptoms similar to those of clinical septicæmia. This poison is evidently not itself an organism; it is soluble, or at least diffusible, in water, and it is capable, by appropriate means, of being separated from the decomposing liquid and its contained organisms. When thus isolated, it behaves like any other chemical poison; its effects are proportionate to the dose, and it has not the least power of self-multiplication in the body. To this substance, Dr. Burdon Sanderson has given the appropriate name of pyrogen. It is the only known substance which produces a simple uncomplicated paroxysm of fever—beginning with a rigor, followed by a rise of temperature, and ending (if the dose be not too large) in defervescence and recovery.

2. We know further, from the evidence I have laid before you, that decomposition cannot take place without bacteria, and that bacteria are never produced spontaneously, but originate invariably from germs derived from the surrounding media. We are warranted by analogy in regarding pyrogen as the product of a special fermentation taking place in decomposing albuminoid mixtures, but we cannot name the particular organism nor the particular albuminoid compound which are mutually engaged in the process.

3. In the third place, we know that when a wound becomes unhealthy, as surgeons term it, the discharges become offensive—in other words, decomposed—and when examined under the microscope they are found to swarm with organisms resembling those found in all de-

composing fluids. Meanwhile the patient becomes feverish, and suffers from the train of symptoms which we call septicæmia.

It is a natural inference that what takes place in decomposing blood or muscle in the laboratory takes place also in the serous discharges and dead tissues of the wound. These become infected from the surrounding air, or from the water used in the dressings, with septic organisms: on that follows decomposition and the production of the septic poison, or pyrogen; the poison is absorbed into the blood, and septicæmia ensues.

It was the distinguished merit of Lister to perceive that these considerations pointed to a means of preventing septicæmia. He argued that if you could prevent the access of septic organisms to the wound, or destroy them there, you would prevent decomposition, prevent the production of the septic poison, and thus obviate the danger of septicæmia. It is not within the scope of this address to describe the means by which Lister attained this object, still less to pass judgment on his practice, but I may be permitted to express my belief that the principle on which the treatment is founded is unassailable.

We should probably differ less about the antiseptic treatment if we took a broader view of its principle. We are apt to confound the principle of the treatment with Lister's method of carrying it out. The essence of the principle, it appears to me, is not exactly to protect the wound from the septic organisms, but to defend the patient against the septic poison. Defined in this way, I believe that every successful method of treating wounds will be found to conform to the antiseptic principle, and that herein lies the secret of the favourable results of modes of treatment which at first sight appear to be in contradiction to the antiseptic principle. Take, for example, the open method of treating wounds which is sometimes compared in its results with Lister's method. What is this treatment but another way (only less ideally perfect than Lister's) of defending the patient against the septic poison? Because, if the surgeon succeeds in providing such free exit for the discharges that there is no lodgment of them in the wound, either they pass out of it before there is time for the production of the septic poison, or if any be produced, it escapes so quickly that there is not enough absorbed to provoke an appreciable toxic effect.

Before we can understand the pathology of septicæmia we must have clear ideas on the relation of septic bacteria to our bodies. We see in our laboratories that dead animal tissues, when exposed to ordinary air or ordinary water, invariably breed septic organisms; in other words, contact of the septic germs with the dead tissues never fails to produce successful septic inoculation. But it is quite otherwise with the same tissues when alive and forming part of our bodies. You cannot successfully inoculate the healthy tissues with septic bacteria. It has been proved over and over again that these organisms, when separated from the decomposing medium in which they grow, can be injected in quantity into the blood or tissues of a healthy animal, or applied to a sore on its skin, without producing the least effect. The healthy living tissues are an unsuitable soil for them; they cannot grow in it; or, to put it in another way, ordinary septic bacteria are not parasitic on the living tissues.

This fact is of fundamental importance in the discussion of the pathology of septicæmia. We have a familiar illustration of its truth in the now common practice of subcutaneous injection. Every time you make a subcutaneous injection you inject septic germs into the tissues. I had the curiosity to test this point with the morphia solution used for this purpose in the Manchester Infirmary. I injected five drops of this solution into four flasks of sterilised beef-tea which had remained unchanged in my room for several months, taking care to avoid any other source of contamination. In forty-eight hours they were all in full putrefaction. But we know that no such effect follows when similar injections are made into the bodies of our patients.

It seems also probable that septic organisms enter constantly into our bodies with the air we breathe and the food we take; they pass, presumably, like any other minute particles, through the open mouths of the lymphatics and lacteals, and penetrate some distance into these channels; they certainly come in contact with the accidental cuts, sores, and scratches which so often bedeck our skins. Notwithstanding all this, our bodies do not decompose; indeed, if ordinary septic organisms could breed in the living tissues as they do in the same tissues when dead, animal life would be impossible, every living creature would infallibly perish. How these organisms are disposed of when they do enter our bodies accidentally, as it were, in the various ways I have suggested, we cannot say; we can only suppose that they must speedily perish, for we find no traces of them in the healthy blood and healthy tissues.*

* Exception must apparently be made in regard to the tissues and organs in the immediate vicinity of the absorbent surfaces. Both Klebs and Bacter. Sangeron

Bearing in mind, then, that ordinary septic organisms cannot breed in the living tissues, unless, at least, they are reduced to near the moribund state; bearing also in mind that there is a sharp distinction to be drawn between the septic poison and the organisms which generate it, we are in a better position to consider the course of events in a wound, which leads on to septicæmia and pyæmia. What probably takes place is this: An unprotected wound receives infection from the septic organisms of the surrounding media. If the discharges are retained in the sinuosities of the wound, decomposition of them sets in with production of the septic poison. This is absorbed into the blood, a toxic effect follows, and septicæmia is established. As this effect increases with the continuous absorption of the poison, the vitality of the system is progressively lowered, and especially the vitality of the tissues bordering the wound, which may be topically affected by the poison which percolates through them. These tissues at length become moribund or die outright; the septic organisms then invade and breed in them, more septic poison is produced and absorbed; the toxæmia becomes intense, embolic centres of inflammation and suppuration are formed, and the end comes. In all this history there is no necessity to assume, nor even a probability, that septic organisms invade, or at least multiply in, the blood. They may do so at the near approach of death, but scarcely before that period.

In the course of traumatic septicæmia there sometimes occurs an event of great importance which imparts a new feature to the disease; I mean *infectiveness*. How this arises is a matter of speculation. To me it appears probable that, under a certain concurrence of conditions in and about the wound, a modification takes place in the vital endowments of the septic organism, whereby it acquires a parasitic habit, which enables it to breed in tissues of degraded vitality or even in the healthy tissues, and in this way to produce the infective endemic pyæmia which we sometimes witness in the wards of our large hospitals.* I shall develop this idea more fully by and bye.

Before leaving the subject of septicæmia, I may allude to the possibility of wounds being infected with septic organisms from within. As a rare occurrence, I am inclined to think that this is possible, and that it may account for the occasional alleged infection of protected wounds. From an observation by Chauveau, it may be inferred that septic organisms, when injected directly into the blood, are able to survive for two or three days, although unable to breed there.† It is conceivable that occasionally a septic germ entering the body in some of the ways which have been suggested may escape destruction and pass into the blood and lurk there awhile, and finding by chance some dead tissue or liquid within its reach, may multiply therein and produce septic effects. Such a contingency, if it ever occur, must be very rare, and would not appreciably detract from the value of the antiseptic mode of dressing wounds.

RELAPSING FEVER.—In 1872, Dr. Obermeier of Berlin discovered minute spiral organisms (spirilla) in the blood of patients suffering from relapsing fever. This discovery has been fully confirmed by subsequent observations. The organisms are found during the paroxysms; they disappear at the crisis; and are absent during the apyrexial periods.

The drawings represent the various appearances presented by these little parasites. They consist of spiral fibrils of the most extreme tenuity, varying in length from two to six times the breadth of a blood corpuscle. In the fresh state they move about actively in the blood. They have not been detected in any of the fluids or secretions of the body except the blood, nor in any other disease than relapsing fever. In form and botanical characters they are almost identical with the *Spirochaete plicatilis* of Ehrenberg (*Spirillum* of Dujardin) a species of bacteria found in dirty water and occasionally in the mucus of the mouth. Cohn designated the variety found in the blood *S. Obermeieri*, in honour of its discoverer.

In the beginning of the current year, Dr. Heydenreich‡ of St. Petersburg, published an elaborate monograph on this subject, which, I think, goes far to reconcile the conflicting statements and opinions put forth by previous writers in regard to the connection of the spirilla with relapsing fever. It is based on forty-six cases; these cases were studied with the most minute care; the blood was examined, and the

found that portions of the liver and kidneys removed from the body without extraneous contamination, produced bacteria, contrasting in this respect with the blood and muscles. Bacter. Med. T. 1. p. 107. February 1877.

Such a modification of the organism, whereby a more virulent septic poison is produced. Would not such a view explain the sudden intensification of the infecting virus which was found by Chauveau and Dr. Sanderson in their experiments on infective inflammations?

‡ L. Heydenreich, *Ueber die Spirillen in der Blutbahn bei Relapsing-Fieber*. Pflüger's Arch. 1877. He gives a good résumé of the literature of the subject.

temperature observed from two to six times each day. Altogether, over a thousand examinations of the blood were made.

Relapsing fever still prevails extensively in certain districts of Germany and Russia, but it is almost a forgotten disease in this country; and probably the majority of those in this room have never seen a case. It will, therefore, not be amiss if I remind my hearers, and myself, of its principal features. It is a contagious epidemic fever characterised by a sharp paroxysm of pyrexia, which lasts about a week, and ends with a severe critical sweating. This is succeeded by an intermission, also of about a week, during which the patient is apyrexial; then follows a second paroxysm, or relapse, which lasts four or five days, and ends, as before, in a critical sweating. Recovery usually follows the second paroxysm, but not unfrequently a third paroxysm occurs, and sometimes a fourth.

The paroxysms are occasionally broken by remissions or pseudo-crises; and the apyrexial periods are sometimes interrupted by slight temporary rises of temperature.

Bearing these characteristics in mind, we shall be able to understand the significance of Heydenreich's observations. He found that every rise of temperature, whether that of the true paroxysm, or that following a pseudo-crisis, or those occurring during the intermissions, was invariably preceded by the appearance of spirilla in the blood. They disappeared entirely shortly before the crisis, and remained absent during defervescence and the subsequent apyrexial periods. During the whole of the main paroxysms spirilla were usually to be found in the blood, but their number varied in the most puzzling manner from day to day. One day they were abundant, the next day they were scanty, and the day after again abundant; they even varied at different hours of the same day; sometimes they vanished altogether for a time, and then reappeared in vast numbers a few hours later. Throughout these variations the temperature remained steadily high, or with only slight or moderate oscillations.

These discrepancies had been observed by previous inquirers, and had led some to doubt whether the spirilla had anything to do with the virus of relapsing fever; but a happy idea suggested itself to Heydenreich which seems capable of explaining them.

He found that when a little blood containing spirilla was abstracted from the patient and kept at the ordinary temperature of the room, the organisms lived in it for several days; but if the blood was placed in an incubator and maintained at the normal temperature of the body, they died in from twelve to twenty hours, and if the temperature was kept up to fever heat (104 deg. F.) their life was still shorter; they only survived from four to twelve hours. This led him to the conjecture that during the main paroxysm, not one, but several successive generations of spirilla were born and died before their final disappearance at the crisis. He surmised that in the usual course, the broods would overlap each other more or less, the new brood making its appearance before the last survivors of the old brood had passed away. This explained the variable number of spirilla found on different days and different hours of the same day. Sometimes the old brood would have altogether perished before the new brood reached maturity; this explained the occasional temporary absence of spirilla from the blood; it also explained the remissions or pseudo-crises sometimes observed in the course of the paroxysms. So precise was the correspondence found to be between the appearance of the spirilla and a subsequent rise of temperature, that Heydenreich was able to predict with certainty, during the apyrexial periods, the approaching advent of a transient rise of temperature from the re-appearance of spirilla in the blood, although at the time the patient presented no other indication of what was about to happen.

If these observations are to be relied on—and they appear to have been made with the most scrupulous care—we are led to the conclusion that the spirilla are the actual virus of relapsing fever.

The same conclusion is also strongly indicated by the results of inoculation experiments. Relapsing fever is easily communicated to a healthy person by inoculation with the blood of a patient suffering from the disease. Experiments made in Russia on individuals who voluntarily submitted themselves to this practice, show that the blood is only infective during the paroxysms, but not at the crises nor during the apyrexial periods. None of the fluids or secretions of the body except the blood are infective. All this shows that the virus is intimately associated with the spirilla, and is absent or present in exactly the same circumstances as the latter.*

The occasionally observed vanishing and re-appearance of the spirilla

during the paroxysm, without a possibility of new infection, seems to indicate that when the spirilla disappear they leave behind them something in the nature of seed or spores, from which the new brood springs forth. Ocular evidence of such germs is, however, still wanting. Several observers have noticed minute particles in the blood of relapsing fever which might pass for spores, and Heydenreich observed that some of the spirilla had a dotted appearance. But hitherto all efforts to cultivate the spores out of the body have failed, and their power of developing spores is more an inference than a demonstration.

SPLENIC FEVER.—The first trustworthy observation of the presence of organic forms in an infective disease was made in splenic fever. This formidable disorder attacks sheep, cows, and horses, and is not unfrequently fatal to man. In 1855, Pollender discovered minute staff-shaped bacteria in the blood of splenic fever. This discovery was confirmed in a very extensive series of researches by Brauell, and has been corroborated by Davaine and other inquirers in France.

The bacterium of splenic fever is a short, straight, motionless rod, about as long as the breadth of a blood-corpuscle, and, so far as is known, it exists in no other form in the living body. It is found, besides the blood, in the spleen, in the lymphatic glands, and in some other tissues. That this organism is the true virus of splenic fever has long been probable; and the labours of Davaine, Bollinger, Tiegel, Klebs, and, most of all, of Koch, have removed the last doubts on the subject. The work done by Koch is not only valuable as a triumphant demonstration of a disputed pathological question, but is noteworthy as a model of patient, ingenious, and exact pathological research.

We here come across an example of scientific prescience on the part of two distinguished men which is worth notice. It had been remarked by several observers that the contagium of splenic fever, as it existed in the blood, was comparatively short-lived and fugitive, but that, under some unexplained circumstances, the contagium was very persistent, and lurked for years in stables and other places where cattle were kept. Dr. Burdon Sanderson, writing in 1874, inferred from this circumstance that the organisms of splenic fever must have two states of existence; namely, that of the perishable bacteria found in the blood and some other more permanent form, like seeds or spores, in which they were capable of surviving for an indefinite period. In like manner, Professor Cohn, guided by the botanical characters of the rods found in the blood, classed them in that group of bacteria named by him *Bacillus*; and, as he had observed that all the *Bacilli* produced spores, he inferred that the *Bacillus anthracis*—for so he named the bacterium of splenic fever—would also be found to produce spores. These previsions were proved by the researches of Koch to be perfectly exact.

The following is a brief abstract of those points in these researches which chiefly concern us.

Koch found that mice were peculiarly susceptible to the virus of splenic fever. The minutest particle of the fresh blood or spleen of an infected animal infallibly produced the disease when brought into contact with the living tissue of the mouse. He found further that he could cultivate the organisms artificially outside the body. He proceeded in the following manner. He placed a speck of the spleen containing the rods on a glass slide in a drop of the blood-serum of the ox, or a drop of the aqueous humour of the eye of the same animal, and covered it with a piece of thin glass. He then placed the slide in an incubator maintained constantly at the temperature of the body, and examined the preparation from time to time under the microscope. In a couple of hours, he observed that the rods began to lengthen, and in a few hours to grow into long threads. These threads, after growing to twenty or a hundred times the length of the original rods, began by and by to assume a dotted appearance. The dots gradually increased in size and distinctness until, after the lapse of fifteen or twenty hours from the beginning of the experiment, they acquired the appearance of strongly refractive oval bodies, which were placed at regular intervals along the threads. Finally, the threads broke down, and the oval bodies, which could be nothing else than spores, were set free and sank to the more depending parts of the drop. If the supply of nutriment were then exhausted, the process ended here, and the spores remained permanently unchanged; but, if additional nourishment were provided, the new spores were seen presently to elongate into rods, exactly resembling those originally existing in the blood or spleen. If the conditions were favourable, the new rods, after a period of rapid multiplication, in their turn entered on the formation of a new generation of threads and a new generation of spores. The figures represent the successive phases of this short and simple, but perfectly definite, life-history as they were actually seen to occur under the lens of the microscope.

* Heydenreich's observations on the spirilla in the blood of patients with relapsing fever were made in 1855. Pollender's discovery of the spirilla in the blood of splenic fever was made in 1855. This agrees with Heydenreich's theory, that their occasional absence during the paroxysm is due to their being incompletely developed, or immature, and therefore unrecognisable under the microscope.

The next point was to test the pathogenic activity of the rods and spores cultivated in this artificial manner. This was done by introducing minute quantities of the rods, or of the spores alone, into a small incision made in the skin of a mouse. Speedy death from splenic fever occurred in every instance. Koch found, without exception, that, if the tested material produced threads and spores in the incubator, it also produced splenic fever when inoculated into the mouse; and, on the contrary, if no such growth and development took place in the incubator, the tested material produced no effect when inoculated into the mouse. Proof could go no further: the infection absolutely followed the specific organism; it came with it, it went with it. These observations were repeated with the strictest precautions at the Physiological Institute at Breslau, under the eyes of Professor Cohn and other competent observers, who fully corroborated their exactness.

The variable duration of the activity of the contagium of splenic fever was now explained. Koch found that the rods had only a comparatively fugitive vitality; they lost their infective power generally in a few days; at the most, in about five weeks. But the spores retained their infective activity for an indefinite period, in spite of all kinds of maltreatment. They could be reduced to dust, wetted and dried repeatedly, kept in putrefying liquids for weeks, and yet, at the end of four years, they still displayed an undiminished virulence.

Cohn calls attention to the fact that the organism of splenic fever is identical in form and development with the *B. subtilis*. The only difference he could detect between them was, that the rods of *B. anthracis* are motionless, while those of *B. Subtilis* exhibit movements. The figures you see before you might be indifferently labelled *B. subtilis* or *B. anthracis*, and yet one of these organisms is a harmless saprophyte and the other a deadly contagium. We have likewise seen that the spirilla of splenic fever are morphologically similar with the *Spirochaete plicatilis*. We have further seen that there is ground for the assumption that the infective agent in contagious septicæmia is the common bacterium of putrefaction, but modified in such a way as to have become endowed with a heightened capacity for growing in the healthy tissues. Do not these remarkable coincidences point to a natural explanation of the origin of contagia? If contagia are organisms, they must necessarily possess the fundamental tendencies and attributes of all organised beings. Among the most important of these attributes is the capacity for "variation" or "sporting". This capacity is an essential link in the theory of evolution; and Darwin brings forward strong grounds for the belief that variation in plants and animals is not the result of chance or caprice, but is the definite effect of definite (though often quite obscure) causes. I see no more difficulty in believing that the *B. anthracis* is a sport from the *B. subtilis* than in believing, as all botanists tell us, that the bitter almond is a sport from the sweet almond—the one a bland innocuous fruit, and the other containing the elements of a deadly poison.

The laws of variation seem to apply in a curiously exact manner to many of the phenomena of contagious diseases. One of these laws is the tendency of a variation, once produced, to become permanent and to be transmitted ever after with perfect exactness from parent to offspring; another and controlling law is the tendency of a variation, after persisting a certain time, to revert once more (under altered conditions) to the original type. The sporting of the nectarine from the peach is known to many horticulturists. A peach-tree, after producing thousands and thousands of peach-buds, will, as a rare event and at rare intervals, produce a bud and branch which ever after bear only nectarines; and, conversely, a nectarine at long intervals, and as a rare event, will produce a branch which bears only peaches ever after. Does not this remind us of the occasional apparent sporting of diphtheria from scarlet fever? My friend Dr. Ransome, who has paid so much attention to the laws governing the spread of epidemics, relates the following instance:—A general outbreak of scarlet fever occurred at a large public school. One of the masters who took the infection exhibited diphtheritic patches on the throat. This patient was sent to his own home in Bowden. Six days after his arrival, his mother was attacked, not with scarlet fever, but with diphtheria; though there were no cases of diphtheria at the time, neither at the school nor in Bowden.*

Take another illustration: cholera suddenly breaks out in some remote district in India, and spreads from that centre over half the globe. In three or four seasons, the epidemic dies away and ceases altogether from among men. A few years later, it reappears and spreads again, and disappears as before. Does not this look as if the cholera virus

were an occasional sport from some Indian saprophyte, which by variation has acquired a parasitic habit, and, having run through countless generations, either dies out or reverts again to its original type? Similarly, typhoid fever might be explained as due to a variation from some common saprophyte of our stagnant pools or sewers, which, under certain conditions of its own surroundings, or certain conditions within the human body, acquires a parasitic habit. Having acquired this habit, it becomes a contagious virus, which is transmitted with its new habit through a certain number of generations; but finally, these conditions ceasing, it reverts again to its original non-parasitic type.

In regard to some contagia, such as small-pox and scarlet fever, it might be said that the variation was a very rare one, but also a very permanent one, with little or no tendency to reversion; while others, like erysipelas and typhoid fever, were frequent sports, with a more decided tendency to reversion to the original type. In regard to some pathogenic organisms, it might be assumed that the parent type had disappeared, and the parasitic variety only remained—just as the wild parents of many of our cultivated flowers and vegetables have disappeared, leaving behind them only their altered descendants.

How aptly, too, this view explains what used to be called the "Epidemic Constitution", and the hybrid forms and subvarieties of eruptive and other fevers.

I must not pursue this vein further. I have said enough to indicate that this conception enables us—if it does nothing else—to have coherent ideas about the origin and the spread of zymotic diseases.

In applying the doctrine of pathogenic organisms—or *pathophytes*, as they might be termed—to the explanation of the phenomena of infective diseases, we must be on our guard against hard-and-fast lines of interpretation. So far as our very limited knowledge now extends, the pathophytes hitherto discovered all belong to that group of the fungi which are called bacteria. Now, fungi have two marked characteristics, namely, the tendency to assume the parasitic habit, and the possession by some of them of a special ferment action. Both these characteristics may bear a part in the action of pathogenic organisms. In the complex phenomena of septicæmia such would appear to be the case—a poisonous ferment-product first intoxicates the system, and then the organisms themselves prey upon the dead or moribund tissues.

There is, as Dr. B. Sanderson has pointed out, a marked distinction to be drawn between those common processes of infective inflammation which are shared in by animals generally—such as septo-pyæmia, erysipelas, and the diphtheritic process—and those specific contagia which are strictly confined, like ordinary parasites, to particular species. There is nothing in all nature more wonderful than the intimate and subtle nexus which unites a parasite to its host. A hundred examples might be given. Even different varieties or races of the same species have different and exclusive parasites. It would seem as if this nexus depended on some delicate shade—a *nuance*—something like an odour, or a savour, or a colour, rather than on differences of structure or chemical composition. The same minute correlation is seen in specific contagia—all are strictly confined to one or a few species. Vaccinia is confined to man, the horse, and the cow; scarlet fever is confined to man, and perhaps the swine; most of our specific diseases are absolutely confined to man. The human and ovine small-pox, although so wonderfully similar, are not intercommunicable. I am, therefore, inclined to believe that, in regard to specific contagia, we shall find more guiding analogies in parasitism than in fermentation. Our information at present is, however, so defective that it is not wise to enter into further speculations on this subject.

Gentlemen, I have brought my task to a conclusion. I believe that the doctrine of a contagium vivum is established on a solid foundation; and that the principle it involves, if firmly grasped in capable hands, will prove a powerful instrument of future discoveries. And let no man doubt that such discoveries will lead to incalculable benefits to the human race: our business in life is to do battle with disease, and we may rest assured that the more we know of our enemy the more successfully we shall be able to combat him.

SCARBOROUGH.—The births in 1876 were 768 and the deaths 550; but of these 17 deaths occurred amongst visitors from various diseases, and 12 of non-residents in the workhouse, making 521, which give a death-rate of 19.51 per 1,000, or, with the visitors, 20.14, which is higher than before. There were 69 deaths from zymotic diseases, but not one of small-pox; and the Vaccination Act appears to be well carried out. There was a large mortality from diarrhoea, which Dr. Taylor attributes chiefly to improper feeding and nursing. There are two important meteorological tables attached, showing the average monthly range of temperature to have been 26.7 deg., the mean daily range 8.7 deg., and the mean daily temperature 48.3 deg. Fahr. The rainfall was 52.15 inches.

* Complex cases of mingled scarlet fever and diphtheria are sometimes seen. Similarly the peach-tree will occasionally, among a multitude of ordinary fruit, produce one fruit of which one-half has the peach character and the other half the nectarine character.—Darwin.

ADDRESS IN SURGERY,

BY
T. SPENCER WELLS, F.R.C.S.,

Surgeon to the Queen's Household, &c.

THE PAST, PRESENT, AND FUTURE OF SCIENTIFIC SURGERY.

MR. PRESIDENT AND GENTLEMEN,—When I received from the President of the Council of this great Association the unanimous request of the Committee of Council that I would deliver this Address, and was further assured that I was thus invited at the suggestion of a deputation from Manchester, I felt that any hesitation on my part might appear ungrateful, or as if I did not appreciate a great honour. So, without wasting your time by apologies, and simply thanking you for the exceeding kindness of your greeting to-day, I will ask you to consider with me how, as an Association, how in each of our branches, how, individually as well as collectively, every one of us may assist in the advancement of the

SURGERY OF THE FUTURE;

—how the art and science of the present, which we have received from our forefathers and our teachers and as far as we could have improved, may be so handed down that our followers, taught by our success, warned by our failures, knowing where our knowledge is defective, our methods faulty, may so work and so observe that in each succeeding year surgery may become more perfect as an art, more exact as a science, and more honourable as a profession.

It is almost impossible to estimate the state of surgery of the present day, still more so to look forward to what surgery may become, without some review of its condition long ago and of the progress made during the existence of this Association.

It is one of the remarkable coincidences of English history that the reigns, nearly equal in duration, of the two Queens, Elizabeth and Victoria, have been the two ages most distinguished by the rapidity and extent of national development. Elizabeth mounted the throne after the death of her sister Mary—a death accelerated by disappointment at the termination of supposed pregnancy in dropsy, which was no doubt ovarian, and treated according to ignorant routine by successive bleedings. Treated with the knowledge now at command, the destinies of England might have been strangely altered. Elizabeth reigned forty-five years, and in her time, surgery, though already chartered as a profession, was neither an art nor a science. For the most part it was carried on as a trade, after the fashion of the country farriers of our day. Indeed, it was unanimously agreed by the Queen's Commissioners that it was unlawful for surgeons to administer internal remedies even in cases of wounds. "Bokes of Chirurgie" were collections of sayings and nostrums. Life was rude, living was unwholesome, and death came early. The people perished by scurvy and sweating sickness; they were killed or scarred by small-pox; their blood was poor, and the barbers bled them. Fighting-men began to suffer from gunshot wounds, and their blood, gushing from arteries cut in hacking amputations, was staunched by "choke-bands", by boiling pitch, or by hot irons. The first impulse towards improvement came from Ambrose Paré. But men long looked suspiciously on his new practice of tying blood-vessels in amputations. And so as an art surgery—an exception to the general progress—stood almost still, even long after Harvey's great discovery, and scarcely any important advance, beyond such manual dexterity as that of Cheselden, was made until the time of Hunter. His noble work is thus epigrammatically acknowledged by the philosophical Malgaigne: "Surgery, which in the Middle Ages scarcely ranked above a common trade, and grew to be honoured as an art in the hands of Paré and Petit, was raised by Hunter to the dignity of a science." What it has become since, and is now, we may perhaps best see by rapidly tracing its development parallel with the history of our Association, which may almost be said to be the offspring of the age of Victoria.

Before this Association was founded, the daily practice of surgery was guided by a knowledge of what Hunter and Scarpa had done as to the ligature of arterial trunks. Resection of joints had been frequently though not commonly performed. Bell's teachings of the different nerve-functions had been universally accepted. Auscultation and percussion had been gradually perfecting diagnosis among those who were then about entering into practice. The vegetable alkaloids were be-

ginning to take the place of the coarser materials previously used as remedies. Almost coincidently with the formation of this Society, in 1832, there began to be spoken about vaguely, and as curiosities, things which are now so universally practised that probably very few of those who listen to me recollect how very recently they have been accepted as part and parcel of surgical practice. I am not one of the oldest here, but I can well remember when lithotomy was a novelty, when the subcutaneous section of tendons was absolutely new, when orthopædic surgery was unknown, when the torsion of arteries was spoken of as a barely possible substitute for the ligature, when the radical cure of hernia was scoffed at as a French delusion, when the treatment of aneurism by compression had hardly even entered into the professional imagination, and the study of uterine pathology was only just opened up by the introduction of the speculum as a means of investigating the condition of the mouth and neck of the uterus.

In 1832, when it was resolved to form this Association, and at the succeeding meetings in 1833 and 1834, all these things were new and almost untried. In 1835, at Oxford, Costello publicly demonstrated lithotomy as a novelty before the assembled members, and I think we may fairly date the establishment of that operation, now so carefully and generally practised by so many of our associates, from that meeting.

In 1836, the Association met for the first time at Manchester. Crosse of Norwich was the first surgeon to give a retrospective address. In it he mentions as a recent discovery that of the trichina spiralis by Owen. He makes the first notice of the chloride of zinc in cancer, and doubtfully hopes that the use of the speculum even in this country may become general. He states that in this year there is the first known example in Great Britain in which both mother and child were saved by the Cæsarean operation, done by Knowles of Birmingham.

And here for a moment let me ask you to recall to mind the man who forty years ago was speaking to the Association as I now speak, not with his power, but to an audience enormously increased in numbers and influence. Crosse lived till 1850. I did not know him personally, but friends of mine who did speak of him as a man upright in character, earnest, natural, joyous, communicative, a fellow-worker with his pupils, of intense and untiring energy, priding himself upon gaining a most exact information of the progress of surgery, self-reliant, rapid in judgment, ready in action, calm and dexterous as an operator, yet with a strong conservative tendency as regards the knife, and most scrupulous in his attention to even the minutest details in the management of his cases. A clear and accurate writer, an industrious contributor to periodical literature, the good he did lives after him, especially in the impetus which he gave to the study of the direction, sanitary condition, and improvement of hospitals.

After Crosse, the next retrospective surgical address was by James of Exeter, in 1839. In this he alludes, as a great novelty, to the fact that a member of our Association, Jeaffreson of Framlingham, had successfully extirpated an ovarian cyst through a small incision; and also mentions that King of Saxmundham had repeated the operation on another patient with an equally good result. In 1840, at Southampton, Dodd of Chichester, in the address on surgery, gives an account of the recent experience of Dieffenbach and Liston in operating for strabismus as something new, and reports that lithotomy does not seem to make any great advance in the favour of the profession in this country; and in 1843, at Leeds, William Hey said that "the rage for dividing muscles and tendons is somewhat moderated". In his own words, "The past year has been signalled by the successful performance of several operations for the removal of ovarian tumours from the abdomen. Dr. Clay of Manchester has recorded five cases, of which three were successful, and Mr. Walne of London one successful case." The William Hey who gave this address on surgery was the third in the line of the great family, the head of whom was president of the meeting. Owing to his advanced age, the general address was read for him, and he died in the course of the following year. As a pupil of the Leeds Infirmary forty years ago, I well remember the careful teaching and painstaking kindness of William Hey, jun., as he was then called. The name of Hey stood almost as high in Yorkshire as those of Abernethy and Cooper in London; and one of the family, Richard, grandson of the President, and for many years surgeon to the York County Hospital, almost simultaneously with Abernethy tied with success the common iliac artery for external iliac aneurism. The surgery of the Leeds Infirmary has been held in the same name for one hundred and six years, and descendants of the third and fourth generation are members of the present staff. Worthy representatives of the great family to which they belong, they still maintain the high reputation of the surgery of the North. Another well known member of a noted family of Yorkshire surgeons, Thomas Pridgin Teale, read the address at Sheffield in 1845. He alludes to the treatment of aneurism

by compression, as indicating a great advance in the science of surgery. He notices Key's modification of herniotomy by dividing the stricture outside the sac as gradually assuming the position in the estimation of the profession to which it is entitled.

We now come to what will ever be looked on in future time as the commencement of a new era in surgery. In 1847, at Derby, Walsh of Worcester introduces for the first time the subject of anæsthesia, Crosse remarking that the inhalation of sulphuric ether was a subject of deep importance and great novelty. Your hourly familiarity with the use of anæsthetics of various kinds will make it difficult for you to realise the fact that it is only thirty years since Crosse spoke before this Association of the inhalation of ether chiefly as a means of disarming a patient of his antagonism. The first considerable essay on anæsthesia, and anæsthetic substances generally, was published in our *Transactions* in the following year by Nunneley of Leeds. That was in 1848; and in the same year, at Bath, chloroform was for the first time publicly mentioned before this Association. In a review of the history of surgery in the reigns of Elizabeth and Victoria, there is no brighter page than that which records the discovery of anæsthetics, and not one in which the contrast is more strikingly in favour of the practice of our day. Anæsthesia in midwifery met with more opposition than in surgery; and there must be many here who know well how much was done by the personal example of our own Queen towards allaying groundless fears and disarming irrational prejudice. National vanity may be more flattered by some public deeds of royal devotion; but I cannot call to mind a stronger proof of moral courage, of wiser consideration for the interests of her subjects, nor any act which, in the personal relations of the Queen to her people, demands more respectful recognition from the profession, or has a stronger claim on national gratitude.

In 1854, the Association met for the second time at Manchester—its twenty-second anniversary meeting. Instead of 7,000 members, as now, there were but little more than 2,000. Instead of the large attendance so hospitably welcomed this week, only 202 members attended.

The surgical address in 1856 at Birmingham, by Langston Parker, should be remembered as a judicial summary of what was known of the treatment of cancer by caustics.

In 1857, at Nottingham, your Manchester Southam read the address on surgery, limiting himself to the subject of cancer and its treatment. Many of you knew Southam better than I did; but sitting with him in the Council of the College of Surgeons, and joining in the friendly gatherings which follow some of those meetings, I learnt to appreciate his sterling straightforward honesty, his kind genial character, and his ardent love for our profession and its work. And I can fully endorse all that was said of him by Sir James Paget in his obituary notice of the deceased Fellows of the Royal Medical and Chirurgical Society, and acknowledge with extreme interest all that Sir James said as to Southam's services in the early days of ovariectomy in England.

Passing on to the Edinburgh meeting in 1858, it was then that we heard for the first time of local anæsthesia. Here also the subcutaneous injection of narcotics was brought under notice by Alexander Wood, who stated that even then the practice, although but lately introduced, was becoming general in Edinburgh; and recent improvements in the treatment of vesico-vaginal fistula were described to the Association by Mr. Baker Brown. Sims's speculum and wire sutures were then unfamiliar; though they are now acknowledged to rank among the chief of the improvements for which we are indebted to our American brethren. Baker Brown was one of the first to adopt and afterwards to modify the proceedings of Sims. Brown had previously done good service by demonstrating the mode of curing old ruptures of the perinæum, and his example undoubtedly assisted in the improvement of this department of surgery. As an operator he was almost perfect, and he was one of the earliest surgeons to practise ovariectomy. Many years afterwards, he extended the use of the cautery-clamp (employed by Clay of Birmingham to divide adhesions and stop bleeding from omental vessels) as a mode of separating and securing the pedicle. May I be excused if I venture to remind you that in 1861, at the Canterbury meeting, I brought before the Association a paper on the treatment of ovarian cysts, which others have said had some influence in directing professional attention to an improved method of performing ovariectomy, and to the selection of cases for the operation, and other modes of treatment?

The first meeting of the Association in London, 1862, its thirtieth anniversary, was rendered memorable by the surgical address of Paget. He spoke of the management of patients after surgical operations, and urged upon us all the study of the large group of diseases classed under the name of pyæmia, their origin, multifarious nature, and mode of prevention. Read the lecture; it is a surgical classic, an eloquent

but despairing cry from a great surgeon who feels the "deep regrets, the bitter disappointments from which we might be saved if there were less risk" after many of the operations done to save life, and who shudders at the "tolerated barbarisms of practice", only justified by the belief that the risk of "a cutting operation is so great that there is nothing too bad to be substituted for it", and who can find but one thing that he can call remedial for the whole disease pyæmia, and that is, a profuse supply of fresh air—"wind blowing all about the rooms". In his concluding remarks, the orator impressed us all by his appeal to lessen the number of preventible deaths after great operations, insisting that the mortality "will be reduced if the members of this Association will decide that it shall be, and will act vigorously on their decision".

Deeply sympathising with this desire to remove all possible sources of excessive mortality after surgical operations, I brought the subject again before the Association at the Cambridge meeting in 1864. Feeling that something more than an abundant supply of fresh air was wanted, and knowing that with the air might enter unsuspected sources of danger to the patient through his wound, I directed attention to the researches of Pasteur upon the presence of infectious germs or organisms in the atmosphere, and to the demonstrations of Charcot and others of the impure particles in hospital wards, and showed how the development of low forms of animal and vegetable life was checked by the use of sulphur and the sulphites, as taught by Polli.

The Leamington meeting, in 1865, was distinguished by the address of Syme, in which he reviews the progress of surgery during the previous forty years, alluding among many other matters of interest to the *new position* which the operations of Thomas Keith, and my own, had given to an operation previously regarded as remarkable for uncertainty of prognosis, difficulty of diagnosis, and danger of execution. Coming from such a man at that time and on such an occasion, this judgment must have had considerable weight on professional opinion; and more than one writer has expressed his belief that by actually performing the operation on two patients in the following year, before the assembled Association at Chester, showing that it could be done and how it was done to a large number of practical surgeons, another step was gained in securing a more general admission of ovariectomy among the legitimate proceedings of surgery.

By this time the numbers of the members of the Association had greatly increased, the meetings were more numerously attended, and that at Dublin, in 1867, was reported as the largest known by several hundreds. There, as at Oxford in 1868, distinguished foreigners arrived among the visitors, surgical papers became more abundant, and the application of general science to surgery is more noticeable. Electricity, optics, acoustics, chemistry, had all contributed to the perfection of instruments facilitating more exact diagnosis. The ophthalmoscope, the otoscope, the laryngoscope, and the endoscope, all appear as familiar aids for exploration. The thermometer was in almost universal use, the sphygmograph still confined to the select few; the splanchnoscope or diaphanoscope then as now a curiosity. Microscopic parasites, animal and vegetable, were recognised in greater number, and were divided into orders, genera, and species. The infectious influence of hospital atmosphere was being more feared and more carefully guarded against, drainage was coming more into practice in the treatment of wounds and as a preventive of local inflammation and general fever after surgical operations. At the Leeds meeting, in 1869, the anti-septic treatment was brought before the Association by Nunneley, who ridiculed it as a professional error, and said that he believed "if stumps heal under such treatment they do so in spite of it". Remember this was only eight years ago. Two years later at Plymouth, in 1871, the surgical address was given by Lister mainly on this one subject, and exclusively as the result of his own observation and experience, but with the effect of giving an immediate stimulus to the spread of the antiseptic system at home and abroad.

The meetings in 1872, at Birmingham, and in 1873, in London, with the attendance largely increased, the work methodically arranged in sections, the papers more varied, the discussions more animated, the presence of the Prime Minister at the dinner, the more complete amalgamation of the metropolitan and the provincial members, had both their share in assisting in the advancement of the social position of the profession and the progress of surgery. At Norwich, in 1874, Mr. Cadge noted as recent improvements Esmarch's bloodless operations and the use of Dittel's elastic ligature. The germ theory of putrefaction and antiseptic surgery he looked at as subjects still waiting for solution.

At Edinburgh, in 1875, Lister's demonstrations and Spence's criticisms fairly brought all sides of the question under intelligent observation. Lister showed before large bodies of skilled and discriminating witnesses exactly what he did and how he did it, and with what results

while Spence, before the same assemblies, sharply criticised the work of his colleagues, and contended that as much could be done under similar conditions without antiseptic precautions. It is impossible to conceive a more satisfactory mode of completely discussing the principles of a new system of treatment than such a public trial before able and impartial judges, with the advocacy of an earnest, enthusiastic, scientific investigator and worker on the one hand, and on the other with the opposition of a cool and sceptical rival minutely criticising the accuracy of every assertion and the logical value of each inference. And here in passing, let me beg you not to forget one chief, if not the chief, advantage of these meetings. The most animated controversy may be carried on in the warmest manner, the most opposite opinions may be entertained and supported, the keenest rivalry for the honours awaiting him who first seizes upon a new truth may be exercised in the arena of discussion without the slightest personal animosity, but rather with an increase of the feeling of good-fellowship and mutual respect brought about at the social gatherings, where men are either thrown together for the first time or ripen old acquaintance.

It is impossible to review

THE SURGERY OF THE PRESENT DAY

without observing the result upon it of the work of Simpson, Syme, and Fergusson, whose deaths followed each other in such rapid succession.

The association of Simpson's name with chloroform and the lessening of hospital mortality, with the attempt to "stamp out" infectious disease, with acupressure, with the uterine sound, and generally with the recently improved diagnosis and treatment of the diseases of women, need only be mentioned to be felt and acknowledged.

Syme's influence was rather that of a great teacher of clinical surgery, sending forth every year a large addition to the number of our profession, well grounded in the well-established principles of practice.

Fergusson, in the words of Paget, "the greatest master of the art, the greatest practical surgeon of our time", was the founder of the school which he, twenty-five years ago, first characterised by the happy term of Conservative Surgery, a term since become so familiar and so suggestive to the operating surgeon of care not to sacrifice limbs or parts which can possibly be saved, and never to risk life unnecessarily, that it has gradually developed a race of modern surgeons who, not content with performing operations in the best possible manner, pride themselves far more on the number of lives and limbs that they have preserved. Fergusson said, "No one can more thoroughly appreciate a well-performed amputation than I do, but I certainly appreciate more highly the operation which sets aside the necessity for that mutilation". Teaching all this as he did by example and precept for many years to large classes of young men, and to their seniors by his published writings and by lectures at the College of Surgeons, he has in a marked degree modified the character of the surgery of our age. The improvements which he introduced in lithotomy and in the cure of cleft-palate may be almost considered as typical of the school of modern conservative surgery, and will long be acknowledged as triumphs of British Surgery in the reign of Victoria. Of the man himself, so lately presiding at our meetings, so kind and friendly, the skilful surgeon, the beloved teacher, the wise and prudent counsellor, so lately lost to us, almost every one here still retains a vivid recollection; and his death is mourned as a loss to the Association which he adorned, and by a large number of our members as that of a dear friend.

And here, before quitting the progress of surgery in connection with the growth of the Association, let me ask if anyone can doubt that the art and science of surgery have advanced as much since the Elizabethan age as any other art or any other science, great as those advances may have been?

And in considering how that advance, as recent as it has been rapid, may be carried further on, let me first draw your attention for a moment to the subject of

ANÆSTHESIA AND ANÆSTHETICS.

In 1872, I made known my opinion that all the advantages of complete anæsthesia with fewer drawbacks could be obtained by the use of bichloride of methylene or chloromethyl than by any other known anæsthetic. That was the result of an experience of five years, and of three hundred and fifty serious operations. The experience of the five succeeding years up to the present time, with more than six hundred additional cases of ovariectomy, and many other cases of surgical operations, has fully confirmed me in this belief. Given properly diluted with air, the vapour of chloromethyl has, in my experience of ten years with more than one thousand operations of a nature unusually severe as tests of an anæsthetic, proved to be, without a single exception, applicable to every patient, perfectly certain to produce complete anæsthesia, relieving the surgeon from all alarm or even anxiety; and its

use has never been followed by any dangerous symptom which could be fairly attributed to it. I wish I could speak as confidently of the chemical composition of the fluid sold as bichloride of methylene as I can of its anæsthetic properties. But whatever may be its chemical composition, whether it is or is not chloroform mixed with some spirit or ether, or whether it really is bichloride of methylene, I am still content with the effects of the liquid sold under that name, when properly administered. The only deaths ever attributed to it were, I believe, rather due to asphyxia. No air was given with the methylene. By Junker's apparatus, air charged with methylene vapour is given, not the vapour itself, and, so employed, it has always been in my experience both efficient and safe. I am sorry that some of the analytical chemists whom I have asked to clear up the question of its composition have not done so. It ought to be done, it can be done, and it must be done.

The Committee appointed in Edinburgh two years ago, reappointed last year in Sheffield, but which has never met until this morning, might very well undertake this task. Perhaps, as the Committee is a very large one, and is made up of members from Aberdeen, from Edinburgh, from Dublin, as well as London, it is almost impossible for them to do what is required in the words of the resolution; namely, "to inquire into and report upon the use in surgery of various anæsthetic agents and mixtures of such agents, and to collect and summarise the evidence of British practitioners in surgery and medicine as to the relative advantages of chloroform, ether, nitrous oxide gas, and other agents, and to carry on suitable experimental investigations". It would appear to me far better to expend any sum devoted to this purpose by the Scientific Grants Committee—and this sum ought to be a sufficient one—so as to encourage one really competent investigator to do the work thoroughly well, bearing the full responsibility and taking the credit which is due to work well done. The valuable reports on the life-history of contagium, on the electric currents of the brain, and on the biliary secretion of the dog, which have already appeared in the JOURNAL, and others of equal importance waiting for publication, are quite sufficient encouragement for us to extend the practice of entrusting original investigations to individuals who shall be as liberally remunerated as the funds of the Association will permit, rather than trusting to the uncertain or impossible conjoint action of honorary committees. Perhaps we are hardly aware how much the public expect from us in this matter. Deaths from chloroform are alarmingly frequent, yet no substitute for it has found universal or even general acceptance in this country; and I am not speaking too strongly if I say it is the duty of the Association at once, without any unnecessary delay, to satisfy the public that all that is possible is being done to discover the means by which anæsthesia, effectual now, may be rendered safe for the future.

It is more than twenty years since I brought Wutzer's operation for the

RADICAL CURE OF REDUCIBLE HERNIA

to the notice of English surgeons. Wutzer's practice, afterwards modified by Rothmund, and the much more important change introduced and so successfully practised by Mr. Wood, of drawing firmly together the hernial apertures, so as to establish again the valve-like action of the inguinal canal, have hardly had the effect of generalising any of these procedures. For reducible hernia a truss, for strangulated hernia operation, are still the rule. I believe the time is coming when most cases of reducible hernia—at any rate, those not completely secured by a truss—will be radically cured by the surgeons, if not of this generation, certainly of the next. In many cases of inguinal hernia in young persons, Wood's operation under antiseptics will become more general. But we have reason to hope that we may obliterate the hernial sac close to its abdominal orifice, and strengthen the abdominal wall by the use of insulated needles connected with the positive pole of the galvanic battery, causing shrinking and occlusion of the sac; while the alternate use externally of galvanisation and faradisation may assist in restoring tone to the weakened muscles. This is by no means the least of the many applications which may probably be made hereafter of

ELECTRICITY AS A THERAPEUTIC AGENT

in surgical treatment.

In 1848, I directed attention to the use of a weak continuous electric current in the treatment of ulcers. Dr. Golding Bird presented the results of my experience to the readers of his well-known work. Although the results were striking, Mr. Nunn is almost the only surgeon who seems to have made much use of the information. But recently a son of Dr. Golding Bird has published some very important additions to our knowledge of this subject, and has most advantageously treated scrofulous lymphatic glands by a painless electro-

lytic caustic. When chloride of zinc is employed as an arrow, or paste, or in any other way, the pain is very severe; but, if formed electrically in the tissues of the living body, it acts in the nascent state as a caustic or destructive agent almost without pain. The albuminate of soda formed at the silver or electro-negative plate is probably inert; but the electric current certainly exerts some stimulating action, affects the capillary circulation, and so modifies reparative force as to quicken cicatrisation. In the electrolytic dispersion of tumours, caustic or destructive action at the positive pole, and the influence of the negative pole upon the vaso-motor nerves of the part, are both brought to bear. The more rapid action of the galvanic cautery upon nævus, or as a substitute for the knife, is already sufficiently appreciated; but the slower electrolytic action upon bronchocele, upon fibroid tumours, upon cancer in any of its forms, has yet to be worked out, and I hope that some of you who are now present will not fail to take advantage of so fair an opportunity of doing good and distinguishing yourselves.

You start under immense advantages. When I began to practise surgery, the only test of normal or fever heat was the sensation conveyed to the surgeon's hand. It is hardly more than twenty years since the coincidence of a rigor and high temperature was first satisfactorily proved. Now, the most delicate self-registering thermometers are not only carried by every careful surgeon, but every well-trained nurse is taught to make and record as many daily observations as the nature of the case may require. The various forms of surgical fever, pyæmia, septicæmia, erysipelas, are in consequence far better known and more perfectly guarded against, while the ground is cleared for the study of their more successful treatment.

So with the pulse: every one could count it, any one could soon learn to distinguish a strong from a feeble pulse, a hard pulse from a soft pulse, a pulse easily compressed from one that was incompressible, a regular from an intermitting beat; but, to obtain a trustworthy and exact measure of arterial tension, and the influence of treatment upon it, we must have the tracings of the sphygmograph. We are learning from its use after operations that the sthenic pulse, with high arterial tension, is an important guide for treatment; while the dicrotic pulse of low tension will warn us that septicæmia threatens, if it has not already attacked the patient. As an aid in detecting the effects of alcoholism, the earlier stages of the disease recently described as capillary fibrosis, and of kidney-disease, the sphygmograph may prove of great service to the surgeon who is considering the fitness of a patient for operation. Dr. Mahomed's valuable observations on the exact localisation of an aneurism about the arch of the aorta, and the question of operation for its cure by distal ligation of one or more of the large vessels, are certain to lead to more accurate diagnosis and successful treatment.

In 1853, I introduced the ophthalmoscope of Coccius to the profession in England. One distinguished ophthalmologist still living ridiculed it in print as a toy; another, also happily among us, wrote that in cases of blindness it must be useless, and in all other cases where the retina was sensitive it was too dangerous ever to be employed. This was only twenty-four years ago; and I ask you what would be thought of an ophthalmic surgeon now who attempted to practise without an ophthalmoscope? I need not weary you by more than the barest allusion to what has been done by the aid of the laryngoscope and the otoscope, or what may be expected from the endoscope or the diaphanoscope, when the instruments are perfected and their use has become general.

Till quite lately, the tourniquet or compression of the main artery was relied upon as the chief means of checking the loss of blood in amputations and other operations. Esmarch's system of

BLOODLESS SURGERY

not only prevents the loss of blood much more completely, but, as the parts operated upon are not bathed in blood, the surgeon can better recognise the nature and extent of disease, and perform many operations more easily with a smaller number of assistants; while the process appears to exercise a favourable influence upon the healing of the wound. The elastic constrictor will take an important place in the armamentarium of the surgery of the future, and no doubt many of the inconveniences ascribed to its use will be avoided when it comes to be more generally practised. So also with transfusion of blood. Dr. Roussel's apparatus for the transfusion of pure blood, and the subject generally, are to be specially discussed at this meeting. I need only, therefore, express my hope that every one who practises surgery hereafter will make himself competent to transfuse safely, not only when a patient is bleeding to death after childbirth, or some accident or operation, but in other cases where the blood is insufficient in quantity or deteriorated in its composition.

A certain section of the community, well-meaning it may be, but led astray by thoughtless enthusiasts or self-interested itinerant lecturers, vehemently asserts that if we are to perfect ourselves in these or in other modes of saving human life or lessening human suffering, we must only do so by practice upon the human subject; we must not, as a surgeon or a physiologist, take the life of a dog or a cat, a rabbit or a sheep, a pigeon or a frog, for any scientific purpose, or with the object of benefiting the human race. Anybody may slaughter oxen and sheep by thousands for human food in any way he pleases, oysters may be eaten alive, the pheasant or the partridge, the fox or the deer may be expressly reared to supply the sportsman with exercise or the amusement of killing—in a word, the lower animals may be devoted to the use of man for any purpose that is not scientific. But if a surgeon experimentally sacrifices half a dozen dogs or rabbits in the hope of improving some operation which may prevent the loss of human life or lessen human suffering, he is branded as inhuman, and barely escapes the supervision of the police. Possibly, some of these benevolent individuals will voluntarily offer up themselves to our Committee on Transfusion, in the hope of perfecting the practice. Until they do so, they will perhaps be a little less clamorous if a few sheep or rabbits are used in the cause of humanity. With regard to splenotomy, pancreatectomy, and nephrotomy, accident has proved that the spleen, or the pancreas, or a kidney may be lost without great injury to the human being. Surgeons have removed a wounded pancreas and enlarged spleens, and a diseased kidney has been extirpated on two occasions at least; but the operative proceedings are still imperfect. Are surgeons to be allowed to excise the spleen or a kidney of a dog or a rat, or will zealous members of some anti-vivisection society enrol themselves as candidates for that immortality which is gained by any one who immolates himself upon the altar of science?

What is to be the future of nerve-stretching in neuralgia, or of skin-grafting as an aid in cicatrisation or the replacing of lost tissue, it will be for you to say when sufficient observations have been gathered together. And I pass on to speak of some undoubted triumphs of British surgery in our own time. The cure of vaginal fistula was scarcely ever attempted thirty years ago, and the operation was seldom successful when attempted long after that time. It now, even in very unpromising cases, almost certainly ends well in the hands of many operators in many countries.

It would be false modesty if I were not to say boldly before this Association that I am proud of the share which British surgeons have had, and of the share which I myself have had, in placing

OVARIOTOMY

upon the roll of successful surgical operations. Great leaders among us, Simpson and Syme, Stromeyer and Billroth, Velpeau and Nélaton, have shown a generous appreciation of our work. And can you imagine a greater pleasure to a surgeon than to hear the President of the Medical and Chirurgical Society speak last year of his improvements in the operation of ovariectomy as "one of the greatest achievements of surgery in this century, and that the influence for good extended through every department of operative surgery?" While at the same society in 1850, Lawrence had asked whether this operation "can be encouraged and continued without danger to the character of the profession".

Less than a quarter of a century after this denunciation, Lord Selborne, one of the most distinguished of our Chancellors, publicly stated the result of a calculation, that by my first 500 operations I had added something like 10,000 years to the lives of European women.

What number of operations has been done by other surgeons I know not; but, supposing that the same probability of the duration of life applies to the women who have recovered from operations I have done since the results of my first 500 cases were published in 1872, the gain would be about 18,000 years, and this by one surgeon alone, and by an operation which only thirty years ago was denounced as so "fearful in its nature, often so immediately fatal in its results", that, whenever performed, "a fundamental principle of medical morality is outraged".

I should not venture to say all this if it were not by way of encouragement to every one who hears me to do the work which comes before him, whatever it may be. Nothing could be more unlikely than that I, up till 1855 a naval surgeon, serving in 1855 and 1856 with the army in the Crimea, never having till that time treated a single case of ovarian disease, removing an ovarian tumour for the first time in 1858, and waiting three years before I had done ten cases, should now be able to say that I have completed the operation on 870 women.

And, what is still more gratifying, that I should be able, among the performances of the many surgeons who have been running the race with me, striving with generous rivalry to obtain the reward of those who do good in their day and generation, to refer to the brilliant

results obtained by my dear friend Thomas Keith—who, out of 241 operations, has saved 206 lives—a success hitherto unequalled in the history of any capital operation. How ovariectomy, since it has become so generally accepted here, has spread in America, in France, and Germany, indeed all over the world, I have tried to tell elsewhere, and I will not weary you by telling the story again, but I cannot pass from this part of my subject without expressing confident assurance that what the surgery of the present age has done for the treatment of ovarian tumours the surgery of the future will do for that of uterine tumours. Already large fibroid and fibro-cystic tumours of the uterus have been removed in America by Atlee, Kimball, and others; in this country by Clay, Keith, Bryant, Thornton, Routh, and myself; in France by Kœberlé and Péan, quite in sufficient number, and with results sufficiently satisfactory to prove that we only require a better knowledge of the details of the operative procedure, and greater experience in meeting the various difficulties which may arise, to place the removal of uterine tumours by gastrotomy amongst the most hopeful of the many lines of thought and action open to the operating surgeon of the future.

But I think those who study and are to become the

CONSERVATIVE SURGEONS OF THE FUTURE

must not be content with saving limbs only. It is life that must be saved. And the great lesson taught by the success of ovariectomy and of operations for the removal of uterine tumours is, that they must not be done except under the most favourable possible conditions, whether in private houses or in hospitals. We are only just beginning to reap the benefit of the results of the labours of the Health of Towns' Commission, and of the work done by medical officers of health all over the country; and a great deal more must be effected before we can ensure even to the most wealthy of our patients a plentiful supply of pure water, a room well warmed, well aired, and free from the presence of sewer gases, and security from the entrance of infectious disease.

In hospitals, the problem is still more difficult; whether the hospital be large or small, old or new. But we do know that overcrowding of any building is of more importance than its size. A large crowded hospital must be a more dangerous place for operations than a small one equally crowded; but a large hospital, where each patient has plenty of space and fresh air, would certainly be a safer place for an operation than a crowded hospital, even though much smaller. In the hospitals of the future, whatever their size may be, the patients must not be allowed to poison each other. And, for my own part, I would rather operate in a clean, quiet, well warmed, and well ventilated building, be it large or small, without any antiseptic precautions, than run the risk of trusting to the neutralising or destructive power of chlorine or iodine, sulphur or tar, borax or the permanganates, salicylic or any other acid, in a place tainted by the presence of sewer-gas or the seeds of some infectious or contagious disease.

I should have said more on this important subject of antiseptic surgery if the bearing of the germ-theory on infectious disease had not been so ably and exhaustively treated by Dr. Roberts in the Address in Medicine, and if in the surgical section a special discussion had not been arranged. But, as both these things have been planned as distinct parts of the meeting, I leave what would otherwise have occupied nearly the whole of this address to ask you for a moment to consider what must be the

EDUCATION

of the men who are to advance the science and practise the art of surgery in the future; how some of the best of the men of the coming generation are to be induced to adopt this career.

I need not speak to such an assembly as this in Manchester, where all the essentials of a chartered University already exist, of the importance, or rather of the absolute necessity, that the surgeons of the future must be educated gentlemen; that we should so order our schemes of education, whether conjoint or not, as to bring into the profession, as far as possible, young men who have had the advantage of the highest general culture to be obtained by an English education. Until this is secured, the flower of our University youth will still choose the church or the bar, the army or the navy, or some branch of the civil service of the state, where they at once take an enviable social position as members of an honourable profession, and where a successful career may lead to a seat in the House of Lords, to the pensions and titles freely granted to the fortunate soldier or sailor, and, more sparingly, to the meritorious civil servant of the Crown.

It is rather surprising that, without any of these inducements, and in spite of the taint of trade forced upon the profession by the powers of the Apothecaries' Company, and its continued alliance with our Colleges and Universities, we still have abundant evidence of a rapid

rise of the profession in the social scale. Apart from examples at home familiar to us all, the marriage of the German surgeon Esmarch to a princess of his own country is even a less striking indication of a change for the better in the social standing of our profession abroad than the fact, much less generally known, that a royal prince by birth, Prince Charles Theodore of Bavaria, is a doctor of medicine, is known to be a clever operating ophthalmic surgeon, and has written a very able article, published in a late number of *Virchow's Archives*, on leucocytes in the substance of the brain in various diseases.

When German princes practise surgery, and a brother of an English earl, a Cabinet minister, is met with as a practising physician, we may think less of the admission of members of our profession into royal and noble families, and look with more hope for recognition by the Government of services rendered by medicine and surgery to the nation. We shall not then have to notice anything so disheartening to a learned profession as the fact, that while for the affair of Magdala Lord Napier was honoured by a title and rewarded with a pension, the extended average duration of life of the whole population and its actual increase, due to sanitary and medical science—far exceeding in importance the annexation of a province, or even of a kingdom—has earned for Simon the barren right, shared by many less honourably known men, of putting the magic letters C.B. after his name, and William Farr still remains without any mark of national gratitude.

Why should a baronetcy be the highest titular distinction conferred upon members of our profession? Is Jenner or Paget less worthy of a life-peerage than any one of the eminent men who now sit on the bench of bishops, or any of the lawyers, soldiers, or sailors who have been rewarded by hereditary peerage? Can any member of the House of Lords do greater service to his country in that assembly than would such a wise and learned physician as Watson, who so very lately has proved himself capable of the highest efforts of statesmanship by his remarkable essay on the abolition of zymotic disease?

Since the health of the people is, or should be, one of the first objects of legislation and administration, the help of acknowledged masters of sanitary science is indispensable. That want, now manifest in the recent ill-devised Acts of Parliament, and the imperfect machinery put in action for their execution, must force upon the nation the conviction that medical science ought to be properly represented in Parliament, and especially in the House of Lords. None of our leaders have time for electioneering or the turmoil of party struggles in the House of Commons; whereas many of them are well fitted for the more dignified position, and would be quite able to devote their time and energy to sanitary legislation in the Senate.

And what a task lies before the medical statesman! Never, in the whole history of our profession, have we had so much work to do, such problems to solve, so many human beings dependent for their health on our knowledge and our care. The Roman empire in its greatest power sinks into insignificance in comparison with the dominions now under the sway of Queen Victoria, Empress of India. Two hundred millions of human beings in India, other millions in Africa, Australia, New Zealand, the islands of the Pacific, in Canada, and the West Indies are affected for good or for evil by the action of the sanitary advisers of our Government. At home, until we can disband the great army of paupers, we must at least save them from preventable disease, and the multitudes of our neglected children must be taught some elementary facts necessary for the preservation of their health and the prolongation of life. The day cannot be far distant when this will be done by Parliament under medical guidance.

But until that day comes, it is for this great Association, for every member of it, to strive to secure to our countrymen and our dependents protection from the effects of incomplete and neglectful legislation. And there is ample encouragement to set to work at once, earnestly and with set purpose, acting in the spirit of the noble motto of the French Society of Surgery:

“Vérité dans la Science,
Moralité dans l'Art.”

If, in the forty years since this Association was founded, the great progress which I have so hastily and imperfectly endeavoured to review has been made, what may we not augur for it in years to come? The Association had its early struggles, and has passed through them. It is now powerful and vigorous; its organisation is almost complete, its resources are yearly increasing, and its influence, through its annual meetings, its branch operations, and the wide circulation of its invaluable JOURNAL, is universally felt. The history of the past and the study of the present, alike help us to look forward with hope and trust to the future.

Look not, unavailingly, into the Past. It comes not back again. Wisely improve the Present. It is time. Go forth to meet the shadowy Future without fear, and with a manly heart.

AN ADDRESS

DELIVERED AT THE MEETING OF

THE SECTION OF MEDICINE,

*At the Annual Meeting of the British Medical Association,
in Manchester, August 1877.*BY SIR WILLIAM JENNER, BART., K.C.B., D.C.L., F.R.S.,
President of the Section.THE OBJECTS AND USES OF ASSOCIATION IN THE
MEDICAL PROFESSION.

GENTLEMEN,—My duty and desire is to thank the Council of the Association for the great honour they have done me in appointing me to preside on this occasion over the Medical Section of the meeting. At the same time, I must own that I feel there is some fitness in the selection made by the Council—that I am to some extent in my proper place as President of the Medical Section at this special meeting—for the Address in Medicine has been delivered by a physician I am proud to be able to claim as a former pupil, and two of the three vice-presidents and one of the two secretaries of the Section owe some at least of their rudimentary knowledge of medicine to my teaching.

Seeing that an Address on Medicine of great ability and of considerable length, as well as an able and lengthy address on the present condition of State Medicine, have already been delivered to the Association, and that gentlemen of the highest distinction in their own branches of the profession are to give Addresses on Surgery and on Obstetric Medicine; that these addresses are exclusive of those by the President and the President-elect,—it appears to me that the success of the Medical Section, which has so much legitimate business to transact, will be better advanced by me, as President of the Section, refraining from delivering any special address. The papers to be brought before the Section are so numerous, and many of them of so much interest, and the two discussions to be held are of so much importance, that I shall trouble you with few words and detain you but a few minutes from the proper business of the Section. I shall limit myself, by way of introduction to that business, to a brief statement of what appear to me to be the uses, the aims, and ends of these meetings.

All gatherings such as this of scientific men effect, I think, two-fold good. They enable men to bring before their fellows, *i.e.*, before an audience capable of appreciating their worth, observations and conclusions founded on those observations in the special science represented at the meeting.

The consciousness that their labours will certainly be laid before an appreciating audience, and be by them at once submitted to oral criticism, stimulates men to labour with greater zeal; to test again and again the accuracy of their observations, in order themselves to detect their flaws; to think out for themselves the objections that may be taken to their methods of observation, and the arguments that may be adduced against the accuracy of their conclusions; and thus the zealous worker is stimulated in his zeal, the accurate observer is encouraged to yet greater accuracy, and the logical reasoner more closely trained to admit even to himself only the most strictly deducible conclusion.

The second and greater good flowing from *all* such meetings is, that the discussions which of necessity arise awake, in those who take part in them and in those who are listeners only, new ideas, and give form to ideas heretofore imperfectly defined in their minds, and do that which for all men is so essential, force them to think. For intellectual and scientific progress, the giving to others and the receiving from others of ideas is essential—the circulation of ideas is as necessary for intellectual and scientific life and growth as is the circulation of blood for physical life and growth. The ideas of others is the seed for new ideas in ourselves—we give, we receive, and new ideas are begotten; a third, differing from its parents, is the outcome of the two. The new ideas thus created open out wider fields for research and fresh methods of testing the value of the produce of research. Again, as men talk one with another, new modes are discovered of looking at old things—prejudices fade away—identity of fact and meaning are found to underlie differences in words; and, by comparing their own observations and their own conclusions with those of others, they correct the former and rectify the latter.

And thus, although at the dispersion of gatherings such as this of

men of science, it may not be able to be said that any branch of the science represented at the meeting has received an addition which might not have been made in other ways, it can be asserted without fear of question that, not only has knowledge been spread, but also that an impetus has been given of the most forcible and purest kind to the advancement of knowledge in the future, which impetus could not have been given in any other way. Men's minds have been excited to think in new directions, to carry their thoughts into action; and prejudices, those drags on the acquisition of knowledge, have been lightened.

These advantages, I say, flow from all gatherings such as this of scientific men; but from our own annual meetings another and a better good flows. In the social associations which form a part of them, hearts are opened to feel more kindly to all their professional brethren. We become conscious of a real common brotherhood. We see how appropriate is the fable of the bundle of sticks. We find ourselves, how we know not, regarding facts morally as well as scientifically professional from others' points of view, appreciating more highly others' merits, and looking less hardly on others' faults; feeling less confident that we are right and others wrong; estimating our own merits somewhat less highly, and our professional brother's somewhat more highly; rejoicing rather that a new fact has been discovered, or a new and more correct conclusion drawn from old facts, than glorying in the part we have played in the discovery; rejoicing in the fact that a discovery of service to the race has been made, and not in the accident that we made it; rejoicing that our generation will hand down the torch of medical knowledge we received from the generation before us with a brighter flame to the generation which succeeds us, and not disputing how much of the brightness is due to a ray emanating from our own tiny taper.

The founders of this Association, appreciating the great advantages the members of our profession resident in London and other large towns derived from the intellectual movements, consequent on the opportunities they enjoyed of meeting each other, endeavoured to confer the same advantages on the members of the profession resident in the country, and the increased facilities for travel enabled their aims to be fully realised, and at last an association of the whole profession to be formed, which not only gives the profession the intellectual advantage flowing from intellectual and scientific communion, but also the social and moral advantages which, we hope, the Association confers.

There will be a new feature this year in the section, *viz.*, two papers will be read by distinguished physicians, for the express purpose of eliciting the opinions of members on two subjects of great practical importance, *viz.*, one on Aortic Aneurism and one on the Treatment of Pleuritic Effusion. I have been present at several discussions of the kind at the Pathological Society. The advantages which resulted from those discussions were great. As the time of the Section to be devoted to these discussions is necessarily short, I have to ask the speakers to condense their remarks as much as possible; and to bear in mind that the value of a speech in these discussions is by no means necessarily in proportion to its length. I would, then, strongly urge on the speakers to keep closely to the subject under consideration, and to avoid, as far as possible, all discursions and episodes.

I cannot conclude without expressing, in the name of the section, the pleasure it will give us all if our foreign visitors—men renowned throughout the world—will take part in our discussions. I have said our foreign visitors; but in science generally, and in our profession especially, there should be no foreigners. We have a common language, and seek one treasure—truth—a treasure which, as soon as it is discovered, is the common property of all. In the world of science, and of medical science in particular, all worthy workers are true communists; they know nought of geographical nations, and race for them has no existence.

BIRKENHEAD AND CLAUGHTON-CUM-GRANGE.—The population is calculated at 55,500. The births were 2,049; and the deaths, including those in the hospital, 1,107; which would give a birth-rate of 36.91, and a death-rate of 19.94, which is below the average. The deaths per 1,000 living were 4.48 from zymotic, 2.81 from constitutional, 7.53 from local, and 2.59 from developmental diseases; all being considerably below the ten years' average. The mortality from diphtheria was above the mean. An account is given of several outbreaks of small-pox, apparently from imported cases, which were cut short by the speedy removal of the patients to a hospital and active sanitary measures in the houses of the sick, as well as by destruction of the clothing. The patients removed by the sanitary authority paid 14s. per week; and those who could not pay this, but were not paupers, were allowed to remain, which certainly does not afford proper protection for the public. The ordinary sanitary work was well carried out, and house-to-house inspections of cottages were regularly made.

AN ADDRESS

THE SECTION OF SURGERY,

At the Annual Meeting of the British Medical Association,
in Manchester, April 1877.

By EDWARD LUND, F.R.C.S.,

Surgeon to the Manchester Royal Infirmary, Professor of Surgery, and
College, and President of the Section.

THE AFTER-HISTORY OF SURGICAL CASES.

GENTLEMEN, My first duty in taking the chair as President of the Surgical Section, at this the forty-fifth annual meeting of the British Medical Association, is a very pleasing one; it is to thank, with all sincerity, the Committee of Council for the honour they have done me in selecting me for this office, and to ask your help in carrying out successfully the responsible duties which it involves. I am quite aware that in making this selection the names of many surgeons have been passed over, who are not only my seniors but my superiors in this branch of our profession. I allow myself, nevertheless, to hope and believe that the honour thus conferred upon me is an expression of your conviction of the deep interest I take in the prosperity of our Association, and more particularly in this special department of it, as well as of my readiness at all times to bear my share in all that will tend to increase its general usefulness.

The first of these annual meetings which I had the pleasure to attend was held at Canterbury in the year 1861; and from that time to the present I have rarely missed the yearly gatherings, contributing sometimes to the list of papers, and joining in the discussions arising upon them. I am thoroughly convinced that it is only by such means as these that we can hope to sustain amongst our body a true sentiment of brotherhood, and create a bond whereby the hopes and fears of the few shall be enlarged and dispelled by the many; that knowledge, likewise, shall be diffused amongst us, and the results of experience matured and perfected, so that in our mutual intercommunications we may verify the remark, "Next to the pleasure we derive in the acquisition of knowledge, is the delight which is afforded us by communicating it to others." And I trust, gentlemen, that our discussions during the next few days will show that truth is to be alone reached through freedom of thought and freedom of discussion, in minds unbiassed by unyielding prejudices.

It is my intention to detain you but for a very short time to-day with introductory remarks on the business which we have before us. The list of papers for reading in this section is creditable to their authors, as regards both the number and the nature of the communications. It was part of the scheme suggested by the excellent secretaries of this Section, that we should select certain definite subjects for consideration and discussion; and I believe among these, excision of the knee, anti-septic surgery, and urethrotomy were specially named. I do not know how far it will be found practicable to work out this plan; and I will not anticipate what may possibly be done, but will pass on to the few remarks I have to make upon a subject which, I think, you will agree with me is in perfect harmony with the practical character of our meeting, and which in its nature is almost indefinitely expandable. I refer to the one great question from the thoughtful study of which much benefit may accrue, namely, the *after-history of surgical cases*. We know that surgeons engaged in general practice, who are linked, so to speak, to their patients by various ties of personal regard and social intercourse, and who have constant, indeed, I may say, daily opportunities of noting their habits of life, their hereditary and acquired peculiarities, are in many respects better able to form a correct prognosis as to the reparative powers and tenacity of life in individual cases than, all other things being equal, a stranger can be; and if this be true in what I may call the incipient stage of disease, before the climax is attained, that which justifies direct surgical or operative interference, it is also true that the general practitioner, or the constant surgical attendant in any given case or series of cases, if he will observe for himself and reason out his observations, will be able to testify to the permanent good effect of certain operations or modes of treatment which may have been inaugurated or suggested by a consultant, or practised in a hospital as a brilliant operation, startling in its originality, but possibly, as the after-history may show, questionable in its results. I fear that we, who revel in opportunities for operative interference, are too apt to forget the old adage that "the operation is but the beginning of the treatment". Our patient leaves the hospital with a healed stump

or a closed cicatrix, but who will tell us what shall be the fashion and utility of the former six or twelve months hence, or whether the tumour removed to-day is but the advance-guard of an enemy of far more deadly import? In excisions of joints, in all their varied forms, with or without permanent mobility,—in the best form of stumps after amputation,—not as they appear when they leave the operating table, nor even when the patient's name is struck off the hospital roll, nor yet at a slightly more advanced stage than this, when consolidation of the new tissue has been fully established, but months and years afterwards, is the proper time at which to say whether due regard was given, and sufficient thought bestowed, on the possible after-effects of muscular retraction and atrophy of tissue; for it is by such changes as these that many a comely stump, on which the operator justly prided himself, has shrunk up and become distorted, until, as far as being suitable for bearing the weight of an artificial limb is concerned, it shall be next to, or even worse than, useless. Now here, the after-history, if honestly scanned, will read its own lesson, and will be far more frequently watched by those in general practice than by surgeons of large hospitals. It is, in fact, in hospital practice a great drawback that we are unable, as a rule, to follow up our cases after they have left our care; for, with superior opportunities for so doing, we could, indeed, learn the best of all lessons, the experience taught by failure rather than by success. The same remarks will apply to the after-history of such surgical subjects as lithotomy *versus* lithotomy, tenotomy in orthopaedic surgery, excision *versus* amputation in disease of the knee, and urethrotomy, as the expression of the more modern method of combating the advance of stricture.

In some degree to illustrate and confirm these remarks, I am able to bring before you to-day—at least, before such of my audience as like to examine for themselves, in an adjoining room where they can be seen, half a dozen very interesting surgical cases, all of which have been operated on at distant periods, and in which the permanent benefits or permanent defects are at once apparent. They are these. A case of excision of the knee was performed in the year 1870 on a man then aged about 22 years, now, therefore, 29 years old. This case was described by me in the *Manchester Medical and Surgical Reports*, after the publication of which the paper was reprinted. Here you will have an opportunity of noting the condition of the limb and of hearing from the man himself what he can do, and then it will be for you to consider how far his present state and capacity for walking and working may be said to compensate the long illness and treatment, which I am bound to say were very tedious, and which I do not believe could have terminated as successfully as they have done had the patient not been watched with scrupulous care by my old pupil and friend, Mr. John Parks of Bury. My second case is one which I mention with some diffidence, and to which I am glad to refer now in the presence of so high an authority in his own speciality as my dear friend, our Vice-President, Mr. William Adams. It is the case of a little boy from whom, in the year 1872, I removed both astragali in order to correct severe double talipes, in the previous treatment of which much patience had been expended, and, as it seemed to me at the time, to a hopeless degree. I am pleased to show this case to-day, if for no other reason than that I may thank my friend for behaving so generously as he did when I read the particulars of the case at our meeting in Birmingham, in not at once condemning the course I had pursued as unjustifiable, but merely hinting, in the most considerate manner, that possibly, in such a case, a less heroic method of treatment might have secured equally good results. The third case is an instance of double section of the neck of the thigh-bone, done in the months of March and May 1876—Adams's operation, the credit of which is his own, in the special form in which he designed it, *nemine contradicente*. You will now see, reviewing the past and recent history of this case, at a fair interval of time, how far this operation was justifiable, and how far it has been successful.

Next, I would invite your attention to a case of amputation of the hip-joint, performed in 1872, in which an excellent recovery was made. The chief interest in this case consists in the contemplation of the wonderful way in which the patient can walk and get about after so severe a mutilation as that of not less than one-sixth part of his entire body, and of some interesting physiological problems which might be worked out upon it as to the action of the steadying muscles of the hip and loins, whereby the balance of the body is still preserved.

I have also ready for your inspection two cases of partial removal of the ulna, in each of which an excellently useful hand is preserved, with power of rotation by pronation and supination, to a remarkable degree. In one case, which was operated upon about eleven months since, the lower third of the ulna was removed, and all healed well. In the other, only just the extreme end was excised. It is an operation upon which I cannot refrain from dwelling, because it shows that

not only in infancy, but even in our student days, early impressions are imprinted indelibly on our memory. I had the good fortune to be one of the first set of dressers for Mr. Hilton when he was appointed one of the surgeons to Guy's Hospital, about the year 1845. No one at that time was more ready or more able to apply correct anatomical knowledge to surgical practice than he. It was his delight, as his *chef d'œuvre* on *Wrist and Pain* will fully testify. At this time he had under treatment a young woman with necrosis of the lower part of the ulna, without, as was then thought, any present disease in the carpal joints. Mr. Hilton said, "How would it do to take away the diseased bone, and not destroy the integrity of the carpus, by carefully leaving intact the triangular fibro-cartilage which intervenes between the end of the ulna and the cuneiform bone?" This was done, and a perfect recovery resulted. The fact thus presented to my mind was never forgotten. I referred to it from time to time in my anatomical demonstrations, as a possible operation. It was not until quite recently, however, that I had a precisely similar case to treat, one in which, as you will observe, I have removed the lower inch of the ulna without disturbing any of the carpal joints. Recovery has followed, and now, after nearly fifteen months, you may see for yourselves what a useful hand the patient has. But yet there is danger to be averted, as possibly only the after-history of such a surgical case could foreshadow. The two ulnar muscles, the flexor and the extensor, unrestrained by the resistance of the shortened ulna, are now beginning to show a tendency to draw the hand towards the internal side of the fore-arm, and in spite of all I can do, I fear I must admit that, without the use of some mechanical apparatus, the hand will become less serviceable, by permanent fixed adduction.

The lessons to be learnt from the after-history of these cases will, I hope, be as interesting as I believe they might be made instructive; and I trust that the present condition of these patients will convince you that, in many instances of surgical disease and surgical treatment, careful study of the after-history of each individual case will prove an endless source of accumulated experience.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF OBSTETRIC MEDICINE,

At the Annual Meeting of the British Medical Association,
in Manchester, August 1877.

By W. O. PRIESTLEY, M.D., F.R.C.P.,
President of the Section.

THE HISTORY OF OBSTETRIC MEDICINE IN MAN- CHESTER.

GENTLEMEN,—When I was honoured with an invitation to accept the Presidency of the Obstetrical Section at the present meeting of the British Medical Association, it struck me that it would be interesting to look back on the part which Manchester has from time to time taken in the advancement of obstetric science, and to recall some of the great names who have contributed to its literature.

Manchester, indeed, has had its school of obstetric medicine as well as its school of politics. It has made its mark both in the present and preceding century, and it seems to me a happy coincidence that the Address in Obstetric Medicine, which is given once only in three years, should be delivered in Manchester, a town so much identified with the progress of the science and art of midwifery, and the Association may be congratulated that the address is to be delivered by so competent an authority as Dr. Barnes.

So long ago as 1773, Mr. Charles White, a pupil of William Hunter and Surgeon to the Manchester Infirmary, wrote a treatise on the *Management of Pregnant and Lying-in Women*, which went through three editions; and, in 1784, he issued a work on the *Nature and Cause of Swelling of the Lower Extremities which Sometimes Happens in Lying-in Women*. This work also appeared in three editions, and was remarkable as one of the first scientific attempts to unravel the pathology of the disease called "phlegmasia dolens" by a careful study of the anatomical changes taking place in the limbs. Mr. White gave a very accurate description of the affection, and adopted the view that it depends on "obstruction, detention, and accumulation of lymph in the limb".

In 1800, Dr. Hull published an extended treatise on the same subject; and, from his introductory remarks, it may be gathered that he first bestowed the term "phlegmasia dolens" on the inflammatory swell-

ing of the legs observed in puerperal women, and assigned it its place in the nosology of Cullen. He expresses a fear lest some of his readers should be puzzled by the new name. He regarded the disease as an inflammatory affection, producing suddenly a considerable effusion of serum and lymph into the cellular membrane of the limb. Whatever may be thought of the pathology of these two authors in view of the more recent researches of Dr. Robert Lee, Dr. Mackenzie, Professor Virchow, and others, there can be no doubt that both Mr. White and Dr. Hull made most important contributions towards elucidating the nature of phlegmasia dolens, and deserve great credit.

Probably no single locality in the United Kingdom has contributed so much as Manchester and its vicinity to the discussion and elucidation of the subject of Cæsarean section. In 1769, Mr. Wood here performed the operation upon a woman whose pelvis became greatly distorted by mollities ossium after she had previously borne children naturally. This case led to a discussion, in which Mr. Simmons, Mr. Ogden, and Mr. Tomlinson of Manchester, with Dr. Sims of London, took part; and out of this controversy came the excellent treatise by Dr. Hull entitled *A Defence of the Cæsarean Operation*, etc. In this work, Dr. Hull entered most intelligently into the nature of the cases requiring the operation, the best method and the proper time for performing it, the sources of danger, and the subsequent treatment of the patient. This book besides gave much information on the subject of pelvic distortions. If, with the light of later experience, exception be taken to some of Dr. Hull's positions, his book may be said to have formed the groundwork of information on Cæsarean section for British practitioners, and to this day it is regarded as containing sound opinions and good practice.

The promulgation of Dr. Hull's views was unfortunately mixed up with a most rancorous controversy between him and Mr. W. Simmons, in which Mr. Simmons charged Dr. Hull with being "little acquainted with the decencies common among authors, and ignorant of the language and manners of a gentleman". The contention in bitter personality inevitably recalled the celebrated combat between Susannah and Dr. Slop, graphically described by Sterne in *Tristram Shandy*, and its occurrence is much to be regretted.

In 1801, Dr. Hull translated and published M. Baudelocque's two memoirs on the Cæsarean operation, thus giving English practitioners further information on the subject; and the history of the operation is still further identified with Manchester through the much respected name of Dr. Radford, who delivered the first obstetric address before the Provincial (now named British) Medical Association at Manchester in 1854. Dr. Radford then selected Cæsarean section for the subject of his address, and subsequently published a more extended memoir with an appendix of cases. From this memoir, it appears that, up to a certain period, the greatest number of cases, relatively speaking, in which Cæsarean section had been performed in Great Britain and Ireland had occurred in this city and neighbouring districts. Of fifty-five cases in England and Wales collected by Dr. Radford up to 1865, no fewer than twenty-five had occurred in Lancashire. The occurrence of this large proportion of Cæsarean operations in Lancashire was, no doubt, in a great measure, due to the pernicious influences surrounding the occupation of young girls and women in factories. Cogent evidence of this is to be found in the fact, which I have on good authority, that, since the introduction of the Factory Act, which prohibits girls being employed in factories before a certain age, and limits the hours of work both for women and children, such deformities of the pelvis as necessitate the Cæsarean section have become much rarer, and Lancashire is losing its unhappy pre-eminence in this respect. This, one of the indirect ways in which the Factory Act has ameliorated the condition, and lessened danger and suffering for poor working women in parturition, deserves to be recorded, and must furnish a source of gratification to Lord Shaftesbury and others who were concerned in passing this beneficent measure.

Looking still onward, we learn that to Mr. Kinder Wood of Manchester is probably due the first suggestion that the placenta should be detached from the os and cervix uteri in certain embarrassing cases of placenta previa, where the severity of the hæmorrhage places the patient in peril, and immediate delivery is difficult or impossible. Sir J. Y. Simpson developed this question more fully later, and impressed upon it, as he did on all subjects he handled, the imprint of his genius. Sir James evidently was not aware, when he made his first communication on this subject, that Mr. Kinder Wood had before him adopted this plan of treatment, or had recognised the fact that complete separation of the placenta would arrest hæmorrhage in cases of placental presentation. Becoming informed later, he made a full acknowledgment, and expressed himself as having "great and sincere pleasure in rendering posthumous justice to the memory of a man of distinguished professional attainments".

And here I may remark that some misapprehension still exists concerning Sir James Simpson's teachings as to the treatment of placenta prævia. It is common enough to hear Sir James accredited with recommending separation of the placenta as a general plan of treatment for cases of unavoidable hæmorrhage. Those who have carefully studied his writings are not likely to fall into such an error; but it may be well once more to point out that Sir James Simpson only proposed the separation of the after-birth before delivery in cases where the hæmorrhage had been so great that the patient could not bear the shock of immediate delivery, or where perilous flooding was associated with such an undilated or undilatable state of the passages as to render speedy delivery impracticable.

These doctrines, it is well known, have been still further modified more recently by the obstetric orator at the present meeting—Dr. Barnes.

Tracing further the history of obstetric medicine in Manchester, I approach delicate ground, inasmuch as many of the men identified with its progress are still living, and their names are familiar to all of us. Of the venerable Dr. Radford, whose name I have already mentioned, and whose first medical diplomas date as far back as 1817, everybody must speak with admiration and esteem. A long life, combined with ardent love of his profession, have enabled him to make many substantial contributions to the literature of obstetrics, and to form a very fine collection of instruments. This collection now belongs to the Radford Museum in Manchester, and, by kind favour, was lent for a brief period to the Obstetrical Society of London for exhibition at its *conversazione* last year. Among Dr. Radford's more important writings, I may mention his *Lectures on Various Surgical and Midwifery Cases*; his *Essays on Cesarean Section and Deformities of the Pelvis*; *Cases of Torsion, Doubling, and Expulsion of the Fætus in Shoulder-presentations*; *Cases of Laceration of the Uterus*, etc.

Dr. John Robertson, whose first diploma dates as far back as Dr. Radford's, has also, during his life-time, rendered signal service to his profession. His writings bear the stamp of a genius which has been recognised by many eminent authorities, and his practical suggestions have greatly helped to further a more scientific and precise use of midwifery instruments.

Dr. Charles Clay, besides entering the domains of archeology and general science, has brought renown to the Manchester School by the diversity and extent of his contributions to obstetrics. Without going into the question of priority, I may state that Dr. Clay's name is indisputably associated with the earliest successful cases of ovariectomy in this country, and that he materially aided, by his own work and writings, to establish the propriety of an operation which has led to such wonderful results in the hands of Mr. Spencer Wells, Dr. Thomas Keith, and others. Further, Dr. James Whitehead, both by his writings and practice, has attained more than a local celebrity as an accomplished gynecologist; and Dr. Renaud, who, I understand, does not engage in obstetric practice, yet has added important material to its literature. I have often heard my late friend Dr. Montgomery of Dublin speak of the value of his researches on the corpus luteum, and, in his admirable work *The Signs and Symptoms of Pregnancy*, Dr. Montgomery says of Dr. Renaud's account of the corpus luteum that, "as far as it goes, it is decidedly one of the best and most accurate".

I may add that, within the last day or two, Dr. Lloyd Roberts has informed me a Mr. Ward, a surgeon in Manchester, was the first to point out that infantile leucorrhœa was an idiopathic affection, and not necessarily produced as the result of carnal intercourse. The importance of this discovery in a medico-legal sense was illustrated by a case occurring at the time. In 1791, Mr. Ward was asked to examine a little girl four years old who was supposed to have been violated. He gave evidence to the effect that there were proofs of such violation, and a man was committed for the capital offence. Immediately afterwards, Mr. Ward saw other cases of infantile leucorrhœa in hospital, which a careful examination convinced him were due to natural causes. He was courageous enough to report this to the authorities, with an avowal that he might have been mistaken as to the evidence he had given in the criminal case. This was explained to the judge of assize at Lancaster, and the man was acquitted.

This brief recital does not at all profess to complete the history of obstetric medicine in Manchester; it merely gives a *résumé* of some of its more salient points up to a given period. In any fuller exposition, one could scarcely omit to mention the names of the present honorary secretaries of this Section. They are the worthy representatives of gynecology in Manchester at this moment, both as teachers in the medical schools and as pioneers in practice.

Since the last meeting of the British Medical Association in Manchester, considerable strides have been made in perfecting the science

and art of midwifery, and in investigating and treating the diseases of women. New light has been thrown on the treatment of difficult and anomalous labours; fresh expedients have been suggested to meet special emergencies. The subjects of uterine hæmorrhage, the use of midwifery instruments, the diversities in the method of turning, and the pathology of puerperal ailments, have each received fresh illustration in this country by such men as Simpson, Matthews Duncan, Barnes, Braxton Hicks, and others, and by a host of fellow-workers abroad. In the treatment of diseases of women, the advance has even been more marked. The wonderful results which have recently attended the operation for ovarian tumours are the marvel of our time, and indicate a courageous and skilful battle with disease and death, crowned with a success which twenty years ago was scarcely hoped for.

The impetus given to the cultivation of uterine pathology not many years since by the writings of Dr. Henry Bennet in London and by Dr. Simpson in Edinburgh may be said almost to have created the modern school of gynecology in this country. The various implements introduced into practice, more especially by Simpson, have made diagnosis much more precise and accurate than before. With these improvements, the danger is lest the physician be merged too much into the mere mechanist, and lest he should look on all derangements of the reproductive organs as having too exclusively a local origin to be remedied with undue frequency by local expedients.

As we are avowedly met here for mutual discussion and criticism, I trust I may be pardoned if I indicate in passing one or two pitfalls into which gynecologists are prone to stumble in the present phase of our art.

In the first place, out of the mechanical improvements in diagnosis and treatment, there seems to have grown too great a proclivity to trust less to the information afforded by the educated fingers and more than is desirable to instruments. These mechanical aids are often employed as a mere matter of routine, without regard to the pathological nature of the uterine disturbance, in the vague hope that they may assist to find out something the nature of which is not well defined beforehand, and apparently with the idea that full justice is not meted out to the patient if any are dispensed with. These remarks apply both to the speculum and sound, with other instruments, but especially to the uterine sound. The uterine sound is a great addition to our resources, but there are many uterine affections in which it affords no information whatever, and many in which it is positively injurious. My experience convinces me that it is employed with unnecessary frequency both as an instrument of diagnosis and for restoring the displaced uterus when a finger in the vagina or rectum would equally well answer the purpose. A sound cannot be introduced into an inflamed and tender womb without stirring up more mischief, and it is often forgotten that a preliminary investigation on this point is as needful and desirable before having recourse to the sound as it is to exclude the chances of pregnancy. The result is the infliction of a large amount of avoidable suffering; sometimes it may be an aggravation of the disease for which the patient seeks relief, and an amount of discredit attaching to the practitioner which most men would be glad to escape.

It is of great moment, now that we possess instruments of acknowledged value, to learn the exact limits within which they render actual service, and when they had better be avoided.

Again, as certain remedies have had their fashion for the day, and then have sunk into unmerited oblivion, so, in defiance of sound principles, a single idea in uterine pathology has been raised into a position of undue prominence and then given place to something else.

At one time, ovarian pathology was in the ascendant; at another time, inflammation of the os and cervix uteri was regarded as the chief ailment from which women suffered, and lately these have given place to the theory that mechanical displacements of the uterus are the root of all evil, and patients taking their cue from the doctors at once jump to the conclusion that all pelvic discomforts come from uterine dislocation. Thus the world is afflicted suddenly with what seems an epidemic of flexions and versions of the womb, and a large amount of time and ingenuity are expended in the invention of pessaries which might be more profitably employed in other directions. Need I point out how important it is that, in all our scientific progress, we should relegate each special subject of study to its proper place in a sound system of pathology, and attach to each morbid condition its true importance? Both in diagnosis and in attempts at cure, while we should have courage enough, when necessary, to face both difficulties and dangers, it comports best with scientific practice to measure as exactly as possible the amount of interference to the needs of the case. All beyond this is not only superfluous; it is apt to be mischievous.

Turning to another subject, I am anxious to draw the attention of members to the subject of transfusion, which has been chosen by our

Manchester *confers* as a topic for discussion in this Section of our meeting. The operation of transfusion has had a checkered career, and, after being forgotten or neglected for long periods, is again attracting much attention.

From a sketch of the history by the late Mr. Pettigrew and others, we learn that the earliest experiments in transfusion were made in France about 1658 by Hansheau. Lower performed the operation in this country in 1665. M. Denis, satirically described as a physician "plus occupé des jeux de hazard, que des jeux de la machine animale", subjected a man to the experiment about the same time. Biva and Manfredi in Italy, and Sinnibaldus in Flanders, repeated the experiment only a few years later. The first four volumes of the *Philosophical Transactions*, which cover the years from 1665 to 1704, contain records of several, but all unsuccessful, cases.

After this time, the practice seems to have fallen into abeyance, although Dr. Harwood of Cambridge published a thesis on the subject in 1785, and endeavoured to rouse attention to its importance. It was not until 1824, when Dr. Blundell of Guy's Hospital reopened the question, that it gained distinct vitality. Dr. Blundell showed, by a series of experiments, that blood may be transfused with success and safety from one animal to another, provided they are the same species; but, if from one animal to another of different species, the result is fatal. MM. Prevost and Dumas in France, and Bischoff in Germany, believed they had afterwards verified Dr. Blundell's conclusions; but Dr. Brown-Séguard has shown that there were fallacies in these experiments, and that, under certain conditions, the blood of other animals may be injected into the human body without danger, while he holds with Diefenbach that defibrinated blood answers as well as fibrinated blood.

Dr. Blundell performed the operation of transfusion eleven times with his own hand; in ten of these cases there was pressing danger from loss of blood, and in only four of these did he succeed in restoring the patient.

The sparing results attained by Dr. Blundell did not encourage the adoption of the practice by medical men generally. The operation was regarded as delicate, difficult, and uncertain of success, and it languished, although from time to time new instruments were devised and fresh suggestions were made for perfecting the process. In later days, Dr. Hamilton of Ayr, Dr. Graily Hewitt, and Dr. Aveling have each suggested modifications of apparatus. Dr. Aveling's method of immediate transfusion was at once so simple and practical that its introduction gave a new impetus to the operation in this country.

In limine, it may be said that, as increasing attention is paid to the subject, and apparatus becomes more perfected, greater promise is afforded and favourable results are gradually growing. The late Professor Martin of Berlin recorded fifty-seven cases, in which forty-three were completely successful; Dr. Higginson of Liverpool fifteen cases, in which ten were successful; and Dr. McDonnell of Dublin, de Belina of Paris, with others, have published interesting cases.

It will be in the recollection of many members that, at the meeting of the British Medical Association in London, there was a discussion on transfusion, and a lively debate took place between the advocates of *mediate* and the supporters of *immediate* injection.

Just now new life has been imparted to the subject by the appearance of M. Roussel, demonstrating the utility and simplicity of his method for direct transfusion. This subject is obviously a study of deep and increasing interest, as the introduction of the practice in a perfect and simple form may be the means of saving many from the very jaws of death. I commend it to your careful consideration, and, at the appropriate time, to your earnest and dispassionate discussion.

WORTLEY UNION.—This is nominally a rural district; but the bulk of the population are miners or metal-workers inhabiting very large villages, which are much too crowded, and devoid of proper water-supply and means of drainage. Bronchitis and pneumonia caused the largest number of deaths; whilst the mortality from phthisis was below, and that from zymotic diseases was above, the average. The population in 1876 was estimated at 14,880, and the number of deaths 300. The death-rate in 1874 was 20.0; in 1875, 21.7; and in 1876, only 18.6 per 1,000 population. The death-rate under five years of age was 9.4, and above five only 8.93; so that more than 50 per cent. of the deaths occurred amongst children under five, which certainly does not indicate good or even ordinary care of the young. This excessive mortality of children is a common feature in all mining districts, and is usually attributed to carelessness, want of proper food during infancy, and neglect as regards proper clothing and medical attendance. The nuisances abated were 189, but notices were served in thirty cases which were not removed on December 31st.

AN ADDRESS

DELIVERED AT THE EVENING OF

THE SECTION OF PUBLIC MEDICINE,

At the Annual Meeting of the British Medical Association,
in Manchester, August 1877.

By F. DE CHAUMONT, M.D.,
Professor of Military Hygiene, Army Medical School, Netley;
President of the Section.

SCIENTIFIC RESEARCH IN RELATION TO SANITARY PROGRESS.

GENTLEMEN,—It was with feelings of great gratification that I accepted the flattering invitation of the Council to take the chair in this Section, but it was not without some diffidence that I did so. Tempting as it may be to assume that it is a personal honour, I think I ought the rather to take it as a compliment to the institution I represent, the more so as the chair I hold is one that is inseparably connected with the loved and honoured name of Parkes. To him, and to many others of the medical officers connected with the public services of the Crown, a great debt of gratitude is due, both for the work they actually did and for the start they gave to the great principles of sanitation. The opportunities furnished by our troops and seamen for observations on an extended scale have been of great value, and have, I venture to hope, not been neglected; whilst the vast field of observation in our Indian empire has been productive of a great mass of sanitary knowledge. I may refer to the works of two eminent observers—Dr. Timothy Lewis, of the British Service, and Dr. D. Douglas Cunningham, of the Indian Medical Service—who have been employed for a number of years as special commissioners, primarily for the investigation of the causes of cholera, but secondarily for various other inquiries, which have proved of marked importance. Their appointment to this work is greatly to the credit of the Indian Government, and the productive character of their labours has been most encouraging. Among these, I may cite their valuable contributions to the history of cholera, in the course of which they have cleared away much that was of an untrustworthy and misleading character; their researches on the nature of the soil, air, and the ground-water fluctuations of Calcutta; the observations on the suspended matter of the atmospheric air; the discovery of the *Filaria sanguinis hominis*; and their more recent researches on the Madura foot, the Delhi ulcer, and upon Indian leprosy. It is not, of course, my object to praise one class of medical men as sanitarians above another; and, indeed, it would be unbecoming in me to do so; but my desire is twofold: first, to point out the advantages to the community of special scientific inquiries on an independent basis; and, second, to vindicate to some extent the position of our profession in sanitary work.

With regard to the first point—the encouragement of special scientific research—this touches the much vexed question of the "endowment of research", about which so much has been said and written in late years. To a certain extent, the principle has been recognised by the Government in the admirable series of inquiries first carried on under the enlightened direction of Mr. John Simon; but, excellent as these were, and as those still are which are continued under his successor, they are far too limited in scope for the requirements of the age; and it would have been a movement particularly appropriate for a Government whose motto was, "Sanitas sanitatum, omnia sanitas," to extend such inquiries in a much wider circle, and so encourage investigations which can seldom be adequately conducted by means of private resources. In private life, those who have the means sufficient have rarely the knowledge or the inclination proper for such researches, whilst "chill penury" too often "represses the noble rage" of those who could most effectually carry them out. Such men as Cavendish are rare, of whom his French biographer said, "Il était le plus riche de tous les savans, et le plus savant de tous les riches". But it does seem a strange anomaly that almost unlimited sums can be obtained for experiments on "Woolwich Infants", torpedoes, and the like—in short, anything that will most effectually destroy the human family on the largest scale; whereas there is untold difficulty in getting the most modest amount if the experiment be merely for the purpose of saving life. Of course I know it will be said that this is a trite complaint—one that has been made over and over again; also that upon the efficiency of our torpedoes and big guns depends our existence as a nation. Well, I can only answer that, if the complaint is trite, it is all the greater reason that the evil should be redressed; and that, if our exist-

ence depends upon our means of defence against a foreign enemy, it depends tenfold more upon the efficiency of our defence against a host of enemies, most of whom we carefully nurture in our own homes, and to which a foreign army is mere child's play. Preventable disease kills annually in this country not less than a quarter of a million—a number more than ten times greater than the "horrible and heart-rending" loss which our army sustained in the Crimean war—a loss which stirred the feelings of the country from one end to the other. It is true that ours was an invading army, and that the sufferings of an invaded country are greatly enhanced. The siege of Paris cost the city fifty thousand lives; but, even with this large number, the whole losses of that great war were probably little more than perish in a year from preventable disease. War, besides, is a rare occurrence in a country; whereas our other foes are always with us, hardly ever ceasing from their destructive work. While, therefore, admitting that war is a gigantic evil, against which every precaution ought to be taken, it cannot be too often repeated that there are other even greater evils constantly in our midst, against which at least equal precautions ought to be provided for, but which have as yet, unfortunately, failed to impress the governing classes with their immense importance. It is not that we would stop the attempts to keep ourselves in the van of science as regards war, but that we should devote more time and money to other matters too, so that, while the one thing is done, the other shall not be left undone. It is true that much has been accomplished—more, perhaps, than might have been expected not many years ago; but still so much of our legislation in sanitary matters remains merely permissive, that a great deal less is really done than might be hoped for from the machinery. For true sanitary progress, we require an accumulation of facts and observations, as well as an organised series of original researches and investigations, such as can only be done on a great scale by State help and authority: a Department of Health, in fact, which shall be looked upon as equal in importance to any of the other great departments of the Crown.* Part of its duties ought to be to organise a system of extended and continuous investigations into the conditions of the soil, the air, and the water of the kingdom, such as could not fail ultimately to add vastly to our sanitary knowledge. As regards water, much is being done by individuals in different places, chiefly in the way of chemical analysis; but the microscopical examination is comparatively little studied, whilst anything like a systematic method of inquiry has still to be organised. Of course I do not forget the large mass of information collected by the Rivers Pollution Commission; but that is by no means enough. There is no "rest and be thankful" in such a matter. As regards air, a step in the right direction has lately been taken by the establishment of a section of sanitary meteorology in the Government Meteorological Office; but chemical and microscopic investigations are also necessary, and ought to be continuous and in a multiplicity of stations. For the soil, we may say that nothing is being done. It is true, we have many details about its geology, so far as its solid constituents and their arrangement go; but the study of the soil-atmosphere and its variation under different conditions has been hardly even touched upon in this country.

Another most important inquiry has been much urged of late upon the attention of the profession and the authorities; namely, the registration of disease. Without the information that would thus be obtained, it is hardly possible to know the history and etiology of maladies—points so essential to a true knowledge of their means of prevention. Almost the only records of the kind are those of the army and navy, and they give information only about certain classes and ages, in numbers too small to have more than a limited value. Still, from them much information of a valuable character has been obtained. I may cite the important statistics of the influence of the Contagious Diseases Acts, which up to the year 1873 gave much valuable information. The unfortunate concession to pharisaical clamour in that year—viz., the infliction of a fine upon soldiers suffering from venereal disease—has done much to vitiate the returns as true statements of its amount. At all events, it has unfortunately given a handle to the opponents of the Acts, of which they have not been slow to avail themselves. Still, the statistics that are even now published, notwithstanding the somewhat modified value which must be attached to them, are, let us trust, sufficiently instructive to render the repeal of the Acts improbable. Few pieces of legislation have, to my mind, been more successful; and it would be a lasting pity if the good were arrested by the well-meaning but misguided efforts of its opponents. At the same time, the preposterous way in which the latter handle statistics makes them no more formidable than the anti-vaccinationists, at

least so long as our legislation is conducted by people of ordinary sense and perception, who will be content to deal with facts and not with fancies, and not make or repeal laws in a fit of hysterics.

I have said that I proposed, in the course of this brief address, to vindicate to some extent the position of our profession in sanitary work. It may seem to many somewhat strange that this should be at all necessary. One would have thought that, if sanitarians were to be drawn from any profession, it would certainly be from the medical; yet it is remarkable how strong a tendency there is in some quarters not only to disregard the advice and counsel of medical men, but even to shoulder them out of the work altogether. Were medical men now-a-days, as used to be said of them formerly, merely givers of nasty pills and nauseous potions, with but a limited knowledge of disease itself and a blank ignorance of its causes, the opposition might have some fair ground; but, in the present day, even our sarcastic enemy Montaigne, who implored that he might get no physic until he was well and strong enough to bear it, might have looked with some favour upon a profession whose motto is not merely "Venienti occurrere morbo", but "Principiis obsta", whose most strenuous efforts are towards the prevention, and even, if possible, the extinction of disease. Again, in how many instances has our profession in vain called attention to sanitary evils and urged their remedy, with no other result than being sneered at first, and finally having their labours quietly appropriated, and the glory given to another? There are several forms which this opposition may take. The first is the purely *Philistine*, which from time to time finds its expression in local governing bodies when the necessity for a medical officer of health is gravely questioned. In one instance, it was objected that it was a waste of money to pay a salary for the office at all, on the ground that there was nothing so cheap as science, and that you might get one for nothing. In another case, it was gravely said that all that was wanted was a good inspector of nuisances, sanitary work consisting merely in the removal of dung-heaps, clearing out privies, and the like. The second form of opposition I may call the *obscurantist*, which in some points differs but little from the former in practice. This would resist the appointment or co-operation of any one who did not hold the particular view which they especially favour, who would, like the grammarian that cursed his opponent for his theory of irregular verbs, introduce what I may call an *odium ætiologicum*; and from participation in this form of opposition our own profession is, I regret to say, not altogether free. The third form is one which is a little complex and rather difficult to name in a single expression; it is partly "rest and be thankful", combined with a spirit of resentment against the medical profession as that which especially troubles their Israel, and partly an extreme timidity in the matter of expenditure. It is this that induces local authorities to give the Poor-law doctor an annual ten or fifteen pounds as health-officer, really as a retaining fee to make him hold his tongue, instead of appointing a competent officer, who should have no interest in anything except keeping his district in the highest state of sanitary efficiency. It is this spirit that induces high official persons to disregard the sanitary counsels of medical men, and, if possible, to compass their exclusion from sanitary work, on the plea that they are *impracticable*. Being *impracticable* usually means that the recommendations of the individual so styled will lead to the expenditure of money—a thing generally abhorrent to the official mind (unless it be for its own particular job). But it is farther asserted that mistakes are made, and that things directed to be done at one time are disapproved of at another, so that changes are rendered necessary, to the hindrance of true progress and (of course) waste of public money. But, I may ask, are mistakes peculiar to the medical profession? Do no others ever make them? Are there never any legal or engineering mistakes; no military, naval, or political mistakes? Considering all things, it seems rather wonderful that the mistakes have been so few; and that may be taken as a proof that the teaching and habits of thought of the medical profession form an excellent training for sanitary work. At all events, we may safely say this, that, many as the mistakes may be that can be laid at our door, they would have been many times greater had the work been entrusted to any other class of men. If we have slain our thousands, they would have slain their tens of thousands. I am very far from being forgetful of the fact that many distinguished sanitarians have come from ranks non-medical; but I do uphold that it is from our ranks chiefly that sanitarians must and ought to come, for in no other profession is that class of knowledge acquired that best fits a man for sanitary work. Not that I wish by any means to exclude members of other professions. We require the assistance of all, and desire the co-operation of all; but to attempt to work sanitary reform without the medical profession would be like making wine without grapes; it might be wine of a sort, but it would only be gooseberry after all. We are not without illustrations of the results of

* In reference to this, I may recall the eloquent address of Dr. B. W. Richardson, F.R.S., at the opening of the Sanitary Institute of Great Britain.

attempting to act without, or contrary to the advice of, the profession. Let the history of the Crimean war serve as an example. Perhaps the best abused man of that time was the late Sir Andrew Smith, the Director-General of the Army Medical Department; and yet, when the true story of the war came to be told, it was found that he had foreseen only too well the breakdown that must occur, and proposed measures which, had they been adopted, would have at least greatly mitigated the terrible evil. The French Government were not more wise than our own, for they disregarded the warnings of their medical staff in the autumn of 1855, when it was plain to the eye of science that a terrible invasion of typhus was imminent. The ruling powers were deaf, the blow fell, and many of the unfortunate doctors fulfilled their prophecy in their own persons. Look at the history of the last Arctic Expedition and the present Indian famine, and say whether dire disaster might not have been averted had medical counsel been listened to. On the other hand, we have the history of the campaigns in China in 1860, in Abyssinia in 1868, and in Ashanti in 1873, in which medical counsel was sought, and, still more, acted upon; and what do we find? A series of triumphs won at a cost that was positively insignificant; a sanitary success that was little short of perfect, even in the terribly trying climate of the Gold Coast. This last was appropriately called a doctors' war; and it will be golden wisdom in governments to try and make all other wars more and more doctors' wars, as well as to listen to their counsel in times of peace, whether they deal with soldier or civilian. To attempt to do without the doctor now is hopeless, although it is possible to conceive a time when such a consummation may arrive. Indeed, the progress of medical science has been constantly tending towards abolishing the necessity for the physician; so that, in a remote future, a physician will be honoured less for the uses men may have of him than because by his preventient science he renders it unnecessary to use him as a physician. And this is a healthy sign of progress. Every pursuit has its own mission to fulfil; and, if it do it well, its highest point of aspiration must in many instances be its own effacement. When the prophecy is fulfilled, the mission of the prophet is accomplished. All the world holds his secret, and he passes away out of notice; the time and place know him no more. Thus, as I have said in a former lecture, "State Medicine will have both reached its perfection and extinguished itself when both sanitarian, as differentiated from the community generally, and State, as a controlling and interfering influence, shall have ceased to be; the one, because every member of a perfected community will be a sanitarian in the best and truest sense of the word; and the other because, from the very condition of the community, State interference will have become perfectly unnecessary". (*Lectures on State Medicine*, 1875, p. 6.) But, gentlemen, this is an ideal time, and, for the present at least, an Utopia; between it and us lies a wide and stormy sea of doubt and difficulty, across which our profession will unquestionably furnish the most trustworthy pilots. The saying of Descartes is still true, that, "if the perfectability of man be possible, it will be through the medium of the medical sciences".

BRIGHTON.—The mean temperature of 1876 in Brighton was 51.1 deg. Fahr., the rainfall 34.64 inches, and the relative humidity 80. There were 934 marriages, against 843 in 1875. The annual birth-rate was 34.8, and the death-rate 19.6, against 21.0 for England. There were 3,021 births to 1,977 deaths, of which as many as 207 were of non-residents. If these were deducted, they would reduce the death-rate to 17.6; but it is clear that all should not be taken off, as there are at all times visitors in Brighton. Of the total deaths, 34.8 per cent. occurred amongst children under five years of age, and 23.2 in infants under one year. There were 15.9 per cent. of deaths under one year out of the total births, that of London being 16.0; so that in this respect Brighton does not compare favourably with large suburban districts of London. The mortality from the seven principal zymotic diseases was unusually low; viz., 11.9 per cent. of the total deaths, and 2.3 per 1,000 population. The deaths from diseases of the respiratory organs, including phthisis, were 26.5 per cent. of the whole, which is lower than usual. The same occurred in most other localities last year, but we do not consider it at all satisfactory to have phthisis grouped with bronchitis and pneumonia. The proper drainage of houses proceeds very slowly in the borough, which certainly surprises us, when we consider how much Brighton depends on its visitors. Dr. Taaffe says that, including 775 connections which have been made during this year with the sewers, there are only 11,432 out of 17,980 houses which are thus connected, so that nearly one-third of the houses are still practically undrained. Dr. Taaffe also says that he must again press on the sanitary authority the necessity of providing a hospital for infectious diseases, of establishing a public *abattoir*, a mortuary with *post mortem* room, and a chemical laboratory.

AN ADDRESS

THE SECTION OF PSYCHOLOGY,

*At the Annual Meeting of the British Medical Association,
in Manchester, August 1877.*

By JOHN CHARLES BUCKNILL, M.D., F.R.S.,
Late Lord Chancellor's Visitor; President of the Section.

CONFESSION: THE PHYSICIAN AND THE PRIEST.

GENTLEMEN,—This occasion seems opportune for speaking on a subject of great and general importance to us as specialists, namely, whether the customary practice of our specialty does not frequently tend to impair our usefulness, by limiting our field of observation and by narrowing our view of men and of society. Certainly, we are not unfrequently accused of the prejudices born of narrowness and one-sidedness; and quite recently, it has been asserted by the highest and most revered authority among laymen, whose judgment upon us is as kindly as it is conscientious, that the power of certifying insanity ought not to be exclusively entrusted to those who have deeply studied the subject, because they would be most inclined to find half mankind of unsound mind. "I confess I should be very much alarmed," said Lord Shaftesbury to the Select Committee on the Lunacy Laws (Question 11,347), "if there were persons who kept themselves exclusively to that (giving certificates of lunacy) without knowing all the special circumstances which beset lunacy; all the social and ten thousand other circumstances; and all the eccentricities which are developed by men who are not mad, and who yet, under the discrimination of science, would be put down as being in the way of being mad."

There can be no doubt that all special employment leads to narrowness of mind, and that the learned professions suffer from this tendency most notably. This, indeed, was long ago pointed out by Archbishop Whateley in his work on *Rhetoric*; and there can be no doubt that there is a legist's narrowness, and a priest's narrowness, and a physician's narrowness. It will be very useful to ask ourselves whether, within the latter, there is not also a mental physician's narrowness, tending to explain natural varieties of character and natural courses of conduct, upon the assumption of morbid deviations from an unknown standard of sanity. For, like the old king, who, when he heard of crime or misfortune among men, always asked "Who is she?" are we not somewhat disposed, in all human follies and miseries, to ask "What is the insanity?" and are we not often tempted to parody Carlyle's cynical description of this realm, as a fair country, containing thirty millions of men, mostly lunatics? If this criticism be too wide and general, it is surely not wholly without foundation, and may well be taken by us as a warning voice against a danger incident to our very peculiar calling in life; for, if you think of it, the study and care of men with diseased minds is a very peculiar calling, distinguishing us from all the rest of the world, which carries on all the business of life on the assumption that men are reasonable beings. Society rubs along, believing in the rule of reason as it does in the law of gravitation; and although we may enjoy vastly more credit than the levitating spiritualists, we scarcely stand on a less distinct foothold from the common faith which actuates the daily conduct of our fellow-men; and the greatest caution is needful that, as the companions of the insane, we do not become too much associated with them in their modes of thought. The learned author of the *History of Civilisation* maintained that the characters of men are developed from their objective surroundings, so that the men of the mountain, of the plain, of the forest or the desert, differ from each other in consequence of the great features of nature by which their character is fashioned, and which they reflect in mental and bodily peculiarities. This, no doubt, is in great measure true; but it is even a more weighty truth that the individual man reflects his fellow-men, and that man is the creature of his social surroundings, and the due consideration of this most important factor of mind is the great addition which Mr. Herbert Spencer and his followers have added to modern philosophy. Mind as subject and nature as object does not explain, as used to be said, the whole field of thought and things to be thought of, of feelings and things to be felt. There is an addition to this: the minds of other men, the manifestations of which are objects, but which in themselves are not objects, but what Professor Clifford, with his keenest insight and appreciation, proposes to call ejects; and these minds of other men it is which really and effectually mould us to what we are. To be moulded by the best minds is the greatest happiness, to be fashioned by the worst is the greatest mis-

fortune which a human being can endure. To be warped by the dishonesty or to be soiled by the impurity of other minds, is bad enough; but, if it be possible that the sound mind can be made to vibrate the discords of unreason by association with the unsound, that, indeed, would be a misery worse than any which the imagination of Dante dared to invent. And who shall say that it is not possible, and even probable? Nay, who shall say that it is not a dreadful fact, dimly revealed in the traditions of our specialty? How long Gulliver among the Yahoos could have retained his human attributes, is as uncertain as the resistance which a sound mind, without suspense or relief, could offer to insane surroundings; but that such resistance would gradually come to an end, there can, I think, be little doubt. It is not, however, from any complete fall, but of those touches of imperfection from the contagium of surroundings, the danger of which is imminent and perhaps unavoidable, against which I most desire to exhort you to employ the antiseptics of frequent recreation of mind and body, combined with the tonics of sane companionship and sound-minded occupation and study. I wish to insist upon the great need of the mental physician to breathe much of the pure air of rational life, for the sake both of himself and of his patients; and of the greater need the more he is of a true mental physician, understanding incoherence and delusion, and sympathising with morbid feeling. If the oculist were to abide long in his dark room, he would soon be worth little as an oculist; and if there be one man more than another who ought to be a man of the world, it is the physician who has the care of the insane; for if he allow himself to become ignorant of the outside world, he will be able to make no comparisons of the sane with the insane; and, therefore, liable to consider opinions and conduct morbid which are only strange, a danger of which I could give you amusing examples. An instance of it was, I think, given by Lord Shaftesbury, in certain physicians who considered a lady insane because she carried a small dagger in her dress; carrying such daggers at that time being a common freak of fashionable dressmaking, unknown to these innocent doctors. Other instances I have myself met with in men, who have been certified and treated as lunatics on account of certain habits which are unnatural and portentous to Englishmen, but which these miserable men had acquired in climes and countries where such habits are common, causing no abomination and little remark. Consequently, the denationalised Englishmen who had contracted them were simply vicious and not insane. Even among different classes of our own community, it is difficult for any man who has only observed the habits, opinions, and sentiments of the poor, the rude, and the uneducated, to appreciate and sympathise with those of the wealthy, the refined, and the cultured. The man who could blow hot and cold was not more strange to the Satyr, than the infinite diversity of human nature is to the man of limited education and narrow experience. Therefore, the man of wide culture and broad training must be best able to understand all kinds and conditions of insane people, and to compare them with all kinds and conditions of the sane; to appreciate vehement feeling and strange conduct which does not transgress the bounds of health; and to influence devious and morbid character of all kinds and wayward spirits of every variety; while the work of the narrow specialist must needs become ever more injurious to himself and ever less helpful to his patients.

But, if the psychologist can derive so much instruction and guidance for his own work from knowledge of the outside world, so also he can reflect light upon some of the most important, and yet the most obscure, problems of human life. If the physiology of mind be the key to its pathology, so also does this pathology illustrate mental physiology, and, if sociology strengthen the hand of the psychologist, the latter repays the debt by the aid which his special training and knowledge enables him to give in the investigation of great social questions.

It was said by Descartes that, "if it be possible to perfect mankind, the means of doing so will be found in the medical sciences". But, whether or not perfection be ever attained for a subject so vast and variable as mankind, human progress may at least be hoped for through the means indicated by this great philosopher; and, of all the medical sciences by which human progress towards perfection may be promoted, it would seem certain that the science which studies the greatest function of the human organism is the one from which aid and guidance in the march forward may most surely be expected. Men are too selfish and passionate to listen to our teachings, otherwise not only from the cradle to the grave, but in regard to that obscure and awful time weighted with fate which precedes infant life, we could give counsel which, if followed, would prevent fools and madmen from being born into the world. The concepts of conception treated with such pleasant ridicule in *Tristram Shandy*, are weighty factors in the history of the race, and the right principles of sound-minded here-

dity, of healthy fecundity and foetality (if I may coin a word), can only be acquired by means of the progressing study of neuro-physiology and neuro-pathology. The aid which the psychologist may hope in future times to lend the state in the great civic duty of building the brains of the young citizens has hitherto been scarcely considered except in the instructive and delightful book of my friend Dr. Edward Clark of Boston. The psychologist has indeed been imperatively called upon to labour in those repairing docks, the schools for idiots, for deaf-mutes, and the blind; but in laying down the lines of new vessels he has never yet been consulted. Yet there is small doubt that we could give most valuable advice as to the better methods of ordinary education for healthy children, so as to avoid the evils of physical and moral insatiation, of excessive or ill-directed brain-work, of ill-directed or neglected moral guidance, of onanism and athleticism, of tundings and suicides. Alas! for the scandal that the suicide of a child of twelve years should be accounted for by his being a bad boy; and that by his master in a school bearing the holy name of Him who said, "Suffer little children to come unto Me." The psychological aspect of crime has not been so much neglected as that of education, and, apart from the important rôle played by specialists in courts of justice, the psychological study of the criminal mind has been earnestly pursued by Dr. Nicholson and other inquirers in a manner which promises at least to enlighten the law-making classes as to the genesis and real characteristics of the law-breaking classes. But, whether our society will ever have the courage to repress the generation of criminals is more than doubtful. Rather it would seem that society loses courage as it gains knowledge, and perhaps at some future time the curious spectacle may have to be regarded of a nation composed entirely of philanthropists and criminals, unless indeed it be a law of the race that, from time to time, the world must be reorganised by an energetic barbarism. Meanwhile, the legislator, policeman, and judge, as well as the schoolmaster and the psychologist, are all working at the same task of the building or repairing of brains, and, if all these fellow-labourers could but recognise the fact that their common aim is the right direction of cerebral nutrition, the world would be spared much inanity both of counsel and action.

There is indeed another important calling between whose professional work and this work a great gulf is fixed; namely, the immeasurable difference between the supernatural and the natural. And yet the priests of some creeds make the singular mistake of illustrating their duties by comparing them to ours; nay, they go beyond comparison in declaring positively that sin is spiritual disease, and that they are physicians of the soul. It behoves us to look to this; for it cannot be said that the priest and the physician are very much alike, especially the priest. Comparisons are commensurate, and by as much as the priest is like the physician by so much is the physician like the priest. If sin is disease, disease is sin; and if the priest is a physician, the physician is a priest. I desire punctiliously to guard myself, in the following remarks, from the expression of any theological opinion whatever, and especially from any opinion which may give offence to our most respected fellow-members who belong to the communion of the Roman Catholic church. I believe that they will be among the first to agree with me that the functions of the physician and those of the priest are essentially unlike, and that it is most desirable to avoid any misleading analogies between them. The Roman Catholic honestly expresses his belief that the functions of the priest are divine, and that confession is a sacrament ordained by God. That is a definite position which we can understand, and which in this place it would be improper to dispute. But within the Protestant Church of this country a very different position has been assumed, against which I think the medical profession will do well to protest. I well remember that, at the meeting of this Association which was held at Torquay, the chancellor of the diocese presented himself as the ambassador of his bishop, with the proposal that priests should be admitted within the ranks of the medical profession, in order that they might practise medicine in conjunction with their clerical duties; and I now observe that a certain school or sect of divines within the State Church of this country are diligently employed in the dissemination of the doctrine that the priest is a physician; that sin is disease, and that the confession of sin to the priest is as natural and necessary as the communication of the causes, history, and symptoms of disease made by a patient to his medical attendant. If we allow this doctrine to pass unquestioned, there may perhaps be little danger that priests will really seek to practise as physicians; but there is a likelihood that the public estimate of the functions of the physician will be unsettled and confused, and that the avowal of the history and causes of disease will not escape from that suspicion and repugnance which, in this country, is so widely attached to the confession of sins to the priest. I have found the doctrine to which I refer expressed in many works of

English divines. Often, no doubt, it is used oratorically as a mere metaphor, as by Bishop Hooker, who said that "priests are spiritual and ghostly physicians in the private particular case of diseased minds"; but of late, in that sect of the English Church which mimics the Church of Rome, the doctrine seems to be definitely taught that sin is disease and the priest a physician; and, under cover of this doctrine, so-called patients or penitents are exhorted to the confession of their symptoms or sins, in order that they may be cured and absolved. To establish this assertion, I shall only quote from one book, which, however, is the accepted manual of confession among our mimic priesthood.

The author of *The Priest in Absolution* speaks of the subject of his manual as "this subject of spiritual pathology". He says: "The qualification of a priest binds him to the acquisition of sound morality as a judge, and of great skill as a physician." (Part I, p. 4.) He speaks of "the duty which devolves upon a priest, in his character of a physician, to probe the spiritual wounds of his patients" (p. 5). "The priest must have the knowledge of a physician, in order to direct the moral knowledge of which it is the strength" (p. 10). "For the priest should as a judge punish offences, but as a physician heal the sick so far as he can prevent a relapse" (p. 41). "He [the priest] is nevertheless, as a physician, obliged to warn them and rebuke them according to their needs" (p. 49). In the second part, he says: "A surgeon may do many things else indecent for the sake of curing disease; a confessor may study cases of conscience" (p. 20). In his directions "How to deal with shamed-faced penitents", he says: "The priest should kindly remind them that they do not shrink from revealing their bodily diseases to friends and physicians; and that, as the soul is of more consequence than the body, they should not shrink from disclosing the diseases of the soul to its physicians" (p. 189). He says that it is sometimes the priest's duty to delay absolution, "advising him [the penitent or patient] to come back on a fixed day within eight or ten days, adding that any relapse within that period should cause no discouragement, but rather urge him all the more to resort to the physician" (p. 195). "If absolution be delayed, etc. It is good for the patient who is very ill to see his doctor frequently" (p. 235). "A priest is said to have cured one patient by telling him to come to him for confession as soon as he had fallen into sin, and not to wait for a second fall. By absolving him and giving him the same penance, he was cured in a few months" (p. 236). "We must distinguish between what is a proper disposition to receive absolution and what is its fruit; else we may act like doctors who content themselves with purges without ordering the supports needful to sustain the effects thereof, and so kill their patient" (p. 237). "Like medicines after which the patient seems to be better, though the fever recur afterwards, so with confession, which, though it blots out all sins of which a person accuses himself with sincere grief, does not remove all subsequent evils" (p. 240). "Different people require different treatment. The phlegmatic, the melancholy, the choleric, and the sanguine, must not be dealt with in the same manner" (p. 268). This work, *The Priest in Absolution*, has been severely criticised both in Parliament and the press on account of its obscenities; and it has been defended from the pulpit of this very city by the Rev. Knox Little, from whose sermon I quote a passage from the *Pall Mall Gazette* which directly affects us. "There are", says this priest, "many books of medical science just as bad; but they are not flung into society from the House of Peers, nor are their authors called corrupters of society". I am not aware whether the books of medical science referred to by this reverend gentleman are the poisonous pamphlets of the manly-vigour quacks; but, with regard to books of real medical science, his comparison invites the obvious retort that the badness or goodness of anything is relative; and that the shrewd saying of Lord Palmerston, that dirt is matter in the wrong place, which applies with undiminished force to thoughts and words, so that language which may be wise and good and pure in a medical treatise may be dirt in its worst sense elsewhere. Let us pass, however, this comparison with our books, to follow that drawn with ourselves. Is the priest a physician? Is sin disease? Is sacramental confession the avowal of symptoms, penance treatment, and absolution cure? In the interests of society and our profession, I must emphatically deny not only the identity of these things, but that there is any real analogy between them. I assert that the physician is a naturalist, the priest a supernaturalist; that no sophistry can bridge the abyss between them. The physician works by natural means upon natural conditions to produce natural effects within and upon the bodily organisation. In the pursuit of his calling, he only differs from other men by the possession of superior knowledge and skill acquired by labour. He is the successor of Hippocrates and Harvey, but only in the same sense that Whitworth and the village blacksmith are successors of Tubal Cain.

He pretends to no supernatural power acquired by mystic ceremonial, and he is content to do that which any other human being can do who has taken the trouble to learn his art. That art is the correction of deviations in the organism of men's bodies, which disturb the ease with which it works in health; that is to say, the removal of bodily disease, which in itself has no necessary connection with disobedience of God's laws, and is no more sin than health is virtue. To the physician's idea of disease, an organisation—that is to say, a complication of parts—is essential, and is diametrically opposed to the theologian's idea of sin as an affection of the immaterial soul, which has no parts. Hamlet sees this when he exclaims:

"I do not set my life at a pin's fee;
And I for my soul, what can it do to that,
Being a thing immortal, as itself?"

For the removal of disease, the physician employs the forces of nature aided by abstention from its causes. Beyond such curative abstention, he asks for no repentance and he imposes no penance. Nor does he postpone his beneficent action as we have heard that the priest is instructed to do, telling his patient to come again in eight or ten days; nor when he has alleviated disease, or even removed it, does he perform any incantation or ceremonious declaration of health. There is absolutely nothing in medical practice corresponding to absolution, which is the very essence and acme of the priests' proceedings. With this profound difference between the function of the priest and that of the physician, it would, indeed, be surprising if we found that the questioning of a penitent, which is called confession, bore any real resemblance to the questioning of a patient as to the history and symptoms of disease. The first obvious difference is that the physician does not assume that all men are diseased, needing his recurring aid and imprimatur of recovery, while all men are said or known to be sinners whose peril can only be averted by periodical confession and absolution. The second is that in a vast number of instances the doctor's patient makes no confession whatever, the physician seeing, or hearing, or feeling the symptoms, and proceeding with his remedies; while without confession the penitent receives no priestly benefit and no taste of absolution. A third difference is, that the confessions of patients to their medical men are purely voluntary, and the omission of them in no way penal, whereas absolution from priestly confession is in itself an offence only to be condoned by special repentance and penance. The physician looks upon confession as a painful necessity, and avoids it to the utmost of his power; he recognises the danger which lurks in spoken thought reacting upon bodily function, his experience telling him that the surest method of avoiding many symptoms of disease is not to think of them, and that the best means of escape from the thought of them is to avoid speaking of them. Therefore, the physician will often endeavour to obtain the history of those diseases of the nervous system which most seem to justify confession from a near relative rather than from the patient himself, or if from the patient himself, and the history having once been obtained, he will discourage its repetition, and thus he will avoid incurring the mischief of that hypochondriasis of sentiment to which patients and penitents are alike liable.

"Whatever hypocrites austere talk
Of purity, and place, and innocence,
Defaming as impure what God declares
Pure, and commands to some, leaves free to all".

the physician believes sexual pleasure within rational and legal bounds to be wholesome and right, but that to think of it unseasonably, and far more to converse about it, leads to excess, debility, and disease; and, therefore, he is most chary in encouraging the confidences of his patients in this protean subject of priestly confession.

Finally, the physician restricts his attention to the present condition of his patient, and whatever inquiries he may make as to the past history of the case are directed solely to such facts as bear upon the present. The attention of the priestly confessor, on the other hand, is directed mainly to past time, when the soul of his penitent was in a sinful state, but which has already changed to a condition of repentance or he would not be at the confessional. I have little more to add, except that the aim and results of the priest's and physician's activity are as different, nay, as antagonistic, as possible. The guidance of the physician, and especially of the mental physician, is towards reticence and restfulness, and the expression of that self-examination which leads to hyperæsthesia of sentiment. The guidance of the confessor, if we still follow *The Priest in Absolution*, is towards what he calls "supernatural recollection", and three kinds of union with the Lord, namely, 1st. Simple union; 2nd. The union of *esponsals*, which is preceded by *substantial dryness*; and 3rd. The union of *consummation*, called *spiritual marriage*. In these unions there are three degrees, those of *Ecstasy*, *Ravishment*, and *Spiritual Flight*. "In the simple union, the soul's powers are suspended, but not the body's." "In

Ecstasy, the body is lost. One sees not, hears not, feels not." "In Ravishment, the soul is carried away suddenly and violently." "In Spiritual Flight, the soul seems carried out of the body and Ecstasy and Ravishment are included" (p. 319). I think that now, if not before, mental physicians will be disposed to take a lively interest in the seven hundred clergymen of our State Church who are the believers and followers of this *Priest in Absolution*.

I have only one word further to say, namely, that however the above remarks may apply to general physicians, they apply still more emphatically to us as mental physicians, seeing that the peculiarities of our speciality compel us, far more than our brethren, to inquire into the state of men's minds, and into the hidden circumstances and conditions which lead to them. The symptoms of the diseases with which we deal being far less obvious to the senses than the symptoms of other diseases, we are correspondingly compelled to occupy a position which carries with it a greater danger that we shall be compared with spiritual confessors, and which needs the greater caution that we should walk with prudence and circumspection in the well-trod paths of medical reticence, forbearance, and wisdom.

FORTY-FIFTH ANNUAL MEETING

OF THE

BRITISH MEDICAL ASSOCIATION.

Held in MANCHESTER, August 7th, 8th, 9th, and 10th, 1877.

THE forty-fifth annual meeting of the British Medical Association commenced on Tuesday, August 7th.

SERMON BY THE BISHOP OF MANCHESTER.

At 11 A.M. the members of the Association attended divine service at the Cathedral. The prayers were intoned by the Rev. A. C. Smith, M.A. (precentor), and the Rev. Canon Gibson read the lessons. The anthem was Mozart's "O God, when Thou appearest" (Motett, No. 1).

The sermon was preached by the Bishop of Manchester, who selected as his text the 1st Epistle of St. John, 3rd chap., 2nd verse: "It doth not yet appear what we shall be". He said this was, to use a modern phrase, the last word of revelation on a great subject that theologians had too often forgotten in their positive statements and assumptions. Our English version did not do full justice to the original Greek. It was not "it doth not yet appear" as the result of human speculation, but "it has not yet been manifested as an utterance of God to man what we shall be". Even Paul, when wading in those perilous depths, and talking of the change that awaits all, and attempting to describe the properties of the spiritual body, felt himself to be confronted with a mystery; and while satisfied that there would be a victory over the grave, and that mortality would be swallowed up of life, he wisely brought back his hearers' thoughts from dreamland to reality by bidding them simply to be "steadfast, immovable, always abounding in the work of the Lord, inasmuch as they knew that their labour was not in vain in the Lord". Nor could it be said that the great Teacher himself, when he most clearly proclaimed the doctrine of the resurrection, drew aside for more than the briefest moment the curtain in which the mystery was veiled. One of those who heard him said that the words conveyed no distinct idea to him; and an equally rational faith, while clinging to the hope full of immortality as the very anchor of the soul, which if let go life would drift helplessly amid the shoals and rocks that surrounded their course on every side, would still admit that "co-equality with the angels" and "seeing God as He is" did not belong to the class of definite ideas, but to those vaguer shapes and imaginings which defined little but suggested much, and of which even when most consciously under their influence, we could hardly say whence they came or what they were. To those who held the merely physical theory of being, who saw in matter the promise and potency of life in every form, who accounted for even the phenomena of what used to be called volition by the reflex action of a muscle or a nerve, the very existence of those imaginings, those hopes and fears, should seem to be a problem of no slight difficulty. It was possible, as Professor Tyndall had said, "that many people who hold the hypothesis of natural evolution would probably assent to the position that at the present moment all our philosophy, all our poetry, all our science, all our art, Plato, Shakspeare, Newton, are potentially in the fires of the sun". But it would seem to require a further reach of the imagination in the province of science to conceive that the fires of

the sun could have implanted, even potentially, in the human soul the hope of immortality; still more so if, as some told us to-day, it was a hope destined never to be realised. For there it was, a hope deep-seated in the heart of man, and, like every other phenomenon, it was to be accounted for, and as it was not pretended by anyone to be within the range of mathematical demonstration or physical experiment, the most reasonable hypothesis must be accepted. Everyone must admit there had been either developed or implanted in the human mind the hope of immortality, and here the mere physicist was brought to a pause; he could not explain the phenomenon consistently with his purely physical principles. It seemed to him that he ought to try to explain it away; it was, to say the least, an unexpected and awkward result of a course of material atoms, whatever the arrangement of their poles or the tendency given to their powers. And if he could neither explain it nor explain it away, he was bound upon his own principles at least to listen to the hypothesis of one who had been studying in another, but not an antagonistic, school. If this hope of an indestructible life did exist, might it not have come from God? And was not the mystery of our being solved, though not with the precision of scientific language, by the Old Book, which told us that the "Lord God formed man, and breathed into his nostrils the breath of life, and man became a living soul"? Admitting the fact of a living personal God, there need be no insuperable nor even serious difficulty in admitting the fact of revelation, whether in the narrower sense in which sometimes the idea of revelation was confined to the inspired record of the Bible, or in that broader and Pauline sense in which even to the heathen God was said to have shown his own attributes and their destiny. There appeared to be a sort of necessity laid upon thinking minds to explain this strange and inexpressible yearning for a life after death, which all recognised as among the strongest and most ineffaceable instincts of the human soul. It might be worth while to notice two of the most recent attempts to do so which had come under his own observation. The one was Mr. F. Harrison's theory, which appeared in the July number of the *Nineteenth Century* magazine, the theory of a posthumous life of influence and renown, the life of a Shakspeare, or a Cromwell, or a Savonarola, as an equivalent for immortality. The other was a view put forward with much ability and as ably answered by a writer in last week's issue of the *Spectator*, who held as an hypothesis "that some men, possibly very many men, but a large proportion, live again, but that all men do not; that the potentiality of continued existence which we call soul is not an inherent quality or attribute of the human race, but an acquired or given quality to some portion of it only". Both these views, though departing from such different points, seemed to him to be modifications of that theory of the *corps d'élite* of the human race which under the name of Calvinism had wrought such havoc in theology, and in spite of its cruel hardness had exercised so remarkable a fascination, not merely on the fanatical and unlearned, but even on higher and cultivated minds. Both were struggles, he could not but think ineffective struggles, against the dark and dreary creed of annihilation, which, whatever comfort it might bring to some powerful but strangely-tempered minds, like that of Harriet Martineau, would to most men mean the end certainly of all their fears, but also of their brightest hopes and noblest motives. The gentlemen he was now addressing had ample opportunities of observing the tenacity with which the spirit clung to that eternal life which it believed it had in Christ Jesus. It was, indeed, surprising how little modern criticism or modern scientific inquiry had done to undermine those old foundations upon which all religion in its very idea, and Christianity, as religion in its highest form, must ultimately repose. It was only one here and there who told them that the idea of a personal God was an unverifiable hypothesis; and even such recognised in the circumstances around them a stream, a tendency that made for righteousness. It was only one here and there who defrauded humanity of its brightest hopes and most sustaining motives by denying to it immortality, and even such, as if conscious of their wrong, endeavoured to find a substitute for the idea which they had destroyed, which, indeed, proved illusory, but which they seemed to feel indispensable. In conclusion, his Lordship said: "No doubt there are some sad souls—

"Mad from life's history,
Glad of death's misery,
Swift to be hurled,
Anywhere, anywhere,
Out of the world."

In the dim gloom that shrouds all beyond the grave there is yet a streak of light, like some sudden lightning flash, illuminating the darkness with hopes full of immortality. In the silence of the chamber of death there is still a voice heard, 'He that liveth and believeth on Me shall never die.' I trust, gentlemen, representatives of a noble profession, that His spirit who, in the strong but not strained language

of St. Paul, illuminated death with immortality, may guide you in your discussions to the furtherance, within your legitimate and important sphere, of those high human interests for which He died."

FIRST GENERAL MEETING, TUESDAY, AUGUST 7TH.

THE First General Meeting was held in the Concert Hall at 3 P.M. The Chair was taken by Dr. DE BARTOLOMÉ.

The minutes of the last annual meeting were, on the proposal of Mr. HUSBAND, seconded by Mr. WHEELHOUSE, taken as read, and confirmed.

Election of President.—Dr. FALCONER (Bath) said that it would be in the recollection of the members who were present at the Sheffield meeting that, as there was no invitation from any town for the then next year's meeting, full powers were given to the Committee of Council to consider and accept any invitation which might be received subsequently to the meeting. The Committee of Council received a very cordial invitation from Manchester, largely signed by members representing the profession there; and the Committee, acting under the powers given to them by the general meeting at Sheffield, accepted the invitation, and appointed Dr. M. A. Eason Wilkinson to be President in succession to Dr. De Bartolomé. [Cheers.] He moved:

"That Dr. M. A. Eason Wilkinson be and is hereby appointed President of the British Medical Association for the ensuing twelve months."

Dr. WATERS (Liverpool) seconded the motion, which was carried unanimously amid loud cheers.

Address of the retiring President.—Dr. DE BARTOLOMÉ said that, as the period of his presidential existence was rapidly drawing to a close—for, indeed, they had by the vote just passed given him the *coup de grâce*—he would, before he vacated the presidential chair, make one or two observations. [Cheers.] In the first instance, the meeting would, perhaps, allow gratitude to take the first position, before every other feeling, and allow him to thank them most unaffectedly, most earnestly, and most sincerely, for the kindly and for the courteous manner in which they had all treated him throughout the whole of his presidential existence. He had received unvaried and uniform support from all, and it was quite unnecessary to dwell upon the events of that year more than heartily to assure them that he returned his sincere thanks to the Association. The report which would be read would show that the year then ending had been, in regard to medical squabbles, a most uneventful one. [Laughter and cheers.] Hence his presidential life had been one which could truly be described as a life of *otium cum dignitate*. But there was one event of that presidential life of his upon which he should always look back with gratification, and he was sure that every member of the Association there would share with him in that feeling. They were aware that every person in every rank in life—except the medical profession—who saved life by meritorious action, had that action recognised by the powers that be. In the colliery accident at Pont-y-pridd, the public took up the cause of those who laboured to save life—of all except the medical men; and the workmen who thus laboured were rewarded with medals and so forth. Watches were presented by the members of the House of Commons, and the heroic services of the miners—of those who laboured with the pick, the mattock, and spade—were recognised on every hand; but the services of the medical men engaged in the same calamity—services not the less heroic and not less valuable—were less valued and less recognised. [Hear, hear.] This was a state of things to which members of the profession were accustomed, though they did not like it any the more for being accustomed to that treatment—accustomed to it as eels were to skinning—or because they could not, in general cases, help themselves. But it seemed to him that, if there was this neglect outside the profession of the heroic and meritorious conduct of its members, then this Association, largely representing the profession, should take the means of giving the proper recognition of good services. [Cheers.] The Council thought so too, and was unanimous in the support of a resolution, brought forward by Dr. Sieveking and Mr. Callender, to deal with the subject. This proposal was supported by the Committee of Council, and full powers were given to a subcommittee, of which he was one, for that purpose. The Committee dealt with it in a way which he hoped would meet with the unanimous approval of the Association. [Cheers.] The Committee not only decided that these gentlemen engaged in the accident at Pont-y-pridd were worthy of all public recognition and acknowledgment at the hands of the Association, as representing the profession, but it was decided that the Association should have struck such a medal as would do credit to it—a medal which would be ready in anticipation of future deeds of heroism and future meritorious services on the part of members of the profession. [Loud cheers.] He had recommended the Council to adopt the medal as the Medal of the

British Medical Association. [Cheers.] Now, he put it to that assemblage, as men, to answer him if the fact of that having been adopted in his year of office was not a fact of which he might be proud. [Cheers.] The Council this year had stepped forward and had filled the hiatus which had existed from time immemorial—a hiatus which it was high time should cease to exist. [Cheers.] He hoped that the action of the Association would open the eyes of the powers that be, and point out that, though the members of the Association did not need the anticipation of reward to stimulate them to exertion in the path of duty, yet they, as well as most men, appreciated honour conferred for services when they had earned that honour. [Cheers.] With these observations, he wished them farewell, and begged to introduce his successor. [Cheers.] In performing this "happy despatch"—[a laugh]—he could not do better than to adopt the custom of the French when they had monarchs, and say, "The President is dead. Long live the President!" [Loud cheers.]

President's Address.—Dr. EASON WILKINSON took the presidential chair, and delivered his inaugural address, which is published at page 165.

Vote of Thanks to Dr. De Bartolomé.—Dr. CHADWICK, after congratulating the President upon having achieved the highly honourable position which he had so modestly assumed—a position becoming year by year, from the growing importance of the Association, more and more honourable—said he was sure that that very large gathering of the Association would not care to omit the first duty which fell upon them after the Inaugural Address of the President, this duty being to acknowledge the services of the President who had just resigned his position. [Cheers.] He moved:

"That the warmest thanks of the British Medical Association be given to Dr. M. Martin De Bartolomé for the able, courteous, and hospitable way in which he has fulfilled the duties of President from August 1876 till August 1877, and that he be hereby appointed a vice-president for life." [Cheers.]

It would be quite futile to attempt to recommend this resolution. Were he about to make the attempt, he should recall to notice the spirited manner in which Dr. De Bartolomé referred to the one subject of interest of his Presidential year—the recognition of the services of the Welsh practitioners—which would show the way in which he had conducted his duties of the year. Dr. De Bartolomé certainly deserved the thanks of the members and all the honours they could give him. [Loud cheers.]

Dr. MCINTYRE (Oldham) said he felt it an honour to second the resolution so effectually introduced by Dr. Chadwick. No one could have been at Sheffield without seeing the noble way in which Dr. De Bartolomé discharged the duties both with regard to hospitality and in regard to general business; and they would carry this resolution, he had no doubt, with happy unanimity.

Dr. DE BARTOLOMÉ, who was received with loud cheers, said it would almost be idle in him to say simply "I thank you". That, he hoped, they knew before he rose. He could not allow a compliment like this to be passed, without expressing to them his deep feeling at the same time, that, if he had discharged the duties of his office to their satisfaction during the past year, he was fully repaid by the handsome manner in which they had acknowledged it. If, indeed, they were satisfied, he was sure that they were satisfied with very little. [No, no.] Well, his duties were but little; for they had scarcely given time or opportunities to try him. He could only say, as an earnest of his desire to assist the Association in the future, that if, in the course of the next forty or fifty years, they felt inclined to come again to Sheffield and to appoint him again as President, he should be most happy to take the position and show them what he could do. [Laughter and cheers.] But, if they wished to repay him by keeping him upon the same task of trotting backwards and forwards to London, all he could say was "a plague upon such backing of a friend". [Laughter.] All through his life, however, whenever he undertook anything, either for good or evil—[laughter]—he never left it undone. They seemed to be tickled with the idea of the evil; but he could say that, if his mind had not received a proper direction, and he had been, early in life, led into criminal ways, he should indeed have been a criminal; he should not have gone half-way; such was the energy of his being. [Laughter and cheers.] He again thanked them most warmly for the honour they had done him by this further mark of their favour.

Vote of Thanks to Dr. Wilkinson.—Dr. GARDNER (Glasgow) moved:

"That the warmest thanks of the Association be given to Dr. Wilkinson for his very able and interesting address."

The speaker said that, when he first knew Dr. Wilkinson twenty years ago, he discovered that he was a person with a grievance, and

that that grievance was directed towards himself (Dr. Gairdner). That grievance was thoroughly discussed as a matter of personal controversy in Dr. Wilkinson's own drawing-room, and was thoroughly worked out. It was then dismissed to oblivion. [Cheers.] The British Medical Association would go with him in recommending that sort of way in settling every grievance. He was afraid it was not an original way; for a canon of St. Paul's (London) said that, if he had a difference with a man about the articles, it would be well to invite him to dinner, and not to argue with him. Dr. Wilkinson had learnt this manner of settling disputes; and that would be an instance of the spirit they would find in the gentleman who was now presiding over the Association. [Loud cheers.]

Mr. FAVELL (Sheffield) seconded the motion.

Dr. FALCONER said that it was unnecessary to ask the members to vote, as he was sure they would carry it by acclamation.

The motion was put to the vote, and was carried amid cheers.

REPORT OF COUNCIL.

Mr. FOWKE, General Secretary, read the annual report.

"For the third time in the history of the Association, your Council has the pleasure to meet you in the city of Manchester, not less interesting in its professional than in its political and social aspects. The present meeting promises to evince the active interest felt by the profession in the progress of medical science. At the last annual meeting of the Association, held in Sheffield, the Committee of Council was empowered to arrange for the place of the annual meeting in 1877, and to appoint a President-elect; and at a meeting of the Committee of Council, called specially for the purpose, a cordial invitation from members of the Association and others of the profession in Manchester was received, and supported by an influential deputation. The invitation was accepted, and one of your oldest members of the Association and Committee of Council, Dr. M. A. Eason Wilkinson, was appointed President-elect.

"Your Council has much pleasure in reporting to you the increasing prosperity of your Association, and its financial prosperity is best evidenced by the fact that £1,500 was invested in Consols on the 31st December last, which has since been increased to £3,000. This sum your Council looks upon as the commencement of a reserve fund, so necessary in the large undertaking involved in the publication of a first-class medical journal. The total balance of assets over liabilities on the 31st of December last was £4,241. The revenue has increased by £797, as follows:

Subscriptions	£411 17 11
Advertisements	214 13 1
Sanitary Sales	33 17 0
Interest	15 19 2
	£797 2 2

"It is satisfactory to your Council to notice the close correspondence in the amount of increase of revenue and that of actual receipt, the latter being £807.

"The expenditure is £49 in excess of last year, the following being the items of increase and decrease:

INCREASE.		DECREASE.	
Sub-Editor	£5 0 0	JOURNAL	£17 13 11
Contributors	35 15 5	Reporting	10 9 0
Engraving	24 14 0	Legal	233 12 2
Editor's Sundries	37 4 4	Furniture	55 17 3
Committees	17 11 4	Postage	21 0 11
Salaries, Office	26 15 6	Miscellaneous Printing ..	0 14 1
Office Expenses	37 15 2	Coals and Gas	0 1 7
Printing Address Labels ..	9 16 1	Bank Charges	0 19 9
Branch Secretaries	0 9 3		
	£397 11 5		
Less Items of Decrease ..	142 5 3		
Total Increase	£49 5 9		£342 5 3

"In the items of expenditure there are only two which require notice. The first is for printing the JOURNAL; although the cost is £17 less, 250 more copies were printed weekly throughout the year, the saving effected being upon the paper, which, as mentioned in last year's report, is now purchased direct. The other item is Committees, which shows an increase of £170; £100 of this was voted to the Joint Committee on State Medicine towards the expenses of a Sanitary Conference, mentioned in the annual Report for last year. The revenue account shows a profit of £1,063 for the year.

"The Association still continues largely to increase in numbers. The new members for the year amount to 729, the deaths to 63, the resignations to 65; the total number of members now amounts to 7,147.

"Your Council regrets to report the loss by death of many well-known and respected members of the Association. Since the last

Council meeting, Dr. F. Sibson, F.R.S., one of your Vice-Presidents, and a former President of Council, and for many years a most active and useful member of the Committee of Council, has been lost to the Association; and so much was he valued and regretted, that the following resolution was passed by the Committee of Council, and forwarded to his widow:

"Resolved unanimously: 'That the Committee of Council hereby records its deep sense of the distinguished services rendered to the British Medical Association by the late Dr. Sibson, and of the irreparable loss it has sustained by his sudden death. Whilst his well-earned professional eminence reflected much credit on the Association, the zeal, energy, and practical sagacity he unceasingly applied to the administration of its affairs, and the genial urbanity of his deportment, secured for him not only the admiration and confidence, but also the affectionate regard of his fellow members. The Committee of Council, though well aware how inefficient is any expression of human sympathy for the mitigation of a sorrow so overwhelming as that of his bereaved widow, nevertheless trusts that, in conveying to her their sentiments on behalf of the Association, some soothing reflections may be suggested; and likewise ventures to hope that in her growing conviction of the wisdom of Him who doth not willingly afflict, true consolation may be found.'

"Your Council has also to report the decease of Dr. Laycock, Professor of the Practice of Medicine in the University of Edinburgh; Mr. Bartleet, one of your oldest and most respected members; Dr. John Charles Hall of Sheffield; Dr. Rumsey, whose contributions to sanitary science are so widely known and appreciated, and whose services have been recognised by a civil pension to his widow; Sir William Ferguson, a former President, and one of the Vice-Presidents of your Association; and Mr. Whipple, also a former President and a Vice-President of your Association, and others who have also passed away since the last annual Report.

"Upon the recommendation of the Scientific Grants Committee, confirmed by the Committee of Council, a sum of £300 was again granted for scientific inquiries. The reports of the investigations are in course of publication in the BRITISH MEDICAL JOURNAL. Your Council regrets that the mode in which the Vivisection Act is being carried out has materially interfered with these useful investigations.

"The question of the desirability of the Association undertaking the prosecution of unqualified persons, referred to them from the last annual meeting, has engaged the earnest attention of your Council, but it has been unable to come to any satisfactory conclusion upon the matter. Your Council understands that it has been taken up experimentally by one or two of your Branches, and trusts that the experience obtained may be of use in ultimately deciding the question.

"The Committee appointed for obtaining restrictive legislation for Habitual Drunkards has continued its endeavours during the past year, and has co-operated with a Society established for a similar purpose. A Bill has been drawn up and introduced by Dr. Cameron, M.P. for Glasgow, into the House of Commons. This Bill has been carefully considered by both Committees. The various Branches of your Association were urged to support the Bill in Parliament by petitions and personal influence; the Bill was, however, introduced too late this year to obtain a second reading, but will be reintroduced early next session; and your Council trusts that all the aid that your Branches and individual members can afford will be rendered to carry the Bill through Parliament.

"The large number of essays received last year for competition for the Hastings Medal, on Diphtheria, its Pathology, Treatment, and Diagnosis, and other circumstances, delayed the adjudicators in their consideration of their respective merit; but the adjudicators have reported to the Committee of Council that they were unable to recommend the award of the medal; as, though one or two of the essays were of considerable merit, none of them contained sufficient original matter to deserve a medal. Your Council has under consideration the present mode of awarding the Hastings Medal, and hopes to present a report on the subject to the next annual meeting.

"At the annual meeting at Edinburgh, it was decided that a representation should be made to the Secretary for War relating to the inadequate remuneration of civil practitioners undertaking the duties of army medical officers in their absence. A letter in reply was received from Lord Cadogan, on the 24th of February last, of which the following is a copy:

"War Office, 24th February, 1877.

"Sir,—I am desired by the Secretary of State for War to acknowledge the receipt of your further letter of the 8th September last, relative to the rate of remuneration paid by this Department to private medical practitioners when engaged to attend upon the absence of army medical officers.

" In reply, I am to state that Mr. Hardy has had the entire question under his consideration, but regrets that he is unable at present to sanction any alteration in the existing regulations.

" I have the honour to be, sir, your obedient servant,

" The General Secretary,

" CADOGAN.

" British Medical Association, 36, Great Queen Street, W.C."

" Your Council much regrets that it is unable to place before you a more satisfactory conclusion of the matter.

" The resignation of a member whose name it was considered desirable to remove from the list of members, has rendered it unnecessary to report to you further upon the subject, than that the By-laws to effect this purpose appear to work satisfactorily.

" A medical man residing abroad, and holding a foreign degree, having raised the question whether he was eligible to become a member of the Association, your Council referred the matter to a Subcommittee to consider both points; and, after careful consideration, and hearing the opinion of the Solicitor of the Association, the following decision was arrived at:

" Resolved: 'That, by interpreting in By-law 1, the word "qualified" to mean medical practitioners who are registered, or entitled to be registered, in Great Britain and Ireland, and also those who, residing in other countries, are legally entitled to practise in such countries, no objection exists to admitting to membership of the Association all such practitioners.'

" This decision was accepted by the Committee of Council, and became at once the more important, as a Branch of the Association was in course of formation in the important British Colony of Jamaica, where several of the leading medical men holding Government appointments possessed foreign degrees registrable in Jamaica.

" The heroic conduct of the medical men at the late colliery accident at Pont-y-Pridd has attracted the warm consideration of all the profession in this country, and your Council felt that, though their services had not been sufficiently appreciated by the public, they ought not to be overlooked by their professional brethren, and they consequently Dukes, and Mr. Edward William Stephen Davies; and bronze medals to Mr. Francis Henry Thompson, Mr. Charles John Jones, Mr. George Neal, Mr. Philip James, Mr. T. W. Parry, Mr. Rees Hopkins, Dr. Edward Lloyd, and Mr. Ivor A. Lewis; together with an expression of warm approbation of their conduct engrossed on vellum.

" Resolved: 'That a gold medal should be presented to Mr. H. N. Davies, L.R.C.P.; silver medals to Mr. Washington David, Mr. Edgar

" Your Council feels that the action taken in the matter will at once meet with your warm approbation. The medals are not yet ready, but engrossed copies of the resolution will be presented at the general meeting of members on Wednesday, immediately after the conclusion of the Address on Medicine, and the medals will be forwarded as soon as they are finished. Your Council recommends that the medal now awarded be perpetuated, and that it be given, as occasion may arise, for distinguished services in the medical profession.

" The Medical Reform Committee, acting in accordance with the policy sanctioned by the Association, has during the past year again refrained from pressing forward parliamentary action, in order to avoid embarrassing the continued efforts of the English medical authorities to combine in a Conjoint Scheme of Examination. The Council has to congratulate the Association on the success which has crowned the efforts of the Universities and Licensing Corporations of England, in establishing a Conjoint Board of Examination for their division of the kingdom. The Council regards this as an important, though partial, recognition of one of the objects for which the Association has so long contended. Much, however, still remains to be accomplished, which the Medical Reform Committee will lay before the Association in its special Report.

" The Joint Committee on State Medicine has prepared a memorial based on the resolutions of last year's Sanitary Conference, and transmitted it to Her Majesty's Prime Minister, with a request that he would receive a deputation in support of the views embodied in it. This request has been declined by Lord Beaconsfield, on the ground of pressure of public business; and, as no prospect has been held out of a more favourable answer at any future time, the Committee has resolved to adopt other means of influencing the Legislature and public opinion. A detailed report will be submitted to the annual general meeting.

" The Registration of Disease Committee recommends that steps be taken to frame a Legislative Enactment that would enforce the Registration of all cases of Infectious Disease, on the method already proposed by the Association.

" The attention of the Parliamentary Bills Committee has been directed during the year to the case of the militia surgeons, and to the Bills which have been introduced by the Government to amend the Factory Acts, and to remodel the sanitary organisation of Ireland. A

great injury has been inflicted upon the militia surgeons generally of Great Britain and Ireland by the operation of the new regulations, which withdraw from these surgeons the most remunerative of their duties, and largely diminish their income, without any compensation. After conference with a Committee representing the militia surgeons generally, and in accordance with their wishes, the Parliamentary Bills Committee undertook to make a representation of the facts to the Secretary of State for War, who had on former occasions, in Parliament and elsewhere, stated his willingness to consider individual claims, but had nevertheless declined in each case to satisfy such claims. A very influential deputation was organised by the Committee, which was supported by the presence of between twenty and thirty members of Parliament, who entertain opinions favourable to the claims of the militia surgeons, and a full statement of the case was laid before the Secretary of State for War. That Minister, however, who was accompanied by Sir William Muir, K.C.B., Director-General of the Army Medical Department, alleged technical reasons for objecting to afford any compensation, and his reply gave little hope of redress. Subsequently, the Right Hon. Lyon Playfair, M.P., and several influential members of the House of Commons drew attention in the House to the injustice done to the militia surgeons, as set forth in the statement of your Committee: the Government, however, up to the present, has refused to make compensation in any case, and the militia surgeons generally remain in the position of men who have been disestablished for the public convenience, and have received no compensation for the losses they have suffered.

" Many of the Clauses of the proposed Factory Acts Amendment Bill introduced by Mr. Cross (but withdrawn for the present session) would have operated seriously to the disadvantage of the children of the working classes, by removing from them a large part of the protection which they have hitherto received from inspection and certificates of the factory surgeons; they would also have largely detracted from the usefulness of that important body of men in preserving the health and preventing the degeneration of the physical condition of the factory workers. They would also have considerably reduced the emoluments and fees of the surgeons. A series of proposed amendments have been drawn up by the Association of Certifying Factory Surgeons, to which the Parliamentary Bills Committee will give their best support, and for which they desire the parliamentary influence of the Association generally. Your Council commends the subject to careful consideration, in the event of the reintroduction of the Bill.

" Representations have been made to the Irish Secretary in order to give support to the propositions of the Irish Medical Association for important modifications and improvements in the Public Health (Ireland) Bill.

" Your Council regrets to report the resignation of several of your Branch Secretaries, who, after many years of earnest work, retire from their respective posts with the well-earned thanks of the Association. Dr. Bryan of Northampton has retired from the Secretaryship of the South Midland Branch; Dr. Bradbury of Cambridge from that of the Cambridge and Huntingdon Branch; Dr. B. Chevallier of Ipswich from that of the East Anglian Branch; Dr. Robert Farquharson of London from that of the Metropolitan Counties Branch; Dr. B. Foster of Birmingham from that of the Birmingham and Midland Branch; and Dr. J. W. Moore of Dublin from the Honorary Secretaryship of Ireland. To these gentlemen thanks are also due for their services on the Committee of Council. The thanks of the Association are also due to the present Acting Secretaries, who continue to devote so much time and attention to the work of their respective Branches.

" Your Council has the pleasure to report to you the formation of a Branch in the metropolis of Ireland. So important an addition to the list of Branches calls for hearty congratulations on the part of your Council.

" In conclusion, your Council has viewed with satisfaction the increasing influence and the financial prosperity of the Association; but that influence and that prosperity can be materially increased by the effort of each individual member to promote the welfare of an Association which must exercise a powerful influence over the progress of scientific and practical medicine, and the maintenance of the fraternal union, and the interests and dignity of the medical profession."

Dr. ANDREW CLARK (London) said that an old saying, so old that it had become classical, ran "good wine needs no bush". He hoped that a good resolution required very little speech. The resolution which he held in his hand was a good one, inasmuch as it proposed the adoption of the excellent report which had been read. It was a true report, and as satisfactory as it was true, and it showed that the British Medical Association, which was still in the position of a young organisation, was highly flourishing in itself, growing, and producing others like itself. He moved:

"That the report of the Council, together with the financial statement, be received and adopted."

Mr. LUND seconded the resolution, and said if financial success were a test of progress, then the progress of this Association must be great indeed, for no better balance-sheet has ever been presented to the Association, and promised to be more useful still to its members. For one thing, the Association was now able to present medals to recognise heroic services in the past, and to stimulate others in the future. Then the Association could give grants for the purposes of discovery; and such an Association, by such action, would work hand in hand with the high character of the profession, and increase its value in the eyes of the public.

The resolution was then carried *nem. con.*

THE BRITISH MEDICAL JOURNAL.—Dr. HADDON proposed the following resolution, of which he had given notice:

"That a Committee be appointed, consisting of members eminent in the several departments of medicine, surgery, midwifery, etc., who shall endeavour to make the JOURNAL a perfect epitome of the science as well as the practice of medicine, and at the same time utilise the members in clearing up disputed points in the diagnosis or treatment of disease, so as to increase the value of the JOURNAL, and, if possible, raise it to a higher place in the medical literature of the day. Such Committee to be responsible for the management of the JOURNAL, and any correspondence admitted to its columns."

He said: The objects with which this Association was founded, as expressed by its founder, were—1. To remove the disadvantages under which the provincial members of the profession laboured, from their isolation and want of co-operation, to render their exertions for the promotion of knowledge more effective and useful by combination, etc. 2. To maintain the honour and respectability of the profession by the establishment of free intercourse and friendly feeling among its members. In looking at the history of the Association since its origin in 1832, I think no one will venture to doubt that it has fully carried out the second intention of its founder. Through the Branches with their meetings, and through this our annual gathering, it offers, more especially to the isolated members of our profession, excellent opportunities for making and renewing acquaintance. Now, when a practitioner becomes a member for the sake of our social advantages, he receives the JOURNAL weekly; and, as few busy practitioners have time to read more than one weekly publication, it is probable that the JOURNAL becomes the organ on which he relies for information as to the progress of medicine. If such be the case, then we can see what a responsibility rests upon those who conduct the JOURNAL; because, if it does not give clear and full information on all points of medical and surgical advance, then a large number of practitioners in this country fall behind in their profession, their patients do not reap the benefit they ought, and for that the JOURNAL is responsible. Surely, then, every member will agree with me when I say that our JOURNAL ought to give us a full record of all that is passing in the medical world. To do this as it ought to be done is more than can be expected from one mind; and therefore I have to propose that a committee be appointed of members eminent in the several departments, who shall conduct the JOURNAL. By a judicious subdivision of labour, the JOURNAL could be transformed into a publication which no member of our profession could afford to be without; and surely that is a consummation devoutly to be wished, and worthy of any sacrifice by which it may be attained. The committee would in no way interfere with our editor; and the details as to salary attached to each department could be settled by the Council. I observe that in 1876 over £1,000 was given for contributions to the JOURNAL. The appointment of a committee of management would, I should think, remove the necessity for such an outlay; and, seeing that the contributions are for an association, the surplus funds of which are devoted to the advancement of medicine, I trust that no member would ask the committee for any remuneration. Such a committee having been appointed, I think we might anticipate the carrying out the first intention of the founder of the Association, viz., "to render the exertions of the members for the promotion of knowledge more effective and useful". At our Branch meetings, as well as at our annual meeting, papers of value are read, and discussions frequently of more value follow, which are in a great measure lost, not only to those absent from the meetings, but also even to those who are present. In this way, a great amount of labour and co-operation is wasted. At Branch meetings, as a rule, the papers are hurried over, that there may be time for the dinner which follows, and, as a consequence, few prepare papers for our Branch meetings a second time. Now, without for one moment wishing to curtail or lessen the social element in our Association, I would endeavour to fulfil the founder's intention, by making the scientific more prominent. With this view, I would suggest that the committee should publish annually a volume of *Transactions*, containing a full report of the papers

and discussions of the various Branch meetings, as well as of the work done at our annual meeting. Such a volume would show the vitality of the Association, and would be most valuable as a book of reference. Such a publication would relieve the pages of the JOURNAL, and allow them to be filled with other matter. Thus, the JOURNAL might be used to enlist the co-operation of the members in advancing our knowledge in any direction the several heads of departments might select or members suggest. Forms containing questions to be answered might be sent with the JOURNAL, the answers carefully considered, and their substance published. Again, we might have reports as to the progress of each department, with cases carefully recorded by members illustrating the advances made. Thus, the JOURNAL would soon become a repository of facts which are most useful to the practitioner, and will have lost none of their value when the opinions of our most eminent members are for ever forgotten. If we are supplied with facts, we can study and form opinions upon them, but we cannot be expected to read lectures such as sometimes somehow find their way into the JOURNAL—whether in good faith or in the bitterest irony, only to show how little some lecturers understand what a lecture ought to be, I am at a loss to know. We might also have short notices of the contents of other medical journals, British and foreign, to let us know what is being done outside our body in this country, as well as in other parts of the world. But I think I need say no more to show that, by a suitable subdivision of labour in the management of the JOURNAL, without overtaxing any individual, it might be made a bond of union and a source of attraction as powerful as, and more lasting than, the social element of the Association, strong and captivating though it be at the present day.

Mr. MEACHAM seconded the proposal, and objected to the "Correspondence" in the JOURNAL. He was about to enter upon the question of that correspondence by discussing the subject of the title of "Dr.," when he was called to order by the President.

Dr. BUCKNILL said he should propose an amendment. [*Cheers.*] The intentions of Dr. Haddon were, no doubt, most excellent, and no doubt that gentleman had the support of his conscience in proposing this resolution, or else he would never thus have made a gratuitous attack upon a great, a marvellous, success in the full tide of its prosperity. [*Cheers.*] If Don Quixote were alive, no doubt he would "try a tilt" at a locomotive, and, if the locomotive got damaged in the encounter, who could be found to put it together again. Now, the purpose of the resolution was to have a tilt against the JOURNAL, and to place its management in the hands of several incompatible parties. A number of men, so the resolution said, were to be chosen, not for their special knowledge of journalism, or for their journalistic or literary experience, but because they represented the various parts of the profession; and, because they were connected with the various parts of the profession, they were to manage the JOURNAL. [*A laugh.*] Now, eminent men in the profession generally had a good deal to do in a way which interested them more than the management of a newspaper. [*Hear, hear.*] He could understand that a man of eminence might consent to edit a journal, if he had the taste for the work, if he had literary genius, journalistic power, and devotion to public interests; if he had great attachment to the work, and desired either to rescue medical journalism from unworthy hands, or to make a journal a fitting representation of the profession; and thus he explained to himself the ability and devotion which the present editor bestowed on the work which had so greatly prospered in his hands. But without such strong motives, no man would choose to be an editor; even with them, certainly no man with the slightest self-respect would choose to be the fraction of an editor—as this resolution, if carried, would make of the editor of the JOURNAL, and of the eminent men whom it proposed to give him as councillors and assistants. [*Hear, hear.*] He knew two journals which had been managed by committees: the *Photographic Journal* and the *Theological Journal*. These were excellent examples of committee-management, and might be called the journals of "sunshine" and "moonshine". The results of the experiment of committee-management were considerable, for the committees and the journals soon radiated into space. [*Loud laughter.*] Supposing a committee were appointed to manage the JOURNAL, how did the members think it would work? [*Hear.*] It would be supposed necessary that some unanimity was necessary. Curran, complaining to his landlady of the fleas, said that if they had been unanimous, they would have pulled him out of bed. [*Laughter.*] The improbability of the fleas being unanimous was not greater than the improbability of the committee being unanimous in managing the details of a journal. The results of such a management might easily be foreseen: the paper would be filled with crotchets, contradictions, and libels. [*Hear, and laughter.*] The very important part of the JOURNAL that was devoted to news, comments, and to leading articles on passing events, would soon run utterly wild; and there would be no one to answer for the libels, except the treasurer. [*Laugh.*]

ter and cheers.] The paper would become like that excavation outside the cottages, in some parts of Scotland, called by the natives the "jaw-hole"—the receptacle for everything that was heterogenous and worthless; and that would be a very good name for such a journal thus managed. Then the cover might bear the inscription: "Rubbish may be shot here." [Loud laughter.] Some old proverbs had been mentioned at that meeting, and he would mention another: "Too many cooks spoil the broth." [Cheers and laughter.] There would be nothing of broth in the composition of the JOURNAL, managed as Dr. Haddon proposed; but it would resemble that infernal composition round which the hags gathered on the blasted heath, when they sung: "Bubble, bubble, toil and trouble." [Laughter.] The result might be enchanted, but it would never be enchanting. [Cheers and laughter.] In one of the "veracious" telegrams from the East, which had often come, it was said: "The Minister has gone to take the command at Shumla;" but no one, who had any common sense, believed such a thing, even of the Turk; and the Association would be doing just as mad a thing as the placing of a civilian over an army would be, if they placed a committee to do the work which, above all work, required one head—that of the editing of a journal. [Cheers.] This was a work which required immediate decision, prompt judgment, and one commanding head. It required that all the reins should be in one hand, for varieties of information of all sorts, and to meet the great various necessities which had to be woven into unity; and as there could be but one commander to an army, so there must be but one editor to a paper. [Loud cheers.] Were the members of the Association dissatisfied with their journalistic commander-in-chief? ["No."] It would be perhaps now a fitting time to call attention to the history of the JOURNAL. He held in his hands the copy of an address, given by Dr. Allen Thomson at Glasgow, on the formation of a Branch in that great city, in which he had called attention to the merits and rapid progress of the JOURNAL in the hands—

The PRESIDENT said that the allotted space of the meeting had elapsed.

Dr. BUCKNILL said he would not trouble the meeting with the extract he was about to read, showing the great advance of the JOURNAL under Mr. Hart's editorship, and read his proposed amendment.

The PRESIDENT ruled that the terms of Dr. Bucknill's amendment could not be accepted.

Dr. BUCKNILL said he would then simply move: "That this Association is abundantly satisfied with the management of the JOURNAL, and that no alteration be made." [Cheers.]

Dr. EYTON JONES (Wrexham) seconded the amendment, and said that, though Dr. Haddon was, doubtless, actuated by the best motives, yet his proposal would not work if adopted. The Association was under the deepest obligation to Mr. Ernest Hart—[cheers]—and his management of the JOURNAL was admirable. If there could also be published a yearly volume containing abstracts of the papers in the JOURNAL, the book would be most servicable.

Mr. FITZPATRICK said that no word had been said against Mr. Hart, and the proposal by Dr. Haddon did not in the least propose to take out of Mr. Ernest Hart's hands the editorship. As to what Dr. Bucknill had said about eminent medical men not caring to give up their time; for the honour of the profession, he felt it should not go forth that medical men had the care of lucre so much in their hearts that they would not work without pay. He repudiated that statement. He remarked upon the fact that the psychological part of the profession had been left out in the resolution as to the formation of the committee. He was opposed to reports being in the JOURNAL on such matters as Government statements, holding that the daily papers gave reports of ministers quite sufficient for the members, without giving such news in the JOURNAL. No one cared to know what Mr. Hardy and Mr. Cross said on medical subjects. Then he said there were many men who would gladly contribute for nothing to the JOURNAL, and so would be saved the £1,000 a year now paid for literary contributions and correspondence.

Mr. HUSBAND (York) said that, if the meeting were to consider the subject at all, it must be from a practical point of view, not a great visionary scheme which would never be attained to. He envied the enthusiastic feelings of Dr. Haddon, and should be glad if the glorious pictures that gentleman had drawn could be realised. [A laugh.] He sympathised with Dr. Haddon in his endeavour to find perfection; but as Dr. Haddon grew older, he would find out some of the difficulties of attaining that perfection which was ever the dream of youth. As an old member of the Committee of Council, he (Mr. Husband) could tell them how the JOURNAL was managed, for there was already a subcommittee for the management of the JOURNAL, and there could be no more management given by a new committee, for a new committee would not have time to go to London day by day, or week by

week, to manage the JOURNAL. [Hear, hear.] The existing committee gave all the management which Dr. Haddon sketched out in his plan, and the committee, of which he himself was one, was anxious to make the JOURNAL represent the profession in every way, but, at the same time they took care—and their example ought to be followed by members of the Association—that they did not pull down the goodly house which had been erected with so much skill, and build instead a house of cards. [Cheers.] The Association would pull down that house if they did not have an editor capable of managing the JOURNAL, for no committee could do anything, lacking that essential. [Cheers.] It had been said that medical men could be found who would work for nothing, but their work would not be worth much. [Hear.] Men of talent and ability would not work for nothing to enhance other persons' property. It had been said that it was unnecessary to pay for the "correspondence", just as if the "correspondence" at the end of the paper was paid for. [A laugh.] Now, not one of those letters with persons' names was paid for; and the articles paid for were the special literary work, for which the writers got no kudos. [Hear, hear.] These articles enhanced the money value of the JOURNAL, and it was right they should be paid for. [Cheers.] It was all very well for persons to say that nothing should be done for money, but all worked for money; and he did not see why the medical profession should attempt to cheat the literary members of that profession out of a fair payment. [Cheers.] The list of contributors to the JOURNAL came before him as Treasurer quarter by quarter, and he could say that there was a very long list of eminent medical writers on the staff—some of the very best literary contributors of the day, and it was certainly the best JOURNAL of the day. [Cheers.] As to the correspondence—the voluntary correspondence—that interchange of opinion was for the good of the profession. For it must be remembered, that the Association was not only a scientific, but was a social and political body, and that the JOURNAL was the means of influencing the country in many important directions. [Cheers.] The JOURNAL had, as he had good reason to know, frequently influenced the Legislature and the members of the Government upon many points of practical importance to the profession, both to individuals, and to the profession as a whole, and he regretted that Dr. Bucknill had not been allowed to quote the opinion of Dr. Allen Thomson, who was an eminent man, and knew what he was saying. [Cheers.] One objection to the committee proposed by Dr. Haddon was, that it was impracticable as well as undesirable; for he should object to the committee being wholly of London men, and country members could not come up to give the frequent attendances necessary. The JOURNAL was in the hands of a highly competent editor—[cheers]—and the Association must trust him fully. [Cheers.] The JOURNAL was going on prosperously in a noble work, adding to the growing prosperity of the Association, and he was sure that few indeed were there who would propose to endanger it in any way.

Dr. HADDON said he did not say a word against the editor, whom he greatly respected; but he thought the Association should not spend £1,000 a year for a correspondence of contradictions. [A laugh.] He thought such a committee from the country would go to town to manage the JOURNAL if they had £500 or £600 given them. [A laugh.]

Dr. A. P. STEWART, Mr. WATKIN WILLIAMS, and others, said a few words; and the amendment, upon being put, was carried by an overwhelming majority in the following amended form.

"The Association is thoroughly satisfied with the manner in which the JOURNAL has been edited, and considers that no change is desirable."

On Wednesday, the General Council met at 9.30, and elected the Committee of Council for the ensuing year.

The second general meeting was held in Owens College at 11.30 A.M. A resolution was passed, empowering the Committee of Council to select a place for the annual meeting in 1878, and to appoint a President-elect.

The Address in Medicine was delivered by Dr. WILLIAM ROBERTS, F.R.S. At its conclusion, a vote of thanks to Dr. Roberts was proposed by Sir WILLIAM JENNER, seconded by Dr. PAGET (Cambridge), and carried unanimously.

Engraved copies of a vote of the Association were presented to Mr. Henry N. Davies and the gentlemen associated with him in the colliery accident at Pont-y-pridd. It was stated that the medals were not yet ready for presentation. It was agreed that this medal should be perpetuated, and given, as occasion might arise, for distinguished professional services.

BRITISH MEDICAL ASSOCIATION :
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 11TH, 1877.

THE MANCHESTER MEETING.

THE Annual Meeting of the Association has been held this year under circumstances which ensure for it a brilliant success. The importance of the locality, the extent of the preparations made, the energy and completeness with which all the preliminary arrangements had been carried out for supplying the Sections with valuable papers and the general meeting with able addresses, ensured a large attendance. We believe that, before the close of the meeting, a larger number of members will have been registered than have been present at any former meetings of the Association, with the sole exception of the meeting at London. The accommodation for the meetings offered by the liberality of the authorities of Owens College has afforded room for holding the sectional meetings under one roof, and on no former occasion have these meetings been conducted with so much unremitting industry and successful regard to the despatch of scientific business.

We publish this week so great an array of addresses as to speak for themselves of the scientific interest and importance of the meeting, and to leave little space or need for comment. Moreover, the meeting is still proceeding as we write, and the armour of debate is not yet taken off. There is, however, much reason to rejoice at the greatness of the numbers attending the meeting, the value of the papers and debates, the cordial and generous reception which the profession and public bodies of Manchester have accorded to so great a body of medical visitors, and the concourse of associates bent on carrying forward the great work of the British Medical Association in advancing the scientific and social interests of the profession, and in promoting the growth of cordial and fraternal good feeling in all ranks of the profession. In carrying on these objects, this meeting promises to be unusually influential, as will be seen by the reports which we present elsewhere in our columns and those which will follow next week.

THE ADDRESS IN MEDICINE.

TWO years ago, we had occasion in this JOURNAL to criticise the very able discussion which took place in the Pathological Society of London on the Germ-Theory of Disease. On that occasion, it appeared to us that the balance of evidence was against that theory; but we expressed ourselves as unwilling to be committed to any hastily formed opinion, and inclined to wait for further light. The question anew raised to the profession by the very able address of Dr. Roberts is, Has that further light now arisen? The learned author of the paper maintains that it has. While desirous to do full justice to the laborious and prolonged investigation of the subject which he has carried on during the past years, our duty as critic compels us to say that we are not yet satisfied that the controversy is closed, nor that it is impossible still to hold the contrary opinion. The propositions which Dr. Roberts claims to have established are the following.

1. Organic matter has no inherent power of generating bacteria, and no inherent power of passing into decomposition.
2. Bacteria are the actual agents of decomposition.
3. The organisms which appear, as if spontaneously, in decomposing

fluids owe their origin exclusively to parent germs derived from the surrounding media.

The qualifications which he afterwards makes, and the distinction which he draws between a growing organism such as a bacterion and its spore, justify us in wishing that in propositions 1 and 2 he had added to "bacteria" the words "or their spores", as he assumes his propositions to be true for both. For the account of the experiment, at once ingenious and novel, by which Dr. Roberts filtered his organic fluids through earthenware, we refer our readers to his address. It will there be seen that he has been making this kind of experiment for years. According to the account given us, the result has been invariably the same: the fluids have remained perfectly free from organisms and from decomposition. In view of the fact that, in the hands of other experimenters, only a large majority, and not the whole, of similar experiments showed these results, we should have liked a distinct statement that not in a single one of the cases which Dr. Roberts treated as he describes did organisms or decomposition appear. The late Dr. Bennett, Dr. Bastian, and others, treated such infusions not only by boiling, as Dr. Roberts has done, but by powerful reagents, such as fuming acids, etc., with the result that, after every conceivable precaution, organisms occasionally appeared; and in the address before us we are informed that organisms have sometimes withstood even a temperature of 300 deg. Fahr. In the same address, we are told that the spores of these organisms are so minute as to elude observation even under the highest powers of the microscope, except when they are in mass. How, then, can we be certain that the pores of a tobacco-pipe or the crevices of sealing-wax, which were large enough to allow fluids to percolate through them, might not also have allowed the passage of spores so minute? If, as seems quite possible, spores might pass in this manner, the non-appearance of decomposition on the other side of the tube must be accounted for in some other way. There is a clear and distinct issue between the view brought forward by Dr. Roberts and that of Dr. Bastian that "mere particles or fragments of organic matter may act" as agents of putrefaction, and it scarcely seems to us yet that Dr. Roberts's experiments are decisive against this view. If it be true that the analogy of Nature favours the truth of the aphorism "Omne vivum e vivo", it seems equally indisputable that, in the process of evolution, life must at some time or other have originated from non-living matter.

It is, however, in their practical aspect, much rather than from these speculative and theoretical considerations, that the views in question are important to the medical man. We may freely admit with Dr. Roberts "that the doctrine of a *contagium vivum* is established on a solid foundation"; that is to say, that spores and bacteria are a *vera causa* of decomposition and putrefaction. It is scarcely yet proved that they are the only one. But it is to the superstructure which is being erected upon this foundation that we feel compelled to take exception. We may freely admit that spores or bacteria may be capable, when introduced into the human economy, of producing a well-marked disease like splenic fever. It appears to us to be a most inconsequent deduction that infective diseases in general are so produced. Let us look at the facts as they stand. The features of the infective disorders are mainly three. There is first a period characterised by *malaise* and lowered vitality, which has been called the period of incubation. Secondly, there is a period of heightened vitality, distinguished as the pyrexia proper, during which the temperature is elevated and the tissues congested. Thirdly, there is a period which has been called the spanæmic stage, during which the tissues are imperfectly supplied with blood and prone to break down, and the temperature is below the normal. It is very unfortunate that, in almost all the descriptions of fevers, consideration of this stage is entirely overlooked. It is nevertheless of constant occurrence; and in relapsing fever, one of the diseases mentioned by Dr. Roberts, the fall of temperature is as much as 2, 3, 4, and even 6 deg. Fahr. below the normal. It is a little curious that, in the experiments detailed in this address, the temperature is not stated to have fallen below the normal after the elevated stage of decomposition.

If it does not so fall, here is, at the outset, an important point in which the analogy fails us. In the next place, the infectious disorders are described as "running a definite course" and reproducing themselves by infection or contagion; and, because they are said to have these features, it is supposed that they are most likely caused by the entrance of a spore into the economy. The well-marked characters of such a disorder as typhus fever or of small-pox agree, it must be admitted, in the main with this description, since these disorders do run a tolerably definite course and reproduce only themselves. But it is quite otherwise with typhoid fever, the definiteness of whose course is more than questionable, since it lasts sometimes for twenty-one days (or twenty-eight days, including the spæmic stage), and sometimes it is not over for forty, or even fifty, days. Sometimes it is characterised by delirium, and sometimes not. Sore-throat is a feature of the onset in some cases, but not in the majority. Sometimes there is a rash, and sometimes not; and sometimes it is followed by subacute suppuration in the joints, which, however, does not commonly supervene. It would, indeed, be more correct to say that typhoid fever is characterised by the extreme indefiniteness of its course, than to say it runs a definite course. How is the germ-theory applicable to such a disorder? Is each of these different forms caused by its own germ? and, if so, are the different germs varieties of the same species, or are they different species? Those who ask us to accept a theory demanding such assumptions may justly be asked first to prove it by overwhelming evidence. But great as are the difficulties connected with the causation of typhoid fever, they sink into insignificance beside those which beset an inquiry into the causes of some others of the contagious disorders. The diseases known as hospital sore-throat, erysipelas, pyæmia, diphtheria, and scarlatina, form a group which are closely allied to one another. So much is this the case, that diphtheria may as readily communicate pyæmia or septicæmia as diphtheria; and the house-surgeon in charge of a ward full of cases of erysipelas will very frequently be attacked by hospital sore-throat. Again, when erysipelas is endemic, that is a bad time for puerperal women; and a practitioner in attendance on cases of erysipelas is very apt to infect puerperal women with puerperal fever.

What are we to say to facts like these? How does the germ-theory cover them? Are we to assume that each of these diseases has its own special germ? If so, where is the analogy in nature that would cover the production of a bramble from an acorn. Take, again, the case of syphilis, a truly contagious disorder. Are we to assume a different germ as the cause of each of the numerous varieties of this disease? and are we to suppose that tickling the urethra by a straw originates a germ capable of producing gonorrhœa? When the watery particles, expelled by the sneezing of a common catarrh, light upon a healthy mucous membrane and set up there a specific inflammation capable of reproducing itself, are we to suppose that the cold which originated the primary affection also created the germs that are assumed to be the cause of the second? Does not the germ-theory involve us in suppositions of this sort, and if, as it appears to us, they are very incredible, does not the improbability throw discredit on the theory? It certainly does so to us, and it seems far more likely that these different yet allied conditions are caused by organic matter in a state of change, which differs in specialisation with the infinitely varying conditions of the individuals affected. When Dr. Roberts and those who hold this view claim to have established that bacteria and their spores are the only agents of decomposition, they assume at the same time that fevers are decompositions also. No attempt has been made to prove this. And even when low organisms are known to exist in the blood in the course of fevers, the important question, whether the spores are the cause of the fevers or the fevers the cause of the spores, does not seem to have occurred to anyone.

In these remarks, we hope we shall not be thought to be inappreciative of the masterly manner in which Dr. Roberts has made this inquiry. We have thus written because of the great importance of the subject, and because in her questionings science is, as he himself remarks, insatiable. The most difficult questions in science, as in philo-

sophy, are those which have to determine whether a fact is cause or effect; and the one now before us is only a special case of this general principle. In the discussions upon fevers, it has seemed to us that far too much definiteness has been assumed in their course and reproduction, and that too much weight has been given to facts which seemed at first sight to justify the resemblance of their course to the lives of organised bodies. By throwing out of sight, or by unconsciously overlooking, facts which did not coincide with this theory, some men have so increased its plausibility that they have come to view as a real existence what was first suggested as a beautiful analogy. The expression "organic matter in a state of change" includes germs, while "germs" do not include changing organic matter, and to us it seems more philosophical to use the former than the latter phrase. While we think that Dr. Roberts has materially advanced this difficult inquiry, we cannot admit that his view is yet proved.

THE SUICIDE AT CHRIST'S HOSPITAL.

OF the many sad things which come under the notice of the medical profession few are sadder than the suicide of the boy Gibbs at Christ's Hospital. Such events are sad enough in adult years under the worry and pressure of the cares of life, but one must think that the wretchedness of this boy must have been extremely great, and of a very peculiar kind, that he should deliberately prefer death to life without the pressure of those circumstances which ordinarily lead to that result. He was at an age of life when there could have been no family cares, no failure in business, or in any other desired object of life; at an age full of hope, and when sorrows, however deeply they press for the moment, soon pass away; so that we must seek for the causes of this act in other than the ordinary ones.

The cuff on the ear was, no doubt, the immediate determining cause of the act; but there must have been a long series of acts, commencing at Hertford and continued in London, which, if not decidedly harsh, were clearly unsuited to this, as judged by the result, very sensitive nature, and which entirely ignored the peculiarity of his nervous system. No healthily constituted boy kills himself for a cuff on the ear, or even a good flogging with a birch rod. We are, therefore, free to admit that, apart from any kind of treatment either at Hertford or London, he was so constituted that a great variety of trifling causes would produce an extremely depressing effect on his mind, which, at any moment, might have led him to take away his life; but, admitting all this, it forms no excuse for the treatment referred to; on the contrary, it forms a severe condemnation of it, and shows that, as regards this boy, no one seems to have noticed the peculiarity of his nature. We cannot help wondering that, in an institution with seven hundred boys and masters and nurses, there was apparently not a single soul to whom he could confide his grief. But what in particular surprises us is the fact that Gibbs should not have thought of consulting, in his trouble, the head master; and another thing which equally surprises us is, that the medical officer appears to have had no knowledge of this child's constitutional weakness, or, if he had, he does not appear to have made any report thereon, in order that he might receive a treatment more suited to it. We hope at least that this melancholy occurrence will have the effect of putting an end to corporal punishment, a barbarous method of treatment, and one which has been long entirely abolished in France and in many of the best schools in England. We have no sympathy with the philosophy of "gush", nor with those who think that the villain who tramples on his wife is badly treated when he is soundly lashed. But surely corporal punishment, in all its various forms, is, to say the least, dangerous for many delicate boys and degrading to the more robust.

The one infallible method of treating young people is to love them, and to make them feel that you do so; to make them feel that you are not a person to be feared, not a person sitting apart and inaccessible, but one who sympathises with, and enters into, their amusements, their joys and their sorrows; so that their knowledge of your love and

interest in them will make your displeasure a sufficient stimulant or a sufficient deterrent.

If it were the practice of head masters to follow this line of conduct, to know each boy personally, to make each boy feel that the head master was a personal friend, one may imagine that Gibbs would have gone to him in his trouble, and that this painful event would have been avoided.

We fear the whole system of teaching is capable of improvement; that now, as heretofore, many of our teachers are "hide-bound pedants, without knowledge of man's nature, or of boy's, or of aught save their lexicons and quarterly account books". Like the Hinterschlag professors, they know syntax enough, and of the human soul thus much, that it has a faculty called memory, which can be acted on through the muscular integument by application of birch rods (Carlyle).

So much for Gibbs and teaching in general, and now as to the general arrangements in force at Christ's Hospital.

Shortly after the suicide, in company with two medical friends, one of whom had been educated in the school, we made a visit of inspection. The first thing which struck us was the weakly appearance of the boys: pale faces, narrow chests, and poor muscular development were the rule. Indeed, we may safely say that, although most of the boys were on parade, we did not see one robust one. On examining their dinners, one could see that the feeding was very inefficient, quite unequal to the wants of growing boys. An inspection of the dormitories showed that there were in operation causes which would powerfully help to increase the bad effects of the inefficient diet. They were overcrowded, with barely a foot of space between each bed. In fact, these were so close to each other that one of us remarked that the boys might be said to occupy one large bed. Along with this overcrowding, apart from the fact that these dormitories are used as day-rooms, there is practically no ventilation. We learnt that, notwithstanding this close packing, the windows were kept close during the night, whilst the water-closets opened directly into these very dormitories.

How such a state of things could have possibly existed up to this time in a wealthy foundation, and in the centre of London, amazes us; and we do not think it creditable to the management that it required the suicide of Gibbs to bring these inefficiencies to light. All these things must be changed, and the high and independent character of the Chairman of the Inquiry Commission is a guarantee that they will be so. One defect, and that a very grave one, which, in order to mark out and to call especial attention to, we have left to the last. This is deficient supervision of the boys during their sleeping hours. Boys of various ages were crowded together in rooms without any one to see that improprieties did not occur. Before the existence of the present inquiry, we never imagined that such could have occurred in any public school; but, upon investigation, we found that their existence is well known. On referring to certain public schools in England in order to find out what regulations were in force for the security of propriety of conduct, we have received replies from two, Eton and Westminster. The means taken to secure this result at these two schools appear to us to be efficient.

THE library of the Royal Medical and Chirurgical Society will be closed for one month, from Monday, August 13th, to Wednesday, September 12th (both days inclusive).

THE severity of the famine in Madras may be calculated from the fact that in the most recent weekly return for that city the annual rate of mortality per 1,000 persons living was no less than 109.

THE Académie Nationale des Sciences of Caen offers a prize (*prix de sauvage*) of the value of £120 for the best essay on the pathological changes of the nervous centres, especially studied from the point of view of those symptoms which may be connected with their localisation in the cerebro-spinal axis.

THE new Hôtel Dieu at Paris being now completed and habitable, the old hospital is in process of demolition.

THERE has been no meeting of the Senate of the University of London since the extraordinary meeting of Convocation on July 27th, nor is it probable that such meeting will take place until after the long vacation.

UPON inquiry, we are pleased to learn that Prince Albert Victor of Wales is now convalescent. His temperature is normal. If all still continues well with the young Prince, it is hoped that he, with the Princess of Wales, may be able to join the Prince of Wales and the young Princesses in the Isle of Wight on Wednesday next.

THE Registrar-General has received from the Foreign Office weekly returns for St. Petersburg, supplied through his Excellency Count Schouvaloff. The population of this capital city was 669,741, and the number that died in the week that ended on June 30th was 402, namely, 233 males and 169 females. The annual rate of mortality was 31 to 1,000 inhabitants. The deaths in the six weeks immediately preceding were 462, 463, 456, 463, 415, and 439. The Registrar-General hopes to receive the returns in future from this important city, and perhaps from Moscow, every week. St. Petersburg is an important addition to the European cycle of great cities, which will be completed when it embraces Madrid and Constantinople, both much in need of sanitary supervision.

WE publish in another column a report of a prosecution under the fortieth clause of the Medical Act, on behalf of the Medical Alliance Association. It will be seen that according to Mr. Lushington's decision in this case, an ignorant person may purchase the honorary "degree" of LL.D., and pass himself off as the holder of a medical degree by implication without bringing himself under the operation of the penal clause of the Medical Act. No more striking evidence could be given of the utter uselessness of this Act for the purpose for which it was intended of protecting the public from imposition by the assumption of deceptive titles by persons practising medicine. We have long protested that the urgent question in medical reform is the amendment of this fortieth clause of the Act. As the Government long since brought in a perfectly satisfactory clause for the purpose in their amended Bill, a clause which would perfectly fulfil the preamble of the Act, that clause which was unanimously accepted by the medical bodies of Great Britain, it seems a very great pity that this very simple but substantial reform is not taken in-hand and carried through by a short Act of Parliament.

NON-PAUPER HOSPITAL FOR INFECTIOUS CASES, POPLAR.

IT has been decided by the Poplar District Board of Works to erect a hospital for seventy-two beds at West Ham. The cost of the building will be at the rate of £176 per bed. The site appears favourably situated for the district, and the work will shortly be carried out. Such a hospital is much needed, fifty-eight fresh cases of small-pox and seven of scarlet fever having been reported within the district during the last fortnight.

THE LATE SIR WILLIAM FERGUSSON.

THE following resolutions were passed at a meeting of the St. Louis (Missouri) Medical Society on February 24th:

"That, in the death of Sir William Fergusson of London, the profession has lost one of its most conservative, skilful, and capable surgeons; plain, but dignified; cautious, but fearless; modest and unobtrusive, but confident and self-reliant; whose numerous operations fully attest these sterling qualities, operations never undertaken without full comprehension of their difficulties and dangers, and performed with such dexterity and judgment as in almost every instance to redound to the credit of the surgeon and well-being of the patient.

"That we would extend our condolence and sympathy to his friends, colleagues, and professional brethren of the City of London, for the great loss they have sustained in such a wise and experienced coun-

seller, most skilful and successful operator, sound and accomplished teacher, well-informed and instructive writer, whose star has set in the midst of his usefulness, his death deplored, and his memory revered by all who knew him or appreciated his labours, his talents, and his goodness.

"That these expressions of respect be entered in the minutes, and recorded in the proceedings of our Society."

EAST LONDON ASSOCIATION FOR PROMOTING LIFE GOVERNORSHIPS OF HOSPITALS.

THE Association for Promoting Life Governorships of Hospitals held their annual meeting last week. The Association has, during the last four years, paid 180 guineas *per annum* to various hospitals to constitute twenty-four life governors, thus enabling many of the poor to obtain medical assistance. It is hoped that the operations of the society may be so extended as to diminish very materially the demand for medical relief from the parish.

EXTENSION OF UNIVERSITY TEACHING.

TWO meetings of the Society for the Extension of University Teaching have lately been held at the East end of London, Mr. Leonard Montefiore presiding on each occasion: over one hundred men attending to hear his address. The London Hospital Committee have kindly offered the use of the rooms in the Medical College for a course of twelve lectures, during next winter, on physiology, electricity, and political economy: the fee for the course will be five shillings. There appears to be every reason to anticipate successful meetings when the lectures commence.

THE MEDICO-PSYCHOLOGICAL ASSOCIATION.

THE annual meeting of the Medico-Psychological Association was held on Thursday, August 2nd, at the Royal College of Physicians, London, and was very numerously attended. Dr. Fielding Blandford, the President, in his address, gave an interesting historical sketch of the progress of lunacy legislation during the last hundred years. Dr. Crichton Browne, Lord Chancellor's Visitor in Lunacy, was unanimously elected President-elect of the Association. In the evening, the members and their friends dined together at the Ship, Greenwich.

BULGARIAN FEVER.

A FEW months ago, when the then intended Russian invasion of Turkey was being discussed in its many different bearings, there seemed to be a very general concurrence of opinion upon one point—namely, that, having crossed the Danube and entered upon the low-lying tracts of Bulgaria, the soldiers of the Czar, for the most part accustomed to cooler latitudes, would speedily and severely suffer from fevers, chiefly of the malarial type. We are not able to form an exact opinion as to the extent to which this prediction has been verified, but it is reasonable to infer that malarial disease has not been actively and specially rife, so far, among the Russian troops. Had it been so, so important a fact would scarcely fail to have been prominently communicated before now by some of the numerous correspondents with the contending armies. We have not yet received or observed any such communication; but we shall be surprised if we do not do so before long, as the season is fast approaching, if it has not already arrived, when these fevers may be expected to prevail in Bulgaria. Strong presumptive evidence as to the correctness of our prognostication is to be found in the experience of our own expeditionary force of 1854 during the period it was quartered in Bulgaria, prior to embarkation for the Crimea. The official medical historian of the war informs us that, in July, fever—which in the three previous months rarely presented itself—became a prominent affection, increasing with great rapidity, until in August it assumed a proportion greater than any which occurred during the whole war, that of March 1855 excepted. The resulting mortality was in May and June together 17; in July, 51; and in August, 154; the number of attacks for the two latter months being 1,099 and 2,558 respectively. "Fever, in fact, suddenly attained, in the course of a single month, the rank of a formid-

able endemic disease, and the total number of admissions in August reached the proportion of 8.4 per cent. of strength." It was a fortunate circumstance for our army that it was enabled to get away to sea, and was not obliged to sojourn in Bulgaria during September and October. The Russians will also be fortunate—in perhaps, however, more senses than the one under consideration—if, before the lapse of many days, they can contrive to get the bulk of their army across the Balkans. Since the above was written, we see it is rumoured that fever has made its appearance to a large extent among the Russian troops.

MARSHAL MACMAHON.

MARSHAL MACMAHON comes of a medical family. His father and grandfather were both physicians. His grandfather, Jean Baptiste MacMahon, was physician of the Military School of Medicine; and, according to the *Dictionnaire des Athlètes*, Sylvain Marechal announced himself at the *soirée* of Mr. Jefferson in Paris as an example of a class whose existence was denied—namely, as an avowed atheist. He had an only son, Patrice, like himself a physician, and librarian of the Faculty of Paris. The Duc de Magenta's grandfather, Jean Baptiste, practised at Autun, where he made a considerable fortune. In the famous suit instituted by the heirs of the Duc de Grammont-Caderousse, the Advocate-General related the following anecdote, which the *Progress Medical* now reproduces. There lived at Autun three old men of high birth, and they took for their physician one whose name is still at this date nobly borne—he was called MacMahon. The son of this physician became their friend; and in the course of the friendship which arose out of the care which he gave to them, they became the means of his marrying one of their relations. He came to live near them, and received one day a donation of 2,500,000 francs (£100,000). The legal documents were drawn up by M. Changarnier, notary. A little later, the grandson of the physician (Marshal MacMahon) and the grandson of the notary (General Changarnier) were companions in arms in Africa. This gift was attacked in the law-courts by the heirs. The Minister of Justice urgently called for the condemnation of MacMahon. It was needful, he said, to repair a great scandal by a great example. The national morality was in danger; and, if MacMahon triumphed, the national morality must suffer. He did triumph, however, by a formal judgment; and . . . adds the Advocate-General, it is perhaps to this happy circumstance that we owe it that the battle of Magenta was not lost.

WHAT THEY SAY IN FRANCE.

FRENCH accounts of manners and customs in foreign countries never fail from any want of imagination. If they sometimes import their jokes, they make up for deficiency of originality by inventing their facts. M. Bachaumont, in the *Constitutionnel*, has the following choice narrative, of which the accuracy will be universally recognised. "In America, the fashionable amusement of the day is very original. The Yankees give themselves up in the most joyous spirit to the amusement of vaccination-parties; they give *soirées*, and, in lieu of providing for these reunions refreshments of the usual kind, they offer to the guests assorted varieties of vaccine matter. At a concert, for example, after the execution of each piece, doctors come at the call of the host, and pass through the rooms instead of servants, who usually offer tempting dishes; and, in lieu of the words 'Sir, or madam, would you like an ice, or some punch, or some sandwiches?' they ask, 'Would you like infant-vaccination or cow-vaccination?' and each one answers according to his fancy or to the degree of confidence that each remedy inspires. 'Give me three children and five cows', one will say; 'Four cows and four children', another will say; limiting themselves always to the eight incisions which every good vaccination is held to require. Besides these *soirées* of vaccination, others are held at which the vaccinated meet to compare their arms and to ascertain the success of the operation. It is not unusual now in America, when a lady wishes to justify the preference which she feels for any gentleman, to express

herself in these terms: 'How can I help it? We have been vaccinated together.' This American eccentricity calls to mind the custom which was very general in the great houses of England during the first part of the century, and which consisted in setting aside, in order to break the monotony of amusement, a day for general purgation. Hosts, guests, and servants, all took part. Saturday evening was usually fixed for the purpose. The physician of the chateau came and left with each one in his chamber a contingent of pills, and on the Sunday the whole household were satisfied. It was a form of public medication which exactly resembles the present practice in America of social vaccination."

WAR HOSPITALS.

DR. GUY, in a work upon *War in its Sanitary Aspects*, proceeds to prove, as facts especially applicable in the conduct of the present war, that extempore hospitals of the rudest kind and even the roughest shelter from the weather that can be found or created are immeasurably preferable to the best existing structures, adapted at whatever cost to the reception of the sick and wounded. He says that in 1758, in consequence of an unprosperous attack made by England on France, many sick soldiers were lodged near Newport, Isle of Wight, in old houses and barns. In one close hovel, a soldier of the 63rd Regiment, just landed from a transport, was placed. On the third day, a malignant sore-throat carried him off. The sheets were changed, and another man put in the bed; he died in the same way; and a third man shared his fate. Fresh bedding was ordered; the boards were scraped and thoroughly washed with vinegar; and then a fourth soldier was lodged in this hovel, and died. Purification was resorted to a second time; vinegar fumes, burnt gunpowder, and burnt resins being the purifying agents adopted; but, in spite of all this, the fifth man lodged there had a narrow escape for his life. The place was not used again for seven or eight days, after which the sixth man was put in it; he too caught the disease, and was saved with difficulty. This sad experience was a sharp lesson. The necessities of the war required that accommodation in addition to that existing around Newport should be provided. A temporary shed of deal boards, thatched with a coat of new straw sufficiently thick to keep out wind and rain, was built at a cost of £40. It was large enough for one hundred and twenty patients. Dr. Brocklesby, the physician in charge, thus speaks of its efficacy: "Although the hovel was finished in a fashion the most slovenly, and apparently inadequate to the end proposed, upon trial it was found that, notwithstanding much extraordinary cold as well as moisture which the sick there lodged had suffered, remarkably fewer died of the same diseases, though treated with the same medicines and the same general regimen, than died anywhere else; and all the convalescents recovered much sooner than they did in any of the warmer and closer huts and barns hired round Newport, where fires and apparently better accommodation of every kind could be provided for them." A fact so striking must of necessity attain notoriety. Mr. Adair, Inspector of Regimental Infirmaries, was in the neighbourhood at the time, and, observing that the constant influx of fresh air was beneficial in so marked a degree to the men huddled in the forest, obtained an order to convert Carisbrooke Castle into a general hospital for the accommodation of four hundred sick. There, it was thought, the patients would progress more favourably than their comrades lodged in the miserable huts of the town, or than those upon the wide bare forest near Newport under the "occasional hovel", as the extempore hospital was slightly designated; but that had more importance than was first conceived, for, although the castle was more prosperous to the recovery of the patients than the low-roofed houses, a proportionally larger number of "foresters" were recovered, and that in a shorter space of time. This proved that, whatever the injury might be resulting to the men from cold or redundant moisture, it was small in comparison to the mischief complicated on the sick by huddling together three or four hundred men under one roof and in outhouses adjoining the castle. Two years later, Dr. Brocklesby had further

experience of the utility of extemporised hospitals. Putrid fever of a very dangerous class appeared in 1760 amongst the sick of the 30th Regiment at Guildford in Surrey, for the treatment of which he erected other hospitals at a cost of £10 each, with a result the most satisfactory. Dr. Guy tells us that, in September 1760, numbers in the regiment last named and others were daily falling sick of putrid petechial fevers, where the infirmaries were overcrowded. Dr. Brocklesby obtained plenary powers from General Cornwallis to act. He selected the driest and most airy spot on a rising ground in a field behind the camp, removed as much of the dry sandy soil as he required, and near the edge of the excavation drove in upright stakes about six feet high from the surface, placing wattles between them, and coated the outside with new straw. Rafters were laid over, and received a thick coating similar to that placed on the sides, making the hollow spacious and airy overhead, and yet quite warm and dry. A hospital for forty patients so constructed could not have cost more than £20. Of the patients, we are told that, although several were admitted suffering from a true petechial jail-fever, only one or two at most died. This happy result was ascribed by Dr. Brocklesby more to the benefit of a pure keen air breathed by the patients than to all the medicines they took. The nature of the soil permitted the removal, when necessary, of the whole inner surface of the floors and walls, which might be suspected to imbibe any infectious matter proceeding from the patients; and the sand so scraped off was thrown out of doors. In 1761-62, an opportunity occurred to Dr. Brocklesby to improve on the experience he had gained. There was a great amount of sickness in a militia camp at Winchester. He dug three pits in the chalk thirty-one feet long, nineteen wide, and five deep. At a foot from the edge of these pits, he drove stakes six feet apart. His walls and roof were formed of the same materials; the arrangements were completed by the construction of a brick chimney, and the fastening of a board along the line of the men's heads. For windows and ventilating apertures, air-holes were made in the thatch, to be opened and closed at will; and ingress was made by means of steps cut in the chalk. To those three "mansions for the sick" the fever-cases from the close infirmary at Winchester, as well as from the camp, were removed. In less than two weeks, the numbers were reduced in the proportion of four to one; the number of sick to the end of the campaign was much fewer than ever before; and, with the exception of three at the most, all the men admitted were cured. The same plan was adopted on the chalky soil of a different encampment, a large airy porch being placed before each door. A regiment encamped there lost not a man during the whole encampment. In some other regiments, in which prejudices against the above plan existed, several of the sick died. Dr. Guy concludes by stating that he had recounted these experiences with cheap extemporised hospitals as equally applicable to war and peace, and as bearing directly on one of the most important hygienic questions of the day; and that the facts given were quite in harmony with Sir George Baker's interesting narrative of the outbreak of small-pox at Blandford, when patients in natural small-pox fared better under hedges and dry arches than those who had been inoculated did in their own dwellings.

ARMY MEDICAL RETIREMENT.

COMMENTING upon the promotion and retirement scheme, the *Army and Navy Gazette* says: "The inducements to retire are really most liberal". We may ask why are not military surgeons treated with equal liberality? To allow of combatant officers receiving a more liberal rate of retirement, a supplementary estimate of £60,000 is required. Not one of the improvements made in the medical department have cost the Government a penny. Within the last few years, some 240 medical officers have been absorbed, whose duties, in addition to the recruiting for the reserve forces, have fallen upon those who remain. The sum saved by this reduction of establishment, in the shape of pay, allowances, travelling expenses, etc., can be little short of £80,000. Some portion of this, in fairness, should go in increased in-

duements to retire, say at fifteen, twenty, and twenty-five years' service. A guinea a day after twenty, and twenty-five shillings after twenty-five years' service, conditional upon service in a medical reserve, would be the means of relieving the higher ranks, thus accelerating promotion in a legitimate manner, and forming an efficient medical reserve. It seems the irony of fate to have the saving represented by the reduction of medical officers more than balancing the supplementary estimate for combatant officers, who, by way of return, dole out six good service pensions of a hundred a year each to worn out medical officers of the army.

DEVONSHIRE HOSPITAL AT BUXTON.

THE report of the Devonshire Hospital and Buxton Bath Charity for the half-year ending June 30th, makes special reference to two important matters, viz., the organisation of a nursing department, and the extension of the hospital. The report says:

"The only want as to its executive which the Hospital can be said to have suffered from has now been supplied. A lady superintendent of the nursing department, of experience, and with high testimonials, has been engaged; and, under her advice and supervision, trained and probationer nurses have been secured, and every expectation is held out that this part of the work of the Hospital will be as satisfactory as can be desired, and the comfort and care of the sick be sedulously attended to. It is, moreover, hoped that this organisation may produce a valuable school for nurses, and enable the Hospital to do an additional and very important, if secondary, work.

"The extension of the Hospital to the whole of the buildings and premises connected with it has been secured. Under the easy requirement of providing similar stable accommodation, etc. elsewhere, the Duke of Devonshire has most kindly conceded the whole of these buildings and grounds to the uses of the Hospital, for ever, on the same restrictions as those under which the Hospital was originally conveyed to the trustees; and the governors of the Cotton Districts Famine Fund have engaged to defray the whole expenditure required for this great extension, in excess of the outlay upon stables, etc. amounting to £10,650, subject to a prior claim on one hundred additional beds to be created, and to a lease of the extended accommodation for one hundred years, with the proviso that the charges incurred for the patients so sent shall be fully paid for. The value of such an extension, almost doubling the powers of the Hospital, and improving, as far as may be, its general arrangements, and consequent efficiency, will be felt by every subscriber to be very great, and to be a practical recognition of the high standing of the institution, and of the priceless value of the healing waters of Buxton to the suffering poor. Moreover, the Hospital will now be surrounded on all sides by its own grounds and gardens, entirely detached from all other buildings, and be placed on a sanitary vantage of the highest character and importance. It can only be a matter of regret that the construction of the extensive new buildings for stables, etc., must precede the alterations, or partial re-construction, of the adjoining buildings for hospital purposes, and that it must be feared some little time may elapse, before this great extension can be expected to be achieved. Benefactions in aid of the large expenditure required from the funded property of the Hospital will be thankfully received by the treasurers of the Hospital or the secretary, and any sums amounting to £20 or upwards will be entered on the boards suspended in the dining-hall and board-room of the Hospital, and all donations in aid of this outlay will be entered separately in the Hospital accounts."

SCOTLAND.

A MILK DEALER was fined £5 and £2 : 2 costs at Paisley, last week, for having sold cream and skim-milk adulterated with water. The alternative was thirty days' imprisonment.

A FOUNTAIN has been lately erected in Ardrossan, in memory of the late Dr. Houston, by his sister. The fountain is of granite, stands eight feet high, and forms a handsome ornament to the town.

THE following has recently appeared in some of the Scotch newspapers: "A prize of two hundred guineas is offered, by a Scottish member of the Anti-Vivisection Society, for the best medical essay on experiments involving cruel treatment of living animals, scientifically

and ethically considered from the anti-vivisection point of view. Essays must be sent in under cover to Messrs. Lorimer and Gillies, printers, Clyde Street, Edinburgh, from whom the titles of the essays, names of the judges, and all particulars may be obtained on application by letter." Surely a high price for a special-pleading essay.

UNIVERSITY OF GLASGOW.

THE graduation of the medical students at Glasgow took place on Tuesday, July 31st, when forty-five candidates took their degrees. The medallists for the year were Dr. William Gardner and Dr. W. Young Turner. At the close of the ceremony, Professor W. T. Gairdner referred to the valuable services which Professor Allen Thomson had rendered to the medical profession and the University, and the regret with which all viewed his approaching retirement from the Professorship of Anatomy, which he had held for twenty-nine years.

UNIVERSITY OF EDINBURGH.

THE annual medical graduation at the University of Edinburgh took place on Wednesday, August 1st; the Lord Justice-General presiding. Among others who were present, were Sir Robert Christison, Dr. Lyon Playfair, and Professor Huxley. The honorary degree of LL.D. was first conferred on the Rev. A. B. Grosart of Blackburn. Then followed the conferring of the M.D. degree on thirty-three Bachelors of Medicine. Of these, four received gold medals for their theses, namely, Dr. Byrom Bramwell, for a thesis entitled "Clinical Reports"; Dr. George Hunter Mackenzie, for a thesis on "The Physiological and Therapeutical Actions of Aconite and Aconitia"; Dr. John Halliday Scott, for a thesis on "The Nervous System of the Dog"; and Dr. Graham Stell, for a thesis on "Scarlatina, with Charts illustrating the subject of Specific Fevers". The theses of three other graduates—Dr. Andrew S. Currie, Dr. Robert A. Gibbons, and Dr. Robert Saundby—were deemed worthy of competing for the Dissertation Prize. The degree of Doctor of Medicine, under the old statutes, was conferred on one candidate. For the M.B. degree, there presented themselves one hundred and five candidates, all of whom, with the exception of seven, took also the M.C. degree. Two of these gentlemen graduated with first-class honours, namely, Mr. William Richardson and Mr. Johnson Symington; and six with second-class honours. The Ettles Prize, given to the most distinguished graduate of the year, was awarded to Mr. W. Richardson. The Syme Surgical Fellowship was awarded to Mr. W. Watson Cheyne, M.B. and C.M. Professor Sanders was then called upon to deliver the customary address to the graduates. After congratulating them on the honours they had just obtained, and wishing them success in their professional career, the speaker made some general remarks on the present state of medicine and on the spirit in which it should be cultivated and practised. He pointed to the great vigour and activity with which at the present day the medical sciences are being prosecuted; and showed that it is to the cultivation of science and the use of scientific methods that we owe the distinguishing features of modern medicine. The first duty of a practitioner of the present day was to combine scientific knowledge with practical skill and experience, and for this their university training had eminently fitted them. Some there were among them who would desire to devote themselves exclusively to science, which could only be done by special training and the devotion of a life-time. At present, the University was deficient in opportunities for higher scientific study, although the most had been made of its limited means. As one example, he instanced the valuable work done by their new colleague Professor T. R. Fraser, and others might be given. Fortunately, there was a prospect that the present deficiencies would shortly be supplied by the erection of the new buildings. The Professor then briefly alluded to the several departments of practice, and particularly recommended the study of specialities, whose utility to young practitioners, he thought, was not sufficiently appreciated. He pointed out that the combination of science with practice was leading to more activity in the search for and use of remedies, and afforded the best security for the future progress

of medicine. He recommended them to spend a year as house-surgeons or house-physicians in a hospital, as a most valuable preparation for professional life. In an eloquent peroration, he pointed out how high and honourable a position the profession of medicine occupied in the eyes of the general public.

IRELAND.

THE total deaths registered in Dublin during the week ending July 28th represent an annual mortality of 17.7 in every 1,000. This low death-rate was extremely unusual for Dublin, and we are not sanguine, considering its present sanitary condition, that it will remain long at this figure. The deaths from zymotic diseases included fourteen from measles and one from small-pox.

THE APOTHECARIES' HALL OF IRELAND.

AT the annual meeting of the General Council, convened in pursuance of the Statute of Incorporation, on the 1st instant, the following members were elected as the office-bearers for the year. *Governor*: James Shaw. *Deputy-Governor*: Henry Palmer Nolan. *Court of Directors and Examiners*: Edward Howard Bolland, Thomas Collins, John Evans, Arthur Harvey, Charles Holmes, Charles H. Leet, Charles F. Moore, Robert Montgomery, Jerome O'Flaherty, Edward O'Neill, George B. Owens, John Ryan, George Wyse. *Examiners in Arts*: Edward W. Collins, J. William Moore. *Representative on the General Medical Council*: Charles Henry Leet.

BELFAST WATER-SUPPLY.

THE pipe-water supplied to this town has been lately analysed by Dr. Hodges, who has found in each imperial gallon the following: Solid matter, 11.2 grs., containing chloride of sodium, 2.25 grs.; one million parts yielding free ammonia, 0.02 parts; albuminoid ammonia, 0.12 parts. This shows that the water contains less solid matters than when it was examined in March last, 18.90 grs. of solids being then present. The Commissioners have, we are informed, under consideration a system of filtration similar to that pursued in other large towns, and which, it is believed, will be of great service in the supply of water to the inhabitants.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

LAST week, we very briefly referred to the elections at this College for the Chairs of Ophthalmic and Aural Surgery, and Midwifery, when Mr. Swanzy and Dr. Roe were successful. As our readers are doubtless aware, the appointments lie with the Council, which consists of twenty-one members, seven of whom are balloted for; the Councilors on this occasion consisting of Messrs. Mapother, Hamilton, Kidd, Denham, Corley, Butcher, and Porter. We congratulate Mr. Swanzy on his success, which has been deserved; and have no hesitation in predicting for him a sure and brilliant career in the special departments of surgery he has chosen. Dr. Roe's election has also given satisfaction; and by it a vacancy has taken place for an Examinership in Midwifery in the College of Surgeons, for which the majority of those who competed for the Midwifery Chair may be expected to become candidates.

FURTHER TRAFFIC IN DISEASED MEAT.

AN order was made last week, by the presiding magistrate of the North Dublin Police-court, for the destruction of the carcase of an ox affected with pleuropneumonia. The party who was dressing it when it was seized stated that he purchased it from Mr. Newman, an officer of the North Dublin Union, and that it had been passed as being fit for food by Mr. Murphy, a veterinary surgeon. The evidence of Dr. Mapother proved that the carcase was in the second stage of pleuropneumonia, and was therefore unsound and unfit for human food. The conflict of opinion which has for some time arisen between the veterinary surgeon attached to the North Dublin Union and the medical officers of health

for Dublin is most discreditable; but the guardians on every occasion support their officer, although his opinions on the question of diseased and sound food have been shown on several occasions to have been diametrically opposed to those held by two skilled physicians, Drs. Cameron and Mapother.

BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

THE stated quarterly meeting of the Committee of this Society was held at Belfast on the 1st instant. The honorary secretary reported that the grants recommended to be paid to the annuitants of the Branch had been duly awarded at the late annual meeting of the parent Society in Dublin, and had been distributed by the honorary treasurer, Dr. Browne. After the transaction of the ordinary business, Dr. James Moore stated that, having observed from the Annual Report that the permanent president, Dr. T. H. Purdon, had contributed the handsome sum of £575 towards the funds, besides giving up a good deal of his time, he moved, as one of the oldest members of the Society, "That we record our sense of the obligation which this Branch owes to its permanent president, Dr. T. H. Purdon, for his ever increasing interest in its benevolent labours and his munificent contribution to its funds". Dr. McGee seconded the resolution, which was passed unanimously.

HEALTH OF IRELAND FOR 1876.

DURING the past year, the births registered in Ireland amounted to 140,438, affording a ratio of 1 in every 37.9, or 26.4 per 1,000 of the population, against an average rate of 27.0 per 1,000 for the previous ten years. The number of deaths registered was 92,499, equal to a ratio of 1 in every 57.5, or 17.4 per 1,000 of the population, being 0.3 per 1,000 persons over the average rate for the ten years 1866-75. Of these 92,499 deaths, 13,249, or 14.3 per cent., were of children under one year old, and 37,065, or 41.1 per cent., were of persons aged sixty years and upwards. During the year, 8,820 deaths occurred from the eight principal zymotic diseases, being 9.5 per cent. of the total deaths, and equal to 1.66 in every 1,000 persons living. The average annual number of deaths from these diseases during the previous ten years was 12,222, or 2.26 in every 1,000 of the estimated average population. Only 21 deaths were caused by small-pox, by which 535 deaths took place the preceding year; 535 deaths were from measles; 1,992 from scarlet fever, being only one-half the number in 1875, and nearly 1,000 under the average for the ten years 1866-75; 347 from diphtheria; 1,439 from whooping-cough; 2,530 from fever; 1,828 from diarrhoea; and 70 from simple cholera. During the year, 2,624 inquests were held, being 1 inquest to every 35 deaths registered. The mean temperature at Dublin for the year was 49.5 deg., against an average of 49.4 deg. for the previous ten years; and the rainfall measured 31.526 inches, being 3.92 inches over the average for the previous ten years.

POOR-LAW INQUIRY.

MAJOR TRENCH, Mr. Doyle, and Mr. Crawford have been appointed Commissioners to inquire into Poor-law unions and workhouses in Ireland, especially as regards the number of unions and workhouses, the provision now made for the relief of the sick and destitute poor in workhouses and hospitals, and to determine whether any changes are necessary or desirable. This inquiry, we are confident, will be of great utility, leading to a readjustment of the Poor-law system, consolidating certain unions, and reducing the number of officials in various unions where a large staff of officers is not absolutely necessary. The subjects which will be brought under the notice of the Commissioners will be most important; and the inquiry, if judiciously carried out, will tend ultimately to some useful measures being adopted.

PRESENTATION.—A handsome brougham and set of harness were last week presented to Dr. John Reid, R.N., of Dunoon, Argyshire, by his numerous friends and patients.

MEDICO-LEGAL CASES.

PROSECUTION FOR ASSUMPTION OF THE TITLE OF DOCTOR OF MEDICINE.

ON Friday, August 3rd, under the fortieth clause of the Medical Act, 1858, a homœopathic practitioner named James Brown Dixon, LL.D., U.S., 1857, and "Doctor in Dental Surgery, 1845", was charged in the Thames Police Court by Dr. R. H. S. Carpenter with unlawfully using the title of Doctor of Medicine, thereby implying that he was recognized by law as such. Mr. Hazeldine prosecuted, and Mr. Grain, instructed by Mr. Ricketts, defended. Mr. Carpenter said that he was the secretary to the Medical Alliance Association, that he and another member of the committee of the Association had visited defendant's house and cautioned him not to continue using the title of "Doctor" as painted upon his house and elsewhere, that defendant answered that his qualifications were obtained before the passing of the Medical Act, 1858, and that they were registrable, but he declined to produce them for inspection or to say from whom he obtained them. Witness identified a photograph, produced by Mr. Hazeldine, as a correct description of Mr. Dixon's house, and he read from it the following inscription: "Dispensary."—"One shilling a week or three shillings a month."—"Dr. Dixon."—"Homœopathic Pharmacy." In cross-examination, witness said that he was certain that no diploma was hanging up in Mr. Dixon's shop, and that he did not mean to say that his qualifications were registrable in America. Witness had not seen advertisements in the tramcars stating that Mr. Dixon was an unregistered physician and surgeon. Mr. J. P. Hentsch, M.R.C.S., L.S.A., assistant-secretary to the Association, identified the photograph, and said that it was a correct description of Dixon's house. In cross-examination, he admitted having seen at a patient's house a circular in which Dixon described himself as "Dr. Dixon, Homœopathic Practitioner and Accoucheur", "Doctor in Dental Surgery, 1845". James Haigh said that on the 11th ultimo he went to Dixon's house, when defendant said, "I am Doctor Dixon". Dixon gave him a packet of powders, for which he charged one shilling. Mr. Grain maintained that defendant had not been guilty of *wilful falsity*, and that it was necessary to prove this to bring him within the meaning of the Act. The magistrate, Mr. Lushington, thought so too, and said that the fact of Dixon having written on his window "Homœopathic Pharmacy" would be such a qualification to the title he used as not to bring him within the operation of the Act. The summons was dismissed, and upon application for a case for a superior court being made, Mr. Lushington refused to grant it, for the reason, he said, that the facts of the case would not warrant his doing so.

ASSOCIATION INTELLIGENCE.

METROPOLITAN COUNTIES BRANCH: ANNUAL MEETING.

THE twenty-fifth annual meeting of the Metropolitan Counties Branch was held at the Alexandra Palace, on Tuesday, July 24th, at 4 P.M. In the absence of the President (JONATHAN HUTCHINSON, Esq.), the chair was first taken by ROBERT DUNN, Esq., Treasurer.

New Members.—The following gentlemen, already members of the Association, were elected members of the Branch: E. H. Ambler, Esq. (Hemel Hempstead); G. Amsden, M.B. (Brentwood); Thomas Barlow, M.D.; J. Mitchell Bruce, M.D.; T. Duka, M.D.; David Ferrier, M.D., F.R.S.; E. B. Forman, Esq.; C. E. Garman, Esq.; C. Godson, Esq. (Barnet); and A. P. Gould, M.B.

Report of Council.—Dr. HENRY, Honorary Secretary, read the following report.

"The Council of the Metropolitan Counties Branch, in presenting this the twenty-fifth annual report, have to announce that the number of members is the same as at the last annual meeting, when the number was 582. Since then, 13 have retired, and 8 have died; while 26 new members have been admitted, making the total number at present 582.

"The Branch has sustained, in common with the parent Association, severe losses in the deaths of two of its past Presidents, Dr. Francis Sibson and Sir William Fergusson.

"Dr. Sibson, who was President of the Branch in the year 1863-64, was also for three years President of the Council, and up to the time of his death a Vice-President of the British Medical Association. Your Council feel assured that the Branch joins in the expressions of regret at the death of so eminent and esteemed a member of our profession;

and that it will not soon forget the hearty energy which he displayed in all which he undertook, the valuable aid which he rendered in many matters affecting the profession, and his kindly bearing towards all with whom he came into contact.

"Sir William Fergusson was President of the Branch in 1872-73, and immediately afterwards became President of the British Medical Association at its meeting in London. As President of the Branch, Sir William was Chairman of the Committee appointed to make the arrangements for the meeting of the Association; and, by his kindness and able direction of affairs, contributed much to the success of the meeting.

"The other members who have died since the last meeting are: Dr. Snow Beck; Mr. Victor de Méric; Mr. William Harvey; Mr. Martin Luther Heelas; Dr. E. H. Ruddock; and Mr. Edmund Wood.

"Although the late Dr. Edward W. Murphy had for several years ceased to be a member of the Association and Branch, it seems right in this place to mention that he ably filled the office of President of this Branch in 1868-69.

"Of the twenty-five gentlemen who have been Presidents of this Branch, eight have died, viz: Sir John Forbes, Mr. Propert, Dr. Lankester, Dr. George Webster, Mr. Squibb, Dr. Murphy, Dr. Sibson, and Sir William Fergusson. Of the survivors, it is interesting to note that at the present time the senior, Dr. Risdon Bennett, is President of the Royal College of Physicians; and the next to him in order of time, Mr. Birkett, is President of the Royal College of Surgeons.

"At the time of the last annual meeting, the Cruelty to Animals Bill was passing through its stages in Parliament; and the Council, in referring to the subject in their annual report, strongly recommended that action should be at once taken for the purpose of obtaining the amendments which were regarded as necessary. Accordingly, within a fortnight after the annual meeting, a meeting of the Branch, which the profession in London were invited to attend, was held at St. George's Hall, and certain resolutions were passed, which were subsequently communicated to the Home Secretary by a deputation consisting of the President and other members.

"The Council regret to learn from notices which have appeared in the JOURNAL and from a statement made by Mr. Simon during the recent session of the General Medical Council, that the Cruelty to Animals Act has been the cause of much vexation and annoyance to several distinguished and highly competent physiologists, from whom—without, so far as is known, any sufficient cause—legal authorisation to carry on experimental researches on animals has been withheld.

"The Branch has also held a general meeting for the discussion of the subject of Legislation for the Treatment and Cure of Habitual Drunkards. Dr. Cameron, M.P. for Glasgow, kindly attended; and, after the subject had been introduced by Mr. Alford, explained the provisions of the Bill which he had introduced into Parliament. A resolution was passed approving of the general principles of the Bill, and authorising the President to sign a petition in its favour. The Committee on Legislation for Habitual Drunkards, appointed at the last annual meeting, will present a special report.

"The Council have to report that, a ballot of the members of the Branch having been taken for the election of twenty-eight members to represent the Branch on the General Council of the Association, the following were found to be chosen:—William Adams, Esq.; Robert Barnes, M.D.; H. C. Bastian, M.D., F.R.S.; G. W. Callender, Esq., F.R.S.; Andrew Clark, M.D.; T. B. Curling, Esq., F.R.S.; J. Langdon Down, M.D.; Robert Dunn, M.D.; A. E. Durham, Esq.; R. Farquharson, M.D.; Wilson Fox, M.D., F.R.S.; S. O. Habershon, M.D.; Ernest Hart, Esq.; A. Henry, M.D.; Berkeley Hill, Esq.; T. Holmes, Esq.; J. Hutchinson, Esq.; George Johnson, M.D., F.R.S.; John Marshall, Esq., F.R.S.; H. Maudsley, M.D.; C. F. Maunder, Esq.; A. Meadows, M.D.; W. S. Playfair, M.D.; R. Quain, M.D., F.R.S.; J. R. Reynolds, M.D., F.R.S.; S. W. Sibley, Esq.; E. H. Sieveking, M.D.; and A. P. Stewart, M.D.

"The Council regret to announce that Dr. Farquharson, who has for three years acted with great ability and uniform courtesy as one of the Secretaries of the Branch, has retired from that office in consequence of the pressure of other engagements. Dr. W. C. Grigg is recommended for election in his stead.

"At the suggestion of the President, your Council have taken into consideration a scheme for affording useful information to foreign and colonial medical men visiting London for the purpose of professional observation and study, so as to economise their time. Your Council, trusting that the Branch will recognise the value of the suggestion, recommend the subject to the attention of their successors in office."

Dr. RUGG moved, Dr. W. FARR seconded, and it was resolved: "That the report of Council now read be received, adopted, and entered on the minutes."

[During the reading of the report, the President arrived and took his seat.]

Treasurer's Report.—Mr. DUNN, Treasurer, presented the financial report, which showed receipts amounting to £101 : 9 : 9 (including a balance of £41 : 17 : 3 from last year), and an expenditure of £79 : 1 : 1, leaving a balance in hand of £22 : 8 : 1.

Mr. WILLIAM MARTIN moved, Dr. BEGLEY seconded, and it was resolved: "That the Treasurer's report be received, adopted, and entered on the minutes."

Officers and Council.—A ballot having been taken, the following were found to be unanimously elected. *President:* Septimus W. Sibley, Esq. *President-elect:* Andrew Clark, M.D. *Vice-Presidents:* Robert Barnes, M.D.; and Jonathan Hutchinson, Esq. *Treasurer:* Robert Dunn, Esq. *Secretaries:* Alexander Henry, M.D.; and William C. Grigg, M.D. *Ordinary Members of Council:* Stephen S. Alford, Esq.; John Armstrong, M.D.; G. F. Blandford, M.D.; John S. Bristowe, M.D.; T. B. Curling, Esq., F.R.S.; Thomas S. Dowse, M.D.; Robert Farquharson, M.D.; John T. Griffith, M.D.; Ernest Hart, Esq.; J. T. N. Lipscomb, M.D.; John Macpherson, M.D.; C. R. Nicoll, M.D.; Richard Quain, M.D., F.R.S.; Leonard W. Sedgwick, M.D.; Richard Shillitoe, Esq.; Morris Tonge, M.D.; E. H. Vinen, M.D.; and Edwin T. Watkins, M.D.

Mr. HUTCHINSON then, after thanking the Branch, resigned the chair to his successor, Mr. SIBLEY.

Vote of Thanks to the Retiring President.—Dr. A. P. STEWART moved, Dr. FARR seconded, and it was carried by acclamation: "That the cordial thanks of the Branch be given to the retiring President, Jonathan Hutchinson, Esq., for his able and courteous conduct in the chair, and for his kind and hospitable reception of the members of the Branch."

President's Address.—The new PRESIDENT, Mr. SIBLEY, delivered an address, in which he commented on the principal medical topics of the day, viz.: the admission of women to the profession, habitual drunkards, the amendment of the Medical Act, the London water-supply and sewage system, and hospitals for the more affluent classes, and the isolation and purification of convalescents. In the course of his introductory remarks, he said: "A very little consideration will show that, although there has been a marked improvement during the last few years, the voice of our profession on questions of public health is not so powerful or authoritative as it ought to be. The private influence of medicine no doubt is great, and what we may fairly term the wonderful discoveries in sanitary science are beginning to exert their influence upon the public mind. The important observations which have been made as to the propagation of fever, for instance, and especially the work of the Medical Department of the Privy Council, have had a remarkable influence upon public opinion: both these and other facts are proving to the community that it is not safe to disregard the warnings of our profession, and that substantial advantages may be gained by listening to its teaching. From this point of view, our profession must regret the retirement of the late chief medical officer of the Privy Council. The active and clear intellect of John Simon has put before the public in a practical form many observations of vital importance. He has gained the highest esteem of our profession, and our country is under the greatest obligation to one who has devoted to its service, with remarkable success, a life of such brilliant powers. The scanty honours and meagre rewards which have been bestowed upon such a worker show how imperfectly at present the labour is appreciated by the public. Not the least good service which he has rendered is shown in the faculty of attracting others to work with him, and it is a matter of congratulation that there remains in the Department a staff of most able men, deeply imbued with the true spirit of philosophical inquiry, and well qualified to carry on the work."

On the motion of Mr. AMELER, an unanimous vote of thanks was given to Mr. Sibley for his able and interesting address.

Report of the Committee on Legislation for Habitual Drunkards.—The following report was read by Dr. FARQUHARSON.

"During the last year, a Bill has been prepared by the Society for Promoting Legislation for the Control and Care of Habitual Drunkards, which has been revised by the Central Habitual Drunkards Committee of our Association, and has been introduced into the House of Commons by Dr. Cameron, member for Glasgow. Having been introduced late, the second reading fell in the Whitsuntide holidays, and no proper opportunity has since offered for bringing it forward. Dr. Cameron proposes to bring it on early next session. On this account, the proposed deputation to Mr. Cross has been postponed. Numerous petitions have been presented by the Branches of the British Medical Association and also by the Society which prepared the Bill. Your

Committee have sent up petitions to each House signed by more than four hundred medical men. Your Committee ask to be reappointed, that they may watch the progress of the Bill and promote it as far as possible."

Dr. FARQUHARSON proposed that the report be received and adopted, and the Committee reappointed.—Dr. STEWART seconded the motion, which was carried.

Vote of Thanks to Dr. Farquharson.—Dr. HENRY proposed, Mr. HUTCHINSON seconded, and it was unanimously resolved: "That the cordial thanks of the Branch be given to Dr. Robert Farquharson for the able and efficient manner in which he has discharged the duty of Secretary during the past three years."

Dinner.—The meeting was followed by a dinner. Mr. Sibley, President of the Branch, occupied the chair; and Professor Flower of the Royal College of Surgeons, Drs. Sayre, senior and junior, of New York, Dr. Howard of New York, and Dr. Agnew, were present as visitors.

SOUTHERN BRANCH: ANNUAL MEETING.

THE fourth annual meeting of the Southern Branch was held at the Royal Hotel, Winchester, on Wednesday, June 20th, 1877. Dr. Aldridge of Dorchester introduced the President, Dr. F. J. BUTLER. Fifty gentlemen were present.

Election of Officers.—Mr. W. G. Davis of Heytesbury was unanimously elected President-elect; and Dr. Ward Cousins Honorary Secretary.

President's Address.—The PRESIDENT delivered an address.

Treatment of Empyema.—Surgeon-Major MACNAMARA introduced for discussion the treatment of empyema.—The PRESIDENT mentioned several cases in which free incision instead of tapping had proved successful.

Cæsarean Section.—Dr. MACNAMARA related a case in which Dr. BUCKELL of Winchester had recently rescued a child by Cæsarean section some minutes after the death of the mother.

Dinner, etc.—The members visited the Cathedral, and dined together in the evening.

NORTHERN COUNTIES OF SCOTLAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Gordon Arms Hotel, Elgin, on Saturday, July 20th, under the presidency of Dr. MACKENZIE of Fortrose.

The Late Dr. Carmichael.—After approval of the minutes of the last meeting, it was resolved to put on record a minute expressing the Branch's sense of the loss sustained by the lamented death of Dr. Carmichael of Buckie.

Remuneration of Medical Witnesses.—A small Committee was appointed to act with the Aberdeen, Banff, and Kincardine Branch and the North of Scotland Association in regard to obtaining more adequate remuneration in Crown cases, by pressing the matter on the Lord Advocate, or otherwise as may seem best fitted to promote the object in view.

Albuminuria of Scarlet Fever.—Dr. BRUCE of Dingwall read a valuable paper on the albuminuria of scarlet fever. In this, he wished to show that this complication may arise at any stage of the scarlatina; that it is due to nephritis; that nephritis, though, of course, influenced by cold, is not due in many cases to that cause; that nephritis is more common in some epidemics, and in some families and individuals, than in others. In the way of treatment, he placed most value on purgatives (the bowels in most cases being torpid), diuretics, general bleeding, and diaphoretics. He gave an analysis of several cases occurring in a late epidemic. There were four deaths from scarlatinal albuminuria; three cases of uræmic convulsions, all of which were freely bled from the arm, and all recovered. The urine of five patients who had had albuminuria was examined within a year after their illness; in none was albumen found. In one case, where convulsions had been severe, there was some evidence of hypertrophy and slight valvular murmurs.—This paper gave rise to considerable discussion, in which all the members present took part, the views of Dr. Bruce being generally endorsed by the meeting.

Election of Office-bearers.—The following appointments were made. *President:* J. W. N. Mackay, M.D., Elgin. *President-elect:* T. Aitken, M.D., Inverness District Asylum. *Secretary and Treasurer:* W. Bruce, M.D., Dingwall. *Representatives in the General Council:* The President and Secretary.

At Meeting.—It was resolved that the next meeting should be held at Inverness.

The Dinner took place in the Golden Arms Hotel, and a most enjoyable evening was spent.

Excursion.—Next day, several of the members had an excursion to the beautiful ruins of Pluscarden Abbey, in the vicinity of Elgin.

NORTH OF ENGLAND BRANCH: ANNUAL MEETING.

THE thirteenth annual meeting of this Branch was held in Bishop Cosin's Library, Durham, on Thursday, July 26th. There were present twenty-nine members and three visitors, including the Rev. Canon Tristram, D.D.

Dr. PHILIPSON, Honorary Secretary, said that it was with extreme regret he had to announce the absence of the retiring President, Mr. MATTHEW BRUMELL of Morpeth, in consequence of indisposition. He then introduced the new President, Mr. SAMUEL W. BROADBENT of South Hetton, who took the chair.

President's Address.—The PRESIDENT, after thanking the members for the very high honour he had received, and his desire faithfully to perform the important duties of his office, gave an address, recounting his experience of severe accidents, in his position as a surgeon to several large collieries in the county of Durham.

Vote of Thanks to the President.—It was moved by Dr. GIBSON, seconded by Mr. JOHN HAWTHORN, and carried by acclamation: "That the warmest thanks of the meeting be accorded to the President for his able address."

Vote of Thanks to the Retiring President and Officers.—It was moved by Dr. EASTWOOD, and seconded by Dr. DIXON: "That the best thanks of the meeting be given to the retiring President, Mr. Matthew Brumell, the Council of management, and the other officers for their valuable services during the past year."

Election of New Members.—The following gentlemen were unanimously elected members of the Association and of the Branch: R. M. Craig, Esq., Army Medical Department, Tynemouth Castle; Horace Sworder, Esq., County Hospital, Durham; Thomas Watson, M.B., Martin Colliery, Sunderland.

Report of Council.—The Council reported favourably of the stability and usefulness of the Branch. During the year, 22 new members had been elected. At the present time, the Branch consists of 247 members, 13 more than in any previous year. The attendance at the meetings had been large, and the interest of the papers read had called forth animated discussion. The Council offered its grateful thanks to the members, who, during the year, had read papers and the records of cases, and had exhibited pathological specimens.

At the spring meeting, Dr. Eastwood had proposed, and it had been carried: "That it is the duty of the General Medical Council to prosecute unqualified medical practitioners." The resolution was considered by the General Medical Council at its recent session, and the following decision was come to: "That the attention of the North of England Branch of the British Medical Association be drawn to Minute 3 of the proceedings of the General Medical Council of August 3rd, 1859, to Minute 5 of the 4th of August, 1859 (*Minutes*, vol. i, pp. 30, 35), and to Section (C) of the Report of the Medical Acts Committee, May 17th, 1877, adopted by the Council (*Minutes*, vol. xiv, pp. 131-132), and to inform them that, after mature deliberation, the Council sees no cause to alter the determination then arrived at."

The attention of the Council was directed to the case of Annie Agnew *v.* Jobson and others. The Council, in their deliberations, were aided by Mr. T. B. Thwaites of Bishop Auckland and Dr. V. Hutchinson of Bishop Auckland. After some consideration, the following resolution was agreed upon by the Council, and was forwarded to Messrs. Jobson, Mackay, and Allen: "The attention of the President and Council of the North of England Branch of the British Medical Association having been directed to the cause of Annie Agnew *v.* Jobson and others, deeply regret the circumstance, as they feel that all the defendants were unwittingly involved." The President and Council begged to offer to Messrs. Jobson, Mackay, and Allen their sincere sympathy with them in the trying position in which they have been placed.

Treasurer's Account.—The Treasurer's account showed that the receipts, including a balance of £9:16:11, amounted to £55:12:11. The balance, after all payments, amounted to £15:19:1.

Officers for 1877-8.—Dr. FENWICK proposed, Mr. W. R. SHIELL seconded, and it was unanimously carried: "That the next annual meeting be held at Hartlepool, the autumnal meeting at Stockton, and the spring meeting at Hexham; that Dr. G. Moore be President-

elect; Dr. Philipson, Honorary Secretary and Treasurer; and Drs. C. Gibson, Byrom Bramwell, Frain, and Dixon the Council of Management."

Representatives in the General Council of the Association.—It was moved by Mr. JOHN DAVIES, seconded by Mr. ROBERT SMEDDLE, and carried unanimously: "That the following gentlemen be the representatives of the Branch in the General Council of the Association: Byrom Bramwell, M.D.; S. W. Broadbent, Esq.; Matthew Brumell, Esq.; Martin Burnup, M.D.; W. H. Dixon, M.D.; J. W. Eastwood, M.D.; C. J. Gibb, M.D.; Charles Gibson, M.D.; G. Y. Heath, M.D.; Andrew Legat, M.D.; G. B. Morgan, Esq.; R. N. Robson, Esq.; and G. H. Philipson, M.D., *ex officio*."

Representative in the Parliamentary Bills Committee.—Dr. WICKS proposed, Mr. G. B. MORGAN seconded, and it was unanimously carried: "That Dr. Philipson be the representative of the Branch in the Parliamentary Bills Committee of the Association."

Vote of Thanks to the Trustees of Bishop Cosin's Library.—On the motion of the PRESIDENT, it was resolved: "That the grateful thanks of the meeting be accorded to the Trustees of Bishop Cosin's Library for their kindness in granting the use of the Library for the purposes of the meeting."

After the meeting was concluded, the members were very courteously conducted over Durham Cathedral, the Chapter House, Library, etc., by the Rev. Canon Tristram, and subsequently the majority of the members attended service in the Cathedral.

Dinner.—The dinner took place in the County Hotel. The President was supported by the Rev. Canon Tristram; the vice-chair was occupied by Dr. Philipson. After the loyal toasts, the Army and Navy, the Bishop and Clergy, the toast of the British Medical Association and success to the North of England Branch was eloquently proposed by the Rev. Canon Tristram, and very heartily responded to. Subsequently, the University of Durham, coupled with the health of the Professor of Medicine (Dr. Philipson), was proposed; also, the South Durham and Cleveland Medical Society, the Northumberland and Durham Medical Society, the President, President-elect, etc.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JUNE 6TH, 1877.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

Instruments, etc.—Dr. BARNES showed, for Dr. BECK of Fort Wayne, Indiana, an instrument for application of perchloride of iron to the cavity of the uterus.

Dr. BARNES showed a flexible galvanic stem, composed of zinc and copper wire, coiled into a tube.—Dr. AVELING said he had shown a similar stem to the Society some years ago.

Dr. ROPER showed modifications of Hicks's cephalotribe and of Barnes's craniotomy-forceps.

Dr. WILTSHIRE showed specimens of Ferguson's speculum, made of toughened glass.

Pathology and Treatment of Membranous Dysmenorrhœa.—Dr. JOHN WILLIAMS read a paper on this subject. It consisted of a narrative of fourteen cases of the affection, twelve of which had come under the author's own observation; a microscopical description of the membranes expelled; the method of treatment adopted in the cases; and conclusions drawn from the above data, as to the nature of the affection and its treatment. It was maintained that, in the study of the pathology of membranous dysmenorrhœa, regard must be had to four things: 1. The history of the patient; 2. The structure of the product expelled; 3. The state of the uterus; and 4. The normal process of menstruation. The theories advanced respecting the pathology of the affection were briefly noticed. The *post mortem* appearances met with in the uteri of two women suffering from the disorder were described, and the paper ended with the following conclusions.

1. The dysmenorrhœal membrane is not the product of conception, but the decidua ordinarily shed as *debris* with every menstrual epoch. 2. It is expelled as a whole and in masses, in consequence of an excess of fibrous tissue in the wall of the uterus; this excess is due to imperfect evolution at puberty, imperfect involution after parturition or abortion, or in the product of acute inflammation. 3. The membrane is neither the result of an ovarian congestion, nor of an hypertrophy of the ordinary decidua. 4. The chronic inflammation present is the result of the monthly expulsion of the decidua in masses from the uterus, and plays an accidental part only in the formation of the membrane; the inflam-

mation may, however, be independent of the expulsion of the membrane, but it has no causal relation to the formation of the latter. 5. Sterility is not necessarily associated with the affection, but is the result of the condition induced by the expulsion of the membrane in masses from the uterus, inflammation of the uterus and ovaries. 6. The membrane may be expelled without pain. 7. Inflammation of the uterus greatly aggravates the suffering caused by the passage of the membrane along the cervical canal. 8. Great relief may be obtained by curing the inflammation of the cervix, though the membrane continues to be expelled every month. 9. In order to effect a cure, the structure of the whole of the body of the uterus must be altered; the excess of fibrous tissue must be removed.—Dr. CLEVELAND said that these cases may place one in an awkward position from the presence of the sac. He had found morphia suppositories ease the pain.—Dr. BARNES attached great importance to our knowledge of the fact that the membrane is passed by virgins. We have no right to call anything the product of conception, unless traces of the ovum be found. There are three kinds: one the typical; others having a fibrillar character, without evidence of mucous membrane; others clots decolorised. It is borne out that it is due to excess of fibrous tissue in the uterine wall; this explains the difficulty of cure. Some are undoubtedly due to the contraction of the os externum; this explains the congestion and enlargement of the uterus and excess of fibrous tissue in its walls. There is a general condition of the system in almost all cases, nervous and vascular tension, and improvement may be obtained by making a free outlet for the menstrual blood.—Dr. FANCOURT BARNES, asked if, in making microscopic examination of these membranes, catarrhal products were found.—Dr. HAYES asked how it was so uncommon. If the pathology brought forward be the true one, membranous dysmenorrhœa ought to be very common. How could fibrous tissue influence the production of the decidua?—Dr. AVELING thought the condition was due to hyperæmia. The remedies for it were calomel and bromide of potassium.—Dr. HEYWOOD SMITH thought the affection rare. He thought that the decidua, being retained whole, became semi-organised, and then required greater effort to effect its expulsion. He had found application to the cavity of the uterus of carbolic acid and of solid caustic potash of service.—Dr. GALABIN agreed in the main with Dr. Williams's account of the pathology of membranous dysmenorrhœa, but the evidence was not conclusive as to his view of its causation. The evidence against hypertrophy of the decidua was not conclusive, and it had not been finally proved that the mucous membrane was entirely removed during menstruation. Dr. Leopold had described an uterus in the third day of menstruation, in which there was some thickness of mucous membrane; and Dr. Galabin had found a fair thickness of mucous membrane six days after the commencement and two days after the cessation of menstruation. He had constantly found shreds of membrane in the discharge during the first two days, and thought that many cases might partake of the character of membranous dysmenorrhœa, though not recognised as such.—Dr. JOHN WILLIAMS said that he regarded membranous dysmenorrhœa as a type of a very large number of cases of painful menstruation; but that they were not recognised as such because the menstrual discharge was not examined. In the great majority of cases of dysmenorrhœa in which he had an opportunity of examining the discharge, he had found shreds of the decidua. So far, he agreed with Dr. Galabin. On the other hand, he differed from Dr. Galabin with regard to Dr. Leopold's cases, and believed that the weight of evidence derived from recent research was to show that the decidua (not the mucous) was entirely removed during menstruation. Perhaps the strongest evidence in favour of this is that, while portions of the old decidua still remain attached to the surface of the uterus, a new decidua is seen developing immediately beneath it.

Deformed Cervix Uteri: Incurable Difficult Labour.—Dr. G. ROVER related a difficult case of labour in a primiparous woman, who, having been barren for thirteen years, became pregnant after a bilateral division of a deformed cervix uteri. Mrs. B., aged 36, married thirteen years, sterile, suffered from dysmenorrhœa. The vagina was very tender, contracted, and inflamed. A sound could not be introduced into the uterus. The cervix was divided bilaterally by Dr. Day, and she soon afterwards conceived. During labour, the head was obstructed, and the pelvis was found to be small. Incision was performed, but the head could not be extracted, and it became necessary to perform decapitation in order to accomplish delivery. In this case, there were: (1) a small deep pelvis of male type; (2) a sugar-loaf cervix; (3) a small narrow irritable vagina; (4) a defective perinæum. There were correlated congenital defects; these conditions seeming also correlated with certain physiological and moral conditions in the absence of sexual sympathy and jealousy.—Dr. BARNES said this was a very interesting case. The correlation of imperfectly developed vagina and uterus was common, but this had not been observed with regard to the pelvis.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

THURSDAY, APRIL 5TH, 1877.

HENRY KENNEDY, M.B., in the Chair.

Intrathoracic Tumour simulating Aneurism.—The a Journal discussion on Dr. Finny's case (see BRITISH MEDICAL JOURNAL, June 2nd, 1877, page 685) was resumed by Dr. MACSWINEY, who asked various questions, especially whether the pulsations of the heart and of the tumour were isochronous, and whether the site of maximal dulness of the tumour corresponded with the site of pulsation. He considered the red-currant jelly expectoration, which was present in Dr. Finny's patient, to be indicative of tumour as distinguished from aneurism. The double reduplication of the heart's sounds was very peculiar.—Dr. GRIMSHAW confirmed the opinions expressed as to the difficulties of diagnosis in the case in question, which he had looked upon as one of aneurism.—The CHAIRMAN had seen Dr. Finny's patient, and regarded the patient as not one of aneurism, because—1. The woman's pulse was very quick; 2. The pulsations were not in keeping with the size of the tumour; and 3. A very distinct "musical" soufflet existed at the spine of the left scapula. Was it possible for an affection of the thyroid gland to give rise to the symptoms observed in the case under discussion?—Dr. FINNY, in reply, said that from the first he was confirmed in the opinion that the case was not one of aneurism. He answered Dr. MacSwiney by saying that the pulsations of the tumour were systolic in time and isochronous with those of the heart. The impulses received by the tumour were only slightly perceptible, and were distensible.

Notes on Electro-Therapeutics.—Dr. WALTER G. SMITH detailed a case of generalised neuralgic and paralytic symptoms in a man aged 57, due to unsuspected lead-poisoning, the diagnosis of the true cause of the paralysis having been made by electricity. The patient was of robust build. In August 1876, the earliest symptoms of failing health developed themselves. At first, he felt his legs heavy, and experienced a drag in the hips when walking. About six weeks afterwards, he began to suffer from pain in both arms, from the shoulder to the elbow, as also between the shoulders, but had no pain lower down in the back. Meantime, the lower limbs were failing still more, and he found his duties very severe, for he had to open and shut heavy gates between thirty and forty times in a day. He was now admitted into a hospital, and remained for some weeks under medical care as a spinal case. The grounds upon which the primary diagnosis of saturnine poisoning was based were these:—1. A special implication of the extensors of the wrist and fingers, as shown by their loss of power, their atrophic condition, and their refusal to respond to faradisation; 2. These muscles retained some degree of excitability, although a diminished one, to an interrupted voltaic current; 3. The comparative exemption of the supinators; 4. The immunity enjoyed by the interossei and lumbricales. Three factors seemed to concur in the causation of paralysis from lead. 1. The specific toxic action of the metal which usually, for unknown reasons, limits itself to the muscles of the upper extremities, but not very frequently engages the lower extremities also, although it very rarely commences in them. 2. Pressure, as illustrated in the wasting of the thenar muscles, and of the first dorsal interosseous in painters, owing to the pressure of the brush. In the case above narrated, no palmar wasting occurred, because there was no local pressure. 3. Fatigue, from overuse of the muscles, as illustrated by the fact that, in a left-handed painter, the extensors of the left side will suffer most (Meyer); and that, in a humpbacked painter, whose lower extremities were weak, the paralysis especially attacked the muscles of the legs and feet. In the present case, the lead-poisoning had resulted from a habit of constantly chewing small bits of lead "instead of tobacco". This habit the patient contracted two or three years before the first symptoms of paralysis. Dr. Smith, at the conclusion of his paper, exhibited the new twenty-cell "Gaffe-Clamond" galvanic battery, and a "hand-commutator" capable of interrupting the current without changing its direction as well as commutating.—A brief discussion ensued, in which Drs. Finny, E. Reynolds, and W. G. Smith took part.

A Ready Method of Clinically Estimating Urea in Urine.—Dr. EMERSON REYNOLDS exhibited a new form of apparatus for the estimation of urea in urine by means of alkaline hypobromite. He said that, in his opinion, Liebig's method of estimating urea afforded the most accurate results when carefully carried out, but the process is troublesome, and, therefore, unsuited for rough clinical purposes. On the other hand, the hypobromite process (which is but an improved form of the hypochlorite treatment long ago proposed by Dr. Davy) is undoubtedly that which most rapidly affords the desired results, al-

though the latter have no pretensions to a high degree of accuracy. When strongly alkaline hypobromite of sodium is added to urine, pure nitrogen is evolved; this gas is almost wholly derived from the urea, which is known to yield up its nitrogen by this treatment, hence the volume of gas given off approximately measures the urea contained in the given specimen of urine. Various forms of apparatus have been proposed for collecting and measuring the nitrogen, notably those of Russell and West, Blackly, and more recently of Simpson and O'Keefe, but all these involve the use of specially graduated measuring and other vessels, which are both expensive and not easily obtained. The process which he (Dr. Reynolds) had arranged afforded the desired results very rapidly, while the only measuring apparatus required is a common two-drachm minim-measure, which every medical man is supposed to have, and the rest of the apparatus can be fitted up at a very small cost (about 1s. 8d.), with materials very easily procurable.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE WEST BROMWICH BOARD OF GUARDIANS.

It seems necessary to point out that the population of the district in the West Bromwich Union, of which Mr. Downes had medical charge, is considerably over that allowed by law. The legislature thinks that no man can do justice to a population larger than 15,000, and has plainly said so by passing an Act to that effect. Apparently, the Guardians of West Bromwich think differently; and this little difference of opinion we would recommend to the consideration of the Local Government Board, as a fit and proper case in which it might do something to enlighten the minds of these particular Guardians. Again: Can it be seriously expected that the pauper work of the Board of Guardians for West Bromwich, amid a population of 16,041 persons—just 1,041 larger than the number allowed in any medical district by law—can be done for £60 per annum? The salary for the work, with such a population as that, should be at least £250 per annum; the Board, in addition, finding all medicines and surgical appliances. And were the payment made on anything like a commercial basis, it would assuredly amount to far more. As it is, anything like £60 a year simply means that the Board's paupers are to be cared for at the expense of the medical man attending: a state of matters certainly not contemplated by Parliament, and one in which the best portion of our people do not concur. We advise medical men to consider the miserable terms offered by the contracting party on the other side, before they consent to accept the terms; and such consideration will lead them to refuse to undertake the onerous duties for such paltry remuneration.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL DEPARTMENT.

SIR.—Your able article in the JOURNAL of July 14th deserves the gratitude of the members of the Army Medical Department, inasmuch as it tells those who wonder what the officers of that department have to complain of, the grievance they labour under. Slowness of promotion, bad quarters, summary injustice meted to them in the shape of half-pay when, from the effects of service, they are unable to work and earn full pay, are as nought when compared with the want of consideration shown them by the heads of their own department. Speaking of Whitehall Yard, you say "the junior officer shuns its gloomy portals." If any number of senior executive officers of over twenty years' service were asked what aid or counsel they would expect from a visit to that mausoleum of dead hopes and ambition, they would reply, the greater our claim the less hope should we have of obtaining either right or indulgence. It is now a generally accepted belief, that every effort is made by those who rule to drive senior men from the service. With what success this work is carried out, can be proved by a reference to the *Gazettes* of the last six months; scarcely one will be found that does not record the fact of two, three, or more men of over twenty years' service retiring on half-pay. Upon those whose daily wants chain them to the service, the extra work devolves; and yet Mr. Hardy assures the House there are but twenty-three vacancies. Unification was strongly opposed by all the executive, because they knew full well it was desired by the administrators to enable them to exercise a greater control and power over the former, a regimental surgeon was protected by his commanding officer. Unification has become a fact, but that the department is united is a fiction. It is impossible that this wide-spread feeling of distrust between the executive and administrative branches, extending as it does throughout the former, should be without cause. The result of it is painfully apparent in men who work without zeal, hope, or ambition—bound to a service they would gladly leave, did not the leaving entail want on those dependent upon them. The appointment of a medical adjutant-general would be an insult to the department, and would publish to the world at large its incompetency to manage its own affairs; but the saving it from destruction is of more importance, and the end would justify the means.—I am, sir, yours obediently,
July 1877.

SIR.—In a leading article in the JOURNAL dated July 14th, you happen to have hit upon one of the very greatest causes of discontent in the Army Medical Department, especially amongst the junior officers. The utter want of consideration, the haughtiness, the red tape, and very often what in my opinion actually approaches to discourtesy, displayed to junior members of the profession by those at Whitehall Yard, who ought to be our supporters in difficulties and helps in our professional career—all these are simply proverbial. I appeal to any medical officer in the service, and ask him if he has ever experienced, by the War Office or Horse Guards staff, one-tenth of the lurking insolence displayed by the hall-porters at Whitehall, and abruptness and even incivility from the heads of our own department? Is not this enough to make us yearn to have a just and independent gentleman at the head of the department? After long thinking, and not without regret, I have come to the conclusion that medical officers will never receive justice or the consideration due to gentlemen until they have a man at the head of the department who is not a medical officer; and what man so fit as some major-general well and honestly chosen by H.R.H. the Commander-in-Chief? The reproach made to us by all right-thinking combatant officers is that it is our own fault; and often I have had it said to me: "Why, it is your own people, who not only do you all these injuries, but really seem to take a delight in it." How can I answer, when I know how much truth there is in the remark. I believe there are not far off one hundred vacancies in the department. How can Dr. Muir tell Mr. Hardy that the department is fit for active service, when we can barely meet the requirements of peace? Why does not Mr. Hardy find out for himself the actual state of the department for peace or war?—Your obedient servant,
July 16th, 1877. TRUTH.

SIR.—Whatever may be said against the unification of the Army Medical Department, its opponents must at least grant that certain important advantages have accrued to medical officers: among the chief of these may be cited early and certain promotion, equalisation of foreign service, and retirement of senior or administrative officers at sixty years of age. Due allowance should, however, be made for the feelings of a large body of officers whose connections with their corps are suddenly severed, and many, too, of whom are considerable losers in a pecuniary sense by the introduction of this new scheme. There are also few medical officers above ten years' service who do not retain pleasant recollections of happy times spent with their comrades and their old regiments.

Though the regimental like the purchase system has been abolished, probably never to be restored, still with some modifications and concessions the department may yet become satisfied, and even popular. To arrive at this result, two objects will require to be aimed at—1, to endeavour to satisfy the medical officers who are at present on full pay; 2, to attract candidates. To effect the first, there should be greater freedom of exchanges permitted. The medical officer should receive the same treatment as any other officer with regard to sick-leave. In a seniority service, promotion should be by seniority as a rule and by selection as an exception. Let there be a distinction in duties between seniors and juniors, which could be attained by having three grades among the executive medical officers, with duties pertaining to each. The department being considered staff, grant staff quarters always, or staff allowances. Restore forage-allowances to those medical officers who were entitled to it by Royal warrants prior to the one of April 1st, 1873. Permit retirement at twenty years' service on an increased pension, and hold out prospect of subsequent employment at a slightly increased salary in the auxiliary forces, or in medical charge of detachments, pensions, and in such appointments as are held by civilian practitioners; also in certain recruiting stations, dépôt brigades, etc. To gain the second object—i.e., to attract candidates—abolish the ten years' system. It has been tried sufficiently long, and will prove a greater failure every year. It will never attract candidates of a good class in sufficient numbers while the Indian Army and the Royal Navy offer the lengthened service system.—I am, sir, yours obediently,
DUBOIS.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 2nd, 1877.

Eastwood, Lewis, North Road, Darlington
Temple, Thomas Cameron, Doddington Grove, Kennington
Young, Alexander Stewart Ward, Chandos Villas, Clifton

The following gentlemen also on the same day passed their primary professional examination.

Alban, Evan, St. Bartholomew's Hospital
Blackburn, Herbert B., Guy's Hospital
Dykes, John Swindells, Queen's College, Birmingham
Farmer, Ernest W. W., University College
Nance, Henry Chester, St. Bartholomew's Hospital

UNIVERSITY OF EDINBURGH.—The following candidates received Degrees in Medicine and in Surgery on August 1st, 1877.

Doctor of Medicine. * indicates those candidates who obtained Prizes for their Dissertations; ** those deemed worthy of competing for the Dissertation Prizes; * those commended for their Dissertations. — * Andrew Balfour, Hong Kong, M.B. and C.M., 1873; Tumours. James Barbour, Scotland, M.B. and C.M., 1872; Catarrh, Pneumonia, and Pleurisy. ** Byron Bramwell, England, M.B. (with Second-Class Honours), 1869; Clinical Reports. John William Bramwell, England, M.B., 1873; Vivisection. * John Cameron, Scotland, M.B. and C.M., 1874; Dip-somania. Reginald Kennedy Casley, England, M.B. and C.M., 1874; The Aetiology and Treatment of Chronic Gastric Ulcers. * John Henry Clarke, England, M.B. and C.M., 1875; Syphilis in its relation to Pregnancy. James Craib (M.A. Aberd.), Scotland, M.B. and C.M., 1875; The Relation of Diphtheria to Croup. * Andrew Stark Currie, Scotland, M.B. (with Second-Class Honours), 1874; An Enquiry into the Modes of Death from various Anesthetics. * James Crompton Eames, England, M.B., 1875; Osteitis Deformans. William Fairbanks, England, M.B. and C.M., 1874; Nerve-Storms with special reference to Hysteria. William Garton, England, M.B. and C.M., 1875; Some Cases of Anæmia. * Robert James Gordon, M.B. and C.M., 1874; The Aetiology of Intermittent Ague, and its Treatment. * Y.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.

FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

CLUB PRACTICE.

SIR,—Now that the question of club remuneration has been raised, I trust that the matter will not be allowed to drop till some understanding has been reached. No one can deny that the present rate of payment is quite inadequate. Many of the working classes themselves perceive this, and either employ a medical man in the usual way, or else, if they have a "club-doctor", offer to pay him something extra in order that they may secure the attention they desire. Isolated attempts to raise the tariff will not avail. As long as clubs can obtain medical attendance at the present low rate, they will naturally do so. Let us be unanimous, and when friendly societies find that respectable members of the profession expect a higher remuneration, and only the "waifs and strays" will accept payment at the rate of 3s. per member yearly, they will probably consult their own real interests, and employ the former.

The tariff proposed by your correspondent Mr. W. J. Marsh is, on the whole, a good one. The exclusion of all members whose incomes exceed 30s. weekly is urgently needed, for in this respect there is gross abuse. If a man with an income of £2 or £3 a week choose to insure himself for a certain allowance during sickness, no one is injured thereby; but if the same man contract for medical attendance on the ordinary scale for clubs, he imposes upon the profession.

It is probable that the working classes would not be unreasonable in this matter. Within the past few years their wages have been—and rightly, too—considerably increased: why, then, should the "club-doctor's" salary remain stationary? If the question were brought before them and discussed in a friendly spirit, they could not fail to admit the justice of the doctor's claim to a higher scale of remuneration.

There is an association of Poor-law medical officers: why should there not be a similar combination amongst surgeons to friendly societies? I merely offer the suggestion, leaving it to more experienced surgeons to decide whether such a scheme be desirable or practicable.

Let every one who is interested in this matter do his best to bring about the reform so urgently needed, and there can be no doubt that our efforts will be crowned with success.—Yours, etc., LICENTIATE.
Handsworth, August 6th, 1877.

ANDROMEDAN INOUBLES.

SIR,—Can you give me any information respecting the following medical terms. 1. Diascordium; 2. Dysodonium; 3. Maiestalis plumbi? The first is an electuary of the *Pharmacopœia*, 1682, but I want its derivation. The third is intended, I suppose, for magistery of lead; but what particular preparation? I wish to know something of the history of Dr. Adamson, who lived in Carlisle, or near that town, one hundred years ago.—Yours faithfully, XYSYTER.

* * * Diascordium is said to be derived from *δια*, through, and *σκόρδιον*, the water-germander, one of its ingredients. We have no means of answering our correspondent's question regarding "dysodonium" and "maiestalis plumbi". Perhaps some of our Cumberland members will be able to give a reference to information respecting Dr. Adamson.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATERS IN JULY 1877. The following are the returns made by Dr. C. Meymott Tidy to the Society of Medical Officers of Health.

Names of Water Companies.	Total Solid Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen As Nitrates, &c	Ammonia.		Hardness. (Clarke's Scale.)	
				Saline.	Organic	Before Boiling	After Boiling.
<i>Thames Water Companies.</i>							
Grand Junction ..	17.00	0.052	0.120	0.001	0.007	11.0	2.8
West Middlesex ..	17.10	0.053	0.105	0.000	0.007	11.8	3.3
Southwark and Vauxhall	20.70	0.050	0.090	0.001	0.008	12.1	2.8
Chelsea	17.40	0.057	0.090	0.000	0.007	12.6	2.4
Lambeth	17.00	0.052	0.120	0.000	0.009	11.8	3.3
<i>Other Companies.</i>							
Kent	26.70	0.015	0.300	0.000	0.003	17.0	5.1
New River	16.40	0.019	0.120	0.000	0.006	12.1	3.3
East London	18.30	0.049	0.090	0.000	0.007	12.1	3.3

Note.—The amount of oxygen required to oxidise the organic matter, nitrates, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters, the quantity of organic matter is about eight times the amount of oxygen required by it. The water was found to be clear and nearly colourless in all cases but the following, when it was slightly turbid; namely, in that of the Grand Junction, West Middlesex, Southwark and Vauxhall, Chelsea, and the Lambeth Companies.

THE VIN DE BAUDON.

SIR,—My attention having been called to an advertisement of the Vin de Baudon, in which my name is mentioned in such a manner as to beget the idea that I had employed this compound, that to its employment I had ascribed the recovery of a patient from empyema, and that I recommended its use, perhaps you will kindly permit me to state, in answer to many communications on the subject, that the wine was prescribed by the resident medical officer of the London Hospital, that in my opinion its use exerted no favourable influence upon the patient's recovery, that I have never prescribed the preparation, that the garbled extracts from the reports of the case (neither written nor revised by me, used by the advertisers to promote the sale of their commodity) have been published without my knowledge, and that the continued use of the advertisement, as it now runs, is contrary to my judgment of what is right.—I have the honour to be, sir, your obedient servant,

ANDREW CLARK, M.D., Physician to the London Hospital.

August 4th, 1877.

DR. W. H. AXFORD'S letter has been handed to the General Secretary, to whom all business communications should be addressed.

VOMITING CONNECTED WITH DYSMENORRŒA.

The following are abstracts of replies to the question of M.R.C.S. in the JOURNAL of July 28th.

DR. J. E. RANKING of Tunbridge Wells has had under notice for the past two years a case of true membranous dysmenorrhœa, in which urgent vomiting is a constant attendant upon the period. The patient has never been married, and the mœmina, as will be readily imagined, are of no mean intensity. The cause of the vomiting appears to him to be twofold—(1) intensity of pain; (2) sympathetic nervous disturbance. Although these cases most frequently complicate each other, one or other can often be determined to be in the ascendant. For the pain, nothing equals the hypodermic injection of morphia. His other measures are—1, complete rest in the supine position in bed; and 2, as much rest of stomach as possible, either withholding food altogether, or giving very small quantities of very simple nourishment, such as milk and soda-water, Brand's essence of beef, champagne, with or without ice. He has frequently seen more solid food passed at stool, or vomited even twelve hours after ingestion, absolutely unchanged. As regards medicines, whenever the sickness is not controlled by the means mentioned above, and efferevessing draughts with prussic acid, he uses the following prescription, which as yet has never failed. ℞ Liquoris bismuthi et ammoniac citratis ʒj; acidii hydrocyanici diluti ℥iv; liquoris morphiæ acetatis ℥v; spiritus chloroformis ℥x; aquæ q.s. ad ʒij. This is taken every hour, until the vomiting ceases. Quantity, whether of food or medicine, is of primary importance. Success, to be permanent, must be based on removal of the physical cause of the dysmenorrhœa.

DR. JAMES MURPHY (Sunderland) suggests that M.R.C.S. Eng. make a thorough examination of the uterus to discover the cause of the dysmenorrhœa and to remove it, when the vomiting will cease if it depend upon uterine derangement. The symptoms point to obstructive dysmenorrhœa; but without an examination it is impossible to be certain: possibly the patient is a multipara, suffering from chronic cervical endometritis. Should this be the case, he recommends free scarification of the cervix once a week, and the passing of a bougie every third or fourth day through the entire length of the cervical canal, using a larger size each time.

DR. STOWERS should, we think, bring the subject before the Metropolitan Counties Branch of the British Medical Association, of which the gentleman in question is, we believe, a member.

BITES AND STINGS OF INSECTS.

SIR,—If it be not generally known that the irritation caused by the bites and stings of many insects may be almost immediately allayed by the application of the oil of lavender, a refresher in your JOURNAL may be useful.—Your obedient servant, August 13/77. W. H. TAYLER, M.D.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

MR. HARDY.

SIR.—Altogether had been made the system of three years' service in India. That was rendered necessary by the exigencies of climate, and the Indian Government would not take any one for an administrative department who had not served three years there. If an officer had not complied with this rule, he had brought this bar upon himself, and was sent out to fill up the number of months or years to make up his term. It was no doubt a War Office rule, but it was rendered necessary by the rule of the Indian Government. So spake Mr. Hardy, if the *Times* report be correct, before the House of Commons on Monday, the 2nd June. Mr. Hardy also alluded to the acts "worthy of a great profession". How the "exigencies of climate" render three years' service in India necessary for promotion there or elsewhere, Mr. Hardy does not explain. What Mr. Hardy means by "the Indian Government would not take anyone for an administrative department", Mr. Hardy must also explain, because, as far as I know, there are no special administrative departments in India or at home; and if he mean "anyone for an administrative position in India who had not complied with the Indian rule", Mr. Hardy has been misinformed from 6, Whitehall Yard, because not only have Sir William Muir and several others administered in India without compliance with this rule, but there are administrative officers there now who have failed in this respect.

It would have been only fair for Mr. Hardy to make himself acquainted with facts before he stated before the world "that if an officer had not complied with this rule he had brought the bar upon himself". Mr. Hardy knows that no officer could "bring the bar upon himself", who, even after thirty years' service, had never heard of such a rule as "three years' Indian service being a *sine qua non* for promotion"; and, even if he had, could not have ordered himself to that country. Mr. Hardy knows that no such rule has been officially promulgated, and that officers only heard of this illegal exercise of an unpublished rule when it was impossible for them to qualify by going to India, because they would have been superannuated by the fifty-five years' clause before the three years in India could have been completed. Mr. Hardy says the rule is, "no doubt, a War Office rule", but he does not mention the number of the clause or circular in which it has been issued by War Office authority. What are the conditions of this War Office rule? Are they identical with the Indian rules? If so, the War Office rule has been violated since it was made—in fact, Mr. Hardy knows, or ought to know, that the department to this day does not know what the rule is.—Yours obediently,
FIDES.

INFECTIOUS DISORDERS.

SIR,—I want to have it made clear to me (and I do not see how I can have it better done than through your columns) as to who is to pay in cases of removal of persons suffering from infectious disorders. I will briefly give two cases occurring in one house in my own practice.

A. B., master of a large boarding-school of boys, has a servant taken ill with scarlatina. Immediate removal is, of course, necessary. This is done in a closed cart belonging to the parish authorities, in shape exactly like the one in the celebrated picture known to our childhood as "Bring out your dead" during the London plague. The servant is detained five weeks in the infectious diseases' hospital, and the master is mulcted in the modest sum of £5: 17: 6—I presume, 17s. 6d. hire for the antediluvian cart, and £1 a week for food and medical attendance. Ten months afterwards, a second case, this time a boy, turns up in the same house. The master is, of course, desirous to get rid of a centre of infection at once. The sanitary officer is not in the way; but the workhouse authorities, after pressure, lend the ancient cart. The boy is now removed to lodgings about one hundred and fifty yards from the school. An old nurse who has nothing else to do has charge of the boy, and the lodging-house keeper has no other lodgers. She is now told by the sanitary authority that, for taking in a patient knowing him to be infectious, she is liable to a penalty of £20. The schoolmaster, for having got rid of a centre of infection from a number of healthy boys, also has the same pleasant assurance. Now, what I want to know is, what I am to do in the future. I shall certainly never consult our sanitary authorities again, for two reasons. If I consult them, I run the risk of being fined £20 (or my friends do) for not carrying out precautions, the data of which we cannot from them procure, and, if carried out, would apparently (if the boy were not to be moved) spread the disease at a fearful rate; and, secondly, for ordinary pockets the cost of nearly £6 for an attack of scarlatina (so mild as to be doubtful) in a servant is far too heavy. Surely, if the law does not provide conveyance and suitable disinfectants at an extremely small cost, for all the efforts of private individuals and their medical advisers must be directed entirely in the direction of evasion of the law.—I am, sir, your obedient servant,
4, Portland Square, Plymouth, July 15th, 1877. WM. SQUARE, F.R.C.S.

THE ANTI-HIPPOCRATIC AXIOM.

WITH reference to a recent occurrence, it may be interesting to notice that Goethe places in the motto to the first part of the *Diogenes and Hippocrates*, "Ὁ μὴ δαρεῖς ἄνθρωπος οὐ παιδεύεται", which may be summarised as "Unwhipt, untaught", and is commended to the attention of school-boards for use in the same manner as the Hippocratic axiom by the London College of Physicians.

Benvenuto Cellini (Goethe's trans., chap. 1) says: "When I was in about my fifth year, my father was in a cellar of our house, where washing had been carried on, and where a good fire of oak charcoal had been left: he had a fiddle in his hand, and sang and played round the fire, for it was very cold. By chance, he discovered in the strongest glow a little animal, like a lizard, that was enjoying itself in this strong flame. He observed immediately what it was, and had me and my sister called, showed the animal to us children, and gave me a sound box of the ears. As on this I began to set up a loud bellowing, he sought in the most friendly manner to appease me, and said: My son, I did not strike you because you had done anything wrong, but only that you may remember the lizard that you see in the fire. It is a salamander, which, so far as I know, has not been seen by any one before. On this, he kissed me and gave me some penny." This was a recognised mode of impressing a fact or circumstance on the memory in those times.

PROFESSIONAL VIEWS.

SIR,—Would you kindly inform me whether a British qualification entitles the holder to practise in Canada or the United States without further examination or registration there?—I remain, sir, yours, etc.,
INQUIRENS.

* As a general rule, we believe, further registration is required in Canada; but the extent to which British qualifications are recognised varies in the different provinces.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

VOLUNTEER SURGEONS.

SIR,—Presuming "A Volunteer Surgeon" has mastered Aitken's *Medicine* and Erichsen's *Surgery* before becoming a busy practitioner, I should advise him to study Parkes's *Hygiene*, Professor Longmore on the *Transport of the Sick and Wounded* and the *Manual of Instructions for the Officers and Men of the Army Hospital Corps*, also the *Army Medical Regulations*.

In answer to the question addressed by another "Volunteer Surgeon", it is not necessary for the surgeon of a battalion of volunteers to reside at head-quarters. I know several administrative battalions the surgeons of which do not live in the towns in which the head-quarters are located.—Your obedient servant,
August 5th, 1877. P. P. S.

SIR,—I passed the examination for volunteer surgeons last September, and I found the books most useful to me were Surgeon-Major Porter's *Pocket-Book* and Parkes's *Hygiene*. The questions asked were about ambulances, and the transport of sick and wounded, gunshot-wounds, formation of camps, and the sanitary arrangements necessary for them. Water and its impurities, which will be found to be fully treated upon in Dr. Parkes's book, chap. 1, were also entered upon. It is not necessary for the battalion-surgeon to reside at head-quarters.—Yours truly,
August 1877. W. EASBY, M.D.

ERRATUM.—In the list of candidates who passed the primary examination at the Royal College of Surgeons on July 17th, for William Berthwaite, read William Outhwaite.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; etc.

* We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Sir Michael Hicks Beach, London; Mr. W. D. Husband, York; Dr. George Johnson, London; Dr. Bucknill, London; Mr. Nelson Hardy, London; Dr. Sibley, London; Dr. Braidwood, Birkenhead; Dr. Morris, Spalding; Dr. Alfred Swaine Taylor, London; Dr. Arthur Watson, Manchester; Mr. W. Downes, Birmingham; Mr. A. E. Wilmot, Escrick; Master in Surgery; Mr. John Francker, Langport; W.; Dr. Andrew Clark, London; Dr. W. H. Axford, Southsea; Delta; Dr. W. W. Cheyne, Edinburgh; Dr. Sieveking, London; Dr. E. H. Jacob, Leeds; The Secretary of Apothecaries' Hall; Dr. Wolfe, Glasgow; M.D.; Mr. Vacher, Birkenhead; Dr. Foster, Birmingham; Dr. De Chaumont, Netley; Mr. Lund, Manchester; Dr. W. Roberts, Manchester; Dr. W. Williams, Liverpool; The Registrar-General of England; Dr. F. T. Roberts, London; P. Q.; Dr. Tayler, Anerley; Dr. George Bland, Macclesfield; Mr. Arthur Jackson, Sheffield; Dr. Rabagliati, Bradford; Dr. Carpenter, London; Dr. Stowers, London; Dr. Wilkinson, Manchester; The Registrar-General of Ireland; Dr. Bell Taylor, London; Dr. Warner, London; Dr. Stephenson, Aberdeen; Mr. Eastes, London; Dr. Tilt, London; Dr. J. W. Moore, Dublin; Dr. Edis, London; An Associate; Dr. Joseph Rogers, London; Mr. H. C. Burdett, Greenwich; Dr. A. P. Stewart, London; Dr. Joseph Bell, Edinburgh; Dr. W. O. Priestley, London; Mr. T. Spencer Wells, London; Mr. Lowndes, Liverpool; Dr. Mahomed, London; Dr. Bradbury, Cambridge; Dr. Daly, London; Our Dublin Correspondent; Mr. W. Holder, Hull; Dr. J. W. N. Mackay, Elgin; Mr. T. G. Vawdrey, Handsworth; Mr. R. Edmunds, Wrexham; Dr. J. T. Gobat, Ruabon; Mr. C. W. Chubb, Devonport; Dr. Robert Smith, Heckfield; Dr. H. J. Hardwicke, Sheffield; Mr. C. Hunter, Ben Rhydding; Dr. W. Easby, March; M.D. Edin.; Dr. Rhys Williams, London; Dr. J. F. Horne, Barnsley; An Old Member; Our Edinburgh Correspondent; Dr. Denton, Steeple Claydon; Dr. S. McBean, Newcastle-upon-Tyne; Dr. W. Roe, Dublin; Our Paris Correspondent; Dr. Collie, Homerton; Mr. E. Turner, London; Mr. C. H. Cornish, Taunton; Dr. Robert Farquharson, London; Dr. J. P. Cassells, Glasgow; Mr. W. P. Brown, Macclesfield; Sir John Rose Cormack, Paris; Mr. Teevan, London; etc.

BOOKS, etc., RECEIVED.

The Care and Cure of the Insane; being the reports of the *Lancet* Commission on Lunatic Asylums for 1875-6-7. Two Vols. By J. Mortimer Granville. London: Hardwicke and Bogue.

Guy's Hospital Reports. Edited by H. G. Howse, M.S., and F. Taylor, M.D. Third series, vol. xxii. London: J. and A. Churchill. 1877.

Diseases of Women. By Lawson Tait, F.R.C.S. Ed. London: Williams and Norwood. 1877.

St. George's Hospital Reports. Edited by W. H. Dickinson, M.D., and T. Holmes, F.R.C.S. Vol. viii, 1874-6. London: J. and A. Churchill. 1877.

Headaches: their Nature, Causes, and Treatment. By W. H. Day, M.D. London: J. and A. Churchill. 1877.

The Retrospect of Medicine, being a Half-Yearly Journal. By W. Braithwaite, M.D., and James Braithwaite, M.D. Vol. lxxv, January to June, 1877. London: Simpkin, Marshall, and Co. 1877.

Carlsbad and its Natural Healing Agents, from the Physiological and Therapeutical Points of View. By J. Kraus, M.D. London: Trübner and Co. 1877.

Pathology of the Pnuegmastric Nerve. By S. O. Habershon, M.D., F.R.C.P. London: J. and A. Churchill. 1877.

ADDRESS IN OBSTETRIC MEDICINE,

DELIVERED AT

THE FORTY-FIFTH ANNUAL MEETING OF THE
BRITISH MEDICAL ASSOCIATION,

Held in MANCHESTER, August 7th, 8th, 9th, and 10th, 1877.

BY

ROBERT BARNES, M.D., F.R.C.P.,

Obstetric Physician and Lecturer on Midwifery and Diseases of
Women at St. George's Hospital; etc.THE SCIENTIFIC AND POLITICAL POSITION OF
OBSTETRICS.

MR. PRESIDENT AND GENTLEMEN,—The more favoured sisters Medicine and Surgery having presented their Addresses, Cinderella, in the guise of Obstetrics, takes her turn.

The President of the Obstetric Section has said fitly and gracefully that there was something specially becoming in giving an Address on Obstetrics here in Manchester, the spring whence so much obstetric knowledge has flowed. Manchester in return, I hope, will not frown on obstetrics as Jupiter tonans et pluvius frowned upon her elder sister on Wednesday. I could not hope to charm, notwithstanding, as she did. But I have misgivings that I am now suffering the just penalty for my rashness in accepting the task proposed to me by the Council to give the Address on Obstetrics to an audience so peculiarly qualified to criticise, as they ought to do, any short measure of justice to a subject which is so much their own. It is very easy for the Council to select a victim from its flock, and bid him be eloquent, profound, and instructive for their entertainment. But the victim looks upon the matter in another light. To him it may be torture; a process of mental vivisection which ought to fall under the ban of that mediæval Act which our collective wisdom and humanity enacted a year ago when in a hurry to get away to their shooting. I have heard men express gratitude for honours like this conferred upon me. No such sentiment glows in me. The feeling that possesses me is of an opposite character. I mean to indulge it. The personal grievance will find relief in telling some things which, I fear, will not be universally acceptable. But you have given me your ears for an hour; and courtesy, if not duty or inclination, will compel you to listen.

In selecting me for this address, it is to be presumed that the Council wished to give an opportunity of putting the case of the obstetric branch of medicine in a conspicuous manner before this representative assembly. Some who have preceded me in this task have chosen to make a retrospective survey of the scientific work done in the department, recording its gains, and pointing the road to future achievements. Others less expansive have sought to illustrate some particular subject. I will not attempt to emulate either, unwilling to excite comparisons little flattering to myself. My theme will be the scientific and political relations of obstetrics to medical science and the organisation of the profession. The theme is ambitious enough. I cannot hope to do it justice; but I may succeed in awakening attention to some points scientific and political, which it may be to the interest of us all to consider.

In these days, there is a rapidly growing tendency to split up the study and practice of the healing art into sections. This tendency is in great measure forced upon us by the prejudices of the public, our employers, who, out of excessive veneration, I suppose, for that incontestable maxim of the father of medicine, "Art is long, and life is short", will not believe that life is long enough for any man to acquire a competent "all-round" skill in medicine. I am afraid it is hopeless to struggle against this tendency. It is not unsupported by facts and reason. But it entails obvious and serious drawbacks. Against these it is our duty to guard. Medical science naturally takes its form, its direction, its laws, from the great centres of civilised life. In these centres are brought together the means and the great inducements for the cultivation of medicine by theoretical study, by practice, and by teaching. And the social, commercial, and political supremacy of these centres is as naturally asserted in the diffusion of medical law. Now, it is in these centres, the seats of scientific culture, that this process of splitting-up exerts itself with irresistible force. In the periphery of our human system, the necessities of the detached communities com-

pel to the concentrated application of knowledge. Here a man will only be credited with knowing one thing. In the outskirts of the world, a man must treat as best he may all the ills that flesh is heir to. It is very possible that we, who stand at the centre, and therefore flatter ourselves at the head, whence science flows over the globe, might receive our own knowledge returned to us fructified a hundredfold under conditions beyond our range; knowledge that would extend, correct, it may be rebuke, our own. But it is unfortunate that the very conditions which compel our distant brethren to cultivate all departments of medicine alike also too frequently prevent them from moulding their experience into forms, from deducing principles and laws which can be sent home to us. Hence, an enormous waste of absolute knowledge, and of suggestion for critical comparison and correction. Hence, the increasing adoration and tyranny of the *idola fori*, that is, of our own central authority; and the perpetuation of a state of things which is tending more and more to the study of medicine in disjointed bits, to the neglect of those grander lights which can only be caught by a well-balanced study of all in their mutual relations. There cannot be a doubt that this fragmentary study opposes and retards those generalisations which are the natural outcome of extensive and varied observations; and which, by revealing the dominion of universal laws, are the highest expression, the culminating triumphs of science. So long as medicine shall be studied in fragments, and not as a whole, so long must we be content to grope in the dark, happy to catch a glimpse here and there of a law working in the narrow field of our observation, never to realise the truth that the little bit of law we see dimly is but a particular application of a law ruling all the functions of life. Thus, what we see bit by bit, by accidental flashes of intuition, will almost necessarily keep us floundering in a turbid sea of contradictions. So various, so unequal are the powers of men for observation, for reflection, and especially for questioning nature by experiment, that, when any one attempts to bring together into one focus the experience of other men who have been examining one subject—say our particular subject, physiology, and its outcome pathology, from different aspects—he is sure to be perplexed by endless diversities of opinion. And yet we are confident that these diversities of opinion are not diversities of fact. There is no faith in the world of law, of politics, or of theology so clear, so firm, as the faith of the student of nature in the harmony, the unity of nature's laws. We do not believe that the operation of these laws can be for a moment suspended—that they are ever in conflict. The opposite belief, the most degrading form of superstition, the most arrogant form of scepticism, which attributes to the Almighty Power the fickleness of the negro fetish, is not ours. Whenever we, observing nature, see, or think we see, facts or processes that cannot be reconciled, we conclude humbly that either our observation or our reasoning is at fault. Thus, we are driven to renew and extend our observations. And, ever guided and sustained by abiding faith, we possess a sure touchstone of truth.

But how, you will ask, am I justified in dwelling on these general and trite reflections? Simply because, however universally their abstract truth is recognised, in practice they are too much neglected. Is medicine studied as a whole? The entire course of education and practice, at least in this country, declares that it is not. I therefore proceed to the strict discussion of my theme. I proceed to show, by a few imperfect but striking illustrations, how medical science and humanity suffer by our neglect.

It will be admitted that the true foundation of all medicine lies in the study of physiology. It will also be admitted that the study of physiology cannot be thoroughly pursued without the aid of experiments. We must observe Nature not only in her ordinary moods; we must question her workings under conditions devised by science. It may be said with truth that the whole study of medicine is but a part of the study of physiology. All disease is the reaction of the living economy under the influence of conditions accidentally applied. These accidental conditions are in reality experiments. If we could watch and take accurate note of all the actions and reactions of the economy under these accidental experiments, many pathological problems that continue to baffle our speculations would be solved; we should certainly detect in many cases the links that are now missing in the chain of evidence. We should thus seize the clue to the institution of special experiments, crucial and luciferous. There is great hope already in this direction in the study of the specific or zymotic fevers; and syphilis has been studied with considerable success in this way. But in a vast number of instances, embracing those which follow upon or which induce chronic organic or structural alterations, the factors concurring to the results we see are often so manifold, so intricate, so complicated, so protracted in their operation, as to defy continuous or complete observation and analysis. Their origin is seen dimly through the mist of time; their progress is traced doubtfully through the myth

of history. Now, it is precisely in many of these diseases that woman presents the pathological factors in the simplest form, under conditions of time that admit of the most complete and satisfactory observation. Pregnancy taking place in a healthy woman may be regarded as an experiment performed under the most simple conditions, from which the complications that disturb and thwart observation of disease in man are eliminated. Starting with a young and healthy woman, we are enabled in the first place to witness a series of the most interesting and instructive physiological phenomena. Body and soul are changed. The nervous system, cerebral, spinal, ganglionic, suddenly develops new forces. The natural, quick, sensitive, mobile nerve-action of woman is rapidly exalted. Concurrently with this new nervous force, the vascular system undergoes a remarkable development of growth and tension. The blood is no longer the same in constitution or in volume. The machinery which has to distribute the altered blood acquires new force. These changes in the blood, in the circulatory apparatus, in the nervous system, occur so closely together in time, that it is a matter of reasoning rather than of observation to determine which takes precedence. It is difficult to understand how the constitution of the blood can be suddenly affected. The passage from its ordinary state to that in which we find diminution of red corpuscles, increase of the white corpuscles, increase of the fibrine and water, must surely take a little time. It is probably the result of certain processes of nutrition going on in the uterus. But the nervous commotion is almost instant; it is at once manifested in the increased mobility of the emotional and diastaltic functions. The subject is at once more responsive to external impressions, physical and moral. The frog itself will not furnish to the experimental physiologist more striking evidence of the play of the diastaltic function than the pregnant woman, not alone during the almost purely diastaltic action of labour, but often throughout the course of pregnancy. One of the most remarkable phenomena, where all are remarkable, is, however, the sudden direction of newly developed nerve-force to one particular region—the uterus. At least, whether we detect growth of nerve there or not, we must perforce assume that nerve-force goes thither in increased supply, to direct and maintain the increased supply of blood, to furnish the materials of growth of the uterus and the embryo. This new regional vascular development and concentration of nutritive activity asserts its predominance over the whole organism, for elsewhere muscle and fat and other tissue commonly waste. Although the most active building work is going on in the uterus, the rest of the organism is affected. It is probably as a consequence of the great local constructive work that the blood undergoes its modifications, and that the heart and vessels generally are changed in structure. The work going on in the uterus, calling for more and more blood, induces greater vascular activity, greater driving force; and, wherever this is exerted, the driving organ must increase in force—that is, in bulk. It is also more than probable that the altered quality and quantity of the blood exert a special influence upon the dynamics of the circulation. These new conditions involve augmented vascular tension: a condition that is now expressed and measured by the sphygmograph.

Now I must crave indulgence whilst I glance at some associated phenomena that keep within the range of physiology. Often from the moment after impregnation, the exalted nerve-tension is manifested in the increased play of the diastaltic function. The legs are liable to sudden uncontrollable twitches; vomiting, the old familiar symptom, sets in. Under no other states do we ever see such proofs of the intimate interdependence and play of the cerebral, spinal, and ganglionic systems. The emotional exaltation acts upon the diastaltic system, and these together upon the ganglionic or vaso-motor. The proclivity to convulsion is singularly increased. Concurrently with this augmented nerve and vascular tension, there arises increased strain upon, and therefore increased development of, the entire glandular system. This change may be assumed to start from the new development of the lymphatic vessels in the uterine vascular region. Once started, every gland in the body feels the impulse, and assumes unknown activity. The breasts grow under a special impulse analogous to that which moves the uterus; they form a secondary centre of vascular activity. But all the other glands are called upon to act in a subsidiary manner. The respiration is increased; more carbon is exhaled; the skin is more active, throws off more water; the liver and kidneys, the intestinal glands, do more work. The waste materials resulting from the active building process going on in the uterus, added to the ordinary waste from the general economy, demand more active emunctories; and the reply to this demand is seen in the work and products of the glandular system. The glands are doing double duty. The first duty—the discharge of used-up matter—is obvious enough. But there is another hardly less important, although less commonly

recognised; it is the regulating action upon the nervous and vascular system, for which the safety-valve and the governor of the steam-engine offer the readiest illustration. The ordinary degree of vomiting, we know, is attended by relief. Two phenomena especially are observed. There is the nervous explosion, a kind of passing storm, in which I see the characteristics of convulsion. This is a mode of discharge of excess of nerve-force—of reducing tension. Then there is the secretion, the discharge of a quantity of fluid from the glands of the stomach. This gives relief to the vascular system, reducing vascular tension. Applying this reasoning to other phenomena, we shall observe numerous illustrations. The excessive secretion of liquor amnii; the frequent copious discharges of water from the uterus; the occasional attacks of diarrhoea; the not unfrequent hæmorrhages from the mucous membranes, as of the lungs, the intestinal canal, the kidneys and bladder even,—tell the same tale of discharges designed to relieve excessive vascular tension. If, as is most commonly the case, the overstrained circulating apparatus give way in the uterus, abortion may result; and we may, I am convinced, regard abortion in many cases as a conservative process, averting greater perils. As in the case of vomiting, so in abortion, we see a natural means for the relief of vascular tension and the moderation of nervous tension, which, unless so relieved, might issue in cerebral apoplexy or some other catastrophe.

But the dangers at hand are not always cataclysmic. Other modes in which high vascular tension evinces its influence are manifested more slowly and gradually, yet sometimes swiftly. Such are seen in the behaviour of the glands. The thyroid gland sometimes enlarges notably, and a more or less marked degree of exophthalmos attends. The breasts sometimes pass from engorgement into inflammation and suppuration. But the most important effect is manifested in the kidney. This organ has to bear the strain of two influences, both acting in unaccustomed measure. There is the dynamic hydraulic pressure; there is the irritation of the ingredients brought to it for secretion. Under this double trial, the discriminating faculty of the kidney is apt to be impaired. It lets through albumen; it throws back urea and uric acid upon the circulation. And if this trial be long continued, structural changes are induced in the kidney, and probably in other organs, notably the liver, and in the whole circulating apparatus. The passing of the boundary of physiology is made; the precipitance into pathology is almost sudden. Still, the kidney, the heart, and the blood-vessels may recover their pristine integrity; all may be as sound as before, if we take off the arterial tension, if we lessen the irritating qualities of the blood in time. Here we touch upon one of the most interesting and agitating problems in medicine, now being contested by some of the most able physicians of the day: What are the factors, the essential conditions of Bright's disease? Is the starting-point and the main seal of disease in the kidney? Is it found in the central, or peripheral, arterial, and venous or capillary vessels? Or is it to be sought in the blood? One of the most striking features of pregnancy is the general peripheral development of the vascular system; there is a fulness, a lingering of blood in the capillary vessels, and a development of the veins which amounts to phlebectasis, which in many cases is never wholly recovered from. This condition is often so marked that it constitutes one of the best tests in the diagnosis of early pregnancy.

I feel very confident that the careful study of the reactions of the kidney and the general vascular system, the nervous system and the blood, under the dominion of pregnancy, will go far to solve the mystery. Whatever the solution offered, it must be in harmony with this history. It must be consistent with the fact that albuminuria may be transitory, last for a time without any organic alteration of structure, and disappear, leaving no trace behind. A distinct experiment has been instituted and carried through, as if on purpose to illustrate the causes and conditions of albuminuria. I will not in this place do more than refer to the eclampsia, so often associated with albuminuria in pregnant women. I have dwelt upon the subject with some detail in my Lumleian Lectures, on the Convulsive Diseases of Women. Under no other circumstances, can we see the phenomena of convulsion so clearly through origin, progress, and decline—through every phase of its history. We start with a healthy subject. Pregnancy is induced. Under the consequent exaltation of nerve and vascular tension, the proclivity to convulsions, we have seen, grows; the twitchings of the limbs, the vomiting, the increased mobility of the cerebral centres, are indications of the exaggerated disposition to convulsions. Then there comes a *tertium quid*, which seems to be necessary to produce the outbreak of convulsion. This is found in the blood, which, carrying elements that ought to be excreted by the kidney or other emunctories, to the nervous centres, by some mode of irritation excite the convulsion. We may trace a similar process in the albuminuria and convulsion that sometimes complicate scarlatina, and in other forms of acute

albuminuria. But nowhere except in pregnant women can we observe all the stages of a pathological struggle so closely and completely, from the moment of departure from health to complete recovery.

Illustrations of the history of other forms of convulsions are numerous and instructive. Chorea, for example, must be studied through its relation to menstruation and pregnancy. In the great majority of cases of chorea in children which come under the physician, the convulsive disorder yields after a time. The return to health, *quoad* the liability to convulsion at least, seems complete. And so it is, unless we test the soundness of the recovery by pregnancy. Apply this test, and back comes the chorea, and that with an intensity unknown before, even issuing in insanity or death. Here, then, we see new illustrations of the fundamental conditions of exalted nerves and vascular tension belonging to pregnancy; we see how pregnancy becomes a test of physical soundness; we see that the study of chorea, if limited to the observation of ordinary cases, would lead to false conclusions; we discover that, even after apparent recovery, there must linger in the nervous centres some latent infirmity that, but for pregnancy, would have remained unsuspected, but perhaps important in its future influence under any conditions of the subject, but which is revived with unmistakable force under the trial of pregnancy. A like remarkable illustration is furnished by ague. The pertinacity of this disease is well known. We are accustomed to see marks of its abiding influence long after the fits have ceased, long after the patient has lost all consciousness of suffering. But here, as in the case of chorea, I have seen ague-fits reproduced years after under the condition of pregnancy. We cannot fail, then, here to see that there lingers somewhere in the system some change, the stamp of the original disease; and we may fairly presume that this change is in the nervous centres. Perhaps the precise organic change may long baffle the skill of the microscopic analyst to detect; but there it is proved by anticipation to exist, as real a thing as the planet discovered by Adams and Leverrier before it was seen by mortal eye through the telescope.

This chapter in the history of chorea and ague leads, by natural process of reasoning, to the relation of pregnancy to hereditary or transmitted disease. I cannot do more than glance at syphilis, that terrible scourge that works with the more disastrous effects because it works unseen through generations. It is obvious that, if we would pick up many of the links in the often broken chain of the history of this disease, which has nevertheless been working continuously, silently producing pathological states of the most varied and diverse nature, we must not omit that most important epoch of its history: its relation to pregnancy. Nor can I do more than glance at the history of insanity. The appearance of insanity under the trial of pregnancy is a familiar fact. It is also established as a general fact, by obstetrical operations, that, in a considerable proportion of cases, there is a transmitted diathesis working through one or more generations. If we take into account, not alone overt insanity in ancestors, but other pathological manifestations, as chorea, other neuroses, tuberculosis, syphilis, we shall attain to a far more general and accurate law. We shall discover, by the observation of the reactions of the nervous system under the trial of pregnancy, new evidence of the transmission and perpetuation, it may be, of morbid peculiarities of structure of nutrition, which, under the ordinary conditions of life, would remain latent, undreamed of.

Reverting for a moment to the glandular system, let me call attention to the fact, that that most striking form of jaundice associated with acute yellow atrophy of the liver must be investigated through pregnancy, since it is under pregnancy that the greater number of cases occur. I think it more than probable that the light to be thrown upon this disease, and other forms of jaundice, will strengthen the theory that a chief factor must be sought in the disturbed action of the nervous system, aided by pre-existing or induced alterations in the blood. The influence of emotions upon glandular action is familiar; but it is during pregnancy, when the nervous system is in a peculiarly exaggerated state of excitation, that we may witness the most striking illustrations of this influence, and found conclusions which observations detached from the history of pregnancy would not justify.

I might here refer to glycosuria. Physiologists have long investigated this condition almost solely by aid of experiments upon animals, but here in pregnant women we often have experiments instituted under conditions, equally, if not more, deserving consideration. Many women exhibit the phenomenon of sugar in the urine at every pregnancy; it disappears when the pregnancy is over. The subject calls for examination in connection with the function of the breasts as well as with the functions of the liver and kidney; and especially the action of the nervous system must be borne in mind.

I might, did time permit, dwell upon some of the conditions of the skin during pregnancy. I can only suggest the importance of observing

these conditions in connection with the fundamental nervous, vascular, and blood-changes. I cannot doubt that by this study we shall one day unravel the mystery of pigmentation, and who shall tell, when this mystery shall be unravelled, what light will not be thrown upon other problems in physiology and pathology? There are few phenomena so marvellous as the darkening of the skin in particular regions of the body under the influence of pregnancy. May it be associated in any way with changes in the suprarenal gland, and thus be a phase in the history of Addison's disease? That it is in some way dependent upon nerve-distribution and tension, I have seen unmistakable evidence.

Before leaving this topic, and sparing you many reflections connected with it, I cannot help referring to the light that the study of obstetrics throws upon thrombosis and embolism. It is not too much to say that pregnancy furnishes the most frequent and the most uncomplicated illustrations of this blood-change. Any speculation, any theory, of this process must embrace, and be in harmony with, the examples we see in pregnancy. It is well known that phlegmasia dolens most commonly occurs after labour, and other forms of thrombosis and embolia are equally rare during pregnancy. But cases do occur. Why, we naturally ask, does the blood show such special disposition to clot in the vessels quickly after labour? Observation suggests a solution. The predisposition is that found in the increase of fibrine and other changes in the constitution of the blood. The fibrine is precipitable; something is wanted to precipitate it, and that something is at hand. It is found in the products of involution of the uterus, of decomposition of blood in the uterine sinuses, in short, in some form of septic matter which, entering the lymphatics and veins, precipitates the fibrine. The suddenness with which the phenomena are developed points to this direct chemical action. Now, during pregnancy this source of septic invasion can rarely exist. Hence, although the blood is eminently coagulable, for want of the coagulating factor, it preserves its fluidity. And the exceptions, I suspect, are more apparent than real. Thus in one case which I have recently seen in St. George's Hospital, of a young woman four months pregnant, in whom phlegmasia dolens of the legs supervened, I found that the embryo was dead, and that a process of separation of the ovum had set in. But there is another coagulating power apart from septicæmia, that is found in nervous action, in the influence of emotion. This influence is nowhere so remarkably shown as in pregnancy. I have seen violent emotion followed almost instantly by thrombosis in the iliac and femoral arteries, issuing in gangrene.

Here we approach the wide subject of septicæmia, puerperal fever, and we might trace endless instructive relations between these states and the various blood-poisonings with which surgeons are familiar at the bedside, although their intimate history is still imperfectly known. This history will always remain obscure until studied by the aid of obstetric observation; for labour is still the grandest of all surgical operations. Why do I weary you with these speculations? I do it to point my theme. I do it because they are practically neglected. Search our medical literature; you will hardly find, even in our special obstetric works, evidence of due appreciation of them in their togetherness; and in our standard works on general pathology, there is barely a hint, a suspicion of the place they challenge in the science of medicine. Medicine and surgery are studied far too specially, in isolated parts. We hear sometimes of "pure" physicians and "pure" surgeons; and I presume, by implication, that other practitioners are "impure". But if it be shown, as I think I have at least partly done, that a philosophical comprehensive science of medicine or surgery cannot be built up without an earnest study of obstetrics, then it will appear that the word "pure" must change its accepted significance. Is it unfair to suggest, if only under the justification of retort, that a "pure physician" is one who is purely ignorant of much that is essential to the right intelligence of his subject? We hear a good deal about specialists. Shall I venture upon a definition of the specialist? The specialist in medicine is one who, limiting his attention to one or more detached parts of his art, specially neglects other parts which are essential to the making of the true physician. Tried by this test, who is the specialist? Is it the obstetric practitioner, who embraces within his range of study all the knowledge he can collect from every source? Is it not rather the pure physician or pure surgeon, who carefully shuns all knowledge of obstetrics, and shuts his eyes to the light which this study can throw upon the subjects he more especially professes to understand?

I may fairly sum up the scientific head of my theme with this proposition: *As pregnancy is the best example of the interrelation of all the vital functions, and as it is the only condition in which the weakness of pathological processes*

Upon this basis let me pass to the political corollary. If the

scientific study of obstetrics has been neglected, it will not seem strange that the position of those who practise obstetrics should be ambiguous and unsatisfactory. Men in authority can hardly be expected to recognise merits of which they are ignorant. There is a College of Physicians and a College of Surgeons; there is no College of Obstetricists. I do not think it desirable that there should be. But this is no reason for being left out in the cold. It is to the interest of the medical corporations no less than of the community that obstetric medicine should be fairly represented. Men who professedly, almost boastfully, disclaim all knowledge of obstetrics can hardly be the best fitted to define the limits of obstetric education, to decide upon the amount of knowledge or the degree of ignorance upon which candidates for diplomas may be permitted to practise. Nor is it reasonable to expect that such men will, in these matters, command the confidence of the profession or of the public. Obstetric practitioners stand between medicine and surgery, embracing both. But, strangely enough, it is the College of Physicians alone that gives them an honourable place.

In the College of Surgeons, the spirit of Sir Anthony Carlisle still seems to rule. Sir Anthony said that the midwifery of the country might be undertaken by the wives of the general practitioners. The councils of the College during this time were making surgeons who went forth over the world authorised to practise every branch of medicine and surgery, and of whose knowledge or ignorance of medicine and obstetric surgery they took no heed. Young men under the authority of the College assumed the responsibility of unlimited professional skill on the most limited professional knowledge. The councils trusted, if they thought the matter worthy of attention, that their members had, by bringing certificates of having attended a few months' hospital practice, a few lectures, and a few cases, given sufficient evidence of competency in medicine and surgery. But they might have known, as every teacher and examiner knows too well, that a large proportion of candidates endowed with "practical minds" get up what "pays" at the examining boards, and no more. What the examiners neglected as superfluous, candidates would hardly take the trouble to acquire. Few things, in my experience as an examiner, have given me more pain than to be called upon to examine men older than myself, who had been many years settled in practice, holding honourable positions, some distinguished surgeons in the army, of good repute, enjoying public and professional esteem. That such men should, at an advanced period of their career, be suddenly called upon to prove their fitness to do what they had long been engaged in doing; that such men should, at the busiest and most anxious periods of their lives, be suddenly challenged, be compelled to stake reputation, all they had achieved, on the hazard of an examination,—is surely a cruel wrong, and a just reproach to our political constitution. It seems impossible to fix the responsibility for this wrong elsewhere than upon the College of Surgeons. The University of London, from the beginning, made obstetrics an integral and equal part of the examinations for its degrees. So does the College of Physicians in the case of its licence. Both these bodies are continually holding before the College of Surgeons a practical example of what is right and feasible. And the College of Physicians is doing the further public service of correcting, to a certain extent, the evil wrought by the College of Surgeons. Men who have for years been practising on the diploma of the College of Surgeons are constantly presenting themselves at the College of Physicians, anxious to undergo the perils of a new examination. To this they are driven by the pressure of public opinion, by the suggestions, more or less disinterested, of rival practitioners, by the disqualification for certain public appointments, and by their own sense of duty, which all concur in declaring that their surgical diploma is an imperfect guarantee of fitness to practise, an inadequate claim to public confidence.

Herein lies the new strength of the College of Physicians, the explanation why, within a few years, it has made more than eleven hundred licentiates; why the number of candidates is steadily increasing.

Why, in the face of all this evidence of the evil they are working, does the College of Surgeons still persist in a course condemned alike by professional and public opinion? The College contends, I believe, that its mission is to supply surgeons; and that it is for other bodies to make physicians. The plea is plausible, but vitiated by fatal fallacies. If the argument I have set forth be sound, it is impossible to make a good surgeon without training him in medicine and obstetrics. And granting that the College diploma guarantees competent skill in surgery, the Council very well knows that this diploma, being registered, confers legal right to practise in all departments; that is, far beyond the actual and moral scope of the diploma.

And even at the present day things have not much mended. A few

years ago, the Council of the College of Surgeons, under a by-law, appointed two examiners in medicine. They chose two physicians of conspicuous merit—men able and anxious to give due prominence to medicine, and to improve the standard of the diploma. But I do not think those physicians will affirm that the powers entrusted to them were sufficient to ensure a satisfactory degree of proficiency in medical knowledge. It was better than nothing; but it was very little.

But, having recognised the truth that a little medicine was a desirable accomplishment for the surgeon, why did it not, at the same time, occur to the College that a little obstetric knowledge might be useful? The same power which enabled them to appoint examiners in medicine would enable them to attach examiners in obstetrics, and to make obstetrics an integral part of the examination for the member's diploma. But, with stupendous inconsistency, they stopped short in a course of reform which, fairly carried out, would have redeemed the College from the reproach it must continue to bear, that it licenses men to practise all departments of medicine whilst it tests proficiency only in part.

The answer to this, of course, is, that the College had instituted a special separate board of examiners in obstetrics, to which members of the College and others might, if they pleased, go to supplement their imperfect diplomas by a special licence. Now, the institution of this board, useful as its design was, suggests some reflections. Why was it necessary to create it? Why should a College of Surgeons, a College which is never tired of telling the world that its function is to make surgeons proper, create a special board of examiners in obstetrics? Well, was it a confession of laches on their part, a means of repairing the fault of omission of which they had been guilty by issuing licences to practise beyond the scope of their ordinary diplomas? It undoubtedly enabled many men who had gone into practice on the surgical diploma to come back and supplement this diploma by a special obstetric licence. If this were a right thing to do, right to correct the original defect in the surgical diploma, why should they all the time go on perpetuating this original error? Would it not have been a far more simple and effectual plan to enable those members of the College who had gone into practice with the imperfect diploma to come up for this supplementary obstetric licence, and to make obstetrics an integral part, like medicine, of the general examination for the member's diploma? Why go on repeating *ad infinitum* the error which made the special obstetric licence necessary? Why inflict upon their members the cruelty of compelling them to submit to a new examination many years perhaps after they had been established in practice? For cruelty it undoubtedly is; well, but the College is waiting, waiting for the realisation of a scheme—the Conjoint Scheme. Suspended on this doubtful scheme, it still, acknowledging the right, continues to do the wrong. It still grants its imperfect diplomas; it still licenses to practise what it ignores; it still inflicts a double injury upon the public and upon its members. And in this pernicious action it stands alone. Why should it not, whilst waiting for the accomplishment of the Conjoint Scheme, reciprocate the action of the College of Physicians? This body will not issue its licence except to candidates who shall either have passed the examiners in surgery who form part of its own board, or who shall have produced the diploma of the College of Surgeons, or other satisfactory evidence of possessing surgical knowledge. Why should not the College of Surgeons, in like manner, call for the licence of the sister College as evidence of competent knowledge in medicine and obstetrics, and thus put an end to a gross professional scandal? If the College of Surgeons will not do this, there is another alternative. Let the diploma which it grants to members state plainly in terms the fact that it guarantees no knowledge of anything but a modicum of surgery; that it is only a fragmentary diploma.

The College of Surgeons will not escape from the dilemma; it will not do its duty by the revival of the lame expedient of a separate board of examiners in obstetrics. The time has gone by for bit-by-bit qualifications. The surgical fragment cannot be adequately supplemented by an obstetric fragment. Nor will the College be permitted to issue the obstetric fragment alone. Common sense has been outraged by this proposition. The voice of the profession has unmistakably condemned it.

Accustomed to the fragmentary study and practice of medicine, it is not altogether surprising that, in accordance with its traditions, it should treat obstetrics as it had long treated surgery; that is, as a distinct limb capable of being disjointed from the general body of medicine. All this muddle and confusion into which the College has drifted spring from this fundamental error. The political blunder is the natural fruit of the scientific error. It is only in this way that we can understand the strange perversity which led the Council of the College of Surgeons to attempt to create a new order of medical

beings, male and female, specially licensed to practise midwifery and to treat the diseases of women. Those who could thus declare that a little bit of medical knowledge was good enough for women, that is, good enough for medical women to possess, and good enough for the women who would be their patients, might be expected to do almost anything; but they certainly touched the climax of *naivete* when they called upon men who taught and represented obstetric science to be the instruments of their own degradation—of this wrong to woman-kind.

The pertinacious attack waged upon the University of London calls for an observation. The attempt to turn Russell Gurney's Act into a weapon of offence is well known. The rashness of lawyers, by education and training generally innocent of science, and too often by instinct the enemies of science, of pedagogues and their fledgelings, of antivivisectionists, the advocates of the rights of women, of the opponents of the Contagious Diseases Acts, of homœopaths, mesmerists, *et hoc genus omne*, may be understood, if not forgiven; but that this restless band of crotchet-mongers should be supported, in this mischievous attack upon the constitution of the University of London, by members of the Council of the College of Surgeons appointed to seats in the Senate by the Crown, is what the medical graduates naturally resent. It is a fundamental principle of the University that its medical degrees imply full and equal knowledge in all departments, in this respect differing entirely from the fragmentary diplomas of the College of Surgeons. It was a grievous wrong to import this worn-out tradition of the College into the University. The University was founded, it may be said, for the express purpose of protesting, by example and precept, against the imperfect schemes of education and qualification which had hitherto ruled in the schools and corporate bodies. In any way to recede from this principle is to attack the very spirit and life of the University. The governing principle is unity of standard, and that the highest. Medicine is one, all parts concurring to form a perfect whole. We have no place for specialism. We recognise no detached qualifications or degrees in medicine. We repudiate utterly the proposition that there is one standard which it is necessary to attain to qualify for the treatment of the diseases of men; and another, a lower, standard to qualify for the treatment of diseases of women. The new doctrine, that there is a special, an inferior, kind of medical knowledge that is good enough to apply to the care of women, is the most transcendent of all medical heresies, the most flagrant wrong, the grossest insult, ever inflicted on woman. And all this under the plea of doing justice to woman! Do the rights of women consist in giving way to the clamour of a score of strong-minded persons, in arming them with the legal right to exercise skill which *ex necessitate rei* must be of low order, upon womankind in general? Have the mass of women no right? Is it not their dearest right to be protected by man? Even against their own sex?

I am not going to discuss the vexed question of the relative intellectual powers of man and woman, and the dependent question of the absolute fitness of women for the various professions. I will not question that the feminine intellect is equal to the duties of the pulpit or the bar. *Crede experto*. There are lawyers and parsons who declare that it is. But as to medicine, the discussion is superfluous. It is conceded, even by the most strenuous medical advocates for medical women, that the attainments of women must be inferior. It is admitted that there are things that men cannot teach women. Justly or unjustly, the present order of things forbids the possibility of opening equal means of professional instruction to men and women. And so long will this continue as men and women retain the physical and mental attributes which have distinguished the sexes from the time of the Creation.

Accordingly, in the College of Surgeons, it was proposed to make a special medical order of persons to be put on the *Register*, after a reduced or diluted examination *ad hoc*, to be licenced to practise on women. Accordingly, the female-party in the University contemplate modifying the curriculum and examination for women-candidates. Now, is not this to give up the whole argument? If we recognise the great principles that medicine is one and indivisible; that our physiology, our pathology, rule alike over the organisation of men, women, and children, then it follows inexorably that the attempt to split up medicine into parts, one of which can be safely practised by women upon women, is doomed to failure.

The College of Surgeons is actually without examiners in obstetrics, either as forming a supplementary board or as an integral part of the general board; and it appears, from the report of its late President, that it is now considering what measures to adopt in relation to this question. "At an extraordinary meeting, it was resolved that the Council of the College of Surgeons, regarding women as not eligible to become members or fellows of the College, is therefore not prepared to

admit them to be examined for these qualifications, whether at the examinations as now conducted or with the proposed machinery of joint-examinations. But it was also resolved, that the Council, if legally authorised, would be willing to take part in special joint arrangements under which women should be able to acquire the registrable titles for practice; and the Council authorised the President and Vice-President to take such steps as they may find expedient, in order to promote the amendment of the law which may be necessary for this purpose. The President and Vice-Presidents are now engaged in the consideration of the best mode of giving effect to the decisions of the Council in this matter."

There this matter stands. Let us hope that the College, by the voice of its fellows and members, may be able to ratify the decision at which its Council shall arrive.

I am tempted to cite the most recent illustration of the mistaken spirit that governs some of our professional bodies. The Council of the Pathological Society of London has issued a circular to its members, announcing that an investigation has been undertaken by the Society relating to the nature, causes, and prevention of the infectious diseases known as pyæmia, septicæmia, purulent infection, and puerperal fever. The inquiry has been entrusted to a committee, consisting, first, of four members of the Society specially qualified to engage in the necessary anatomical and chemical investigations; secondly, of a number of surgeons and physicians representing the hospitals of the metropolis, who have undertaken to co-operate with the first body in organising and carrying out the inquiry. Now, in this work of wide-reaching inquiry, it has not been thought necessary to associate a single member who practises or who has any practical acquaintance with obstetrics. Here is an inquiry into the nature and causes of puerperal fever, without the aid of those who almost exclusively see it, study it, and treat it! To play Hamlet, omitting Hamlet, is nothing to this! Those who drew up this scheme must believe in the spontaneous generation of knowledge; in *Lucina sine cubitu*.

Now, I think it is time, more than time, to sum up my political argument, and conclude a discourse undertaken under severe pressure, and therefore loaded with more faults than might otherwise have been expected. The political error which mars the usefulness of some of our medical institutions flows from the scientific fault: a want of due appreciation of the place which obstetric science and practice should hold.

I am sure that, in Manchester at least, that art will be vindicated by which White, Hull, Kinder Wood, Robertson, and Radford, have added lustre to their city, splendour in Arts, in Politics, in Literature, and in Science which governs all.

WANDSWORTH.—This large district, which comprises 11,695 acres, is divided, for sanitary purposes, into six subdistricts, to each of which a medical officer of health has been appointed. The population was estimated at 148,695 in the middle of 1875. The total births were 5,529, and the deaths 3,096; so that there was an excess of 2,433 births above the deaths, and a death-rate of 20.87 per 1,000 persons. The ratio of deaths to population varies considerably, as, after excluding deaths of non-parishioners, it was 1 in 42 in Battersea, 1 in 64 in Wandsworth, 1 in 55 in Clapham, 1 in 65 in Streatham, and 1 in 64 in Putney. The proportion of deaths from epidemic diseases to the population of each subdistrict differed very much in 1875, as it was as high as 4.61 per 1,000 in Battersea, against 1.87 in Putney and 1.53 in Streatham. The infant mortality is very unfavourable, which we should not have expected in such a district, as it was as high as 43.6 per cent. of all deaths. The percentage to population is not given; indeed, there is a remarkable paucity of percentages for the district as a whole. The following, amongst others, are mentioned as being "wants" for the district: a hot-air apparatus for disinfecting clothing; well-provided mortuaries in the subdistricts which are without them; better scavenging and cleansing of streets, roads, and places. Dr. Nicholas, of Wandsworth Subdistrict, refers to the necessity for the cause of death being ascertained by a medical practitioner in all cases of sudden death, and also to proceedings against the owner of a large piggery and a fat-boiling business; and Mr. Kempster objects to the establishment of an immense slaughter-house near the Shaftesbury Estate. Mr. Oakman gives an account of an outbreak of scarlet fever in West Battersea which caused forty-eight deaths, against an average of four for the preceding three years. He also alludes to a great nuisance caused by the alum and ammonia works. As regards Clapham, there was no epidemic of any kind. The table of deaths for the whole district gives the number of deaths in the different classes of the population, which shows an immense preponderance of deaths amongst the industrial and labouring classes. The table of sanitary work indicates a fair amount of activity amongst the inspectors.

AN ADDRESS

PRESENT POSITION OF STATE MEDICINE
IN ENGLAND.

Delivered at the Suite of the British Medical Association at Owens College, Manchester, on Tuesday, August 7th, 1877.

By ARTHUR RANSOME, M.D.,
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THE history of a science seldom flows onwards like a stately river, in a steady even course of uninterrupted progress. There are usually successive steps in knowledge, each taking its starting point from some great generalisation, or from some discovery that opens up new fields of research, fresh regions for further inquiry. Within the bounds of these "induction-periods", as they have been termed by Dr. Whewell, there are epochs of comparative quiescence, times even of depression, in which knowledge may be lost, and may have to be rediscovered; or at best, times in which men are simply engaged in building the details of the science up to the framework already raised by some preceding "master mind". Then come signs of the approach of some further great generalisation—preludes to further discovery—and at length another wave of knowledge breaks upon the world.

The history of State Medicine presents no exception to this course of events—though unhappily the quiescent periods have often been wearily long—and the truths that have been lost sight of and that have needed fresh discovery are unusually numerous. On many points our knowledge is only now again abreast with that possessed ages ago by the Jews, and by the ancient people of Assyria and Egypt, and our practice in many respects still falls lamentably behind that of the Romans and the Greeks. In England the course of preventive medicine shows many long stagnant periods, and not a few heavy penalties for the neglect of hygienic laws that had long before been discovered. Each great step forward is, however, usually marked by the disappearance of some disease that had previously weighed heavily upon the nation; and thus we may note either some unconscious advance of the people in hygienic practice, or the recognition by the State of the possibility of preventing some cause of disease. In the disappearance from our shores of such diseases as leprosy, the "sweating sickness", the great plagues, and other epidemics of the middle ages, we probably see evidence of the reformation of national social habits in matters of clothing and cleanliness, and other modes of life. In the decadence of others, such as ague, typhoid fever, and cholera, the improvement has coincided with improved drainage and better water-supply; but in the amelioration of these diseases, as well as in the banishment of such fearful complaints as the jail distemper and scurvy, we may mark the direct outcome of legislative interference. The deplorable outbreak of the last-named disease in the Arctic Expedition of 1875 was simply an instance of the slowness with which truths well recognised by our profession filter down into non-medical minds.

When we look around us to learn the present position of sanitary reform, it might at the first glance appear as if we were now advancing on the top of the wave of progress. The importance of the national health has been fully recognised by the Legislature. Two ministries have attempted to deal thoroughly with the subject, and though we may have had recalled to us more than once, in reference to it the sad utterance of Solomon, "Vanity of vanities, all is vanity", still there can be no doubt that the attention of the people has been aroused; sanitary boards and officers of health have been elected in all districts, and the education of the country in sanitary knowledge is fairly begun.

But, notwithstanding these encouraging marks of progress, it would be unwise to omit to notice certain indications in a contrary direction. These may be, and probably are, merely the reflux to the wave, the backward ebb that accompanies even the incoming tide; but, just as in all governments, there is an "opposition" more or less active, and ready to take advantage, and to make capital out of any mistakes in the administration, so it may be now in sanitary matters. At best there may be misunderstanding of the teaching of scientific men, and this may lead to battle—battle in the palpable interests of the pocket, as against questionable future gain in the direction of health. In many parts of the country, doubtless, local boards are to be found taking full advantage of the counsel of well instructed medical officers, whose capacity and zeal are tempered with discretion; but in others there are

coteries too often led by self-interested persons, who, under the specious cry of extravagance, render ineffective all sanitary measures. Worse still, for truth should be told, we have heard of attempts to reduce medical officers to ignominious and disgraceful silence, by intimations that on this condition alone shall they be permitted to retain their salaries.

There have been of late also certain utterances by men high in authority in the sanitary and scientific world, which, though they may provoke a smile, should on an occasion such as this be treated seriously. More than one of the presidential addresses recently delivered have contained ominous references to so-called Malthusian theories, and the humorous opinion of Montaigne has been seriously adopted, that "it is of little use to attempt to abridge the course of evils—whoso attempts to shorten them by force, only lengthens and multiplies them, and irritates in place of appeasing them". Quetelet's doctrine also finds favour that, "if by dint of care, the art of healing attains to the closing of some few of the hundred gates that lead to death, others do not delay to open wider still".* Then, also, we are referred to the "much-belied Malthus", as he is called, and we are told, *à propos* of our present fearful rate of infant mortality, that if it were not for this, "the increase of the population would be prodigious, for it is the means whereby the annual excess of births over deaths is kept down to the reasonable proportion of 12.8 per 1,000 of the population" (Dr. Letheby), and we are reminded even at the present rate of increase that, by the rule of geometrical progression, "at the end of another generation the population of England will become 42,000,000; at the end of the second, 74,000,000; at the end of the third, 130,000,000; at the end of the fourth, 230,000,000; at the end of the fifth, 400,000,000", and so on,† heaping Ossa upon Pelion, until, "at the end of the twentieth generation, there would be more than fifteen such worlds would contain, each as densely populated as our globe is at present". (Presidential Address of T. Hawksley, C.E., delivered before the Health Section of the National Association for the Promotion of Social Science.)

It can hardly be supposed that there has been any conscious intention of bringing these opinions to a practical issue, or of pushing them to their logical conclusions. No man is likely to propose the euthanasia of even sickly infants, or to suggest that we shall return to the ways of our forefathers in the matters of drainage, scavenging, or water supply; but, seeing the high standing and influential character of the men who have put them forth, there is good reason to fear that they may increase the natural apathy of men's minds towards these questions, and that they will materially impede the progress of practical sanitary reform. More than once have I been asked by intelligent men whether we are not doing more harm than good by our sanitary work. Now, in the first place, never was man more belied than Malthus is by his new found friends. He never, like them, proposed to rest satisfied with a high rate of mortality—nor to look calmly on while this modern massacre of innocents was taking place—for he says, "a decrease of mortality at all ages is what we ought chiefly to aim at". "It is undoubtedly our duty, and in every point of view highly desirable to make towns and manufacturing employments as little injurious as possible to the duration of human life"—and, again, a large infantile mortality is most wasteful to a state, as "a large part of its produce would be distributed without return to children who would never reach manhood". "A young person saved from death is more likely to contribute to the creation of resources than another birth. It is a great loss of labour and food to begin over again". It is very clear, therefore, that the sentiments to which I have just taken exception, have no right to claim the authority of Malthus to give them currency. It is almost amusing to notice the perplexities into which men fall when they give themselves up to theories of population. Malthus himself never attempted to prove the chief propositions upon which his theory is based, and the experience of this country has amply proved that the power of getting food may exceed manifold the growth of the population. Again, all the preventive checks named by him, except the prudential check, must inevitably lead to a grievous deterioration of race. The checks that he never really sanctioned, but with which our friends are apparently afraid to interfere, pestilences, unwholesome trades, misery, and vice, all these necessarily lower the standard of life, and endanger the future well-being of the nation. The prudential check to population would

* In a recent sanitary report of an eminent health-officer, we have the following paraphrase of the above passage:—"Although we have in a measure stopped ravages of some diseases, still, in order to bring up the death-rate to what may be called its *normal percentage*, other diseases must have and have increased in a like ratio." P. C. Moynest Tilly, *Report on the Sanitary Condition of London, 1875*, p. 9.

† "I believe that time will," says Dr. Letheby, "the sanitarians who struggle to bring about this condition, would be considered dangerous enemies to the public weal."

of course be a splendid invention, if it could itself be prudently regulated, or if individual judgment could be trusted. It is still a question how far restrictions upon marriage can be imposed by the State without harm; but, if the matter be left to individuals, as Galton has shown, only the improvident will breed, and the race will infallibly become of a lower type.

Sadler's theory of population, again, brought out as a counterblast to Malthus, was shown by Macaulay to be destitute of all foundation; and Doubleday's theory, though more may be said in its favour, turns out when examined to be even more alarming than that of Malthus. Doubleday shows, in accordance with our every day gardening experience, that "whenever a species or genus is endangered, a corresponding effort is invariably made by Nature for its preservation and continuance, by an increase of fecundity or fertility, and this especially takes place whenever such danger arises from diminution of proper nourishment or food". But in his anxiety to controvert Malthus, Doubleday has been unable to see that, under certain very probable contingencies, his supposed law intensifies the danger of over-population. Mankind, according to him, is in a position of unstable equilibrium; let it once reach a certain degree of starvation and misery, and it will then propagate at a frightful rate, and will soon fill the world with hungry and therefore prolific beings. Our only safety from such a fate would thenceforward lie in universal aldermanic feeding, in public kitchens for turtle-soup, or else in a timely recourse to cannibalism.

The remedy for over-population apparently in favour with modern sanitarians, is, however, the worst of all, for, if we may judge from the addresses I have quoted, it would chiefly consist in giving full swing to the causes of disease. I cannot understand for what purpose the spectre of over-population has been paraded before an audience of Medical Officers of Health or a Social Science Congress, if the inference were not intended to be drawn that we must not be over-active in our sanitary measures. Nay, by some it is boldly affirmed. "Medical science", says Mr. Greg, "is mitigating suffering, and achieving some success in its warfare against disease; but at the same time it enables the diseased to live. It reduces the aggregate mortality by sanitary improvements and precautions; but those whom it saves from dying prematurely, it preserves to propagate dismal and imperfect lives". It appears to have been forgotten that most of the evils that we deplore in our town populations, the diseases and feebleness of constitution from which they suffer, are the direct outcome of the unhealthy circumstances in which they live. If the conditions of existence in towns remain as they now are—if the fever nests, the breeding places of scrofula and consumption, the temptations to intemperance and vice, are left unchecked to do their malignant work, then indeed we may certainly look for deterioration of race. But sanitarians will not be responsible for the result.

Without in any way undervaluing the importance of the subject of overcrowding, yet, as a medical man, I protest energetically against its being brought forward as it has been in these discourses. It is only too certain that we shall, from time to time, have to deal with the results of overcrowding, and to do our best to diminish infant mortality; but I submit that the control of the growth of the population is in no way our concern, as guardians of the public health. It will be the first duty of statesmen to consider how best to deal with the augmenting masses of people collected together in our towns, to favour movements of the population, to promote emigration, to remove restrictions on trades, and to give no encouragement to improvident marriages by an injudicious system of poor-law relief—but these are simply our duty as citizens, not as medical men; and even if it were desirable we can see plainly enough that no efforts of ours will avail to check the natural expansion of the nation. The increase of the population in geometrical progression has, as Dr. Farr has shown, nothing "fatal or inexorable" about it. At any time it may become a decrease in geometrical progression in certain groups of the population. "Old families outlive not three oaks", says Sir Thomas Browne; heiresses are notoriously unprolific; whole races of men, who enjoyed all the comforts and luxuries of life, have ceased to be—"the high Athenian breed has decayed and disappeared", and "a surprising number of the ablest men have left no descendants". (Galton, *Hereditary Genius*, pp. 343-346.) The average growth of the nation is in truth brought about simply by a preponderance of the fertile over the infertile marriages, and thus may be compared to many natural operations, whose course depends upon the opposing influences of favourable or adverse conditions. At any time, by the action of the latter, it may be checked or altogether hindered. Hard times, bad harvests, and many other circumstances are well known to affect the marriage and the birth-rate, but there are probably others that have yet to be discovered. The direct influence of food and drink, the counteracting effects of intellectual and moral culture, the pressure of civilisation upon the inferior types of mankind,

these all in their way affect the rate of increase, and I think we may safely leave the issue in the hands of Providence, and say with Montaigne, "Laissez faire un peu à la Nature, elle entend mieux ses affaires que nous".

But there is another count in the indictment against sanitary science, somewhat contradictory to the first, perhaps, but this does not prevent its being used. Having pointed out the dangers of over-population and of extending the average term of human life, our critics next proceed to taunt sanitary science with its powerlessness in this regard. The death-rate of England has notoriously been nearly stationary (at about 22 per 1,000 during the past thirty or forty years), and because it has not varied, therefore they say it is invariable, and, by way of enlisting in their favour the powerful genius of the pocket, they point out the uselessness of vast expenditure of public money upon sanitary works. "Sanitary science, as at present applied", says Mr. Hawksley, "although in other ways of infinite benefit to the community, is not capable of materially extending the limits of life which Nature has in her wisdom prescribed. Our municipal debts, principally incurred on this head, now amount to nearly one hundred millions of pounds sterling, and are fast increasing...without any remarkable effect having been produced in or towards the prolongation of life."*

There is undoubtedly something very seductive in the sight of an uniform series of figures. Even hasty conclusions based upon them smack somewhat of the authority of inductive science. It is not surprising, then, that men should begin to think that the persistently heavy death-toll of the nation was their fate, not to be avoided by any efforts of theirs, and accordingly we come upon such phrases as the "normal death-rate" and "the limits of life which Nature has in her wisdom prescribed." But we hardly need to be warned that sometimes statistics are "like the sieve of the Danaides, beautifully reticulated, orderly to look upon, but which will hold no conclusion." (Carlyle, *Past and Present*, p. 7.) In this case, assuredly, the supposed induction utterly fails, and I affirm positively that there is no natural law that causes nearly half the children born to die before they are five years of age, as in Liverpool; nor that limits the average duration of life, as in Manchester, to twenty-nine years. It would be as correct to speak of drunkenness as the "normal condition" of mankind, or of a "reasonable proportion" of murderous assaults, or of the atrocities in Bulgaria as having been benignly ordered by the wisdom of Providence. By a parity of reasoning, it would have been equally just for the former master of the Rotunda Lying-in Hospital, in Dublin (from 1758 to 1785), to have affirmed that the "natural" mortality of infants within the first fortnight was one in every six born alive, and yet improved ventilation alone reduced the rate to one in every 104.

A similar acquiescence in the laws of fate might have led us to regard the mortality in the army before the Crimean war as the "normal death-rate" of men who had been chosen for their health and strength; and yet, year after year, these men died at twice the rate of the unhealthiest populations of English towns. Happily, this view was not taken by the Royal Commission which considered the subject in the year 1854.

The regular rise of small-pox every five or six years, as shown by the mortality from this cause in Sweden, might have been regarded as inevitable before the introduction of vaccination; and yet, by means of Jenner's great discovery, how completely it has been avoided in this country since the year 1810. If any proof of the efficacy of sanitary measures were really needed, it would in truth be afforded by an inspection of that very "stationary" death-rate that is now regarded as an opprobrium to the science of public health; and we may say further that, so far from encouraging a tendency to "rest and be thankful", it should urge us to make more strenuous efforts lest worse things come upon us. A very brief survey of Dr. Farr's most valuable supplement to the Registrar-General's return shows that the death-rate of England is by no means uniformly stationary from decade to decade. It is the nature of most steady averages that they are made up of a sufficient number of varying figures to give constant results, and accordingly we find that this apparently uniform formula contains both increasing and diminishing figures—returns, 1st, from a large number of places in which the death-rate is diminishing, and, 2nd, I am sorry to say, from a still larger number in which it is stationary or increasing.

Now, with regard to the first series of districts in which there has been a palpable diminution of the death-rate, we are at once struck

*Address by Thomas Hawksley, V.C., p. 14.

Another is that it is assumed that the sanitary schemes which have been supported by the Government, are either of very questionable utility, or have been carried out by local authorities in a very negligent and inefficient manner, while the enormous expenditure which they have involved is being a matter for very serious consideration. Mr. Baxendell, *Proc. Lit. and Phil. Soc.*, vol. xvi, p. 70.

with the fact that, in nearly every case, important sanitary works have for a number of years been steadily carried on in them; that in many cases the improvement in the health of the places immediately followed the introduction of improved drainage or better water-supply, and further that the chief amelioration took place in those classes of disease ranked as preventable by sanitarians. Dr. Buchanan's table published in 1866 shows this in a striking manner; and, since then, the Registrar-General has published a list containing several other striking examples of the same facts. (For both these tables, see Appendix.) I have also taken pains to extract from the Registrar-General's tables all the towns in which there is a diminishing death-rate, and I find the coincidence between this improvement and long-continued sanitary work almost universal.

Unfortunately, the saving of life in the first series of districts is balanced by the increased number of deaths in the second class, and this is truly a matter for national concern. We have seen that the sneer at the powerlessness of sanitary reform is unfounded; but it is evident that, in a large number of districts, this work is either inefficiently carried out, or that the pressure of forces hostile to life has increased beyond the power of sanitary measures to cope with them. It is probable that both these conditions are at present conducing to the evil result, and it behoves all men who love their country to inquire concerning them, and to do their best to change the direction of the current of mortality. It is not difficult for anyone to see that, within the last few years, several morbid agencies have materially increased in their pressure upon English populations, and it may perhaps be possible, in the case of some of these influences, to make an approximation to the actual extent to which they have affected the death-rate.

Let us take three only of the hostile circumstances that have thus increased, and we shall find that they will more than account for the heavy mortality, and that still more disastrous results would have been produced had not some ameliorating power also been at work amongst us:—1. The altered character and increased size and density of town populations; 2. Increased use of intoxicating drinks; 3. Imperfect care and instruction of children.

1. Let me try to bring home to you the baleful change that has come over most of our great towns in the course of the last thirty years, and let us take this city as an example. Hollingworth, the old historian of Manchester, writes thus enthusiastically of it rather more than two centuries ago:—"It farre excelleth the towns about it, for the beautiful shew it carrieth, and for resort to it. Yea! it is the fairest, largest, and most populous town in all the country;" but, one hundred and fifty years after this epoch, when Manchester was yet only one-tenth part of its present size, Dr. Aiken already pointed out that it "vies with or exceeds the metropolis in the closeness with which the poor are crowded in offensive, dark, damp, and incommodious habitations." Manchester was then, doubtless, bad enough, and, as it rapidly increased in size, it did not improve in these respects; still at that time a large proportion of the well-to-do and upper classes lived within its precincts. But, of late years, another change has come over it—a change in the nature of its population. Thirty, or even twenty years ago, there still remained, within the boundaries of the registration district, many of the upper and middle classes of the population. Now this is changed; all who can afford it, including most of the shopkeepers, and even the very doctors themselves, now rush off, as if impelled by some centrifugal force, and leave the town to the workpeople and their families. It is throughout a *cité ouvrière*, without the arrangements needful to make an artisan city healthily habitable. In one district, that of Ancoats, of over 20,000 inhabitants, there are probably not twenty houses in which a single domestic servant is employed. The consequence of this flight of the upper classes is not only that the most unhealthy portion of the inhabitants is left behind, and those least able to guard themselves and their young from the increased weight of the depressing influences of town life, but the wholesome example of healthy social habits is also withdrawn, and the people are left unheeded to their own unwholesome ways. This is one way in which most towns are deteriorating in the character of their populations, but they are also much more densely packed together.

In his supplement, Dr. Farr tells us that "in the last twenty years the towns of England have increased from 580 to 938, and their populations from nine to fourteen millions". In many places also there are twice the number of persons on the same space of ground that there were twenty-five years ago. Now, we know that town life is necessarily more unhealthy than country life, and the difference between them is measured by the fact that the urban rate of mortality is 24 per 1,000, as compared with 19 per 1,000 in rural places; and, if we were to take the above estimate of five millions of additional inhabitants in our towns, we should find that about 25,000 additional deaths every year

have probably been due to the unhealthy influences that bear sway in towns.

And there is yet another way in which a calculation may be made on this point. Dr. Farr has shown that, when similar populations are taken, the mortality regularly increases, in a certain proportion to the density. In the following table may be noted the definite way in which an increase in the mortality takes place as the population gets more and more closely crowded together.

TABLE I.—*Proportion between Death-rate and Density of Population.*

Mean Annual Death-Ratio.	Density.		Births.	Deaths.	Annual Increase of Population.
	Persons to a Square Mile.				
15	20	315	38.11	22.00	11.99
12	17	166	32.22	16.75	14.69
11	15	106	32.19	19.16	7.53
10	13	57.75	37.75	21.88	13.82
24	26	171	31.78	24.90	18.59
17	19	44.4	43.19	23.0	13.23
16 (Manchester)	18	120.75	37.73	32.45	3.22
17 (Liverpool)	19	78.23	37.57	38.62	12.33

Now, instead of comparing different places together in this regard, the density and mortality of the same town, at two different periods, may be made the elements of calculation, and the differences between the actual and the estimated death-rates will both show the usual effects of overcrowding, and will at the same time enable us to judge whether any effect has been produced by sanitary improvements.

My friend Mr. Alfred Neild has kindly made the necessary calculations, from the data supplied by Dr. Farr, for a number of towns in which the density has increased, whilst the mortality has either been stationary or has diminished. The results are given in Table III, in the appendix, and are sufficiently striking. In many towns the actual mortality is less by several deaths in the 1,000 than the calculated mortality, and the total saving of life in the towns named is upwards of 16,000 lives *per annum*.*

2. The second increasing cause of ill-health is *Intemperance*. How shall we estimate the effect of this vice upon the nation? That it has a very potent influence as a source of disease no one can doubt who has noted the physical condition of the poor creatures who turn from the doors of taverns, and who may often be subsequently tracked to the poorhouse or to the hospital. That the consumption of alcoholic drinks has greatly increased is also certain enough, seeing that the expenditure upon them has doubled in the space of thirty years, and that apprehensions for drunkenness have more than trebled in the same period. But there is no absolute measure of the result. There has, no doubt, been of late years a large increase in the mortality from diseases of the heart, liver, and kidneys—organs especially affected by excessive drinking—but we are not able to state numerically the number of victims thus annually carried off. Some approximation to the truth may, however, be made by comparing a temperate population with one in which alcohol is freely used. I am informed by my friend Dr. W. Roberts that, about thirty years ago, in some parts of Wales an experiment of this kind was made on a large scale. At that time a wave of teetotalism swept over the country to such an extent that most of the publichouses were closed, and most of the inhabitants of whole counties abjured the use of alcohol. This was especially true of the county of Anglesey, and the movement had died out to a great extent by the year 1850.

Now, when we compare the mortality in this county, in successive decades, we find that it has steadily increased from 17 per 1,000 (in 1841-50) to 21 per 1,000 (in 1861-70). The density of the population has remained without change. The inhabitants have certainly improved in material comfort in the last twenty years, and no special unhealthiness has prevailed in the island. May we not, then, with some probability, ascribe a large part of the increased mortality to the increase in the use of alcohol? If so, we have a rough measure of the effects of drinking upon the death-rate of the country, and we shall probably not be far wrong in estimating it at 40,000 or 50,000 deaths every year, and the increase at 20,000, to 25,000, or at 2 or 3 per 1,000.

3. *Infant Mortality*.—There remains the third element of increasing mortality, that due to lack of care and improper nutrition of children.

* It is possible that the figures given in the table may be regarded rather as invalidating Dr. Farr's law than as proof of the effects of sanitary reform; but from the admirable Supplement to the Registrar-General's Annual Report, it appears that, in spite of the improvement that has taken place, it is still possible to range all the adverse influences that accompany increased density in one mathematical formula, and that "the mortality of the districts is nearly as the 12th root of their densities."—Supplement, p. cliviii.

The enormous difference in the mortality of children in different places (is well shown in this diagram, and) points to the vast amount of preventable mortality among children now going forward. A large part of it may probably be ascribed to the influences that have already been mentioned, but it concerns us to know that it is distinctly increasing of late. Whilst the adult mortality of the country has on the whole lessened by 0.17 per 1,000, the mortality under five years of age has increased 1.5 per 1,000, in the fifteen years ending 1870—in other words, that the already frightful infant mortality has increased by nearly 9,000 deaths every year.

Taking all these points into consideration, we may see plainly that the increased weight of morbid agencies in the last quarter-century can hardly be estimated at less than half a million of lives in a decade. In other words, that unless some mitigating influences had been present, the average death-rate of the country at the present time would have been at least 24 or 25 in the 1,000 instead of 22. I venture to claim a large part, if not the whole, of this saving of life as due to the improved sanitary administration of the country, even though so imperfectly carried out as yet.

But a recognition of this fact by no means blinds us to the many defects in this administration. On the contrary, it forces upon our notice that much better results would probably have been obtained, if the laws relating to the public health had been framed upon the lines so frequently pointed out to the Legislature by this great Association. Unfortunately, the forebodings of your State Medicine Committee with regard to the working of the Sanitary Acts have been shown to be only too well founded. Everywhere complaints are now arising as to the scope given to petty local authorities for jobbery, and for the selfish protection of private interests to the injury of the public health. We constantly hear of the difficulties thrown in the way of health officers by the confusion of the boundaries of districts for various purposes—for poor-law guardianships, for urban and rural local government, for vaccination inspection, and for the registration of births, deaths, and marriages. All these difficulties were foreseen by your committee, and they have greatly hindered the progress of sanitary reform in England. Englishmen are apt to take some pride in their neglect of logic in matters of national government. They have won more than one victory by not knowing when they were beaten, and it is quite true that in the long run, by perseverance and at a prodigious cost, they succeed, notwithstanding their blunders, where other nations would have failed, but assuredly they hardly ever undertook a more hazardous and costly experiment, than that attempted in framing a Public Health Act without help from medical men. We all know now that no counsel was then taken from the most able official adviser to the Local Government Board, whose vast and matured experience on the subject would have been of infinite value, and for the lack of which the greatest confusion has ever since reigned in sanitary administration.

It is, indeed, remarkable at how many points the machinery of preventive medicine in England is left without any firm foundation. Thus, by the Act of 1872, it was made compulsory upon all local authorities to appoint medical officers of health, but nothing was said as to the qualifications of candidates for the office except that they should be "legally qualified medical practitioners". In spite of the testimony of such men as Dr. Parkes, it was assumed that no special training was needed for the office, and as, moreover, nothing was said in the Act as to the salaries of these men, the letter of the law was in many cases kept, and its spirit violated by appointing, at a merely nominal salary, men who were already fully occupied in general practice. We have accordingly witnessed the absurdity of a sanitary organisation resting upon the foundation of medical officials who, except *sua sponte*, have received no special instruction in their duties. To the honour of the profession be it said, that most of the men appointed have diligently studied the subject since their appointment, and would themselves be the first to bear testimony to the absolute need of instruction; but the mundane providence of Parliament cannot take much credit for this. Moreover, after all their study, no opportunity has even yet been afforded of testing the knowledge gained, nor of proving that they are now better equipped for their office. No portal has yet been provided by which general practitioners may authoritatively enter the department of State Medicine to which they aspire, and only one University (that of Cambridge) has in the interim offered an examination in the subject open to all comers. It would almost seem as if it had been the intention of our Governments to degrade the office of State Physician as much as possible. The position of medical men in the army and navy is still not all that could be desired; but it is infinitely better than that of most medical officers of health. The marvel is, that so many able men should have been found to accept the post. They have, as we have seen, no State qualification. Most of them are appointed over small districts at paltry salaries, and for short terms of office; or

if, by the combination of districts, their areas are made larger, and men are tempted to give up private practice in order to accept them, their tenure of the post is most uncertain; and at any time their districts are liable to be lessened and honeycombed, by the action of sundry petty authorities who recede from the appointment often, I fear, from self-interested motives. The position of these men is, in fact, that of a servant with many masters, and if they are too energetic or too free-spoken in their reports, their paymasters may turn them away at the end of their short term of office without any appeal to a higher tribunal. It is notorious, also, that the *personnel* of local boards has not improved of late years.

Again, the object of all sanitary administration is the removal of the preventable causes of death; and for this purpose it is absolutely necessary that correct statistics of the causes of death should be obtained, and that their place and time of origin should be immediately brought under the notice of those who have to try to remedy them. But no provision now exists for doing this. Successive attempts have been made by Dr. Farr, assisted by this Association, to obtain, in the first place, some verification of the cause of death—but hitherto without success—and, accordingly, both for immediate service and for scientific investigation, the magnificent series of figures collected by the Registrar-General are practically almost useless. Vague and unscientific names are given to the causes of death. At one time one title is in fashion for the same disease, at another it is interchanged for another, its place and time of origin are left unrecorded; and it is thus almost impossible from these tables to trace the progress of sanitary work or to discover the influences that bear upon human life. It was well said by Archimedes that if he could get a suitable fulcrum—a "*πῶν στῶν*"—for his machinery, he could move the world, but without this a grain of sand is not less immovable.

Take only one more instance of the loose way in which the subject of the public health has been dealt with by the Legislature. It is one of the chief duties of a medical officer of health to take immediate measures for stopping the spread of epidemic disease. Now, an infectious complaint when it originates in a district can only be successfully checked at its outset. If it is to be "stamped out" at all, the first smouldering sparks must be noticed, and precautions taken to prevent them from lighting up a general epidemic. It is strange to remark how completely this obvious truth has been disregarded in framing the various Acts that deal with the subject. In the Public Health Act of 1875, there are abundance of directions as to the building of hospitals, the provision of ambulances and mortuaries, fines for the exposure of infected persons and infected garments, but no provision whatever, except in registered common lodging-houses, for early intelligence being sent to the Health Officer of the first appearance of the disease. The committee of the Sanitary Association of this city was among the first to point out the need for prompt intelligence of the presence of an epidemic, and it has been pressed upon successive Governments, though hitherto without avail, by petitions and memorials and deputations from this British Medical Association, and from the Social Science Congress. It is not surprising, therefore, that on all hands we now hear complaints from medical men of their feebleness in the presence of infectious disease. And what is, perhaps, of still more importance, we find that when the burdensome provisions of the Act are put in force, without producing any real effect upon the disease, people naturally rebel against the law, and sanitary science is discredited.

We see, then, that whilst on the one hand the greater activity in sanitary matters throughout the country has been of immense service, and has saved many thousands of lives, yet there are still many directions in which further improvement is urgently required. We now only just hold our own, and we need all the help we can get to fit us for our warfare against the deadly foes that still hover around us, and pick off many useful lives.

It would perhaps be wise if I were to stop here—if I were to content myself with fault-finding only. It is always easier to criticise than to create; and the difficulties of statesmen have had ample illustration during the past session. Moreover, if it were my object simply to attack other men's schemes, and to leave no opening for a return of fire, it would be better to abstain from setting up any scheme for the improvement of sanitary administration in this country. I may also frankly say that I should not dare, out of my own crude imaginings, to offer any suggestions towards such an object, but the subject has been thoroughly worked out by others. In many of its ramifications, it has been most ably dealt with by men of powerful grasp and wide experience—both in and out of office.

Within the last ten years, much discussion has taken place with regard to the improvement of the sanitary administration of the country. At one time the subject was taken up by the General Medical Council,

and an important memorandum was issued; but for some reason that does not appear, it has not been further dealt with by that body. Our own Association also, conjointly with the Social Science Association, have considered the subject, and the joint committees have issued several reports. From the writings also of such men as Mr. Simon, Drs. Buchanan, Farr, Rumsey, and Stewart, ample stores of material may be drawn, for framing a scheme of what true State Medicine might become in the good time that always lies before us in the future.

Let us, therefore, for a few moments indulge in a dream of what may come to pass in sanitary reform; and since now-a-days events march so rapidly, let us hope that our air-drawn edifice may be crowned sooner than we look for it. Let us at least have the pleasure of thinking that it might come to pass before the termination of our present Queen's beneficent reign. Nearly all the Acts bearing upon the public health have received her fiat, it would then be a fitting thing that our sanitary Atlantis should still have her hand at the helm. Let us suppose, then, that at this somewhat uncertain epoch in our national history, there will be a perfect sanitary organisation, with a head as well as a body and limbs, and not the low type of molluscous organisation that exists at the present time. For this end there should be a Minister of Public Health, chosen not from political reasons alone, but, like the Viceroy of India, because he is well acquainted with the details of his duty, a man able to rule—and ready to answer for his actions to Parliament. He would preside over the department of Public Health, including medicine and medical police, and he should have the aid of a staff of assistants specially skilled in the several departments of the subject—hygiene, vital statistics, pathology, toxicology, sanitary engineering, and sanitary physics. There would also be a College of State and Legal Medicine, with all necessary appliances, such as laboratories for original research, a technical museum, and a library. In the laboratories investigations might be carried on upon the many problems that continually arise in these subjects—inquiries as to the origin and nature of diseases, the effects of different kinds of food, the best means of disposing of refuse material, the treatment of sewage, disinfection, ventilation, heating, various toxicological inquiries, and other matters that are still under debate. In this way the costly experiments now made in sanitation would be avoided, and conclusions reached that would be at the command of local boards of health. A Veterinary Department should also be founded wherein could be studied the diseases of animals and their relations to human ailments. In the Statistical Department many kinds of vital statistics besides those now collected might be received, such as periodical observations on the growth of children, and on the stature and physical development of the various classes of the population engaged in different occupations. Weekly returns of disease, especially of all cases of infectious disease, would necessarily be collected in each district, and telegraphic information of the presence of an epidemic would be at once reported through the local medical officer as soon as the diagnosis of a case was made out. As immediate use of this information would already have been made on the spot, the best opportunity would thus be afforded of stamping out the disease and preventing its spread. Through this College every candidate for public medical office must pass. It is impossible for men who have merely passed through the ordinary medical curriculum to deal satisfactorily with many of the questions that arise in the course of their public health work. Special instructions must, therefore, be given as to the distribution of disease, medical topography and meteorology, on the effects of trades, overcrowding, etc., as well as in the general subjects included under the head of public hygiene and in the laws relating to public health. The distinctions between urban and rural sanitary districts would then have been removed, and the areas for local sanitary self-government would be, as much as possible, based upon the registration districts and subdistricts of the country. All the statistical and administrative areas would be continuous, and their authorities consolidated, so that the data obtained from the former could be at once made available in the latter. The districts should be large enough to secure an efficient and well-paid, yet comparatively economical, organisation of permanent officials who could be removed only for misconduct, with power of appeal to the central office. There might be also in each county, or suitable division of a county, "representative authorities of a high order for the execution of joint works, and to aid and, in case of default, to exercise control over district sanitary authorities". (Memorial of the Joint Committee on State Medicine, 1877.) And yet the relations of the local authorities to the Government need not be by any means onerous nor tainted by the vice of over-centralisation. Compulsory regulations should certainly be made as to the provision of good water, the removal of nuisances, efficient drainage and sewage arrangements; but the mode in which these several departments of work are to be carried out might be left entirely within the control of local au-

thorities. The central office would freely offer the assistance of its well-trained inspectors, and encourage all persons, both in public and private, to take advantage of its stores of special knowledge and experience; but it would leave all communities at liberty to select those methods and those appliances that might seem best suited to the locality, with whose wants they might be presumed to be most thoroughly acquainted. In this way a true education of the country in sanitary matters would be promoted, and many of the evils of a bureaucratic form of government would be avoided.

It is possible, too, that by this time local sanitary administration would be assisted, as Dr. Buchanan so much desires, by the formation, in every locality, of voluntary sanitary associations similar to the one that has now existed in this city for more than a quarter of a century, and which is still doing good work.

I have purposely said nothing as to the vexed question of the proper relations between the Poor-law medical service and the department of Public Health. This is far too wide a subject to take up now; but I may perhaps express a hope that in our still unseen universe the whole system of medical relief to the poor will have been remodelled. The mode in which it is now carried on is at once inefficient and costly, penurious and extravagant—and unjust both to the poor man and to his medical attendant. It leads to delay and carelessness in the treatment of disease; it deprives the sick person of any right of choice in the matter of medical attendance; and it imposes unwilling, and therefore unsatisfactory and captious, patients upon the medical man. A much more efficient, equitable, and really more economical plan, would be the Irish dispensary system, with certain modifications, which I need not now enlarge upon.

In any case, let us hope that the people will gradually be taught to see the vast importance of the subject, and that thus an enormous amount of suffering, premature decay, and death, may be averted from the nation.

APPENDIX.

TABLE II. Results of Drainage and Improved Water-Supply.

Popu- lation (1871)	Low- ers	Deaths per 1,000		Ty- phoid.		Diar- rhoea.		Cholera.		Pneumonia.			Infant mortality.
		B.	A.	B.	A.	B.	A.	1871	1854-17	B.	A.	B.	
10,777	Leicester ..	45.51	27.14	7	10	1	10	1	10	4	29	31	21
10,777	Merthyr ..	45.55	27.14	7	10	1	10	1	10	4	29	31	21
10,777	Cheltenham ..	45.57	27.14	7	10	1	10	1	10	4	29	31	21
10,777	Croydon ..	45.50	27.14	7	10	1	10	1	10	4	29	31	21
10,777	Macclesfield ..	57.64	27.14	8	11	11	11	1	10	5	15	77	90
10,777	Newport ..	45.49	60.65	11	21	10	11	11	12	13	25	7	53
10,777	Dover ..	43.53	57.65	22	8	10	10	7	40	10	4	11	48
10,777	Warwick ..	45.55	57.64	22	21	10	10	7	40	10	4	11	48
10,777	Salisbury ..	44.22	57.64	22	21	10	10	7	40	10	4	11	48
10,777	Worthing ..	44.22	57.64	22	21	10	10	7	40	10	4	11	48

TABLE III. Deaths from Typhoid and Cholera, during the Improvement in the Average Rate of Mortality in the Poor, during the years 1854-1871.

No. of Dis- trict.	Name of Dis- trict, etc.	Registra- tion County.	Enumerated Population.		Average Annual Mortality.		
			1851.	1871.	1851-54	1855-60	1861-71.
103	North Wiltshire ..	Cambridge	14,221	17,777	27	21	—
104	Whitby ..	Cambridge	7,822	7,822	25	23	—
104	Worcester ..	Cambridge	14,221	17,777	27	21	—
104	Essex ..	Essex	11,111	11,111	24	21	—
104	Wiltshire ..	Wiltshire	11,111	11,111	24	21	—
279	Stoke Damerel ..	Devon	49,449	49,449	—	23	21
104	Wolverhampton ..	Stafford	136,953	136,953	27	21	—
104	Warwick ..	Warwick	14,221	17,777	27	21	—
104	Macclesfield ..	Chester	14,221	17,777	27	21	—
520	Hampshire ..	Hampshire	68,316	68,316	21	21	—
104	Monmouth ..	Monmouth	61,252	61,252	21	21	—
104	Merthyr Tydfil ..	Glamorgan	104,239	104,239	29	21	—
104	Crickhowell ..	Brecknock	20,147	20,147	27	21	—

MARYLEBONE.—Dr. Whitmore states that the annual death-rate for the quarter ending June 30th was 21.77 per 1,000, being 1.33 below that of the winter quarter. He refers to the water-supply, which was good; and warns householders to pay proper attention to their cisterns, and not to place them in such a position as to allow the water to become fouled by gases from dustbins or drains. Measles and whooping-cough were the most fatal zymotic diseases.

REPORT OF THE JOINT COMMITTEE ON STATE MEDICINE OF THE BRITISH MEDICAL AND SOCIAL SCIENCE ASSOCIATIONS, 1877.

THE Joint Committee, acting upon the resolutions adopted at the Sanitary Conference held in London on the 11th and 12th of May 1876, have prepared a Memorial carrying out the spirit of those resolutions. This Memorial is as follows.

To the Right Honourable the Earl of Beaconsfield.

The Memorial of the Joint Committee on State Medicine of the British Medical and Social Science Associations

Humblly sheweth,

That your Memorialists in 1868 asked for the appointment of a Royal Commission of inquiry into the operation and administration of the Sanitary Laws, under the conviction that the laws then in force were to a great extent inoperative, owing to opposition or indifference on the part of local authorities, to clashings of jurisdiction within the same areas, to the want of sufficient power in the hands of the central authority to enforce compliance with their enactments, to the difficulty of administering the laws, and to the ambiguous and often contradictory character of the laws themselves.

The Royal Sanitary Commission collected much valuable evidence, and reported that the duties of sanitary authorities were "seldom discharged", and recommended a consolidation of the law relating to public health, and other changes in sanitary administration, several of which have been adopted and made law by the Public Health Act, 1875.

That your Memorialists in May 1876 convened a Sanitary Conference of representatives of local governing bodies, and others interested in public health, under the presidency of Lord Aberdare, to consider how, in any change of the existing system, greater efficiency of action, more complete representation, uniformity of powers of local authorities, simplicity of laws and economy of expenditure could best be obtained. The result of that Conference is the Memorial we have now the honour to present to your Lordship.

Your Memorialists believe in the urgent necessity of some further action on the part of the Legislature in order to protect the public health, and which they are persuaded can be largely advanced by so far re-modelling the laws relating to government as to remove the distinctions which now exist in the powers and obligations vested in urban and rural sanitary authorities. These distinctions create many difficulties and much confusion in local administration, and it is notorious that many portions of rural districts are more strictly urban, both in character and population, than many outlying portions of urban districts, or even the districts themselves.

The law which regulates streets and buildings is now mainly under the control of urban authorities, and any differences in the condition of rural districts in these respects, as contra-distinguished from cities and towns, could easily be met by the passing of by-laws, always capable of being altered and amended to meet the existing conditions of the district.

The breaking down of this distinction between urban and rural sanitary districts would secure simplicity in the law, and attain an object long and earnestly sought for by your Memorialists—uniformity of public health enactments for every part of the kingdom.

Your Memorialists have been very strongly impressed with the need of economy in carrying out sanitary improvements, and generally in the administration of the functions of local government, and they believe that a reconstruction of sanitary agency such as is hereinafter recommended is consistent not only with complete efficiency, but with the accomplishment of a much larger amount of work done at a less cost than at present. This can readily be obtained by constituting, instead of the many local authorities under various names now existing, one elected and representative body, clothed with all executive functions, whether municipal or sanitary, within the area of its jurisdiction. There are, however, duties and obligations which cannot be exercised altogether satisfactorily within a limited area, whether of a borough or a local board district, so as to secure the greatest amount of benefit with the smallest necessary outlay. Many works can only be adequately carried out by the combination of districts, with a money contribution spread over the whole area, to be levied in a ratio proportional to the benefit to be conferred. Lunatic asylums, workhouses, bridges, and the like, come within this category; and there are many difficulties in the present system, with respect to water-supply, drainage, sewerage, and the disposal of sewage, which would be reduced to a minimum were such a combination as is here proposed provided for by

law, and not left, as at present, to the almost impossible agreement of the constituting and contributory authorities. There are other and most important functions, which would be fulfilled by a representative body of a high order, such as the constitution of a Board of Appeal between district and district within the area of its jurisdiction, or between ratepayers, inhabitants, and authorities, to authorise and require to be executed, and, if necessary, to execute works when authorities are in default and their districts suffering from the neglect of the duties and responsibilities with which they are clothed, or where joint works are desired, and specially to control watershed areas, and to regulate such matters as relate, both in finance and use, to a county, rather than to a sanitary district. An almost universal consensus of opinion has been arrived at that the establishment of a County Board for purposes alike and akin to those here indicated is an essential element in any scheme for ensuring local and sanitary progress.

Some inquiry is necessary to re-arrange the boundaries of districts, but your Memorialists believe that existing areas should be as little interfered with as is consistent with the public service; although this re-arrangement becomes of less importance when an authority shall be provided clothed with sufficient powers to regulate or remove anomalies arising from peculiarities in the position or constitution of districts, and to act as an intermediate body between the representatives of district and central government.

Thus also an opportunity would be furnished for entirely remodelling in the national interest the public health medical service. By establishing a County Board for administration and finance, it would be possible to secure the services of health officers of high scientific attainments and of acknowledged ability, paid adequate salaries for superintending the whole or a division of a county, acting as consultants under the direction of a chief attached to the central authority, affording counsel and assistance to district officers in all cases of doubt or difficulty arising in the discharge of their duties; examining and acting on the weekly returns of disease and deaths furnished by district registrars; and also aiding courts of justice by acting as experts in all cases of criminal jurisprudence requiring medical evidence as to injuries causing or tending to cause death. To these county officers should be added medical officers of a district with assistants, all forming parts of a great department of the State, under the presidency of a minister of health; but all these officers should be under central control, so far as making up one great body of workers for general State Medical purposes. In this, as in all other departments of local action, there should, in the opinion of your Memorialists, be the minimum of interference with local government. All officers of health should be debarred from private medical practice, and be holders of diplomas in State Medicine, their emoluments being secured as in the case of medical officers of the army and navy, but with a portion only of their salaries provided out of moneys voted by Parliament, the rest being paid out of local rates. It is believed that were this system in practice, the cordial co-operation of the medical profession would be secured. Without the aid of the medical attendant in giving, either directly or through the intervention of the householder, timely notice of the occurrence of zymotic disease and early intimation of death in all cases, the adoption of effective measures for preventing the spread of diseases of an infectious character becomes almost impossible. With respect to all officials, security in the tenure of their offices, so long as the duties attached to them are adequately and faithfully performed, would tend, in the opinion of your Memorialists, greatly to the advantage of the public service.

Besides the matters thus generally touched upon, it is believed by those who have given the subject much and careful attention, that, in many cases, the law and the proceeding under it may be much simplified, and the exercise of the powers of local authorities be made more easy and effective.

By far the greatest help to an improved sanitary condition of the people must be expected from the progress of general knowledge and belief in the benefits to be obtained from an ample supply of pure air and pure water, and from a more assured conviction that these essentials to a healthy life may be secured by a moderate expenditure, which in the end will prove remunerative. We believe that much may be done by the educated efforts of the governed on their own behalf, that the action of their representatives should be encouraged, not beset with difficulties, and that local government should be as little interfered with as is consistent with efficient action; but that when, unhappily, from apathy or neglect, the public welfare demands intervention of a controlling power, there should be in the law such provision as would insure the adoption of the best devised means for averting any threatened advent of disease, and for securing the permanent maintenance of the conditions of health.

Your Memorialists, believing that changes in the existing law will

materially aid those charged with this administration, venture most respectfully to suggest:

1. That the present existing distinctions between urban and rural sanitary districts should be removed, and that all sanitary authorities should be clothed with similar powers; and that these powers should be extended in order to enable them to carry out all purposes of local administration within their district.

2. That in each county, or division of a county, a representative authority of a high order should be constituted for the execution of joint works, to aid, and in case of default, to exercise control over district sanitary authorities.

June 18th, 1877.

W. H. MICHAEL, }
A. P. STEWART, M.D., } *Hon. Secs.*

This Memorial was, on the 18th of June 1877, presented to Lord Beaconsfield, with a request that his Lordship would consent to receive a deputation to urge the prayer of the Memorial. The Joint Committee much regret that his Lordship's engagements, as pointed out in the following letter, would not allow him to receive such deputation.

"10, Downing Street, Whitehall, June 29th, 1877.

"Gentlemen,—Lord Beaconsfield has had the honour to receive a memorial addressed to him by the Joint Committee on State Medicine of the British Medical and Social Science Associations, together with your letter of the 18th instant, requesting him, on behalf of those Associations, to receive a deputation to discuss various matters connected with the subject of public health and the administration of the sanitary laws. Many points alluded to in the memorial have, from time to time, been brought under the consideration of Her Majesty's Government, and the Prime Minister regrets that, looking to the continued pressure of affairs at the present time, it is not within his power to fix a day on which he could have the honour of receiving the deputation in question.—I have the honour to be, gentlemen, your obedient servant,

ALGERNON TURNER.

"The Joint Secretaries of the Committee on State Medicine, etc."

The Joint Committee, more and more impressed with the necessity of urging forward the reforms set out in the resolutions of last year, and the Memorial based on them, have determined by every means in their power, and especially by the wide distribution of the resolutions and Memorial, to give the greatest possible publicity to the steps they have hitherto taken in the matter; and they are not without hope that the question may be taken up in Parliament by leading politicians, and that the Government, who are already pledged to do something towards the formation of County Boards, may be induced seriously to consider the necessity of a radical change in sanitary administration.

The Joint Committee see with pleasure the introduction of a Public Health Bill for the metropolis, which, however much certain details may require consideration, is most valuable as assimilating the law in the metropolis to that in the provinces, and in consolidating the law doing away with many Statutes which by the Public Health Act of 1875 were left applicable only to the metropolis, while they were entirely repealed as to other parts of the country. This consolidation of the law is one of the points which have been most continuously urged on successive Governments by the Joint Committee, and is the basis of all improvement. The Bill now under consideration proposes to place the metropolis, like the provinces, under the control and direction of the Local Government Board. This greatly strengthens the conviction which is steadily gaining ground, that a change from a mere nominal board to a thoroughly constituted department for the administration of health cannot be long delayed.

W. H. MICHAEL, }
A. P. STEWART, M.D., } *Hon. Secs.*

REPORT OF THE PARLIAMENTARY BILLS COMMITTEE.

YOUR Committee beg to report that, during the past year, their attention has been chiefly occupied (1) by considering the proposed alterations in the Factory Legislation of the country, (2) certain changes which have been made by Royal Warrant in the position of Militia Surgeons, and (3) the proposed legislative amendments of the Public Health Bill (Ireland).

I. *Factory Legislation.*—By the announced intentions of Mr. Cross, it became evident early in the year that legislative change was to be expected in the conditions of factory labour and in the precautions hitherto enforced by law to protect very young workers in factories or

workshops from the consequence of being forced into labour before they were physically fit, either by age or constitution, to undergo the deteriorating conditions of factory life. The Factory Acts of the country are, in respect to their influence upon the physical health of an immense mass of population, of great moment to the welfare of the whole nation; and especially is it felt to be important that nothing should be done under the name of amendment of the Factory Acts, which would lessen the present safeguards against the employment of children below the legal age, or incapacitated by constitutional defects from following the onerous occupations of which cognisance is taken by the Factory and Workshops Act.

Under these circumstances, your Committee have felt it their duty to join with the Association of Certifying Surgeons in Great Britain in laying before Mr. Cross a statement of the grave dangers likely to arise to the children of the poor from the changes which were now proposed by the Factory Amendment Bill, which the Home Secretary has introduced into Parliament in the present session. One effect of this Bill will be to materially diminish the power which certifying surgeons now have of protecting children from entering factories when they are below age, and from keeping other control over their condition during the first years of their employment, which is really essential to prevent the physical deterioration of factory workers as a class. Unfortunately, their representations have not been considered by Mr. Cross so favourably as might have been expected from the well known interest which the Home Secretary feels in the physical well-being of the operative class. That Bill has, however, now been withdrawn from the House; and your Committee trust that, by continued co-operation with the Association of Certifying Surgeons, they may still be enabled to induce Mr. Cross at least not to lessen the safeguards against physical injury which the Factory Acts now present. For that purpose they hope the friends of the Association will, at the required time, give the whole of their Parliamentary influence to such amendments as your Committee may think it desirable to promote.

II. *Militia Surgeons and the Royal Warrant.*—The operation of a recent Royal Warrant has materially diminished the incomes of a large number of militia surgeons by removing from them an important and remunerative part of their duties, in order to facilitate army reorganisation, but without affording them any sort of compensation, the loss being felt by the whole body of militia surgeons as a great hardship; and, as the Secretary of State for War, while promising to consider any individual cases of hardship, and affording some hope in Parliament that he would consider such representations favourably, had nevertheless refused in several instances the redress sought for by individuals, your Committee, at the instance of the militia surgeons generally, undertook to make such public representations to the Secretary for War as might ensure that adequate attention was given to their claims, and that consideration should be secured for their case at the hands of the public and the House of Commons. With that view an interview was arranged with Mr. Hardy, at which your Committee, supported by upwards of twenty members of Parliament, many of them influential in the organisation of the militia, laid the whole of the facts before the Secretary of State. Subsequently, the Right Honourable Lyon Playfair repeated this statement in the House of Commons. Mr. Hardy, however, has not up to the present time shown the least intention of affording any redress to the militia surgeons who have been thus injured in their prospects; and your Committee cannot but feel that, in this case, great hardship has been imposed upon individuals for a public good without any compensation being made to them: a practice which, they believe, is not in accordance either with public policy or with the usual custom of the Government.

III. *Public Health Bill (Ireland).*—In the case of the Public Health Bill (Ireland), your Committee have had the great satisfaction, in co-operating energetically with the Irish Medical Association, of bringing before the Irish Secretary, Sir Michael Hicks Beach, the necessity of making amendments in the Public Health Bill (Ireland) now before Parliament. Several of these suggestions have, it is understood, been adopted by a Select Committee, of which, however, the report has not yet been presented. Others, to which your Committee attach great importance, have not yet been adopted; and it will be the duty of your Committee to assist in bringing these proposed amendments under the consideration of Parliament when the Bill passes through Committee of the House of Commons.

The Committee desire to call attention to the unsatisfactory state of the law in respect of coroners' inquests, and to express the desire that some amendment may be secured at no distant date. They will be glad to receive suggestions for the purpose from the Branches or from members of the Association.

ERNEST HART, *Chairman.*

REPORT OF THE SCIENTIFIC GRANTS COMMITTEE.

THE Scientific Grants Committee have held three meetings during the past year. In consequence of the sad death of your Chairman, Dr. Sibson, F.R.S., your Committee have appointed Mr. Callender, F.R.S., as Chairman in place of him. The following were the grants recommended to the Committee of Council to be made for the past year:—

	£	s.	d.
Drs. Braidwood and Vacher. For Research on Life-History of Contagium—£25 and £20 for plates	45	0	0
Dr. Crichton Browne. Further Researches on the Actions of Nitrite of Amyl alone, and in combination with other Remedies	7	0	0
Dr. Fothergill. The effect of certain Agents upon the Circulation	20	0	0
Dr. Galabin. Further Research in Investigation of Pulse-Curves	25	0	0
Dr. Rutherford, F.R.S. Further Researches on Biliary Secretion	50	0	0
Dr. Burdon Sanderson, F.R.S. For Prosecution of Inquiries in the Pathology of Epizootic Pneumonia	50	0	0
Mr. William Bruce Clarke. Research on Syncope and Shock	10	0	0
Mr. Pye. For an Investigation of the relation that the Retinal Circulation bears to that of the Brain ...	10	0	0
Dr. William Stirling. For Research on the Physiological Action of certain substances on the Spinal Cord	15	0	0
Drs. Spencer and Shaw. The Action of Uranium Salts in Diabetes	10	0	0
	242	0	0

Of this sum £142 : 16 : 6 has been expended. In consequence of the restrictions placed upon physiological research by the Act of last year, considerable delay has been occasioned in the investigations. Your Committee, however, trusts that henceforth the investigators will be enabled to continue their legitimate studies. The grants now recommended to be made are as follows, and your Committee recommend that a sum not to exceed £300 be granted from the funds of the Association for this purpose :

	£	s.	d.
Mr. Gaskell. In aid of a Research on the Reflex Action of the Vascular System and Muscles and Reflex Vaso-motor Action generally	30	0	0
Mr. Langley. In aid of a Research on the Changes produced in the Salivary Glands by Nerve-Influence	25	0	0
Dr. Rutherford, F.R.S. For a continued Research on the Action of Cholagogues	50	0	0
Drs. Braidwood and Vacher. For engravings for illustrating the third report on the Life-History of Contagium	40	0	0
Mr. Pye. In aid of a continued Research for the Investigation of the relation that the Retinal Circulation bears to that of the Brain	8	15	0
Mr. Bruce Clarke. In aid of a continued Research on Syncope and Shock	10	0	0
	163	15	0

REPORT OF THE COMMITTEE ON HABITUAL DRUNKARDS.

DURING the last year considerable progress has been made in the Habitual Drunkards movement.

An Association entitled "Society for Promoting Legislation for the Control and Cure of Habitual Drunkards", has prepared a Bill which, as revised and adopted by your Committee with scarcely any alterations, has been introduced into the House by Dr. Cameron, Member for Glasgow, who has warmly taken the matter in hand.

Considerable delay arose in preparing the Bill and securing a member to introduce it. This delay prevented the Bill from being read a second time during this busy session. Several Members of Parliament have promised to support the principle of the Bill and its second reading. In its favour, 77 petitions have been presented to the House of Lords, and 95 to the Commons, including petitions from some of the branches of the Association.

To secure a successful reading of the Bill, the Association should endeavour to influence Members of Parliament and other influential persons, and to distribute information on the subject.

The movement being now fairly before the country, by the introduction of a Bill and support of some influential members, it remains for our Association, who originated the movement, to press it on to a successful issue. The Committee ask, therefore, to be reappointed, and suggest that each local branch be represented in the Committee by its secretary, or one or more of its members.

FORTY-FIFTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in MANCHESTER, August 7th, 8th, 9th, and 10th, 1877.

SECOND GENERAL MEETING, WEDNESDAY, AUGUST 8TH.

THE second general meeting of members was held at 11.30 A.M. in the chemistry lecture theatre of Owens College: the President, Dr. M. A. EASON WILKINSON, presiding.

Place of Meeting in 1878.—Dr. FALCONER, President of Council, stated that, up to the present time, the Council had received no invitation from the medical men of any town to hold next year's meeting; and, by the power vested in the Council, the subject of considering any invitation which might be offered subsequently, and of appointing a President-elect for the next year, had been delegated to the Committee of Council.

Dr. WADE (Birmingham) moved the following resolution, for the purpose of giving effect to the action of the Council as explained by Dr. Falconer:

"That it be an instruction to the Committee of Council to arrange for the place of meeting in 1878, and also to appoint a President-elect."

Mr. HUSBAND (York) seconded the motion, which was carried.

Committee of Council.—Dr. FALCONER reported that the following gentlemen had been elected members of the Committee of Council for 1877-78. (Those marked * were not in the Committee last year.) T. Clifford Allbutt, M.D., Leeds; J. Wright Baker, Esq., Derby; *L. Borchardt, M.D., Manchester; G. W. Callender, Esq., F.R.S., London; Alfred Carpenter, M.D., Croydon; J. W. Eastwood, M.D., Darlington; Balthazar Foster, M.D., Birmingham; E. Long Fox, M.D., Bristol; C. Holman, M.D., Reigate; *J. R. Humphreys, Esq., Shrewsbury; Arthur Jackson, Esq., Sheffield; *E. Lund, Esq., Manchester; F. E. Manby, Esq., Wolverhampton; *F. Mason, Esq., Bath; Edward Morris, M.D., Spalding; R. H. B. Nicholson, Esq., Hull; E. H. Sieveking, M.D., London; *A. P. Stewart, M.D., London; W. F. Wade, M.B., Birmingham; C. G. Wheelhouse, Esq., Leeds.

Address in Medicine.—The Address in Medicine was delivered by WILLIAM ROBERTS, M.D., F.R.S. It was published at page 168 of last week's JOURNAL. Loud and continued cheers greeted its conclusion.

Sir WILLIAM JENNER, K.C.B., said he was sure that the whole of that vast assemblage desired to thank Dr. Roberts for his most able address, and it was a pleasure to him to move, "That the best thanks of this meeting be given to Dr. William Roberts, F.R.S., for his able and interesting Address in Medicine". Dr. Roberts was eminently deserving of their thanks. [Cheers.] If the address had been only a moderately able one, or if it had been merely what was called "an able and interesting address", he was sure they would have thanked Dr. Roberts warmly for having taken the trouble to compose and deliver it. But this was something more than a merely "able address". [Cheers.] It was one of the most able and most interesting addresses he himself had ever listened to—[renewed cheers]—and he did not hesitate to say that, although they or he might not have agreed with every word, they would have agreed with very nearly every word; and, moreover, he believed it would be a new starting point for advances in certain classes of diseases. [Cheers.] The meeting would give their heartiest thanks to Dr. Roberts for his most able and interesting address. [Cheers.]

Dr. PAGET (Cambridge) said it was a great honour to him to be asked to second the motion proposed by Sir Wm. Jenner, and this task he undertook with the greatest pleasure. Sir William had well expressed what he should himself have tried in vain to bring to their minds as to the value of that address to which they had all listened with so much interest and pleasure. [Cheers.] He felt personally towards Dr. Roberts a deep debt of gratitude for the matter of that address, for the lecturer of the day had chosen a most difficult subject—one of the most important, too, considered in whatever light it

be, psychologically or physiologically, and Dr. Roberts had given a most complete exposition. [*Cheers.*] For himself, Dr. Paget confessed that he had been completely carried by the reader the whole way, down to the very end, where Dr. Roberts told them his original views. [*Cheers.*] Coming as he himself did from a distance, he might be allowed to congratulate the Council of Owens College upon the address. Of course, every one had heard of the great teaching power of the Owens College, but if what had been heard that day was an average of that teaching power, he thought the College in its medical department must rival any of the first schools of medicine. [*Cheers.*] He might venture, also, to congratulate the medical profession of Manchester on having selected Dr. Roberts to represent them, and he thought that, though doubtless there were many in Manchester to whom the meeting would have listened with pleasure, yet all the medical profession in Manchester must be satisfied and proud of the selection which had been made to represent them. [*Cheers.*]

The PRESIDENT said he should anticipate the feeling of the meeting, and ask them to permit him to declare the resolution carried by acclamation. [*Loud cheers.*]

Dr. ROBERTS, who was again warmly cheered, said he felt greatly obliged to the meeting for the patience with which they had listened to him, and he hoped they all heard him. [*Cheers.*] He was deeply indebted to Sir Wm. Jenner for the favourable manner in which he had regarded the efforts they had heard. If any suggestion which had occurred in the paper should fructify in the minds of others, and lead to other researches, he himself should be very amply rewarded for all the trouble he had taken. [*Cheers.*]

The Colliery Accident at Pont-y-pridd: Presentation to the Medical Men.

—The PRESIDENT said it was then his very pleasant duty, on behalf of the Association, to make the presentation of medals and addresses awarded by the Association to the medical men who assisted in the rescue of the miners in this accident, and he would ask Dr. Falconer to address the meeting.

Dr. FALCONER said that the President had done him the honour to ask him to make a statement to the meeting with regard to the conduct of the medical men who were concerned in watching over the miners in the accident at Pont-y-pridd. The members of the Association would agree with him that that conduct exhibited the highest courage and the greatest powers of endurance and perseverance. They were for days and days in the mine waiting for the expected release of the men, and when that happy release was made they were unremitting in their attention to the poor men. [*Cheers.*] Dr. Sieveking had drawn out a paper which might be laid before the meeting. It was as follows.

"From the 11th to the 21st of April, 1877, a boy and four men were imprisoned in the Tynnewydd Colliery without light or food. The moral influence of the presence of the medical men, who cheered and encouraged the miners to persevere in their attempt at rescue, had a very material bearing upon their success. When the imprisoned men could be communicated with, the first thing they asked was, 'Are the doctors there?' and the two young men, Messrs. Dukes and David, were the first who, after a communication had been effected, crept through the narrow channel at the peril of their lives. The doctors, when in the pit, were in the same peril, from coal-damp and a flood of water, as the working miners, and they had not the stimulus of bodily work to take off their minds from the depressing influence of surrounding circumstances. The Association have thought the occasion one exhibiting in a peculiar manner the highest qualities of British medical men, and showing to the world the self-sacrificing spirit which prevails among them. They have, therefore, unanimously agreed that they would found a medal to be bestowed for distinguished merit, the first recipients of which should be the medical men engaged in the rescue of the entombed miners at Pont-y-pridd. When all did their work well, without fee or reward, or the prospect of recognition by the Government, as it would be in any other country, it is not intended that the medals bestowed by the Association should be more than an expression of admiration on their part of the manner in which the recipients did their duty; and, coming as they do, from a body of seven thousand medical men of Great Britain and Ireland, it is hoped that in some measure the distinction may take the place of such orders as, in other countries, would be bestowed upon men who had merited the recognition of their Sovereign. [*Cheers.*] The *Gold Medal* had been awarded to Henry Naunton Davies, Esq., L.R.C.P.Lond., surgeon to the colliery, upon whom devolved the chief responsibility, care, and anxiety, during the entombment and after the rescue. He spent whole days and nights in the pit, and shared all the dangers, while he had the cases involved in an extensive practice to put aside. [*Cheers.*] The *Silver Medal* had been awarded to two young assistants, students in medicine,

who were in the pit for forty-eight hours, and were the first to crawl through the opening by which the entombed men were communicated with, namely, Mr. Washington David and Mr. Edgar Dukes; and to Mr. Edward William Stephen Davis, who also spent some time in the pit, and took charge of the rescued men on the surface. [*Cheers.*] *Bronze Medals* had been awarded to Thomas William Parry, Esq.; Charles John Jones, Esq.; Francis Henry Thompson, Esq.; George Neal, Esq.; Philip James, Esq.; Rees Hopkins, Esq.; Ivor Ajax Lewis, Esq.; Edward Lloyd, M.D.; all of whom exposed their lives more or less in the pit, and rendered essential service when the miners were released."

That was the simple statement of facts as they occurred, so far as they had come to the knowledge of the Committee of Council of the Association; but he (Dr. Falconer) was perfectly sure that the Association, as represented by that meeting, would welcome those gentlemen as men who had bestowed a great honour upon the profession. [*Loud cheers.*] He believed that there would be found amongst the members of that profession many who, under similar circumstances, would have acted in the same heroic manner, but the opportunity had only come to the gentlemen whose names had been mentioned, and they had grasped, and showed in so doing what members of the profession were capable of undergoing for the benefit of their fellow creatures. [*Cheers.*] When the subject of recognising these otherwise unrecognised services by their brother medical men was brought before the Committee of Council, there was but one expression of opinion—that the proposal should be at once carried out. Unfortunately, the medallist had been unable to complete the medal in time for this meeting; but the President would present to each of the gentlemen named an engrossed copy of the following resolution:

"That the British Medical Association, having taken into consideration the heroic conduct, self-denial, and humanity of the medical men at the recent accident at Pont-y-pridd Colliery, are of opinion that their behaviour merits the highest praise and public recognition on the part of the Association, and therefore they resolve to present to them these medals."

The PRESIDENT, amid the cheers of the large meeting, then presented Mr. Davies and his colleagues with the engrossed resolution.

Dr. DE BARTOLOMÉ said that he felt highly honoured by being entrusted with a most important resolution upon this occasion, which was, it must be borne in mind, not an ordinary one. The Association was now, as he had told them on the previous day, attempting to remedy the *laches* of others, and the shortcomings of those who, he humbly thought, ought to know better. [*Hear, hear.*] Humble as was this attempt of the Association, it was honourable in its representatives to make it. He proposed, "That the medal now for the first time awarded, be henceforth awarded for distinguished merit". [*Loud cheers.*] He said that the subject recommended itself in every quarter, and he need not, therefore, take up any more time in introducing it to the members.

Mr. HUSBAND seconded the motion, and said the proposal now made introduced a new era into the history of the Association. He thought that nothing in the future would be more valued by medical men than a medal, which would only be given for "distinguished merit", and all who received it would feel that they had received a great honour. [*Cheers.*]

The motion was carried unanimously, and the meeting separated.

THIRD GENERAL MEETING, THURSDAY, AUGUST 9TH.

The third general meeting of members was held in the chemistry lecture theatre of Owens College, on Thursday, at 10 A.M. In the unavoidable absence of the President, the Chair was taken by Dr. FALCONER, President of the Council.

Report of Committee on Registration of Disease.—Dr. RANSOME read the report of the Committee. It recapitulated the work which had been done by the Committee since its appointment, and the results obtained. In the report presented in 1876, it was urged that, in addition to the registration of certain non-infectious diseases occurring in public practice, it was desirable that information of every case of infectious disease occurring in both public and private practice should be required from persons in charge of the case, or from the householder. The Committee repeated this recommendation, and suggested that steps should be taken to frame a legislative enactment that would enforce the registration of all cases of infectious disease, on the method already approved by the Association; and to this end they proposed that the subject be referred to the Parliamentary Bills Committee to consider in what form it could be best dealt with by the Legislature. He moved that it be adopted, and the Committee reappointed.

Mr. MANBY seconded the motion.

Dr. BOND (Gloucester) asked if the adoption of the report would commit the Association to the opinions of the Committee?

Dr. FALCONER replied in the affirmative.

Dr. BOND said that, as he could not assent to the views in the report, he should move an amendment. The Committee had urged that it should be referred to the Parliamentary Bills Committee to draft a measure whereby legislative powers should be obtained to make the registration of contagious diseases compulsory. He said that the Committee had not drawn any distinction between "notification" and "registration". A contagious disease might be "registered", and yet not the slightest notice might be given to the persons concerned—the local sanitary authorities; and there might, on the other hand, be notification, and yet no registration such as would be valuable to medical authorities in dealing with matters connected with epidemic disease. There was a great distinction between the two terms, and the difference was not merely nominal. Another important point was that the Committee desired to make it compulsory upon the medical man attending a case of contagious disease to report it, and upon the householder in whose house it occurred to report it. Now, while he did not yield to any one in a full appreciation of the importance, and, indeed, the necessity of notifying cases of contagious diseases so as to prevent their spread, yet he thought it would be most unwise to proceed upon this part of the question without reference to many other matters which were closely connected with it. If the Parliamentary Bills Committee prepared a measure and took it to the Local Government Board, there they would meet with serious objections. The proposal of the Committee to make individuals responsible ought not to be pressed in face of the fact that no pressure was put upon the local sanitary authorities to do their duties, and if individuals were compelled to perform this duty under present circumstances they would be placed in a very awkward position. For instance, if a tradesman had a case of contagious disease in his house, and were compelled to keep it there because the local sanitary authority had not provided, as they ought to do, hospitals for the isolation of such patients, the only effect of the man's reporting the fact of the case being in his house would be to publish the story far and wide, to the great damage of his business—to the ruin of it, in fact, if he kept an inn, or such like business. There was no power whatever to isolate infectious cases in districts where the local sanitary authorities had provided no hospitals for isolation, and they could snap their fingers at a man when he asked for the removal of such a case from his house. The proper mode of dealing with this question was to deal with it as a whole, and not in a piecemeal way. He thought the Association would be doing more good, and would have the chance of realising some direct result, if, instead of approaching the Government about one fragment of this question, they asked for a full inquiry upon the whole subject. There was great loss of life from preventable disease, but the manner of dealing with this great loss was not to touch the fringe of it. The Parliamentary Bills Committee ought to be empowered to take up the whole subject, and not be asked to deal with one part of it, legislation upon which would be practically useless without other needful reforms. He did not desire to seem to be uncooperative or to take an antagonistic part towards the Committee, and he would simply move that the report should be referred back to the Committee.

Dr. DAVIES (Swansea) seconded the amendment.

Dr. RANSOME asked leave to point out to the Committee's recommendation went to both "notification" and to "registration", of disease; and, also, he urged, Dr. Bond's objections were founded upon a wrong view of the Committee's proposal.

Dr. BOND expressed himself as pleased to hear the explanation given; but still urged that the report should go back.

Dr. KERR said that any proposal to throw the duty of registering cases of disease upon medical men would be to enhance a medical man's responsibility.

Dr. B. FOSTER (Birmingham) asked if it would not be well to let the members know that there was in the report nothing about imposing upon the medical attendant the duty of reporting to the local sanitary authority the cases of contagious disease which might come under his notice, and he suggested that it should be placed in the report that the Committee did not propose to place this duty upon their fellow Associates.

Dr. EYTON JONES (Wrexham) mentioned that in his own experience, as the chief of the local sanitary authority in his district, the medical men had declined to fill up papers which had been left with them for the purpose of their giving information as to cases of contagious disease which came under their notice.

Dr. RANSOME offered to alter certain words in the report to meet the objections raised.

Dr. BOND said he objected to this part of the report altogether.

Dr. ROYLE (Manchester) said the members must take care that they did not introduce the thin end of a wedge which would turn the screw upon the profession hereafter, and bring its members more unpaid labour than they now gave to the public. The medical men in private practice ought not to be asked to make returns of their cases, and men of common sense would not expect them to do so. The fact was, there were people who were always trying to make medical practitioners additional sanitary inspectors, and this without fee or reward for the work; they would make the medical man a spy upon the people whose homes he entered—a thing which the whole profession should oppose. He thought it right that the householder should be called upon to give the notices and information, but the report advised that the "householder should in the first place" report, and he should oppose that, as the words implied that the medical man was to report in the second place. He hoped that there would be no attempt to adopt the report in a "cut and dried" manner, committing the Association to principles which could not afterwards be recalled.

Dr. RANSOME again proposed to make an alteration in the report to meet the views of Dr. Bond.

Dr. BOND declined to accept them, saying he was exceedingly anxious that the Association should not deal with the matter in a manner which would have a visionary and not a practical result.

Dr. A. P. STEWART said that, as to the "visionary" result to come from the proposed action, perhaps Dr. Bond was not aware that the Registrar-General's Office had been prepared to carry out the proposal to make returns of disease, and could do so if the Government would only take the matter in hand. There had been delay for many years; and at one of the meetings of the Social Science Association, Dr. Farr stated that it was practicable, and Mr. James Lewis published a pamphlet showing that the office was quite ready to carry out the work, and would indeed have carried it out if there had not been "obstructionists" at Whitehall. It was of the utmost importance that the Association should press this matter forward, and Dr. Bond, knowing this, ought not to stand upon trifles. To raise these small objections in the way of work was exceedingly injudicious. This proposed registration of disease was not for criminal purposes, and the "spying" was for the good of the whole community to save health and life, and what was proposed did not in any way encroach upon the liberty of the subject.

The amendment was then put and lost; 28 voting for and 36 against it.

The original motion for the adoption of the report was then carried.

Report of the Scientific Grants Committee.—Mr. ERNEST HART presented, at the request of Mr. G. W. Callender, F.R.S., the Chairman of the Committee, the report of the Committee, which is published at page 221. In moving the adoption of the report, he said, it would be only necessary to explain that the whole of these sums were not payments in any way to those eminent men who took part in these experiments, but were as part payments of the outlay made by them for the purposes of the research, and the cost of the instruments which had to be purchased with which to carry out the work. The instruments so purchased remained the property of the Association. There would be two other grants of £50 each asked for; one for the special research on chloroform, which had been arranged that day, and so the whole sum of £300 would be applied for. There had been a great deal of difficulty in carrying out some of these investigations, in consequence of obstacles interposed by the present mode of working of the measure known as the Cruelty to Animals Act. There was, however, some reason to hope that this difficulty would in the future be diminished, and that Mr. Cross, the Home Secretary, who had recognised publicly the humanity of the medical men, and the loyalty with which they had assisted the legislature upon the subject, so as to protect animals from unnecessary pain, would as loyally assist the medical profession in promoting legitimate research in furtherance of the knowledge of medicine and its collateral sciences. He moved "That the Association grant a sum not exceeding £300 to be applied by the Committee, that the report be adopted, and that the Committee be reappointed".

Dr. MCKENDRICK (Glasgow) seconded the motion, and said he trusted that Mr. Cross would see the necessity of not placing vexatious restrictions upon these important investigations. It might not be known to the profession that unnecessary delays now occurred between the application for a license under the Act and the granting of it. When a physiologist made an application for a license he received no reply whatever for five or six weeks, and this delay gave rise to great practical difficulties. An answer surely ought to come within a fortnight, and this would facilitate the work in a very marked degree.

He was very happy to hear Mr. Hart express the anticipation that it was likely this difficulty would not in the future be so great.

The motion was carried unanimously.

The *Address in Surgery* was delivered by SPENCER WELLS, Esq., F.R.C.S. It was published at page 174 of last week's JOURNAL.

Mr. LUND (Manchester) said he thought it no small privilege to be allowed to propose this resolution—

“That the best thanks of the Association be given to Mr. T. Spencer Wells for the very able and interesting address upon Surgery.”

[*Cheers.*]

No one could have listened to that address without being deeply struck with the manner in which Mr. Wells had traced the history of surgery in the last forty years, and the words heard from Mr. Wells were the words of a man of world-wide reputation—there being no part of the habitable globe where his name was unknown. It might be asked, “What peculiar or particular qualification gave Mr. Spencer Wells the high position he occupied in British surgery, and attached so much weight to his words?” The answer undoubtedly would be, that to his great skill was united an inflexible honesty. [*Cheers.*] Anxiety was caused to a surgeon from his failures; but Mr. Wells had not recorded only his successes, but had reported also his failures, so that his opinions became almost priceless from the great confidence placed in them. In Germany and in other continental countries, Mr. Wells's statistics were highly prized, and they were so because they were honest. [*Cheers.*]

Dr. G. H. B. MACLEOD (Glasgow) seconded the motion, and said he had the greatest pleasure in doing so because Mr. Spencer Wells and he were old colleagues and old friends, and he had learned heartily to appreciate the good qualities of him whom they had heard deliver the address—to appreciate not only his talents, but his good qualities of heart as well. The address was full of facts, and it would be readily seen that it had taken up much of Mr. Wells's time in the preparation of it, and every one would attach the highest value to it.

The resolution was carried by acclamation.

Mr. SPENCER WELLS thanked the meeting most heartily for the kindness with which they had received his address, and assured them that it would always be a pleasure to him to think that he had been permitted to address the Association. [*Cheers.*]

FOURTH GENERAL MEETING, FRIDAY, AUGUST 10TH.

The fourth general meeting was held in the chemistry theatre of Owens College, at 10 A.M.: Dr. EASON WILKINSON, President, in the Chair.

The *Address in Obstetric Medicine* was delivered by ROBERT BARNES, M.D., F.R.C.P. It is published at page 209 of the present number.

Dr. MATTHEWS DUNCAN (Edinburgh), in proposing a vote of thanks to Dr. Barnes, said that “modernness” was the key of the whole of the excellent address which had been heard from Dr. Barnes, and that, as surgery had risen before obstetrics to its present great position in science and in the social scale, so the obstetric branch of the art was now rising. And if it were cultivated by such men as Dr. Barnes and others in the room, it would not only secure for itself victory over the professional difficulties about which Dr. Barnes had said so much, but would drive the abettors of its present general inferior position into disgrace. [*Cheers.*] The chief topic of the scientific part of Dr. Barnes's discourse was the relation of the blood of the nervous system to pregnancy and its diseases; and if any one looked to the admirable work of Montgomery, the gentleman whom many there assembled knew well—[*cheers*]—they would find that the topics of Dr. Barnes's discourse were not there even adumbrated. Later than Montgomery, the discovery of albuminuria in puerperal convulsions by Lever and Simpson, was an infantile condition of the growth of our knowledge which Dr. Barnes had described, and to which Hughlings Jackson had so much contributed. Lastly, the speaker briefly alluded to the circumstance that the word “experiment” was constantly recurring in Dr. Barnes's address, and said that this indicated the next great forward step in midwifery. The speaker added that he, in common with many present, had come to Manchester attracted greatly by the hope of hearing Dr. Barnes, and he was sure that they had not been disappointed. [*Cheers.*] He moved—

“That the best thanks of the meeting be given to Dr. Barnes for his able and interesting address in Obstetric Medicine.”

Mr. W. WHITEHEAD (Manchester) seconded the motion, which was carried unanimously.

Dr. BARNES acknowledged the compliment, and thanked the company for the attention they had paid to his address, which, he confessed, bristled with topics not only of discussion but of dissent. He expressed his pleasure at being criticised by Dr. Matthews Duncan,

and was glad to have his support to the view that in some much neglected studies there were things which would throw light upon points now unknown.

FIFTH GENERAL MEETING.

The last general meeting was held at 1.30 on Friday, August 10th: the President, Dr. EASON WILKINSON in the Chair.

Report of Committee on Habitual Drunkards.—Dr. EASTWOOD (Darlington) read the report of the Committee on Habitual Drunkards. It is published at page 221.

Mr. BERKELEY HILL (London) proposed, Dr. BORCHARDT (Manchester) seconded, and it was unanimously resolved—

“That the report of the Committee appointed to obtain legislative restriction for habitual drunkards be received and adopted, and that the Committee be reappointed as follows: Alfred Carpenter, M.D.; S. S. Alford, Esq.; G. F. Blandford, M.D.; W. Cadge, Esq.; J. W. Eastwood, M.D.; B. Foster, M.D.; W. C. Garman, Esq.; John Gay, Esq.; C. Houlthouse, Esq.; C. Macnamara, Esq.; H. Monro, M.D.; G. W. Mould, Esq.; R. H. B. Nicholson, Esq.; A. P. Stewart, M.D.; R. Farquharson, M.D.; and E. H. Vinen, M.D.”

Report of Joint Committee on State Medicine.—Dr. A. P. STEWART read the report on State Medicine of the Joint Committee of the British Medical and Social Science Associations. It is published at page 219.

Dr. BOND (Gloucester) moved—

“That the report of the Joint Committee of the British Medical and Social Science Associations be received and adopted, and the Committee as follows be reappointed: Dr. J. T. Arlidge, Dr. E. Ballard, Dr. Bond, Dr. Burke, Dr. Corfield, Mr. D. Davies, Mr. Dyke, Dr. Falconer, Dr. Gairdner, Mr. Ernest Hart, Mr. Haviland, Dr. J. Lewis, Mr. J. Liddle, Dr. H. T. Parsons, Dr. G. H. Philipson, Dr. A. Ransome, Dr. M. K. Robinson, Dr. J. Rogers, Mr. T. H. Smith, Dr. J. W. Tripe, Dr. N. Tyacke, Dr. E. Wilson, Mr. W. Clode, Mr. W. H. Michael, and Dr. A. P. Stewart, with power to add to their number.”

The mover expressed his deep regret that Lord Beaconsfield had not fulfilled the sanguine expectations of the country in making his Government carry out the principles of the motto he had adopted when he came into power—“*Sanitas sanitatum omnia sanitas*”.

Dr. ARMISTEAD (Cambridge) seconded the motion, which was carried unanimously.

Report of the Parliamentary Bills Committee.—The report of the Parliamentary Bills Committee was read by Mr. ERNEST HART. It is published at page 220.

Mr. ROBERT DUNN (London) moved—

“That the report of the Parliamentary Bills Committee be received and adopted, and that the following be the Committee for the ensuing twelve months: Mr. Ernest Hart, Mr. Alford, Dr. Bryan, Dr. Case, Mr. Curgiven, Dr. J. C. Bucknill, Dr. Davey, Mr. J. D. Harris, Mr. Reginald Harrison, Dr. A. Henry, Mr. W. Holder, Dr. C. Holman, Mr. C. F. J. Lord, Dr. A. Meadows, Dr. E. Morris, Surgeon Myers, Dr. Paul, Dr. Philipson, Dr. Quain, Dr. W. Reeves, Mr. W. Rivington, Dr. J. Rogers, Mr. Rogers-Harrison, Dr. J. Seaton, Dr. A. P. Stewart, Mr. Tosswill, and Dr. C. Williams, with power to add to their number.”

Dr. BEGLEY (Hammersmith) seconded the motion, which was unanimously adopted.

Report of the Chloroform Committee.—Dr. WATERS (Chester) presented the report of the Chloroform Committee. It stated that the Committee recommended the Association to appoint a Subcommittee of research, to consist of the following medical gentlemen, all of whom belong to Glasgow: Dr. Ramsey, Dr. Coats, and Dr. McKendrick, Professor of Physiology at Glasgow University; the latter gentleman to act as Chairman and Convener. It was also recommended that for the purposes of this Subcommittee of research the Scientific Grants Committee should make a fresh grant of £50. [*Hear, hear.*] These investigations in connection with anaesthetics, Dr. Waters said, were giving to the Association a character for promoting science and original research which redounded greatly to its credit. He moved—

“That the report be adopted, and that the Committee as follows be reappointed: Professor Lister, Professor Pirrie, Mr. Annandale, Dr. T. Keith, Dr. J. Duncan, Dr. McKendrick, Dr. Crum Brown, Dr. Burdon Sanderson, Mr. Spencer Wells, Mr. Ernest Hart, Mr. Clover, and Dr. Macdonnell (Dublin).”

Dr. TIFFEN (Wigton) seconded the motion.

Dr. WADE (Birmingham) objected to the manner in which the reports were brought forward. No time to consider the several subjects was given to the members. The reports should be printed in the JOUR-

NAL a fortnight before the meeting, and then the members would know what was to be proposed.

The motion was carried.

The Medical Reform Committee.—Dr. WATERS (Chester), in presenting the report of this Committee, dwelt upon the length of time over which the operations of this Committee had extended, and said that in point of fact the question of direct representation on the Medical Council was the question with which the Association started. He moved—

“That the report of the Medical Reform Committee be received and adopted, and the Committee as follows be reappointed for the ensuing twelve months: Dr. E. Waters, Dr. De Bartolomé, Dr. Eason Wilkinson, Dr. Falconer, Mr. W. D. Husband, Dr. Chadwick, Dr. Copeman, Dr. A. P. Stewart, Mr. T. H. Smith, Mr. W. H. Michael, Dr. Wade, Dr. B. Foster, Dr. Davey, and Rev. Dr. Haughton; with power to add to their number.”

The Rev. Dr. HAUGHTON (Dublin) seconded the resolution, but confessed that he should not be able to confer with the Committee so often as circumstances might render necessary. He expressed his disbelief that the corporations in Ireland would join in any scheme which would limit their present powers, and he spoke of failures which had occurred in the attempts to combine them in a joint scheme.

Mr. ERNEST HART said that before the resolution was put to the meeting he should, as editor of the JOURNAL, like to obtain something like an instruction as to the opinions of the Association to guide him. So far as his experience went, that experience being guided by the contents of the letter-bag, the profession had far greater interest in desiring to see the Medical Act amended by an alteration of the fortieth section, the section which now permitted quacks and medical pretenders to practise, and which could be very readily amended without waiting for the more elaborate amendment of the Act proposed by the Committee. The profession had been fed with great expectations. The Government did, some years ago, prepare a Bill amending the Act, and providing for conjoint examinations, and the only point upon which it was overthrown was the question of direct representation. [*Hear.*] He gathered from the opinions in letters that the general practitioners desired an immediate amendment of the fortieth section, and there would be no difficulty about obtaining it. The Government in 1868 proposed to amend it. The present Government had accepted a Bill to amend this section. It could be readily passed, and would effect good for the profession and the public. It was a Bill of one clause with two lines of preamble; and if the Medical Reform Committee would confine themselves to obtaining this reform, going in for the more elaborate proposals afterwards, they would do a service to the profession and to the public, and meet the views of the great majority in the Association. [*Cheers.*]

Dr. GAIRDNER (Glasgow) criticised the report, and said he considered that the proposed conjoint system was a mistake.

Dr. WATERS said it had been decided that the Committee should continue their efforts to obtain a thorough reform of the profession in the Medical Council, and protested against the proposal that they should be urged to go in for a mere amendment of the penal section.

Mr. HART said he thought it most important that members of the Association should express their opinions on the point; and, in order to raise the question directly, he would move as a rider to the motion—“That it be an instruction to the Committee to prepare a short Bill to amend the fortieth section of the Medical Act.”

Mr. NELSON HARDY (London) seconded the rider, and brought before the meeting the facts spoken to before the Home Secretary, who expressed himself entirely in favour of such an amendment of the law as would deal with the quacks. These men could afford to defy the law, as one was known to make more than £100 a week.

Mr. HUSBAND (York) trusted that the Association would not, by any side-wind such as this rider, do harm to the subject of medical reform. The questions with which the Committee had been dealing ought to be settled. The subject of direct representation was important, for the want of direct representation was a barrier in the way of all medical reform. He earnestly urged the meeting not to seem to say, by the adoption of the rider, that they were tired of the struggle for direct representation.

Dr. DARBY said that, if the rider of Mr. Hart should be adopted, the Bill for medical reform would be spoilt.

Dr. A. P. STEWART declared that, if the rider should be carried, some of the members of the Committee would not continue to act.

The resolution with the rider was put, and was carried by a large majority. There was much applause on the announcement of the result.

Dr. WATERS said he had been working upon this subject for many years. He had looked forward to carrying a thorough Bill. He should

not now descend to have anything to do with a mere Bill for amending a penal section, and should decline to act any longer upon the Committee.

Mr. HUSBAND and Dr. A. P. STEWART followed the course adopted by Dr. Waters.

The Provident Dispensary System.—Mr. ERNEST HART brought forward a resolution on this subject which had been adopted in the Public Health Section:

“That it be recommended to the General Meeting that a Committee be appointed with full authority to procure such changes in the administration of out-patient relief at hospitals as they may find necessary, and that the working of the present system of provident dispensaries in Manchester be carefully investigated and reported upon.”

He moved:

“That a Committee, consisting of the following gentlemen, be appointed, with full authority to use the influence of the Association to procure such changes in the administration of out-patient relief at hospitals as they find necessary, and that the working of the present system of provident dispensaries in Manchester be carefully investigated and reported upon, viz.: Dr. Eason Wilkinson, Dr. A. P. Stewart, Dr. Alfred Meadows, Mr. T. Holmes, Dr. R. J. Lee, Dr. Joseph Rogers, Dr. Ford Anderson, Mr. Nelson Hardy, Dr. Brierley, Dr. Haddon, and Dr. Borchardt.”

Surgeon-Major F. S. B. DE CHAUMONT seconded the motion, which was adopted *nem. con.*

Habitual Drunkards.—Mr. F. FOWKE, General Secretary, read the following resolution, which was passed in the Psychological Section:

“That it is the opinion of the Psychological Section of the British Medical Association that legislative action is imperatively necessary for the treatment of Habitual Drunkards, and that this object would be best effected by the establishment of distinct institutions for their treatment.”

Votes of Thanks.—Dr. CHADWICK (Tunbridge Wells) moved—

“That the cordial thanks of the meeting be given to the High Sheriff of Chester, the Lord Bishop of Manchester, the Mayors of Manchester and Blackpool, the medical men of Blackpool, Southport, and Lancashire, and to Mr. Williams of Northwich, for their generous hospitality to the members on the occasion of their visit to Manchester.”

Dr. BORCHARDT (Manchester) seconded the motion, which was carried unanimously.

Dr. THOMPSON (Leamington) proposed—

“That the best thanks of the Association be given to Professor Boyd Dawkins for his able and interesting lecture, and for his endeavours to promote the success of this meeting.”

Dr. IRWIN seconded the motion, which was carried unanimously.

Professor DAWKINS, who was received with much cheering, assured the meeting that it had been a great pleasure to him to be of any service to the members of the British Medical Association.

Dr. ROYLE (Manchester) proposed—

“That the best thanks of the Association be given to Mr. Galloway, Mr. Brocklebank, and those artists of Manchester who so kindly promoted the success of the meeting, by lending their collections of valuable pictures.”

Dr. BARNES (London) seconded the motion, which was adopted unanimously.

Mr. NELSON HARDY (London) moved a resolution to the effect that the meeting cordially recognised the presence of the distinguished visitors, and thanked them for their attendance.

Dr. THOMPSON (Leamington) in seconding the motion, added that he should suggest to the Committee of Council that two of the visitors should be elected honorary members of the Association.

The motion was carried, and Professors Ludwig of Leipsic, and Charcot of Paris, acknowledged the compliment.

Mr. SPENCER WELLES moved—

“That the best thanks of the Association should be given to the Mayor and Corporation of Manchester for giving a reception at the Town Hall on Wednesday, August 8th.”

Dr. LEECH (Manchester) seconded the motion, which was adopted unanimously.

Dr. VACHER (Birkenhead) moved—

“That the warm thanks of the British Medical Association be given to the Council of Owens College for the use of the building, and to the Senate and Council for their hospitality in giving a reception at the College on the occasion of this the Forty-fifth Annual Meeting.”

Mr. NAPPER (Cranley) seconded the motion, which was adopted unanimously.

Dr. A. P. STEWART moved

“That the warm thanks of the British Medical Association be given to the profession and the city of Manchester, for their munificent

hospitality on the occasion of the Forty-fifth Annual Meeting of the British Medical Association". He said that the display of such bounteous hospitality had the effect of discouraging smaller places from inviting the Association.

Mr. WATKINS seconded the motion, which was adopted unanimously.

Dr. GAIRDNER (Glasgow) moved—

"That the best thanks of the Association be given to the Local Committee and their secretaries, and to their treasurer Dr. Borchardt, for their successful labours in organising the meeting of the Association in Manchester."

Dr. DE BARTOLOMÉ seconded the motion, and it was carried unanimously.

Dr. STEPHEN moved—

"That the best thanks of the Association be given to the Museum Committee for their successful efforts in the arrangement of the museum and microscopic department."

Dr. RUSSELL seconded the motion, and it was carried unanimously.

Dr. WATERS (Chester), in a short and graceful speech, proposed a vote of thanks to the President.

Dr. PAGET (Cambridge) expressed the great pleasure he had in seconding the motion, and said it was an honour to be the President of so large an Association as this, but the honour was complete when the President was elected by his own colleagues and townsmen.

The motion being carried by acclamation, the PRESIDENT acknowledged the vote, and said that much of the success of the meeting had been due to the assistance of the Secretary and of the Committee of Council, whom he thanked. He read the following letter which he had received.

To Dr. Wilkinson, President of the British Medical Association.

Mr. President,—We thank you and the British Medical Association for the brotherly reception tendered to the representatives of the medical profession of the United States; and hope the day is not distant when your delegates will receive the same annual welcome from the American Medical Association. We wish that, by the proposed introduction of more uniformity in the practice and records of physic, the high standard of the English physicians will be more universally acknowledged. And we offer our heartiest encouragements to those of you who labour with the committee of the Charity Organisation Society of London for the legal recognition and medical treatment of all the idiots and feeble-minded children as the wards of a generous and mighty nation.

With the most profound respect, your most obedient,

E. SEGUIN,

Manchester, 9, vii, 1877.

Chairman of the American Delegation.

The meeting then closed.

GLASGOW.—This report was specially prepared by Dr. Russell to show the deaths from "all causes" and from certain specified diseases at all ages as well as at different periods of life in the statistical divisions of the city, and a special return under five years age. The latter are particularly valuable, as they enable comparisons to be made between the death-rates of different districts and their density of population. Thus the death-rate varied between 14.41 and 43.58 per 1,000 population, and the density of population between 10 and 501 persons per acre; but the highest and lowest death-rates did not correspond with the relative density of population. By grouping together the most crowded and the least crowded, it was evident that, as shown by Dr. Farr, there was an intimate relation between overcrowding and a high death-rate. Thus, in the three subdistricts having the greatest mortality there were as many as 296, 442, and 356 persons to an acre; whilst with the smaller death-rates there were only 41 and 39 persons per acre. The mortality amongst children under five years old coincided more closely with the overcrowding, as in the most crowded districts it was as high as 137 and 144, whilst in two of the less densely populated districts it was only 44.95 and 47.86 respectively. The death-rate of children under one year agreed far more closely with density of population than at other ages, as in the subdistrict which contained as many as 501 persons per acre, and in which the mean mortality was only 29.56, against 43.58 in the High Street closes, the death-rate per 1,000 population under one year was 256, against 260 and 265 in the closes—showing that the other factors of a high death-rate could not have existed in the same proportions in the two districts. Most probably the inhabitants of Brownfield (the subdistrict with 501 inhabitants per acre) are in possession of more of the comforts of life than the residents of the High Street closes. The variation in the death-rates of children was something enormous, as it was as low as 68.42 per 1,000 in a subdistrict with 41 persons per acre, and as high as 265, as just mentioned, in the poverty-stricken and densely populated closes.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 18TH, 1877.

THE ANNUAL MEETING AT MANCHESTER.

THE annual meeting of the Association has in all respects equalled the expectations which were formed, when it was announced that the profession in Manchester intended to put forth all its strength to make the reception one which should confer lustre upon the great body of professional men resident in that city and in the surrounding district, and that the mayor and corporation proposed to follow the example set by the Lord Mayor of London in giving an official reception at the seat of the municipal government, while many of the principal residents would take part in the hospitable arrangements which were contemplated for welcoming the great body of medical visitors. The number of medical men present at the meeting is stated to have been nearly fifteen hundred; and the arrangements were not only on a correspondingly extensive scale, but were in all respects exceedingly complete. The meetings of Council and the general meeting on the first day were held in the spacious Concert Hall, where also a reception-room, and reading, writing, and other rooms, were open during the meeting. On the subsequent days, the meetings were held in Owens College, which provided a reception-room, rooms for the various Sections, three apartments for the different sections of the annual museum (which was this year developed in a most interesting and complete manner), and a special tent for the museum of the Sanitary Association. In addition to these, there were reading and writing rooms, a post, telegram, and cab office, an inquiry office, and separate rooms for those officials whose work required to be carried on from hour to hour during the session of the Association. A large refreshment-tent was erected in the space behind the main building, and an excellent luncheon was provided daily at a moderate fixed price.

The sectional meetings included Sections in Medicine, in Surgery, in Obstetric Medicine, in Physiology, in Psychology, and in Public Medicine; and, notwithstanding this elaborate subdivision, nearly all the Sections were crowded with papers, many of them of great merit. The business of the Sections was carried on with much greater industry and despatch than on any former occasion. Whereas it has sometimes happened at previous meetings since the institution of sectional arrangements that the Sections have from time to time been deserted, and they often adjourned owing to the more seductive character of other contemporaneous attractions, they secured throughout large audiences on this occasion, and considerable pressure was needed to get through even the selected portion of papers which were submitted for discussion. Many papers had to be taken as read, and of others only brief abstracts could be delivered. We shall publish, in successive numbers, abstracts of all papers, so far as the authors have complied with the rules of the Sections by forwarding such abstracts to us, together with a report of the more important discussions; and we shall in due course present for perusal the full text of the more valuable and original contributions, as heretofore.

The reception by the President of the Association and the Senate and Council of Owens College took place on Tuesday evening, and was adorned by the presence of ladies and enlivened by military music. At the same time, more serious attractions were provided in other

parts of the building by Professor Osborne Reynolds, who explained and gave illustrations of the formation of vortex rings; and by Professor Boyd Dawkins, who delivered an address, and exhibited specimens illustrating the history of man in Great Britain from the pleistocene to the historic period. Professor Dawkins's address was highly interesting and largely appreciated; and this gentleman, by the continuous interest which he manifested in the proceedings of the Association, and by the very warm assistance which he rendered in facilitating many of its arrangements, has earned for himself the good opinion and the gratitude of all members of the Association with whom he came into contact. At half-past nine, Dr. Ransome delivered an address upon the present position of State Medicine in England, of which we present a report in another column.

The *soirée* at the Town Hall on Wednesday evening, at which the Association was received by the Mayor and Corporation of Manchester, was a most brilliant affair. The new Town Hall, which has not yet been formally opened, but is only just completed, was used on this occasion for the first time. It is a building of fine proportions and of very high architectural merit. The staircases, halls, and corridors are especially noteworthy specimens of the adaptation of Gothic architecture for the purposes of modern requirements of a guildhall, and reflect honour on the genius and practical capacity of the architect, Mr. Waterhouse. The fine set of reception-rooms were crowded with members and their friends, together with invited guests in the town; and the reception was one of the most brilliant in the history of the Association.

The Garden Party at Manley Hall, given by the President and Reception Committee on Friday afternoon, was a very enjoyable, and must have been a costly entertainment. The beautiful grounds of this residence, which had been hired for the occasion, were arranged suitably for the purposes of an outdoor *fête*; and the building itself was filled with a fine loan collection of works of art got together for the occasion. The weather, which had not been uniformly favourable during the week, interposed no obstacle to the enjoyment of this outdoor *fête*, and between two and three thousand ladies and gentlemen availed themselves of this tasteful and liberal effort of the Reception Committee to provide a suitable termination to a week which had been full of scientific interest and opportunities of personal enjoyment.

It would not be in good taste to refer in detail to the personal hospitalities exercised by resident members of the Association in Manchester; but it may well be imagined that it is certainly no more than the truth to say that in this respect the hospitality of the Manchester profession was of the largest, most liberal, and warm-hearted kind. All the local residents showed a cordial friendly feeling of emulation, which led them also to proffer kindly welcomes to distinguished foreign guests.

The annual dinner of the Association was held in the fine hall of the Assize Courts. About four hundred persons sat down to what was the largest dinner ever given in Manchester, and, we should think, the best.

The excursions on Saturday were very largely attended, and were favoured with very fine weather—the only element, indeed, to ensure their success. On all sides we hear expressions of the warmest satisfaction with all the arrangements of the proceedings at the meeting.

In addition to the ordinary proceedings of the meetings, a series of demonstrations were given in the course of the meeting by Professor Charcot of Paris, Dr. Lewis Sayre of New York, Professor Ludwig of Leipsic, Dr. Proust of Paris, and others, which greatly added to the importance and interest of the proceedings. Professor Charcot's demonstrations attracted so much interest that, at the request of a large number of persons who were unable to benefit by them on the first day, they were twice repeated on the following days. This also was the case with the highly interesting and most valuable demonstrations by Dr. Sayre of his new method of treating spinal deformities by the plaster jacket. These demonstrations proved to be of so deeply interesting a character, and were delivered with so much genuine enthu-

siasm and intensity, and enlivened by so many traits of humour and tenderness, that they created the highest enthusiasm. On each occasion, the theatres were crowded, and more persons were compelled from want of space to forego the pleasure and instruction of being present than were able to find room. At the close of the meeting, Dr. Sayre was induced, at the earnest request of some Liverpool surgeons, to go on to Liverpool and there repeat his demonstrations on a number of patients who had been collected for the purpose by Mr. Reginald Harrison. On both occasions, resolutions were carried by acclamation warmly thanking him for the generous and devoted course which he has pursued in spending so large an amount of time and trouble in bringing under the notice of the profession in this country the methods and details of proceedings by which he carries out his treatment of angular and lateral curvatures of the spine, which constitutes a new era in that department of surgery, and of which the already proved success entitles us to say that this method of treatment will prove an inestimable boon to thousands of persons now and hereafter.

Thus all the circumstances have combined to make the meeting at Manchester one which is calculated to promote all the objects of the Association. It has brought together an immense body of the medical profession under circumstances and with influences calculated to bring them into closer bonds of friendship and esteem and mutual respect; it has brought all ranks of the medical profession, including many of the most eminent in the three kingdoms, into intimate personal intercourse, for the intercommunication of knowledge and for the cultivation of brotherly feeling; it has brought under notice many new facts, new views, and new methods of treatment. The addresses by distinguished and learned orators; the original papers and observations, and the discussions arising upon them; the daily demonstrations; the facilities for examining all the most recent products of research and ingenuity in the museums,—have all combined to promote knowledge, to advance professional progress, and to increase professional unity and the power of the profession thus organised for good purposes in one great association. To achieve this object in its most complete and successful form, the profession at Manchester have made no small sacrifices, and have spared no exertion; and the thanks of the Association specially are due in no sparing measure for what they have done so ably, so willingly, and so well. These thanks are due to all and every one who took part in the reception; and we may, perhaps, be permitted to say that they are due especially, in the first instance, to Dr. Eason Wilkinson, whose universal courtesy and genial kindness made every one feel welcome, and aptly typified the spirit of the whole reception; to the Secretary, Dr. D. J. Leech, whose untiring labours and great powers of organisation have been the theme of universal admiration; and to his most able and energetic colleagues, Mr. Cullingworth and Dr. Hardie. The labour which falls upon the Secretary of the annual meetings, especially of so very large a meeting as this, can only be known by those who at any time have undertaken similar duties; but every one will be able to appreciate the fact that such duties require the sacrifice of much time, trouble, and personal inconvenience for many months prior to the meeting, as well as during its continuance. The Treasurer of the Reception Committee, Dr. Borchardt, as we are informed, worked with great activity not only in his own special department, but also in forwarding the general arrangements; and he did much to promote the social enjoyment of visitors, as well as to assist in the general success of the meeting.

The Museum Committee made special exertions, which were crowned with unusual success, for no such museum has ever been brought together before, nor, indeed, could any such collection have been brought together except at such a centre, and in anticipation of so great a professional assemblage. Dr. Ross and Mr. T. Jones were the Secretaries, and to them is due much of the credit for the excellence of the museum. Dr. Thorburn, as Chairman of the Museum Committee, did great service. Dr. Simon had sole charge of what proved a most popular department, the microscope-

room. In this room were arranged a splendid series of microscopes, contributed by the leading makers; and with their aid were shown highly interesting and important sets of specimens, including a series brought by Professor Charcot; a series of preparations illustrating the development of cancer, by Dr. Creighton; a series illustrating changes in the nervous system, by Dr. Gowers; and many others of great value. This department, which was a novel and special feature of the meeting, was very highly appreciated and very largely attended, and will, we hope, be a prominent addition to the attraction of subsequent meetings.

Drs. Pierce and Maccall superintended the printing department and edited the Daily Journal, an important piece of detail, which requires constant attention, and greatly facilitates the proceedings of the meeting.

Dr. Irwin arranged a most admirable series of excursions. In the Castleton excursion, which was one of very great scientific interest as well as of picturesque beauty, Mr. Dakin Fox and Mr. Boyd Dawkins were leaders; and to both warm thanks are due for their admirable arrangements and great personal kindness. Among others whose energy and kindness contributed much to the success of the excursions, may be especially mentioned Dr. Leslie Jones of Blackpool, Dr. Maury Deas of Macclesfield, Mr. Williams of Northwich, Mr. Johnson of Lancaster, and Mr. Woods of Southport.

Messrs. Ewart and Mould and Dr. Little occupied themselves with the charge of the eating and drinking department, and on such an occasion this was no small responsibility; and to them is largely due the merit of the great success with which this department was conducted.

In thus mentioning publicly the names of those who were officially charged with the departments of the meeting, we may probably have omitted the names of many to whose exertions it would have been a pleasure to render individual recognition; and it will be satisfactory to be enabled, on a future occasion, to amend such omission. In any case, it is evident that only a few can have been referred to to whom collective thanks are due; it is only by the consentaneous effort of the profession at large so great a success could have been achieved; for, at the close of the Manchester meeting, it only remains to say that such a meeting was in every respect worthy of the great industrial centre of Lancashire and of an Association which now numbers one-third of the whole medical profession in Great Britain.

THE ADDRESS IN SURGERY.

THERE are none of our readers, perhaps, who will not turn at once to Mr. Spencer Wells's Address in Surgery—few who will not read it through. In fact, its interest is such that we can hardly imagine anyone stopping in its perusal. Few words of ours, then, will suffice to indicate the salient points. There are few surgeons so fortunate as to tax to a certain extent their peculiarly professional position, and to become public men, almost as well known to the general public as the great statesmen, authors, or artists of the day. Such in his day was the position of Sir B. Brodie; such is now that of Sir James Paget; and such, or something like it, is the position of Mr. Spencer Wells. He has grown into this eminence, not as they did by recognised superiority in general professional merit, but by one achievement, confessedly and undeniably the greatest triumph of pure surgery which this, or perhaps any, age has witnessed. The invention of anaesthesia has, it is true, conferred incalculably greater benefits on the human race, and has changed the whole aspect of surgery. But this great invention seems to have been almost hap-hazard as far as its ultimate discovery is concerned, and resulted in neither fame nor profit to the inventor or inventors. Ovariectomy, on the contrary, was deliberately planned, carefully executed, maintained in its position as a legitimate operation in the face of the opposition of such men as Liston, Lawrence, and Robert Lee, and brought to its present pitch of perfection and success by untiring industry and the most profound and extensive acquaintance with practical surgery in all its varied applications. For

all this, the world recognises its obligations to Mr. Spencer Wells; for, although he is neither the originator of the idea nor the first to bring it to the test of practice, there can be no doubt, and as far as we know there never has been any doubt, that it is to his energy and courage that we owe the first establishment in surgical practice of this great boon to suffering humanity. In speaking of the progress of surgery before this great Association, it would, as Mr. Wells observes, have been false modesty if he had avoided the topic, or affected not to know that his own individual share in that progress is greater than that of any living man. When a surgeon can quote a sober arithmetical calculation made by a Lord Chancellor to prove that the operations which he has performed have added 10,000 years to the lives of the women on whom he has operated, he has passed from the narrower field of professional eulogy into the envied region of world-wide fame. Our contemporaries can testify that no one has borne his honours with more dignity and manliness than Mr. Wells—with less of that assumption of superior qualifications, and that charlatan-like mystery and self-importance, which sometimes detract from the merits of the successful practitioner, and render him a little ridiculous.

But enough of the orator. Let us turn to the oration. And here we will hope, as indeed we believe, that the public reputation of the speaker will lead many of the laity to peruse the address. Nowhere has the fact been more strikingly and more tersely demonstrated that surgery has been as progressive, and has achieved as great marvels, as any of the physical sciences whose professors are worshipped in the present day with something of the same blind adoration as were the priests in earlier times, and who, to say the truth, often, while fiercely denouncing priestly bigotry, show not a little of cognate intolerance. In these few lines we see the enormous changes which have been made in the comparatively short time that has elapsed since Hunter flourished—changes which have all resulted in the saving of human life, and the rescue of persons afflicted with the direst and gravest of human evils. Nor are we permitted to forget that it is not only in these awful emergencies that the triumphs of our art are won, but that the treatment of all the every-day maladies has become far more rational, more natural, and more successful. Nay, farther still, Mr. Wells points with well-founded hope to a far more beneficent part of our labour—only in its infancy as yet, but already rich in achievement and richer yet in promise—the art of preventing disease; a matter, as Mr. Wells states, never dreamt of in the days of Good Queen Bess, with whose reign he so aptly compares that of our present Queen, but which it is the chief glory of Victoria's reign to have inaugurated, and which, if a similar reign should come after three more centuries, will doubtless have become the chief branch of medicine.

But besides these general considerations as to the future of the great art of healing, how many and how interesting are the special developments of it to which Mr. Spencer Wells alludes—some already realised, as the introduction of lithotomy, the use of pressure for the cure of aneurism, the use of the ophthalmoscope, the laryngoscope, and the thermometer—some still on their trial, as the operation for the radical cure of hernia, the use of the sphygmograph, the endoscope, and the splanchnoscope—but all, as he truly says, now exposed to a broad light of criticism, and tested on all hands by a host of eager inquirers, whose united experience does more in a few years for the appreciation of an invention, and for its perfection, if it have any value, than the less concentrated work of a generation could have done in times when intercourse was more restricted. It is no wonder, then, if we repeat the boast of the old hero, and say that we far surpass our ancestors. It would possibly be ungracious, when there is so much real and solid progress undeniably present, to hint that some drawbacks accompany this splendid career. It is indubitable that the enormous development of personal and literary intercourse has developed an "advertising" class of mind—a race of practitioners who, like the old Athenians, "spend their time in nothing else but either to tell or to hear some new thing", and, worse still, who value less the progress of the art than the acquisition of some theatre for the display of their own in-

genuity or dexterity. But these pretenders are, from the nature of the case, ephemeral. In no long time "the fierce light" of modern criticism shows the hollowness of their claim to consideration, and their ingenious inventions are speedily consigned to the limbo of varieties. Meanwhile, the art of surgery progresses with giant strides; and we cannot do better than conclude our brief reference to Mr. Wells's address with the eloquent and pregnant words which he has chosen for its termination.

"If, in the forty years since this Association was founded, the great progress which I have so hastily and imperfectly endeavoured to review has been made, what may we not augur for it in years to come? The Association had its early struggles, and has passed through them. It is now powerful and vigorous; its organisation is almost complete, its resources are yearly increasing, and its influence, through its annual meetings, its branch operations, and the wide circulation of its invaluable JOURNAL, is universally felt. The history of the past and the study of the present, alike help us to look forward with hope and trust to the future.

"Look not mournfully into the Past. It comes not back again. Wisely improve the Present. It is thine. Go forth to meet the shadowy Future without fear, and with a manly heart."

MEDICAL CORONERS ACTING AS MEDICAL WITNESSES.

A CASE which has just occurred at the Oxford Assizes shows that a serious objection exists as to the appointment of medical men as coroners, unless they are careful to abstain from giving evidence in cases in which they have been called upon to act in a professional capacity. It is so obviously improper that a medical coroner should take charge of a case of unlawful wounding, on which, in the event of a fatal result, he will be called upon to hold an inquest, that we should have scarcely thought any warning against such a course would have been necessary. The recent trial at Oxford, however, shows the contrary, and furnishes a strong argument against the appointment to the office of coroner of a medical man who is practising in the district.

A woman was charged with the wilful murder of her husband by stabbing him in the hip. Mr. Hussey, surgeon to the infirmary and coroner for the city of Oxford, was called to attend the wounded man. He found him suffering from a tumour in the left buttock, which he considered to be a false aneurism. An operation was proposed, but the patient refused to submit to it. About five weeks afterwards, he again saw the man; the tumour had then increased to three times the size, and, from the thinness of the skin over the wound, he thought that death from hæmorrhage was impending, and that an operation was absolutely necessary. He tied the artery on both sides of the wound; but, in spite of every care, bleeding took place at various times, and the man gradually sank and died from exhaustion almost three weeks after the operation.

From this statement, it will be perceived the case involved some delicate medico-legal questions. As the death took place from the results of the operation, it might have been urged that the prisoner was not responsible; that the operation was not absolutely required for the treatment; that it was not properly performed, or that the after-treatment was not such as skilled surgeons would have employed. According to the report before us, however, counsel for the prisoner raised no special obligations on these points. In fact, the evidence showed that Mr. Hussey had treated the case with ordinary skill and care, and that he had used all those means which a well informed medical man would employ to save the life of the patient.

It is right to state that Mr. Hussey had not been appointed coroner at the time of first seeing the deceased, on March 18th, but he was elected to this office in April, some time before the performance of the operation. This led the learned judge to address him in the following terms.

"You were performing a judicial function in a matter in which you were deeply interested, and you had to answer the question to-day whether you performed the operation to the best of your ability. You

did, I believe, and I give you credit for it... It is placing a medical officer in an improper position. Here you are a judge inquiring into the cause of death, and you yourself are not only the most material witness, but the very manner in which you performed the operation is actually in question. You are, therefore, exposing yourself to an observation which might be of a serious character in the office of a judge. You are empowered to nominate from time to time a fit and proper person to act as deputy. Let me point out to you that it is exceedingly irregular, and ought not to have been done. It is placing the position of a person who is acting as judge in an exceedingly invidious light. He is actually sitting and presiding over a matter in which he is most directly interested. The questions left to the jury were:—1. Did the prisoner cause the wound? 2. Were they satisfied that the loss of blood, which undoubtedly caused death, originated in the wound, and arose from nothing else? 3. If they considered that the bleeding originated in consequence of the operation, without reflecting on the medical man, then I think it would be scarcely right to attribute the cause of death to the wound, and therefore to the act of the prisoner."

The remarks made by the learned judge, no doubt, had a great influence on the minds of the jury, and led to the verdict of acquittal. We have no doubt, from the medical evidence, that the operation in this case was necessary as a part of the surgical treatment, that it was properly performed, and that, had it not been performed, the man would have died from hæmorrhage; hence, the prisoner was really responsible for the result.

Neither the learned judge nor the jury appear to have taken into consideration the medical probability that, in the absence of an operation, the patient would have died in a short time from hæmorrhage, and the surgeon would then have been censured for its non-performance.

The case conveys a caution by which, we hope, medical coroners will profit. They must either decline to treat cases of this description, or hand the judicial investigation over to a deputy or to another coroner.

THE PUBLIC HEALTH (IRELAND) BILL.

THE Irish Public Health Bill has been withdrawn for the present session, in consequence of the action of the "Irish obstructionists". We can scarcely regret the fate of the Bill, as it is probable that, after the discussion which it has undergone this year, a much better measure will be presented next session. On August the 4th, it was our duty to criticise unfavourably the constitution and doings of the Select Committee to which the Bill was referred. We have now the Bill before us, as amended by the Select Committee; and, although many useful additions have been introduced, the alterations show that they have been all made in haste, and require careful verbal revision to make them satisfactory. We are glad to see that, in several particulars, the members of our profession are dealt with in a more liberal spirit in the amended than in the original Bill. Thus the Dispensary Medical Officers are to be designated Medical Officers of Health under the amended Bill, and not to be called by the ambiguous term Sanitary Officer. Special provisions have also been introduced to provide for the payment of suitable fees for attendance in courts of law and on board ship. We find, however, that the absurd provision for adopting a fixed "scale" of salaries under the Act is still adhered to, and that there is no clause for compulsory supervision by the Local Government Board. These are two great defects; but we are glad to be able to announce that Sir Michael Hicks-Beach had agreed to withdraw the objectionable provision with regard to the scale of salaries, and had admitted the necessity for supervision of the sanitary service by competent experts. We learn that the Treasury, more than Sir Michael Hicks-Beach, has stood in the way of these useful improvements; but that Sir Michael has convinced the Treasury that increased expenditure must be incurred, in order that sanitary organisation in Ireland may become a reality. If Sir Michael will press his well-known views upon his colleagues at the Irish Local Government Board, we have no doubt that sanitation in Ireland may yet secure a success, in spite of the discouraging failures which have taken place. In the face of the well-known failure of the Public Health Act in Ireland, it is rather amusing to

find, in the report of the Irish Local Government Board, which we noticed last week, a favourable account of the working of these Acts. The statement in the report of the Board is the more remarkable, as the Board have no means of knowing the real state of things, not having a single officer employed in the service. The statement of the Board cannot be reconciled with the Report of the Commissions on Local Government and Taxation of Towns in Ireland, which we recently noticed; nor with the opinions expressed to the Council of the Irish Medical Association, by a large proportion of the medical officers employed in the service. It may be a prejudice on our part, but we prefer the opinion of the Council of the Irish Medical Association, which is daily in communication with the medical officers employed in the sanitary service of Ireland, to that of the Irish Local Government Board, which has no means of communication. Has it ever occurred to the Irish Local Government Board that the Irish Medical Association knows more about the matter than the Board?

MR. J. A. WANKLYN has been appointed Lecturer on Chemistry and Physics at St. George's Hospital, in the room of Dr. Noad, who has lately died, after holding the office many years.

DR. BARLOW has been appointed Assistant-Physician to the London Hospital, in place of Dr. Bathurst Woodman, whose death we recently announced. Dr. Barlow thus transfers his services from Charing Cross Hospital to another field of labour.

THE *Cologne Gazette* announces that Dr. Erisman, a pupil of Pettenkofer, the well-known Professor of Hygiene in Munich, has been applied to by the Russian Government to undertake the direction of disinfecting the battle-fields in Turkey.

THE subjoined City Companies have contributed to the Repairs and Improvement Fund of the Westminster Hospital, as follows:—Grocers', £100; Goldsmiths', £100; Mercers', £105; Fishmongers', £52 10s.; Merchant Taylors', £26 5s.; Cutlers', £26 5s.; Skinners', £21; and the Clothworkers', £21, annually, to the general fund.

WE have great satisfaction in being able to announce that the sermon preached by the Bishop of Manchester at the opening of the annual meeting of the Association has been published by request, and may be had of Mr. Cornish, Piccadilly, Manchester, and other booksellers in that city. The price is 6d., or by post 6½d.

THE forty-seventh meeting of the British Association for the Advancement of Science commenced in Plymouth on Wednesday last. The new President, Professor Allen Thomson of Glasgow, delivered a very able address on the "Development of the Forms of Animal Life"—a subject with which his own studies have been much occupied for many years.

SOPHIA MARTHA TODD, who was convicted at the late assizes at Liverpool of murdering a child she had undertaken to keep for £10, has been respited. The child was found mummified in her box nearly two years after the murder. After her conviction, the woman persisted in her statement that the child died from convulsions. It was after an interview with Dr. Cormack, the surgeon who gave evidence in the case, and Mr. Justice Hawkins, that the Home Secretary determined to spare Todd's life.

GREAT scientific interest attaches to the transport and preservation of fresh meat by freezing process, for which purpose the frigate *Frigorifique* was some time since despatched to La Plata, with the approval and assistance of a Committee of the French Academy. The *Frigorifique* has arrived at Rouen from the River Plate with a cargo of fresh meat in fine condition. One hundred and twelve days elapsed since she commenced loading.

WE regret having to report that H.R.H. Prince Albert Victor has suffered a relapse. During the fifth week of the illness, from the 4th to the 11th instant, there was an intermission of the febrile state, and His Royal Highness's condition seemed to promise an uninterrupted convalescence. On Saturday last, the first day of the sixth week, the fever sharply returned, though with moderate intensity. We are glad, however, to be able to add that there have been no local complications, and that the case, on the whole, is progressing satisfactorily.

ASTLEY COOPER PRIZE.

WE learn that the prize for 1877 has been awarded to Drs. Eulenburg and Güttmann, for an essay on "The Anatomy, Physiology, and Pathology of the Sympathetic Nervous System". The subject selected for the next prize is "The Cranial Nerves, with reference to their Anatomy and its relations to Surgical Diseases and Injuries. The essay to be accompanied by preparations and drawings clearly displaying the course and distribution of the nerves, and especially their mutual connections". Essays in competition, either written in the English language or if in a foreign language accompanied by an English translation, must be sent to Guy's Hospital on or before January 1st, 1880, addressed to the Physicians and Surgeons of the Hospital.

COUNTY COURT ACTION FOR THE RECOVERY OF A CONTRACT FEE.

MR. IRVING of Tunbridge has lately succeeded in recovering a contract fee for obstetric attendance under the following circumstances. The defendant arranged with Mr. Irving to attend at her confinement. When the occasion came, he was ready and willing to attend, but was never called. The judge ruled that, as the medical attendant was ready and willing to give attendance, he was entitled to his fee.

THE TURCO-RUSSIAN WAR.

OUR own correspondent writes to us from Erzeroum under date July 26th, 1877:—After a most tedious journey from Trebizonde of nearly a week, we arrived here with a certain quantity of stores, so as to begin work at once, on the 12th instant. The next day, I paid a visit of inspection to the hospitals here, and found the condition of the wounded dreadful in the extreme. Very nearly two thousand sick and wounded, the latter predominating, were said to be in the different hospitals, sent from the engagements of Ardahan and Kars. There seemed to be very few of the severely wounded here; probably they had most of them died either on the field or during the very wretched transport of from eight to ten days. The greater part of the wounded had been here two or three weeks before our arrival, and by this time nearly all the slighter wounds had assumed a very grave character. Not a single amputation, beyond that of a finger, had been performed; and the authorities seemed to have utterly discouraged all operative interference on the part of the surgeons here. The reason for this was, as was positively admitted to me by the most incompetent principal medical officer it has ever been my lot to come across, that the Government has to pension every man who loses a limb in the military service, and that it is better to let them die than to recover to be useless to themselves and their country. The cases of utter neglect and bad treatment were everywhere so apparent that it would be useless to particularise; but I can truly say that the "real atrocities" of this war may be found in the military hospitals. Through the kind help of Mr. Zohrab, the British Consul, who is taking the most lively interest in our work, and whose son is daily at work as our principal "dresser", we had assigned to us a *khan* in which lay two hundred and twenty wounded. This establishment we took over as an "English hospital" on Sunday, July 15th, and plenty of work there was. Almost every wound of any serious importance was in a gangrenous condition, and it was somewhat hard to pick out cases for immediate operation. Having made our selection, and, in many of the cases, obtained the consent of the patient, there came in the difficulty with the principal medical officer. He was utterly averse to any amputations; but, after a hard fight, we obtained permission to do our work as we think best,

and now I think things will be smooth for the future. We have made up to the present time eight amputations; and cleanliness, carbolic acid, wine, and Liebig have wonderfully altered the condition of the generality of the inmates. We shall have to provide everything for the place; but, thanks to the kind help of English friends and the Stafford House Committee, we hope to have no difficulty about funds for the present. Not one of the servants about the place has received a single piastre of pay from the Government for some months, and, to make them work, we shall have to give them small salaries out of our funds. There is not even a bedstead at present; all the poor wretches lie on the floor on straw mattresses. The wounds are principally from bullets and fragments of shells; the Russian powder seems strong enough, for by far the greater number of the balls seem to have passed out of the body at once. One man whom I saw had seven wounds caused by one ball. It entered his left arm, penetrating it; entering again the side of the chest and passing round in front of the sternum, it found an exit on the opposite side. His right arm being flexed and raised to his head, the ball, on quitting the chest, grazed the right arm, entering and also quitting the point of the forearm which was thus in apposition. Very many are wounded in the foot, especially about the ankle-joint; many in the hand, and comparatively few about the head and chest. I must confess, however, much as I respect the valour of the Turkish soldier, that I have extracted some bullets from the gluteal region. We are daily expecting fresh relays of wounded from Kars.

A BABY-FARMING CASE AT BRIGHTON.

AN inquest was held last week at Brighton in the case of an infant aged nineteen months, who had died after a short illness. The child was illegitimate; it was healthy and well till six weeks old, when it was put out to nurse with a woman who had two other children to take charge of. From this time it fell off, and was attacked with diarrhoea and sickness. Mr. Hart, a surgeon in practice, was called in, and found the child suffering from want of proper food and care, although there was no evidence of criminal neglect. A similar opinion was formed by the house-surgeon at the dispensary, to whom the child was taken. The jury returned a verdict of "Death from natural causes", at the same time expressing their regret that such an unfortunate system existed. This appears to be one of the sad cases far too commonly met with, of death due to neglect, and no one found responsible to the law, although a moral responsibility clearly rested with the mother of the child and her deputy in active charge of the infant.

FATAL BATHING ACCIDENTS.

THE fact that three persons have lost their lives while bathing at Hastings within ten days of one another calls for some comment. The first case was that of a gentleman twenty-four years of age. He was bathing from a machine in the early morning; about five minutes after entering the sea, he was seen to fall with his head under water, where the depth was only three feet. He was quickly removed to the machine by the attendant in charge, who "rubbed him, and poured a little brandy down his throat". Dr. Cooke was called in, but found him dead. On *post mortem* examination, extensive disease of the heart was found, probably of long duration. He appears to have been in delicate health for some time, and to have known that he had heart-disease. The second case was that of a lad aged 16. He had been bathing from the shore with another lad, and appears to have been able to swim a little. After he had been in the water five to ten minutes, and being about ten yards from the shore, he was seen to kick a little, and those who saw him thought he was diving; he did not, however, come to the surface again. After a delay of eight minutes, he was brought to land, and the endeavour was made to restore him, but without effect. It appears, he had been liable to fainting attacks. The Royal Humane Society keep an attendant at the spot where the accident occurred, but at the time of the accident he was away. In this case, there was no

post mortem examination, and the exact cause of death was not ascertained. In both these cases, although the body was quickly recovered, the attendants appear to have been totally ignorant as to how to proceed to restore animation. It is much to be regretted that all attendants on bathing are not instructed in the methods of artificial respiration, and supplied with the admirable illustrated directions of the Royal Humane Society. In the third case, a boy, who had been previously warned never to bathe alone, ventured into the sea when it was rough: the current proved too strong for him, and he was carried away to sea. This quick succession of fatal bathing accidents at one of the favourite watering-places clearly indicates the necessity of a careful and vigilant attendance at the spots most usually selected for bathing; and the juries at the respective inquests drew the attention of the Royal Humane Society to the question. It appears to us that the local authorities should carefully consider the best means of preventing such accidents by a due regulation and superintendence of the bathing. The danger and folly of persons, the known subjects of heart-disease, rashly bathing by themselves is very manifest, and needs to be strongly impressed upon the public. If boys were more commonly taught swimming in their early years, something would be done to render sea-bathing a more safe as well as a healthful recreation.

MARSHAL MACMAHON AT THE NEW HÔTEL DIEU.

OUR Paris correspondent writes:—The new Hôtel Dieu, though not quite finished, was formally opened on August 11th by Marshal MacMahon, the President of the Republic. The Marshal, in plain clothes, and attended by several officers of his household, arrived at the hospital at 1 P.M., where he was received by the Prefects of the Seine and of the Police, M. de Nerveaux, Director of Public Assistance, M. Prieur, Director of the Hospital, and by the medical staff, consisting of Drs. Richet and Alphonse Guérin, surgeons; Drs. Germain Sée, Fauvel, Noël Gueneau de Mussy, Frémy, and Hérard, physicians. After having looked over the plans of the building presented by the architects, the Marshal commenced his visit of the wards in the right wing of the building—those reserved for male patients. At the entrance of the ward Saint Landy, the Marshal was received by Mother Sainte-Placide, Superior of the Sœurs Augustines, who, since the seventeenth century, have been entrusted with the care of the patients of the Hôtel Dieu. In passing through the wards, the Marshal offered a few words of consolation to the patients, and, being attracted by the apparent sufferings of a young man, inquired into the nature of his malady. The young fellow, or rather lad, took upon himself to reply, and said that, for fourteen long months, he had been laid up with caries of the bone of the right leg. He is now convalescent, and hopes soon to be able to quit the hospital. The Marshal, with good humour, related to the lad how, when he was in Africa, he knew of a Bedouin, a sort of charlatan, who cured a soldier suffering from the same malady by removing the diseased portion of the tibia, and the patient rapidly recovered. I cannot say what impression was produced on the minds of the surgeons present by the relation of this little anecdote, but I cannot help thinking they could not have felt highly flattered. The Marshal was then shown a patient suffering from contusions of the head, and, addressing himself to the young man, enjoined him to take courage; for, said he, "when one has not his head broken by the first blow, he is sure to get well." The Marshal then went on to the medical wards, and M. Germain Sée, in doing the honours of his own ward, pointed out some cases he had been treating with salicylic acid and its preparations. This did not seem to interest the Marshal much, until Dr. Sée assured him that this new remedy was destined to render great service to suffering humanity, particularly to rheumatic and gouty patients, whose cases had hitherto been considered incurable, or nearly so. Marshal MacMahon then visited the women's wards, and, in leaving the hospital, and addressing himself to Dr. Gueneau de Mussy, recalled to his mind when, many years ago, the latter had treated him for intermittent fever, which obstinately clung to him, but which he was anxious to get rid of, as he was about

to be married. Other physicians were consulted, but with no better success than that which attended Gueneau de Mussy. All the doctors advised perfect rest, which MacMahon was going to follow, when he received an invitation to join a hunting party, which, notwithstanding the paroxysm of fever under which he was labouring, he accepted; and, in the run after a deer, his horse threw him into a ditch filled with water which was as cold as ice, and the next day he was cured, never having had a return of the fever since. One would imagine that this little incident alone was sufficient to render the Marshal somewhat sceptical as to the utility of medicine; he, nevertheless, in recognition of the services then rendered him by Dr. Gueneau de Mussy, has promoted the eminent physician to the dignity of Officer of the Legion of Honour.

MR. GLADSTONE ON SANITARY REFORM.

ON the occasion of the visit of a deputation from Bolton to Mr. Gladstone at Hawarden Castle, he gave a short address on the necessity of sanitary reform. At the time of the interview, Mr. Gladstone was engaged with his son in the healthful occupation of felling a tree in his park. Referring to the contrast between the scene at the moment surrounding them and the neighbouring manufacturing town, Mr. Gladstone continued: "I hope some of you will live to see the time when there will not be such a complete contrast between manufacturing towns and the country as there is now. As a rule, there are three disagreeable things in large towns; one is noxious smells, one is the want of pure water, and the third is the enormous abundance of smoke." Mr. Gladstone then referred to the utilisation of refuse, now made in many instances where formerly the waste products of manufactories polluted the rivers; and concluded by referring to the great diminution in "London blacks" during the last forty years, and expressed his hope that sanitary reforms would still be pushed forward and perfected.

THE WOUNDED IN THE WAR.

THE *Times* correspondent states: I have been favoured, with further details by so high an authority in these matters as Mr. Barrington Kennett, chief representative of the Stafford House Committee, who is doing here the same good work in the cause of humanity as he did during the Franco-German, Spanish, and Servian campaigns. Mr. Kennett assures me that he was most kindly and cordially received by the Turkish officials, who rendered him every assistance in their power. He has been placed in an honorary position on the Staff of the Red Crescent Society, thus getting the benefit of the Geneva Convention in neutralising his stores and preventing their capture by the enemy. The Sultan has taken a warm personal interest in the work of the Societies, and offered a room in the Palace as a meeting-place for the Committee, in order that they may be near him and under his immediate and special protection. The other day, His Majesty himself examined the models of the ambulance waggons, and rejected one with only two wheels, saying if he were wounded he would like to be carried in a vehicle with four, and he did not see why any soldier in his army should not be treated as well as himself. The three Societies—the Red Crescent, the Stafford House, and the British National—are acting harmoniously together, and, so far as possible, each is concentrating most of its attention on a different department of the general work. The Red Crescent takes field hospitals, the British National takes field ambulances for the front, and the Stafford House Committee works at the transport service and the distribution of stores. Subsidies have been given by Mr. Kennett wherever it seemed to him that money was most wanted and would be best employed; and it will, therefore, surprise nobody who knows what admirable work the ladies here in Therapia have been doing for the sick and wounded to learn that their fund has contributed to the Committee—if I remember rightly—£200. It can still, however, find plenty of use for more money, and, therefore, it is most mortifying to hear from England, especially with reference to a fund known to be doing good work and approved by both Turkish and English relief agents, that subscriptions have been

withheld from it under a cruelly erroneous impression that, owing to the interference of the Turkish authorities, the money would be misapplied. The English surgeons—no fewer than eight of whom have been sent, most generously and humanely, by Lord Blantyre, at his own expense—occupy an independent position, and that here in Turkey their skilled services are sorely wanted I need not say. The sufferings of the wounded, owing to the incompetence of the Turkish surgeons and the truly Turkish neglect of the military chiefs, have been horrible. I trust to be pardoned mentioning one case, revolting as it is, since it gives a livelier impression of the sufferings of the wounded than would pages of description. It is that of a man from whose cheek three hundred worms were taken, simply because he had been left to rot. Proper treatment came too late, and he died.

PLAYGROUNDS FOR TOWN CHILDREN.

WE mentioned recently that a deputation from the National Health Society, consisting of Mr. Shaw Lefevre, M.P., Mr. Thomas Hughes, Mr. Ernest Hart (Chairman of the Executive Council of the Society), Rev. S. Barnett (Vicar of St. Jude's), and others, had attended the London School Board and presented a memorial signed by the Duke of Westminster, the Archbishop of Canterbury, and a number of influential persons, urging that the playgrounds attached to the schools of the London School Board should be fitted up with suitable gymnastic and recreative apparatus, and be opened for public use, under suitable regulations, after school-hours and on Saturday afternoons. We are glad to learn that a letter has been addressed to the National Health Society by the School Board, announcing that the Board have consented to act in accordance with the wishes of the deputation, to the extent of fitting up at once twelve of the principal playgrounds in a suitable manner. They add that they would wish the National Health Society to provide for the expense of superintendence which will be involved. The additional payments, however, for the caretakers cannot be large; and the divided authority implied would, we imagine, be likely to involve some difficulty. It may be hoped, therefore, that this latter part of the resolution of the School Board may be subject to some modification; but in any case the step is one in advance, and will constitute a great boon to the poor children in crowded neighbourhoods, and add in an improved degree to the other benefits conferred by the school-board system. We trust that the school boards of other towns will speedily follow this excellent example of the London School Board.

MEDICAL VICTIMS TO DIPHTHERIA.

OUR Paris correspondent writes:—From the number of medical men who have lately fallen victims to diphtheria or so-called croup, in Paris (eight or ten within the last twelve months), the question naturally suggests itself to one's mind, whether the disease is more virulent here than elsewhere. As far as my experience goes, I cannot say it is; but I have reason to believe that the cause of the fatal accidents is due more to the want of attention to the ordinary precautionary measures to prevent contagion or inoculation, than to any peculiarity in the nature of the malady. To the number of medical victims, I now regret to have to add the name of Dr. Dublanchet, a young physician who had just taken his degree, and who contracted the disease from a child he had been attending.

SANITARY STATE OF THE RUSSIAN ARMY.

THE *Daily News* correspondent telegraphs from Biela: The Russian army begins to suffer in health, owing in some corps to irregular rations, in others to hard marching, in all to heat; but the greatest predisposing cause is the total neglect of all sanitary precautions. They never bury dead horses, or oxen, or the entrails of slaughtered cattle. They never dream seemingly of the wisdom of the latrine system. The result is a general tainting of the air, which poisons men predisposed to fall ill by reason of lassitude from over-fatigue or long abstinence from food, although men in stalwart health escape. Strangely enough,

the greatest proportion of illness has manifested itself in the *personnel* of the Imperial suite, whose members are comparatively nursed in the downy lap of ease, and fare sumptuously every day. General Ignatieff for three days was dangerously ill from a species of gastric fever, and is still confined to his room. Prince Galitzin has been equally ill from the same disorder, and is still in bed. The Emperor has five high officers, known as generals-adjutants, on personal service about him. Of these but one is now fit for duty. The other four are ill. Nearly everybody is more or less sick, squeamish, and out of sorts. The reason is not far to seek. When I first came to Biela it had more stinks than Cologne, and the slums of Strasburg are a nosegay to it. The air is tainted thick and heavy with filth and rotting offal. Even tobacco-smoke and brandy are powerless to avert nausea.

PARKES MEMORIAL FUND.

A MEETING of the Committee of the Parkes Memorial Fund was held at the Royal Victoria Hospital, Netley, on August 6th. Letters received from subscribers, in reply to circular of March 1877, were read, and were found to agree unanimously in approving of the resolution provisionally adopted by the Committee relative to the disposal of the collected money, namely: "That the balance of the money which may remain, after paying for the portrait of the late Dr. Parkes, and defraying other expenses incurred by having heliotype copies of the portrait distributed among the subscribers, printing circulars, postages, etc., be placed at interest; that such interest be allowed to accumulate for periods not exceeding three years; and that the amount (about £100) then available be offered for the best essay on a subject connected with hygiene, to be declared at the commencement of each triennial period; the prize to be open to all executive medical officers of the army, navy, and Indian army, on full pay (except the officers of the Army Medical School during their term of office)." It was carried unanimously: 1. That this resolution be adopted. 2. That, if the fund admit, a gold medal, bearing the portrait of the late Dr. Parkes, of value not exceeding £15, be given, in addition to the £100 prize, to the successful competitor; and that a sum not exceeding £50 be set apart for the die. 3. That December 1st, 1880, be the date for sending in essays. 4. That the subject for the prize essay be determined by the Professor of Hygiene in the Army Medical School, in conjunction with a Committee formed by the Director-General of the Army Medical Department, the Director-General of the Naval Medical Department, and the Physician to the Council of India.

DEATH UNDER CHLOROFORM.

A LABOURER, 38 years of age, applied at the out-patient department of the London Hospital on August 11th, for the relief of a paraphimosis of three days' standing. Reduction by the ordinary modes of manipulation having been tried without success, the man was admitted an in-patient under the care of Mr. James Adams. When he was in bed several attempts were made by the house-surgeon to effect reduction, but, as the constriction was very tight, and the pain so severe that it was almost impossible to keep the man quiet, another house-surgeon was requested to administer chloroform. The state of the patient did not seem to contra-indicate the use of the anæsthetic, and there were no signs of great depression or faintness. A small dose of chloroform was administered on a piece of lint, and the man almost immediately began to struggle, but was easily restrained; this stage of excitement soon passed off; in two or three minutes he was sufficiently under the influence of the chloroform for the reduction again to be attempted; he was quiet and breathing regularly, when his respiration suddenly stopped, his face became livid, the lips blue, and the pulse failed. Artificial respiration after Sylvester's method was at once resorted to, and the chest was flicked with a wet towel. After five minutes, respiration was partially restored, but the pulse never returned and the heart's impulse remained imperceptible. Half a drachm of brandy was injected by a hypodermic syringe, and Faradisation was used; artificial respiration was continued for three-quarters of an hour

without success. At the *post mortem* examination the body was in an advanced state of decomposition. The heart was dilated and fatty; its walls flaccid; there was no valvular disease. The lungs were congested, as were all the internal organs. In this case, death appears to have resulted from a failure of the action of the heart.

DEATH FROM CHLOROFORM AVERTED BY THE INHALATION OF NITRITE OF AMYL.

We have received from a physician the following interesting report for publication. On the 9th instant, I was asked by a professional friend to administer chloroform to a patient of his, from whom he was about to remove a fatty tumour, situated in the left lumbar region. The patient in question was about forty-nine years of age, married, the mother of several children, of thin spare habit, but otherwise in good health. She was nervous, and apprehensive of the result, entreating me not to give her too much chloroform. Having previously examined the heart and found all the sounds normal, I gave her about two teaspoonfuls of brandy undiluted; and after waiting a few minutes, and placing her in the recumbent posture, I commenced the administration. The chloroform I used was Duncan and Flockhart's, upon the purity of which we can always depend. I poured a measured drachm upon a piece of lint, enveloped in a towel. I held it some little distance from her mouth and nose, and let her inhale slowly. My friend noted her pulse, whilst I carefully watched the respiration. The first dose did not produce any effect, and I then used another drachm, which soon caused a good deal of excitement, incoherent talking, and struggling—the patient striving several times to snatch the inhaler from my hand. This gradually subsided, and she appeared to be passing into the third stage of anæsthesia, when she made an abortive attempt to vomit, raised her head from the pillow, and, to my friend's great alarm, the pulse flickered and stopped altogether; she gave a gasp; foam gathered on her lips; her jaw became rigid; and to all appearance she was dead. I immediately withdrew the chloroform; my friend dashed some cold water on her face and pulled her tongue forward, whilst I commenced artificial respiration, after Marshal Hall's method, but without success. We then poured some nitrite of amyl on lint, and held it to her nostrils. In such emergencies, it is impossible to judge the flight of time correctly; but I should say in ten seconds there was a flushing of the face, the pulse was again felt, and, to our great joy, the all-important function of respiration was again restored; the woman being rescued apparently from the very article of death. After a time, the anæsthesia seeming tolerably profound, my friend proceeded to remove the tumour, which he did in a rapid and skilful manner, whilst, as the patient grew restless, I gave an occasional whiff of chloroform. It proved to be an ordinary fatty tumour. Only one small vessel required to be ligatured. The wound has since healed rapidly, and the patient has made a good recovery. In looking at the order of symptoms, I cannot help forming the opinion that, had it not been for the nitrite of amyl, this poor patient would assuredly have died. I have never seen, either in surgical or obstetrical practice, any one in such imminent peril. I am thankful to say I have never witnessed a case of death from chloroform; but, from the accounts published in the medical journals, both I and my friend inferred that, in the present instance, there was syncope arising from paralysis of the heart, and that this was met by the nitrite of amyl, which, in accordance with its physiological effects, gave a direct fillip to the arrested circulation.

SCOTLAND.

SMALL-POX has again appeared at Woodside, near Aberdeen, and a family of eight persons have been admitted into the hospital. One death has occurred, and one patient has been dismissed cured; the other six still remaining in the hospital.

LAST Saturday was the graduation-day at the University of Aberdeen, when the medical students who had passed the necessary examin-

ations at the end of the past session were "capped" in the presence of a large assemblage. The ceremony took place in the large hall at Marischal College; Principal Pirrie presided, and the proceedings were more than usually quiet. The degree of M.D. was conferred upon thirty-one candidates, and the degrees of M.B. and C.M. upon forty-one.

THE Glasgow Water Commissioners are at length beginning to take steps to prevent the needless waste of water which has been going on in the city for several years. In some districts, water-meters have already been introduced into dwelling-houses, and any water consumed above a given quantity has to be paid for extra. The Commissioners are proposing to take the further precaution, for preventing waste, of refusing to turn on water to any new building, unless the water-fittings have been previously tested at the Water Committee's office.

NEW ROYAL INFIRMARY, EDINBURGH.

LAST week, the managers of the Edinburgh Royal Infirmary had before them at their meeting the report of Mr. Charles Barry, President of the Royal Society of British Architects, in regard to the new infirmary buildings. Mr. Barry had been asked to make a thorough examination of the buildings, as a final referee, both by the managers and their contractors; because, some time since, certain charges had been made to the effect that the buildings were not up to the specifications. They had been already examined by five builders on behalf of the managers, and by ten builders on behalf of the contractors; and as the reports of these persons did not agree, Mr. Barry was invited to make a final decision in the matter. In addition to his own examination, which was a very thorough one, a number of documents were laid before him, and a number of persons, including many of the builders before-mentioned, the architect, the contractors, and others, were examined upon oath. The report was, on the whole, a satisfactory one. At the outset, the referee remarks that the terms in specifications for buildings are purposely very wide, so as to embrace all eventualities as far as possible, but are seldom intended to be taken literally; they are to be reasonably interpreted in accordance with the well-understood practice of respectable men. In this sense, it was suggested by the representatives of the managers that they desired to deal with the terms of the contract and specifications, and in this sense he proceeded with the inquiry. The gist of the report is in the following words. "Taken as a whole, I do not think the managers have any reason to distrust their contractors, or that their present reputation, as honest and respectable contractors, will suffer by their work here, when it shall be finally given up by them.....I see no indication of any desire on their part to escape their obligations, or to prejudice the real substantiality and durability of the work; and it is in evidence their instructions to their foremen were to do the work *only in the best way.*" The remainder of the report is taken up with the consideration of the charges in detail. The managers agreed to defer the consideration of this report until a subsequent meeting.

FATAL FALL.

WE regret to record a melancholy accident, by which a young and promising practitioner in the north of Scotland lost his life last week. Mr. C. E. Sanderson, who was medical officer at Duress, Sutherlandshire, was staying at the Station Hotel, Inverness. Shortly after he had retired to bed in a room in an upper storey, a noise of a fall was heard outside, and Mr. Sanderson was found to have fallen from his window. He only survived the fall a few minutes. Though he fell from the fourth flat, no bones were broken. It is supposed he was sitting on the window-sill smoking, when he lost his balance and fell. Mr. Sanderson was away from home for a holiday, and was in excellent health and spirits.

VACCINATION GRANT.—A Government grant for efficient vaccination in the third district of the Buckingham Union has been awarded to Dr. Thomas J. Denton of Steeple Claydon.

IRELAND.

A CHILD, aged six weeks, died last week at Newtownards, from the effects of laudanum administered to it by its mother to produce sleep.

ADULTERATION IN BELFAST.

AT the usual quarterly meeting of the Belfast Town Council, held recently, the report of Dr. Hodges, borough analyst, for the previous three months, was read. During that period, eighty-nine articles of food, drink, and drugs were submitted for analysis, thirty-eight of which were found to be adulterated or unfit for use, viz.: twenty samples of buttermilk, adulterated by the addition of an excessive quantity of water; one specimen of green tea coloured; one sample of oil of vitriol contained arsenic; one of coffee contained chicory; two of lime-juice contained sulphuric acid; nine of aerated waters contained lead; one of cheese unfit for use; one of beef unfit for food; and two of water contained impurities. During the quarter, thirteen summonses were issued for breaches of the Food and Drug Act, and fines were inflicted amounting to £27:10; in the cases of soda-water, containing traces of lead derived from the working of machinery, each of the parties received a caution; the cheese unfit for use was destroyed; and the well from which the sample of contaminated water was obtained has been closed up.

CLINICAL INSTRUCTION IN BELFAST.

AT a meeting of the Belfast Board of Guardians last week, a letter was received from the President of the Queen's College, requesting the guardians to select some of their number to meet the medical professors of the College, in order to consider the question of admitting the medical students of the College to the infirmary wards of the Workhouse, for the purpose of obtaining clinical instruction. The proposal has been accepted, and no time will be lost in making the necessary arrangements for so desirable a proceeding.

REPORTS OF SOCIETIES.

ABERDEEN, BANFF, AND KINCARDINE BRANCH.

WEDNESDAY, MAY 2ND, 1877.

M. W. COWAN, M.D., H.M.S. *Clyde*, in the Chair.

Dislocation of the Hip Backwards.—Dr. HIRSCHFELD of Banff read a paper on dislocation of the hip backwards. He remarked that there were two kinds of dislocation backwards described in surgical works; the one in which the head of the femur was displaced upwards and backwards on to the dorsum ilii; the other in which the head of the bone was displaced toward the ischiatic notch. These two dislocations presented appearances and symptoms very similar, viz., obliquity and shortening of the limb, with inversion of the knee and immobility of the limb. The deformity was greater and the displacement more marked, however, in the iliac than in the other luxation. These dislocations were caused by weights falling upon the patient when stooping with his knee inverted, or by the person coming to the ground with the knee bent while the body was still in motion. It required a great amount of force, with a certain position of the body and limb, to accomplish this injury, for the ligaments about the hip-joint were very strong; and so, though by no means uncommon, it was not so frequent as might have been expected. What determined the position of the limb in these dislocations, and what prevented their reduction? Sir A. Cooper said that the fixed position of the head was the natural result of the influence of the muscles, which drew the bone into the position, and that the capsular ligaments had but little strength either to prevent dislocation or to resist the means of reduction; and other authorities agreed with him in this. Some again considered that, along with the contraction of the muscles, the position of the head of the bone was determined by the force which caused the dislocation, the rebound of the limb from the abnormal position into which it had been thrown, and the extent of laceration of the capsule. And Professor Busch recognised the resistance to the reduction of dislocation as ligamentous and capsular, though he did not specify the particular part. The author considered that the displacement was not due to muscular

contraction, and that this was evident from the limb remaining fixed, even when the muscles were relaxed by anaesthetics, and requiring great force to reduce it by traction applied in the axis of the limb. Bigelow was the first to show that the malposition was due principally to the ilio-femoral ligament, and that this was also the obstacle to its reduction as usually attempted. This ligament, called the Y-ligament by Bigelow, arising from the anterior inferior space of the ilium, where it was about half an inch broad, spread out as it passed downwards to be inserted into the whole of the anterior intertrochanteric line. It was rarely broken, and thus determined the position of the limb in dislocations, and this was proved by dissection; for when all the soft structures were divided except this, the four ordinary dislocations could be produced, and it was only by the rare rupture, or partial rupture, of this ligament that any anomalous positions could occur in dislocations backwards. This ligament was thus important; but it was still more so, as it enabled us to reduce a dislocation readily by using it as a pivot on which the femur might be turned, as in the method of "reduction by manipulation"; and it was owing to the non-appreciation of the importance of this ligament, and the part which it played, that great traction by the aid of pulleys was considered necessary in all attempts to replace hip-joint dislocations, even when recent. He was quite aware that some considered that there was but one primary dislocation, downwards and forwards towards the foramen ovale, and that all the others were secondary. He did not think this, however, in respect to all the dislocations on the dorsum ilii, and could not understand how a weight falling on the bent back could cause this. Again, in necropsies, the capsular ligament had been found torn posteriorly. He thought at the same time that, in dislocation into the ischiatic notch, the bone did generally pass out of the capsule below, or on the thyroid aspect of the acetabulum, when the thigh was flexed, and that, by subsequent violence, and while the neck of the femur was suspended by the Y-ligament, the head slipped upwards and backwards round not only the acetabulum but also the capsule and the internal obturator tendon; the tendon of the obturator internus muscle and capsule thus intervening between the acetabulum and the head of the femur. This anatomical derangement accounted for the frequent failures to reduce the luxation by extension in the axis of the dislocated limb; for nothing short of rupture of the internal obturator could permit the head of the femur to reach the socket. In a case of dislocation, caused by the patient's being crushed to the ground by a boat falling on him, the extremity (left) was about two inches shorter than the other and slightly inverted, the thighs were parallel, and there was no arching of the back. The trochanter was prominent, and lay *above* a line drawn from the anterior superior spine of the ilium to the tuberosity of the ischium. Free motion with little pain could be made. After trying to reduce the dislocation with pulleys, etc., as usual, but without effect, he took hold of the left leg, just above the ankle, with the right hand; flexed the leg upon the thigh, and the thigh upon the body; placed his left foot unbooted on the pelvis to steady it, and his left forearm under the flexed knee as a fulcrum; pressed down the leg and raised his forearm, and so made traction on the thigh; rotated the knee outwards, extended the limb, and the head of the femur slipped into its socket with a "crunch". The patient was put to bed with a long splint for ten days. After describing a rare fracture of the neck of the thigh-bone, which this case resembled, the author made some observations on the reduction of such dislocations: (1) when recent; (2) when of long standing. He objected to pulleys as being not always to be had, and as causing often injury to the soft parts to an extent quite unnecessary when force sufficient for the purpose is directed intelligently. The method he recommended as above was not new, but had been used from the earliest times, the object being to make the bone travel back by the way it came, but in the opposite direction. The directions for the reduction of this backward dislocation are given by Professor Busch as follows: "Flex the thigh to rather more than a right angle, adduct till the knee reaches somewhat over the opposite side of the body, and then rotate outwards and bring downwards." This had proved insufficient in his experience, and in several cases recorded, and something more was evidently required in many cases for easy and safe reduction; and that something which was required, in addition to flexion, adduction, rotation, and extension, was vertical traction or tilting, which in some cases had been supplied by the arm of an assistant, and, in the author's case, by his own arm below the flexed knee of the patient, raising the limb. He believed that, in recent dislocation, no more force was required for the reduction than what any tolerably muscular man could readily exercise. In cases of old standing, he did not recommend great traction-force to be applied at once, but would be inclined to try to rupture the adhesions formed by rotating in the manner that bone-setters had so long practised successfully, when they wished to secure the normal movements of a neglected and stiffened joint. If this failed, he would have

recourse to pulleys on Dr. Bigelow's method, the patient being on his back strapped to the floor, and the pulleys exerting traction vertically from the roof, or from Dr. Bigelow's tripod made for the purpose. He did not think that length of time merely was any criterion as to when a dislocation might be attempted to be reduced. So long as the socket remained excavated and the bones not deformed by osseous growths, reduction should be tried; and even if the neck of the femur were broken, owing to its having undergone softening changes, the patient would not be worse, but better, and have a more useful limb. He thought it was doubtful if the capsule was ever an obstacle to the return of the dislocated bone; and considered it probable that, where the articular cavity was partially obliterated, it was the result of extraordinary violence, and consequent inflammation. He had found the cotyloid cavity retaining its depth and covered with cartilage after the head of the femur had been dislocated three years; and a dissection was on record where the head of the femur had been dislocated thirteen years, and in which the acetabulum retained its form and depth as well as its cartilage.

Ligature of the Axillary Artery for Subclavian Aneurism.—Dr. FORBES MOIR of Aberdeen gave an account of an operation performed by him for subclavian aneurism, in which he had tied the axillary artery. The patient, a man aged 34, presented himself with a pulsating tumour, of the size of a duck's egg, over the right subclavian artery. Pressure was tried, and also the subcutaneous injection of ergotin twice a week, and twenty-grain doses of iodide of potassium three times a day for months. At the end of six months, the aneurism was larger than before, and ligature of the axillary artery was resolved on, which was done with success, the pulsation becoming less. The patient died a month after the operation, from enteritis; but, as no *post mortem* examination could be obtained, the state of the aneurism at that time could not be ascertained.—Dr. HIRSCHFELD asked if rest had been enjoined along with the iodide of potassium. Thirty grains three times a day had been given, and iodism seldom seen; but in such cases, perfect rest in bed and low diet (milk) had been insisted on. Ergotin had been injected every two or three days for aneurism of the aorta, and had caused but very little inflammation when injected deeply into the muscles. He had tried it in cases of uterine fibrous tumour, but without effect.—Dr. STEPHENSON had injected three grains of ergotin with fifteen minims of water and glycerine, and considered this very useful in hæmorrhage, especially in hæmoptysis and epistaxis. He inserted the needle into the deltoid half an inch, and had used as much as five grains for a dose. In a child, he had found three grains succeed where two had failed. As to frequency of using, it might be done every four hours until some untoward symptoms, such as pain in the legs, appeared; but, if after three times no good followed, he did not proceed further with the injection.

CORRESPONDENCE.

PROFESSIONAL CATHOLICITY.

SIR,—I beg to hand you a form of resolution, which has been signed by every one I have applied to *personally*. The names I have obtained are nearly all representative men of the School to which I belong.

The resolution is purely abstract; and the only four gentlemen of your School to whom I have shown it have at once said, "If this represents the views of your School, we cannot logically refuse you the freest professional intercourse."

Trusting that the profession generally may indorse this opinion,—I am, yours truly,
GEORGE WYLD, M.D.

12, Great Cumberland Place, August 13th, 1877.

Form of Resolution intended for Signature by both Parties.

We, the undersigned, believing medicine to be a progressive art and science, hold that it is competent for any qualified medical man to adopt any theory or practice which he believes to be best for his patients. Therefore, the adoption of any theory or practice should not exclude any qualified medical man from the freest professional intercourse, provided he does not trade on a distinctive name nor unprofessionally advertise his mode of practice.

(Signed)—Frederick Foster Quin; Edward Hamilton, M.D.; Hugh Cameron; R. E. Dudgeon, M.D.Ed.; George Wyld, M.D.Ed.; D. C. Laurie, M.D.Ed.; F. Black, M.D.Ed.; William Bayes, M.D.; J. Hamilton Mackechnie, M.D.; R. Douglas Hale, M.D.; D. Dyce Brown, M.D.; Thomas Engall, M.R.C.S.Eng.; D. Matheson, L.R.C.P.Ed.; Richard Hughes, L.R.C.P.Ed.; Alfred Pope, M.D.; T. S. Marsden, M.D.

CONTAGIUM VIVUM.

SIR,—Dr. Roberts, in his very able address on the doctrine of contagium vivum, says it seems probable that septic organisms enter constantly into our bodies with the air we breathe and the food we take. This, I think, it is impossible to deny. He further goes on to say: "How these organisms are disposed of, we cannot say; we can only suppose that they must speedily perish."

I would suggest that they do not necessarily perish, but, as spores, remain quiescent. His own arguments, at another part of his paper, tend to disprove the assertion that they easily perish. On the contrary, the life remains latent, and it is almost impossible to destroy it. Their hour and opportunity arises when diseased action is going on in any part of the system; for, if this go beyond a certain limit, if tissue lose its cohesiveness, or its vitality be lowered, impeded, or destroyed (perhaps it is the last that is required), then these septic spores, being always present, wake up at once and commence their active life, and suppuration is the result.

In a paper read before the Surgical Section, in speaking of the formation of pus, I there showed how a deep-seated abscess might in this way be formed; which, though apparently far removed from external influences, yet was not really so, for germs or particles were always present in every tissue, which, under certain conditions, could come into operation and play their part when the conditions of the surrounding matter were favourable.

It is only this thought I wish to bring under the notice of those who heard or have read Dr. Roberts's address, and who enjoyed it as much as I did.—Yours faithfully,

ROBERT HAMILTON, F.R.C.S.

Liverpool, August 11th, 1877.

THE SUICIDE AT CHRIST'S HOSPITAL.

SIR,—I should not write in answer to your article on the suicide of the boy Gibbs, unless you had referred to me personally, as the profession have now before them the report of the Commissioners appointed by the Home Secretary.

You state that "no healthily constituted boy kills himself for a cuff or even a good flogging" (which is rather a broad assertion), and from that you argue that "this boy was so constituted that a great variety of trifling causes would produce an extremely depressing effect on his mind which, at any moment, might have led him to take away his life"; and then you go on to say "that what in particular surprises you is, that the medical officer appears to have had no knowledge of this child's constitutional weakness, or, if he had, he does not appear to have made any report thereon, in order that he might receive treatment more suited to it."

Now, I beg to state that the boy Gibbs was first seen by me immediately before he entered the school at Hertford; was professionally under, and then examined and passed as healthy, on coming up to London on April 27th, 1877, by the medical officer of the Hertford School; and again examined by myself on his arrival in town. Since then nothing occurred to cause the boy to come before me except twice, on the general inspection days. He certainly was not in any way a delicate boy, or afflicted (as far as I could see) with any "constitutional weakness" of mind or body, but was, according to the report of the Commissioners, "a stubborn and obstinate boy", and "a powerful boy, well able to take his own part." There was nothing in his appearance or manner to suggest to me, or anyone else in the establishment who knew him, "any peculiarity in his nature;" and, therefore, it was perfectly impossible for "the medical officer to have any knowledge of, or give any report on, this child's constitutional weakness."

I should have been pleased to explain any question relating to the food, cubic space, or ventilation in Christ's Hospital; but, as these matters will, no doubt, be well considered whenever the general question of removal or non-removal from town should be discussed, I will only state here, in conclusion, that the windows in the wards are open (and not closed, as you say) during the night, except in very severe weather; that there are other ventilators besides the windows; and that the water-closets, spoken of as opening into the dormitories, are more strictly speaking, urinals, and are only used during the night, and both these and the closets (which are only made use of in cases of emergency in the night) are thoroughly ventilated, provided with disinfectants, and shut off from the sleeping apartments.—I remain, your obedient servant,

ALDER SMITH, M.B.Lond., F.R.C.S.(by exam.),
Christ's Hospital, Aug. 14th, 1877. Resident Medical Officer.

MILITARY AND NAVAL MEDICAL SERVICES.

THE PUBLIC SERVICES.

THE examinations for admission to the Army Medical School at Netley are now proceeding at Burlington House. Thirty-three surgeons have entered into competition for commissions in the British Army Medical Service; thirty for the Indian Medical Service; and six for that of the Royal Navy. It is difficult to explain the paucity of candidates for commissions in the Navy, when the advantages of the service in regard to pay, economy of living, the honourable character of the occupation, and the good rates of retiring allowances are remembered. It is said that the young men at the medical schools are averse to embarking in a career in the course of which so much time will have to be spent in ironclads, or, as some style them, "iron coffins". Whether there is any truth in the statement is very uncertain; but there can be little doubt that, what with the effects of instability which some of them have shown, and other experiences lately afforded by rams, monitors, and torpedoed, surgeons are not likely to be of much professional use in them on some occasions.

ARMY MEDICAL SCIENCE.—The following is a list of army medical candidates, who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley, August 1877.

Marks.		Marks.	
1. Mullen,* J. J.	571	10. Kenny, W. W.	525
2. Murphy, F. H. S.	569	11. Ellis, P. M.	522
3. Johnston, W. T.	456	12. O'Sullivan, P. J.	520
4. De Caux, F.	452	13. Hogan, E. M. A.	521
5. Browne, A. W.	448	14. Irwin, A.	511
6. Hodson, R. D.	417	15. Kearney, T.	513
7. Powell, C. K.	407	16. McCarthy, W.	503
8. Kirkpatrick, H. C.	405	17. Brodie, J. T.	477
9. Armstrong, J.	379		

* Gained the Herbert Prize.

INDIAN MEDICAL SERVICE.—List of Indian medical candidates who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School at Netley, August 1877.

Marks.		Marks.	
1. Rogers,* F. K.	5611	15. Elcum, D.	4443
2. Hatch, W. K.	5382	16. Mullen, D.	4399
3. Owen, W.	5380	17. Taaffe,† R. J.	4337
4. Masani, H. D.	5280	18. Robinson, E. L.	4336
5. Gibbs, W.	5088	19. Nelis, J. A.	4315
6. Jack, D. M.	5050	20. Bouton, G. L.	4267
7. Conry, W.	4991	21. Smyth, W. B.	4223
8. Nailer, H. A. F.	4915	22. Chatterjee, N.	3945
9. Kurban, K. K.	4773	23. Crofts, A. M.	3939
10. Kellie, G. J.	4760	24. Crofts, J.	3745
11. Hancock, J. G.	4757	25. Cotte, W.	3734
12. Bass, D.	4715	26. Blood, J.	3892
13. Mackenzie, A. W.	4608	27. Dutt, B. L.	3777
14. Mullane, J.	4471		

* Gained the Martin Memorial Medal.

† Proceeded to India, having passed through a Netley course before.

NAVAL MEDICAL SERVICE.—List of naval medical candidates, who were successful at both the London and Netley examinations, having passed through a course of instruction at the Army Medical School, Netley, August 1877.

Marks.		Marks.	
1. Williamson, W. C.	4777	8. Johnston, W. K.	3715
2. Geoghegan, C. E.	4699	9. Price, J.	3475
3. McCarthy, M. J.	4714	10. Cross, H. E. F.	3277
4. Christian, J.	4400	11. Christie, A. L.	3117
5. Todd, H. J. M.C.	4382	12. O'Farrell, D. P.	3117
6. O'Grady, S. T.	4148	13. Anderson, C.	2840
7. Cree, P. K.	3497		

FORAGE AND PROMOTION.

SIR,—It is indeed very kind of you to advocate so ably the cause of the army medical officers, but I sadly fear that your eloquence and logic are alike thrown away. I am sure the profession in general must be heartily tired of our grievances. I am; but as we are powerless to alter, even with the efficient advocacy of a powerful press and parliamentary spokesmen, why not ignore military life, and learn to live for our profession alone? As a body, we are not worse off than our combatant brothers, and, indeed, have not been treated with such gross injustice, only as a smaller and scientific body, and one on which the efficiency of the whole army depends. A little more negligence of the clamour of certain insubordinate young officers a few years ago would have been more dignified on the part of the Government than hesitation to redress ill considered alterations of the Warrant of 1858. With your permission, I should like to say a few words on some of your six points. I must say that I agree with Mr. Hardy that no man has a right to claim horse-allowance, unless he keep a horse for the purpose of efficiently performing his

duty. I have never found that this was refused me when necessary. At present, my duties do not require the use of a charger; when they do, I shall claim and obtain the allowance; and it would be neither honest nor honourable to place myself on a level with "perquisite" hunters.

With reference to sick-leave, that is and always has been unfairly doled out. Many years ago I was very sick, and had to drag my poor lame self every two months up to the office, to get my leave renewed, though to almost any unskilled eye I could not be fit for duty under four or six months; yet because I was a doctor, less pity was shown me than would have been shown to a combatant officer.

With regard to unification and break-up of the regimental system, this was a mistake, because in time of war or other calamity, regimental doctors were removed temporarily to a sphere of activity, though I must confess that there was unnecessary grumbling on account of it. What really was required was not the removal of doctors from a regiment, but the consolidation of hospital stores of all kinds. These were unnecessarily dragged about the country at great cost with regret. In large garrisons, where two or three regiments or batteries were quartered, a general hospital where each man could treat his own sick was all that was required. This would have got rid of detached stores and naturally extra establishment, but have left doctors the social enjoyment of a military career, and maintained subordination, instead of teaching or encouraging the reverse. The unification system cannot be carried out in India, as it may be in England, without detriment to the sick.

With regard to the three years' service in India for promotion, somehow I have always known it, and cannot see why officers who never liked foreign service should have any occasion to feel aggrieved. It was a duty to myself to qualify at the first available opportunity, by going out of my way to do so; and though I can never be promoted, I should say that any person who has not so qualified should, in common justice, not be allowed promotion until he is qualified. The rule was made, I believe, in 1858; and any man who felt within himself that his medical talents were up to the knowledge of the day, would have felt sure that his administrative ability would be sought. A good administrative officer must be a good medical officer, but the reverse does not obtain, for there are many very excellent men who have no administrative ability whatever.

With reference to the militia officers, they certainly have not been dealt fairly with; but I cannot excuse the way they have behaved—certainly they have not helped our cause. Had they, with proper pride and spirit, rejected by the 1st January, 1877, the insulting offers made to them, various bodies of the medical profession would not on their behalf have been placed in the humiliating position of obtaining an introduction to the Minister, who granted them nothing, but to whom they had virtually to apologise for taking up his time, by thanking "the honourable gentleman for his courtesy."

In conclusion, I beg, sir, you will not for one instant suppose I have any sympathy with persons who employ clap-trap or other questionable modes of obtaining recruits for the army. I only desire that all medical men shall work together for each other's good, and not their sole personal aggrandisement.—I am, sir, yours truly,
FORAGE.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentleman was admitted a Fellow on July 26th, 1877.

Jelly, William, Madrid

The following gentlemen were admitted Members on July 26th.

Houghton, Walter Benoni, M.D. London, 114, Tottenham Court Road
Longstaff, George Blundell, M.B. Oxford, Wandsworth
O'Neill, William, M.D. Aberdeen, Lincoln
Phillips, Charles Douglas Ferguson, M.D. Aberdeen, 107, Lancaster Gate
Savage, Thomas, M.D. St. Andrew's, Birmingham
Sullivan, John, 28, Keppel Street
Thomas, William Robert, M.D. Queen's University, Ireland, Sheffield
West, Samuel Hatch, M.B. Oxford, 6, Colville Terrace West
Wybrants, Jonathan, M.D. Aberdeen, Shepton Mallet

The following gentlemen were admitted Licentiates on July 26th.

Aplin, Alfred, 8, Harrington Street
Arnott, Sandford, 24, New Ormond Street
Bennett, Arthur, London Hospital
Beresford, William Hugh, 4, Gloster Crescent
Biale, John Seton, St. George's Hospital
Brett, John, 49, Ladbroke Grove Road
Brock, Alexander Cameron, Dorking
Collet, Golding Bird, 155, Marylebone Road
Evans, William Murgan, Guy's Hospital
Frankish, William John, University Hospital
Friend, Herbert Edward, St. George's Hospital
Galloway, Arthur Wilton, 54, Fitzroy Road
Gaisford, Martin, King's College Hospital
Gomes, Dominic Anthony, 18, Tavistock Street
Ground, Edward, King's College Hospital
Hemsted, Arthur, Wellingborough
Heinemann, William, 36, Hilldrop Crescent
Langdon, John Sydney, University Hospital
Lacey, Charles William, Guy's Hospital
Mackay, James Jerome, King's College Hospital
Mackern, John, 4, Park Place, Blackheath
Pickford, John Kemble, Maiden Newton
Reporter, Maneckjee Eduljee, 1, Gower Place
Stewart, Howard Douglas, King's College Hospital
Vasey, James Adams, 5, Cavendish Place
Wiglesworth, Joseph, Liverpool

UNIVERSITY OF LONDON.—The following are lists of the candidates who passed the recent First M.B. Examination. Entire Examination.

First Division.

Banks, William, University College
Castle, Hutton, St. Thomas's Hospital
Dalton, Norman, King's College
Forsbrook, William Henry Russell, Westminster Hospital

Franklin, Arthur, St. Bartholomew's Hospital
Gill, Richard, St. Bartholomew's Hospital
Gotch, Francis, B.A., B.Sc., University College
Hagyard, Robert, Leeds School of Medicine
Hine, John Edward, University College
Maylard, Alfred Ernest, Guy's Hospital
Mee, Angel, University College
Neale, William Henry, University College
Paddle, James Isaac, B.A., B.Sc., University College
Penny, Edward, Guy's Hospital
Pollard, Bilton, University College
Pughe, Tialesin Wilim Owen, Liverpool Royal Infirmary, and Guy's Hospital
Rushworth, Frank, St. Bartholomew's Hospital
Sainsbury, Harrington, University College
Smith, Robert Percy, St. Thomas's Hospital
Woolldridge, Leonard Charles, Guy's Hospital
Second Division.

Balls, James, King's College
Barling, Gilbert Harry, St. Bartholomew's Hospital
Buckell, Arthur Edward, University College
Chaffey, Wayland Charles, St. Bartholomew's Hospital
Colquhoun, Daniel, Charing Cross Hospital
Davies, David Samuel, St. Thomas's Hospital
Edwardes, William Whitfield, St. Mary's Hospital
Fuller, Thomas Warberton, Guy's Hospital
Hartley, Robert Nightingale, Leeds School of Medicine
Harvey, Alfred, Queen's College, Birmingham
Hayle, Thomas Hahneemann, Owens College
Hayward, John Davey, Liverpool Royal Infirmary
Hodgson, John, Owens College
Jackson, Arthur, St. Bartholomew's Hospital
Keep, Charles Henry, Guy's Hospital
MacDonald, Greville Matheson, King's College
Michael, Henry James, St. Thomas's Hospital
Outhwaite, William, St. Bartholomew's Hospital
Ponsford, Leicester Cuthbertson, University College
Rich, Arthur Creswell, Liverpool Royal Infirmary
Sayer, Mark Feetham, University College
Walton, Robert Spence, University College
White, William Hale, Guy's Hospital

Excluding Physiology.

First Division.

Crisp, Thomas, St. Thomas's Hospital
Suckling, Cornelius William, Queen's College, Birmingham

Second Division.

Burey, Henry Burey Pullen, London Hospital and University College
Fooks, George Ernest, St. Bartholomew's Hospital
Herschell, George Arieah, St. Thomas's Hospital

Physiology only.

First Division.

Bevor, Charles Edward, University College
Lowe, Howard Griffiths, Queen's College, Birmingham
Meek, John William, Guy's Hospital

Second Division.

Barker, Frederick Rowland, St. Thomas's Hospital
Shaw, George, Westminster Hospital
Vince, John Hinks, Queen's College, Birmingham
Williams, Dawson, University College

MEDICAL VACANCIES.

The following vacancies are announced:—

CHORLTON UNION—Assistant to the Workhouse Medical Officer. Salary, £120 per annum, with residence and attendance. Applications on or before September 4th.

COSFORD UNION—Medical Officer for the Bileston District.

COVENTRY UNION—Medical Officer for the Workhouse.

DENTAL HOSPITAL OF LONDON—Medical Tutor and Demonstrator of Dental Operations. Salary, £100 per annum to each of the offices. Applications to be made on or before September 15th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Junior House-Surgeon. Salary, £50 per annum, with board and residence. Applications on or before September 5th.

ISLE OF WIGHT UNION—Medical Officer for the Workhouse. Salary, £90 per annum, with usual extra fees. Applications to be made on or before the 22nd instant.

MANCHESTER TOWNSHIP—Resident Assistant Medical Officer at the Crumpsall Workhouse.

ROYAL UNITED HOSPITAL, Bath—House-Surgeon. Salary, £60 per annum, with board and residence.

TAMWORTH UNION—Medical Officer for the Workhouse. Salary, £105 per annum. Applications to be made on or before the 18th instant.

WILTS COUNTY ASYLUM—Assistant Medical Officer. Salary, £110 per annum, with board, residence, and washing. Applications to be made on or before the 21st instant.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths is 5s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

BODINGTON. On July 24th, at Ashwood House, Kingswinford, Staffordshire, the wife of G. F. Bodington, M.D., of a daughter.

MARRIAGE.

EWART—BURDER.—On August 15th, at St. Mary's Church, Crumpsall, Manchester, by the Right Rev. the Lord Bishop of the Diocese, assisted by the Rev. Charles Sumner Burder, rector of Ham, Wilts, and the Rev. Henry Cottam, rector of St. Mary's, Crumpsall, John Henry Ewart of Luncford House, Crumpsall, to Josephine Caroline, youngest daughter of John Burder, Esq., of Wilton Polygon, Crumpsall.

AN ADDRESS

DELIVERED AT THE OPENING OF

THE SECTION OF PHYSIOLOGY,

*At the Annual Meeting of the British Medical Association,
in Manchester, August 1877.*By ARTHUR GAMGEE, M.D., F.R.S.,
Brackenbury Professor of Physiology in Owens College;
President of the Section.

RECENT ADVANCES IN PHYSIOLOGY.

GENTLEMEN,—It has, I believe, often been debated whether, amongst the sections devoted to the discussion of different subjects at our annual meetings, the section of Physiology should still continue to be numbered; for, it has been argued, physiology is now becoming so specialised and detailed a study, that the medical practitioner engrossed in the cares of his profession can scarcely be expected to take an active part in advancing its progress, nor can he take an interest in the elaborate investigations which, though leading to intelligible generalisations, require for their comprehension such a knowledge of chemistry and physics as he alone can be expected to possess who intends to devote his life to physiological pursuits. It is, indeed, true that the giant strides which our science is now making are very much due to the recognition of the truth that the problems which the physiologist has to solve are problems in physics and chemistry, which only differ from those with which the pure physicist and chemist have to deal by their greater complexity; and that for their solution the physiologist needs to be not only, as formerly, an anatomist with a general knowledge of the science of his time, but one accurately versed as well in all the details of physics and chemistry.

It is true that physiology has become specialised; that with the more complete development of the science it has become more difficult to master what might be termed a satisfactory elementary knowledge of it; and that the conditions affecting the workers engaged in its investigation are somewhat different and more difficult than in former times; still there are very great reasons which render it in the highest degree expedient that physiology should continue in the future, as it has been in the past, to be represented at the annual gatherings of our profession.

These reasons are the same which should be urged against all who would either, on the ground of the interests of the medical student, wish to limit the amount of physiological instruction imparted to him, or in the interests of the supposed dignity of the science of physiology wish, as far as possible, to divorce physiology from its natural connections with medicine.

It is one of the proudest boasts of medicine as a practical art that her followers have, from the earliest times, not only recognised the importance of a study of the physical and natural sciences, but have ever been among the most conspicuously successful investigators of those sciences. Zoology, chemistry, and botany, have not only been assiduously cultivated in times gone by, by members of our profession, but the custom of all wishing to fit themselves for a medical career, to pay some attention to those studies, secured them from neglect at a time when the taste for scientific knowledge had not become widespread. But if medicine has fostered chemistry, botany, and zoology, what has medicine done for physiology? That science in the past owed all to medicine. But for the deeply rooted belief that a knowledge of the functions of the organism in health must greatly aid, if it does not actually precede, all knowledge of disease, physiology would yet be in its infancy; for if we look back at the long list of those who have contributed to her annals, we shall find—if we except a few illustrious names, such as those of Boyle and Hooke and Spallanzani—that the prosecution of physiological research has been left entirely to those belonging to the profession of medicine. At first looked upon chiefly as a helpmate of medicine, physiology now occupies the position of an independent science. Yet medicine should look with jealousy upon all attempts to sever the connection which has so long existed. There is no abrupt line of separation between health and disease; a knowledge of diseased processes can only be arrived at through a comparison with the healthy standard; and the comparison can only be made by the employment of methods as strictly accurate as those

which the physiologist employs. Exactly in proportion as physiology defines with precision the acts and processes of the healthy organism, will medicine be in a position to become an exact study; the more the physician employs the habits of mind and the methods of research of the physiologist, the greater will be the progress of that profession, whose future shall be infinitely more glorious than even its honourable past.

In past ages, the physician has in the cure of disease been obliged to depend upon the use of remedies employed on no better ground than the recommendation of weighty authority or common professional experience. The light which has already dawned upon therapeutics, since the investigation of the precise action of remedial agents upon the various tissues and organs of the body has been attempted by physiologists, allows us to realise what physiology is destined to do in this direction.

Shall there, then, be any severance between medicine and physiology? Because the science, once so simple, has become rich with facts hard to be learned by those who will grudge time and labour to study them, shall we, therefore, say that modern physiology has become too formidable a science for the average medical man? Shall we regard it as one of the sciences, more or less directly useful to medicine, with which the medical man may be content to have a second-hand acquaintance? I hope not! Let us then look to it, that a Physiological Section shall remain one of the features of this Association, as a testimony to our firm belief that we have in physiological knowledge a compass for our more venturesome bark, which supplements but not supplants that pole-star of mere empiricism, so liable to become obscured by the clouds of daily events.

But let it not be supposed that I regard the advantage of the union of medicine and physiology as altogether one-sided. Just as the standard of health is necessary to the interpretation of disease, so the changes wrought by disease are often invaluable as illustrating function. The subtle knife of disease is often needed to bring about the delicate lesions whereby alone we can hope to learn the operation of hidden or complex organs. That we sometimes misread these experiments of disease, is hardly to be wondered at. But misinterpretation will become impossible, as soon as we shall have completely understood the methods and conditions of nature.

As I have been led to enter upon the discussion of the relation of physiology to medicine, allow me for a few moments to add some additional observations, chiefly in reference to the part which physiology should occupy in a medical education.

Believing, as I do, that physiology is the one great basis of rational medicine, I argue that a very accurate study of it should be considered essential on the part of all those who desire to enter the profession of medicine—a far more accurate study, I mean, than has yet been deemed possible. I would urge this, because of the facts of physiology being absolutely necessary to medicine, even were it not true that the habits of mind acquired by the cultivation of this science, at once experimental and observational, are the very habits of mind which should be cultivated by him whose life is to be spent in the observation of disease and in the performance of the complex experiments, if I may use the expression, which the most careful physician must needs be always performing.

For this accurate study of physiology, there are ample means afforded in several of our schools of medicine. The student has now an opportunity not only of reading or hearing the results of experimental investigations which have thrown light upon the science, but he is brought face to face with the methods of investigation which have been employed, and he is individually encouraged to observe for himself; in a word, while physiology has advanced, the means of study available to the student have increased enormously. Are the results commensurate with the means at the student's disposal? I am not afraid to answer, without hesitation, in the negative. This is to a great extent owing to the fact that the examining body, which in England is the chief dispenser of surgical licenses, had, until lately, conducted its examinations in such a manner that a student might pass his anatomical and physiological examination whilst absolutely ignorant of the most elementary facts of physiology. A large number of medical students have passed through their curriculum, and have joined the ranks of our profession, without even a semblance of physiological knowledge; and so the ample resources afforded by our new physiological laboratories have been allowed to remain to a great extent unutilised. But the great hindrance to the study of physiology which at present exists is to be found in the thoroughly deficient preliminary education of the average medical student. All this must be changed; the requirements of our examining boards must be such that only persevering labour on the part of intelligent lads who have been well taught throughout can fit them to be admitted to their medical studies. A sound and intelli-

gent knowledge of pure and mixed mathematics must be *de rigueur*, and a far sounder and no less extensive knowledge of languages, ancient and modern, than is at present required, must be demanded.

In a word, our medical students must come to us with the average knowledge of the German student. To such students it would be possible to teach physiology; such students could fit themselves without difficulty to practise a profession which now needs for its successful practice the possession of a scientific training.

But would not the method which I recommend keep out of the medical profession a large number who now enter it? Would it not cut off from our medical schools many students who now obtain admission to them? Certainly, many of those who by dint of hard cramming are just able to satisfy the requirements of examining boards, which for the most part require an accurate knowledge of one subject only—human descriptive anatomy—would undoubtedly find it hopeless to enter the profession were an enlightened knowledge of scientific medicine required of all. But would not their places be taken by others who would be attracted by the greater *prestige* attaching to the title of medical man? I believe so; indeed I am convinced that the only solution of the difficulty which nearly all acknowledge, viz., that our medical curriculum is becoming too burdensome for the average medical student, is to be solved only by demanding a more thorough preliminary training from the student. At a time when the conscience of the country has been so far awakened that, following the example of Scotland and Germany, the primary education of England is being placed on a thoroughly sound basis, it behoves us to raise decidedly the educational qualification for admission to the really learned profession of medicine.

An annual address, such as the one I have the honour to deliver to-day, affords a favourable opportunity, if not for casting a retrospect on all the work done during the year in our special department, at least of drawing attention to some of the more evident advances which have been made. I therefore purpose laying before you an account of some of the work which has been done of late, and which, I believe, is destined to leave its impress on science. Whilst the attention of scientific men generally has been devoted more keenly than ever before to those *ferment actions* which are associated with the life of minute organisms, our knowledge of the remarkable class of unorganised or unfermented has undergone, of late, very great development. "Unorganised" or "unfermented" is the term applied to such ferments as those which occur in the animal body, to distinguish them from certain elementary organisms which, possessing the power of setting up certain decompositions (fermentations) in bodies with which they are in contact, are termed *organised ferments*. Unorganised ferments are chiefly distinguished from organised: (1) by the fact that they may be dissolved in certain menstrua without any impairment of their ferment action; thus the ferments of the animal body are probably without exception all soluble in glycerine and in water: (2) by the fact that their action is not prevented by many agents, such as chloroform and salicylic acid, which at once arrest the action of organised ferments. The ferments of this class which have been longest known to us as belonging to the animal body are ptyalin and pepsine; the former, the amylolytic ferment of the saliva, the latter, the proteolytic ferment of the gastric juice. With regard to the former, we know that its physiological importance is very secondary to that of the latter, in that it is absent from the saliva of the great majority of animals (its presence being, indeed, a rare exception), that fluid serving primarily mechanical functions, dissolving certain of the constituents of food, moistening the whole mass, and thus co-operating in a most important manner in the acts of gustation, mastication, and deglutition. With regard to the gastric juice, it has long been known that its function is a purely chemical one, that it depends upon a ferment, pepsine, which, in the presence of dilute acids and at the temperature of the body, possesses the power of dissolving insoluble proteids, and converting them into bodies termed *peptones*, which, whilst not differing sensibly in chemical composition from the bodies whence they are derived, possess the power of diffusing readily through animal membranes—bodies which, being absorbed, are capable, as direct experiments have lately positively shown us, of being reconverted into the various proteids occurring in the tissues and organs of the body.

The researches of Corvisart, of Bernard, and of Kühne, showed that the gastric juice is not the only alimentary secretion possessed of proteolytic action, for the pancreatic gland secretes a fluid which is capable of acting on all the three chief groups of organic constituents of food, upon the proteids, the starches, and the fats, in virtue of three distinct ferments; one proteolytic, capable of converting proteids into peptones, one amylolytic, like ptyalin, and a third capable of decomposing fats into fatty acids and glycerine. The proteolytic action of the pancreas

had been positively ascertained by Corvisart, but comparatively little importance was attached to it until the researches of Kühne showed that not only are the conditions of the activity of this ferment different from those of pepsine, but that the results of its activity differ also. Kühne showed that, when proteids are dissolved by the pancreatic juice, not only are peptones formed, but considerable quantities of leucine and tyrosine; these bodies, of which the former is closely related to the fatty acids and the latter to the group of aromatic bodies, prove by their presence that not only is the action of the pancreatic juice upon certain proteids more powerful than that of the gastric juice, weight for weight, but that the former attacks the proteid molecule in a more profound manner. These facts are already old to science, but they have lately been added to in many particulars. First of all, Heidenhain has shown us that in the pancreas, as also in the salivary glands and stomach, there are structural differences to be observed which correspond with the various states of functional activity of these organs. During rest, the secretory cells of the pancreas enlarge, and there accumulates within them granular matter which disappears when the gland enters into activity and the gland-cell shrinks. Further, he has pointed out that the secretory cell of the pancreas at the time of secretion does not contain ready-formed ferment, but a body which, under suitable circumstances, yields the ferment, and which he terms *zymogen*, ferment-generator. Heidenhain has shown that the *zymogen* yields the ferment when it is present in a watery solution, more rapidly still when it is treated with weak acids: he has studied more carefully than had ever been done before the conditions of the activity of the fully formed ferment, and has shown that alkalies are as essential to its activity as are acids to the activity of pepsine, a watery solution of sodium carbonate of 1 per cent. being as favourable to the activity of the proteolytic ferment of the pancreatic juice as is a watery solution of hydrochloric acid containing 0.2 per cent. to that of the proteolytic ferment of the stomach. To these discoveries, partly anatomical and partly chemical, of Heidenhain, Kühne has added others, however, which throw great light, not only on the functions of the pancreas in digestion, but likewise on the mutual relations of gastric juice, bile, and pancreatic juice. To the proteolytic ferment of the pancreas, Kühne applies the distinctive name of *trypsin*, (presumably derived from *θρῆπτω* ψω, to break up, to crush). He has shown that trypsin differs from pepsine in that it appears to be proteid in nature. Its activity is increased by alkalies and alkaline fluids, such as the bile; but it is prevented by acid fluids. Trypsin has no power of digesting pepsine, but pepsine in acid solutions has the power of destroying trypsin. Here we have one important explanation of the function which the bile serves in digestion. The bile, as has long been known, helps to neutralise the acid chyme, and brings peptic digestion proper to a close; initiating, in this way, the conditions which are favourable to pancreatic digestion at the very time when this digestion should commence.

I shall leave the researches of Kühne without referring in detail to his views on the different action of pepsine and trypsin upon the proteid bodies, because these appear to me to be, to a certain extent, hypothetical, and shall now speak of the ferments of the intestinal juice. This fluid appears, by the researches of Thiry and others, to contain a ferment which possesses the power of dissolving certain of the proteids, as boiled fibrine; the ferment which is chiefly characteristic of it is, however, one which possesses in a singularly high degree the power of converting cane-sugar and milk-sugar into grape-sugar. This ferment, which had long been surmised to exist, has lately been re-investigated by Claude Bernard, who finds that it can be dissolved and precipitated by the re-agents which dissolve and precipitate the other unorganised ferments of the body; to it he gives the name of the *inverting ferment* (ferment inversif). Great light has thus lately been thrown upon those functions of the alimentary canal whereby proteids, starches, and sugars are modified. Is our knowledge concerning the digestion and absorption of fats progressing? It has long been known that both the bile and pancreatic juice possess the power of emulsionising fats, and, as I previously stated, it has also been known that the pancreatic juice possesses, to a certain extent, the power of splitting up fats into glycerine and fatty acids. The result of such a decomposition in the alkaline intestinal fluid would be the formation of soaps, which would aid by their presence the emulsionising of the remaining fat. That this decomposition of fat goes on to a large extent is scarcely probable, and it has always been considered one of the unsolved riddles of physiology how fat makes its way from the intestines into the lacteals. In a very thorough research on the anatomy of the intestinal canal, Dr. Herbert Watney appears to offer a solution. He believes that the finely divided, *i.e.*, emulsionised, fat makes its way into the interior of the villus by passing through the intercellular substance of the epithelium covering the villus.

Perhaps one of the most startling discoveries made in physiology of late years is that of the so-called *vision-purple*. It had been pointed out long ago by Heinrich Müller that the rods of the frog's retina are of a red colour, which, he thought, might be due to the imbibition of blood-colouring matter. Leydig afterwards again drew attention to the fact that the retina of the frog presents to the naked eye a lively red satiny gloss; and Max Schultze, in the second of his classical memoirs on the retina, makes the same observation for the retina of the owl and of the rat; stating, in the case of the latter, that it exhibits "einen auffallend deutlichen Atlasglanz mit rötlichem Schimmer"—a strikingly distinct satin-lustre with a red glimmer. On the 23rd of last November, Professor Du Bois Reymond presented to the Berlin Academy a communication from Professor Boll of Rome, announcing what he then believed to be an absolutely new fact; viz., that the external layer of the retina possesses in all living animals a purple colour. During life, according to Boll, the peculiar colour of the retina is perpetually being destroyed by the light which penetrates the eye. Darkness, however, restores the colour, which vanishes for ever immediately after death. In this paper, Boll pointed out that the red coloration which the fundus of the eye exhibits when examined ophthalmoscopically does not depend upon the illumination of the choroidal vessels, but upon the proper colour of the retina: a conclusion which he afterwards modified, as being too sweeping. The wonderfully suggestive nature of Professor Boll's discovery led Professor Kühne of Heidelberg to repeat Boll's observations; and in doing so, whilst he confirmed the fundamental statement of Boll, he ascertained a large number of facts which added great interest to the discovery.

Kühne's observations were made on the retinae of frogs and rabbits. In the first place, implicitly relying upon the statements of Boll, he examined, as soon as possible after death, the retinae of animals which had been kept for some time in darkness. He soon found that the beautiful purple colour persists after death if the retina be not exposed to light; that the bleaching takes place so slowly in gas-light, that by its aid the retina can be prepared and the changes in its tint deliberately watched; that, when illuminated with monochromatic sodium light, the purple colour does not disappear in from twenty-four to twenty-eight hours, even though decomposition have set in. These first observations of Kühne on the vision-purple (*Schpurpur*), as he terms it, whilst they showed that the disappearance of the colour is not, as Boll had asserted, a necessary concomitant of death, removed many of the difficulties which stood in the way of a careful investigation. Carrying out his preparations in a dark chamber illuminated by a sodium-flame, Kühne was able to discover the conditions necessary to the destruction of the vision-purple, as well as some facts relating to its restoration or renewal. As long as the purple retina is kept in the dark, or is illuminated only by yellow rays, it may be dried on a glass plate without the tint changing; the colour is not destroyed by strong solution of ammonia, by saturated solution of common salt, or by saturation in glycerine for twenty-four hours. On the other hand, a temperature of 100 deg. cent. destroys the colour; and alcohol, glacial acetic acid, and strong solution of sodium hydrate produce the same effect. It is not true, as Boll asserted, that the retina of the living eye exposed to ordinary daylight does not exhibit the vision-purple; for, on preparing the eyes of animals which had just been exposed to light as quickly as possible, in the chamber illuminated by sodium-light, Kühne found the retina to be of a beautiful purple. It is only when eyes are exposed for a considerable time to the direct action of the sun's rays, that a fading of the purple colour is perceived.

A most suggestive experiment now threw some light upon the circumstances which retard the decolorisation, and which restore the vision-purple. The two recently extirpated eyes of a frog were taken; from one the retina was removed, whilst an equatorial section was made through the other eye, so as to expose the retina and still leave it *in situ*. Both preparations were exposed to diffuse daylight until the isolated retina had lost its purple colour. On now taking the other preparation into the yellow chamber, and removing the retina, Kühne found that its colour yet remained; it was *dark red*, but was bleached when exposed in its naked condition to daylight.

The most curious and remarkable of Kühne's discoveries consisted, however, in finding that, as long as the retinal epithelium is alive, it possesses the power of restoring the faded vision-purple. If an equatorial section be made through a recently extirpated eye, and a flap of the retina be lifted up from the underlying choroid to which the retinal epithelium adheres, and exposed to light, the purple colour of the flap will be destroyed, whilst the colour of the rest of the retina persists. If, however, the bleached portion of the flap be carefully replaced, so that it is again in contact with the inner surface of the choroid, com-

plete restoration of the vision-purple occurs. This restoration is a function of the living choroid, or rather of the living retinal epithelium which adheres to it (*i. e.*, of the hexagonal pigment-cells which, until Max Schultze showed their true relations, were looked upon as part of the choroid); and it is independent of the black pigment which the retinal epithelium normally contains. As it is absolutely dependent upon the life of the structures which overlie the layers of rods and cones, it is natural that it should be observed to occur for a longer time after somatic death in the frog than in the rabbit.

The discoveries of Boll and Kühne must, as the latter remarked, have called back to the memory stories which we all have heard of images of things seen at the moment of death being left imprinted on the eye. After his first researches, Kühne endeavoured over and over again to observe on the retina of rabbits bleached spots corresponding to the images of external objects; but his endeavours failed. As Kühne remarks, and as all who have followed my accounts of his experiments will allow, in order to obtain an obvious picture, or, as he terms it, optogram, upon the retina, the effect of light would have to be so prolonged or so intense as to destroy the balance between the destruction of the vision-purple and the power of the retinal epithelium to restore it. If the image of a luminous object were to fall upon the retina at the time of death, and were maintained there until the death of the retinal epithelium, then a picture ought to be visible after death, appearing of a white colour with purple borders.

Kühne took a rabbit and fixed its head and one of its eyeballs at a distance of a *metre* and a half from an opening thirty *mètres* square in a window shutter. The head was covered for five minutes by a black cloth, and then exposed for three minutes to a somewhat cloudy mid-day sky. The animal was then instantly decapitated; the eyeball which had been exposed was rapidly extirpated by the aid of yellow light, then opened, and instantly plunged into a five per cent. solution of alum. Two minutes after death, the second eyeball, without removal from the head, was subjected to exactly the same processes as the first; viz., to a similar exposure to the same object, then extirpation, etc. On the following morning, the milk-white and now toughened retinae of both eyes were carefully isolated, separated from the optic nerve, and turned. They then exhibited, on a beautiful rose-red ground, a nearly square sharp image with sharply defined edges. The image on the first eye was somewhat roseate in hue, and less sharply defined than in the second, which was perfectly white. The size of the images was somewhat greater than one square *millimètre*.

Since these most striking phenomena were described by Boll and Kühne, both these observers have pursued their inquiries, which have, besides, been confirmed by a number of independent inquirers. Kühne has studied with great care the chemical characters of the vision-purple, which, though exceedingly sensitive to light, is a body which resists very violent means of attack. From the yet living retina the vision-purple may be extracted by a colourless solution of crystallised bile, which then becomes of a beautiful purple colour, which is destroyed by light. The purple of dead retinae cannot be extracted by such a solution; it has become insoluble. Indeed, such a retina may be extracted successively with solution of bile, with weak acetic acid; then be subjected to pancreatic digestion; be afterwards dried, treated with alcohol and with benzol; after drying, washed with concentrated solution of ammonia; and yet the vision-purple remains (mixed with neuro-keratin). It preserves its colour throughout all these operations, provided they are carried on in monochromatic yellow light; but exposure to white light bleaches it for ever.

What interpretation are we to give to these remarkable facts of Boll and Kühne, which teach us that the living retina contains a substance which, under the influence of light, undergoes constant changes, which vary in intensity according to the intensity and character of the luminous rays, and which teach us, moreover, that the internal epithelium is to be looked upon (to use Kühne's expression) as a purple generating gland?

They enable us to realise how probably light acts as a stimulus of the end-organs of the optic nerve, by inducing a chemical decomposition of matters connected with these end-organs. Still, as has been most philosophically shown by Kühne, the vision-purple does not yet explain all the physical changes in the retina which are the precursors of luminous impressions, for the following reasons. 1. The cones of the retina possess no purple colour in the frog. 2. In the monkey, Kühne has found that the fovea centralis is destitute of vision-purple; the same is, doubtless, true of man. 3. In some animals, as in snakes, the retina possesses only cones and no rods, and is therefore destitute of vision-purple.

We need no further facts than the one afforded by the absence of vision-purple in the fovea centralis, to prove to us that the vision-purple is not essential to the perception of light. Still, how interesting are

the facts which I have brought under your notice, and how pregnant with thoughts and suggestions alike to the physiologist and the psychologist.

The interest which was aroused by the beautiful discoveries to which I have just directed your attention is scarcely greater than that which we have experienced in becoming acquainted with Engelmann's confirmation of the truth of Hermann's views on the "muscular current", and by the splendid investigation in which Hermann supports the position which he took up some years ago.

Let me remind those of my hearers who are not physiologically expert that, when any point in an artificial transverse section of a muscle is connected by means of non-polarisable electrodes to a galvanometer with any point on a natural or artificial longitudinal surface of the muscle, an electrical current passes through the galvanometer from the longitudinal to the transverse surface; in other words, the former is electrically positive in reference to the latter.

This so-called muscular current bears, in the case of voluntary muscles, a direct relation to the irritability of the muscle, and only lasts as long as the muscle remains irritable. Du Bois-Reymond, to whom we owe all the methods of observing the electrical phenomena of the tissues, and to whom we owe, moreover, our knowledge of the laws which govern the muscular current, showed that, whenever the muscle passes from the state of rest into that of activity, there is a diminution of the intensity of the muscular current, technically known as its "negative variation".

Du Bois-Reymond maintained that the tendinous end of a muscle bears the same electrical relations to its external longitudinal surface as an artificial transverse section, and he therefore called the tendon the natural transverse surface of the muscle. He himself admitted, however, that occasionally there is but a very feeble current to be observed passing between the tendinous and longitudinal surfaces; in some cases, indeed, the tendon being positive in reference to the natural longitudinal surface. To this condition Du Bois-Reymond gave the name of the *parelectronic condition*, and stated that it was observed most frequently in frogs which had been subjected to cold. I have not time to refer to the *molecular hypothesis* of Du Bois-Reymond, by which he sought to explain both the normal muscular current and the *parelectronic condition*, as these are well known to all.

Professor Hermann, however, some years ago, asserted that, *in a perfectly uninjured unskinned animal, the muscles which are in a state of rest are entirely free from electrical currents*. According to Hermann, muscles which have been removed from the body without any injury being inflicted upon them are the seat of feeble currents of very varying intensity and direction.

Any injury inflicted upon the muscle, as, for instance, the contact of the external surface of the frog's skin with it, or the tearing of muscular fibres, at once sets up a muscular current by giving rise to an artificial transverse section.

Hermann's explanation of these phenomena is the following. Muscle which is passing into a state of rigor (dying), or which is passing into the state of activity, is, in relation to living muscle at rest with which it is brought into contact, electrically negative. The negativity of the artificial transverse section is to be explained by the section having at once initiated the process of rigor in the injured muscle-fibres.

I need scarcely refer to the animated discussion which has been proceeding for several years, and which has, on the part of the school of Du Bois-Reymond, had for its object the demonstration of the truth of what may be termed the pre-existence-theory of the muscular current, in opposition to the contact-theory of Hermann, which, it appears to me, received its death-blow by the researches of Engelmann. This observer has shown that the absolutely uninjured heart is altogether currentless; moreover, that *not only the heart as a whole, but each individual muscle-cell contained in the heart, whilst in an uninjured state and at rest, is almost or quite free from electrical currents*.

The principal fact in Engelmann's most recent researches which merits attention, is his discovery of the very rapid diminution of the electromotive force of the current observed when a cross section through the base of the ventricle is in connection with one electrode, and the apex of the heart with the other. Within five minutes, according to Engelmann, the electro-motive force sank to 64 per cent. of its original value; in fifteen minutes, to 32.9 per cent.; in one hour to 4.7 per cent.; in twenty-four hours, to 1.1 per cent. The extraordinary nature of this result will be better appreciated when we contrast the influence of time on the electro-motive force in the case of the sartorius of a frog. In one hour, the electro-motive force had sank to 86.1 per cent. of the original; in twenty-four hours, to 43.6 per cent.; in forty-eight hours, to 30.8 per cent.; or, to summarise, the electro-motive force of the heart, through which a section dividing the base of the ventricle has been made, diminishes

as much in ten minutes as that of the sartorius in twenty-four hours, the heart, after twenty-four hours, being practically currentless.

Now, these facts are to be taken in connection with the undoubted fact that the heart preserves its irritability, *i. e.*, its vitality, for a singularly long period of time. How, then, are these facts to be explained? Engelmann has done so in the sense of Hermann's theory. If the heart may remain irritable and be currentless, then that relation between the electro-motive properties and the irritability of muscles, which formerly was maintained to exist, cannot hold.

The muscular substance of the heart differs from that of voluntary muscle chiefly in its being composed of cellular contractile elements, which are many hundred times shorter than the muscle-tubes of voluntary muscle. When a section is made through the heart-substance, the process of rigor or death is initiated in the muscular fibre-cells which are injured, and the section becomes negative in respect to any uninjured part of the heart's surface; the process of death does not, however, extend to neighbouring cells, it is confined to the cell first injured; when the latter is dead, we then have it behaving as an indifferent conductor. On the other hand, in the case of the muscle-tube, the process of rigor proceeds from one end to the other, being unarrested, until the whole is rigid and dead. Both physiological and anatomical facts support Engelmann's beautiful explanation. For instance, microscopically, it may be shown that the cells adjacent to those which have died remain normal and contractile; again, a new section made parallel to the first one will, in the case of the heart of which the current, once strong, has become very weak, cause it to return to its original intensity,—a result which does not occur with voluntary muscle.

And now we come to Hermann's great research, published only a few weeks since. The idea which served as the basis of this research was the following: to prepare a muscle (the gastrocnemius) so as to injure it as little as possible, to place it in contact with non-polarisable electrodes, and to determine the electro-motive force of the current of the whole muscle; then, having compensated this, to inflict a sudden injury upon the tendinous end, and, after an interval, which could be varied at will, to determine again the electromotive force of the muscle. Professor Hermann used in this research an instrument which he calls the "Fall Rheotome". A falling weight is made to inflict an injury upon the tendon of the gastrocnemius by rubbing a piece of fish-skin, and then, after an interval, which can be varied, to close a circuit between non-polarisable electrodes connected with the muscle and the galvanometer.

The long and interesting account must be read in the original in order to appreciate the value of the results, which may, however, shortly be stated as follows. When an injury is inflicted upon a muscle, or upon the tendon of a muscle, which is not the seat of electrical currents, or of which the electrical currents have been compensated, there is, as a result of the injury, developed a powerful muscular current; this does not set in at once, but requires at least one-fourth-hundredth of a second for its full development.

If those muscles when at rest are not, as was held by Du Bois-Reymond, the seat of electrical currents, are there any changes in the electro-motive properties to be observed when muscle passes from the state of rest into that of activity? Certainly, as I previously stated, according to the contact-theory of Hermann, any part of a muscle which is passing into the state of activity is negative in reference to any other point in the same muscle which is at rest; and the uninjured muscle does show this negative deflection. In the case of uninjured gastrocnemius, it has been shown by T. Meyer, and fully confirmed by Hermann, that there is a double variation, portions of which become at first negative and then positive.

The following numbers express the mean duration of the negative variation, and of the succeeding positive variation, deduced from fifteen experiments:

Commencement of negative variation.....	0.0049 sec. after excitation.
Change in direction of current.....	0.0098 " "
End of positive variation.....	0.0147 " "

We can quite conceive that some, who are inclined to disparage science, would be inclined to quote the changes in our views of the distinct relations of muscle as proving the uncertainty, nay, the unsatisfactory nature, of researches which have been conducted with the greatest care, and in which we have all placed the greatest reliance. But to the scientific man who weighs the matter carefully, there will appear nothing in any sense disparaging either to the dignity of science on the one hand, or to the merit of the distinguished man who has hitherto done more than any one else in the department of muscle- and nerve-electricity, if his views as to the pre-existence of the muscular current must now be abandoned. But for the facts which he discovered, but for the methods with which he enriched physiology, we can scarcely

doubt that we should be much further from the truth than at present, His facts, indeed, have nearly all been confirmed, though the interpretation of some appears to require some modification, in order to bring them into unison with more recent discoveries.

We have passed, or rather we are passing, through a period of great anxiety to English physiology. A popular clamour, unfortunately too well known to all of you, has imperilled the studies which we all have so greatly at heart. An Act of Parliament is now in force which, if interpreted in a spirit of hostility to science, might put a stop to these studies. But I trust that the spirit of the time, the spirit of justice too, which, we think, characterises our countrymen, will render such hostility impossible; and relying upon the justice and enlightenment of the minister of the Crown to whom the enormous responsibility of carrying out this Act has been entrusted, we venture to predict that the interests of science will not ultimately suffer.

Gentlemen, I cannot close this address without expressing the gratification and pride with which I see amongst us the eminent man who to-day honours us by his presence. In Carl Ludwig we see one of the three or four men who, more than all others, have helped to build up the present edifice of physiology; a man to whom those of our science will refer in ages yet to come as having, perhaps more than any one else, introduced methods of precision into physiology, and, by numerous conquests in nearly all its departments, proved their utility. We welcome him amongst us, and beg to assure him that the influence of his teaching extends not only to every university of Germany, but even to us. All of us have, more or less directly, learned from him, and all of us are, I trust, inspired by his intense devotion to science, and would, at any rate, emulate, to the extent of their power, the example of the great head of the Leipzig Physiological School, who, in unselfishly contributing to win successes for his pupils, for the furtherance of the science which he loves, has seen the fullest realisation of his proudest hopes.

HOME HOSPITALS: THEIR SCOPE, OBJECT, AND MANAGEMENT.*

By HENRY C. BURDETT, Esq., Greenwich.

A SCHEME for establishing home hospitals for the well-to do, as you doubtless know, has lately created much attention and criticism, and I cannot but conclude that most of you are acquainted with the object of such institutions. It has been proposed to form an association for the purpose of erecting home hospitals, to which persons who can afford to pay for their treatment may be admitted, when ill, on payment of a certain sum *per diem*, according to their means, and, to a certain extent also, according to the requirements of each case. It is not, however, intended that this sum should cover the medical expenses, but probably (these details are not finally settled) each patient will be left to make his own arrangements with his own doctor. I wish, in this paper, to lay shortly before you, as the representatives of the medical profession, the advantages and disadvantages of such a scheme, and to invite discussion upon the same; for it can hardly be denied that the cordial co-operation of the medical profession, which has been largely secured already, is needful to render this undertaking successful. Let us first consider the *advantages* of the scheme.

What is the present condition of a person in the middle class of life with a limited income when struck down by illness? As an example, we may take a case in which the husband and father of the family is suddenly seized with, say, a bad attack of pneumonia. He is put to bed, and, after a certain time, as he seems to get worse, his wife sends for the doctor. The doctor prescribes poultices to his chest, medicines at certain times, light diet of milk, beef-tea, etc.; and also enjoins perfect rest and quiet. How are these orders carried out? The poultices are too often half-cold, sloppy, pasty messes, improperly fastened, and continually slipping, perhaps also left on till they become sour; the medicine is forgotten or given at the wrong time, milk perhaps is not procurable, the beef-tea is a greasy compound of fat and dirty-looking water, whilst the perfect quiet so necessary to him is broken by the continual noises of the children, with the mingled hubbub of the streets, adjoining houses, and neighbouring factories. The nursing day and night, the extra cooking, the attention required by the children, and all other domestic matters, fall on the poor wife, whose temper and endurance at last give way, probably not before those of the unhappy patient. But how are all these troubles

increased when the wife herself is the victim? The husband is obliged to leave for his work, some friend or relative is brought in as a nurse, who knows little of such duties, the troublesome children are ten times more troublesome under the control of a stranger, and, in addition, thoughts of domestic cares trouble the poor sufferer's brain. I feel sure that cases such as these must have frequently occurred to almost all of those here present, taxing their energies also to the utmost, and making them feel that their fight with disease and death is carried on against fearful and unnecessary odds. Surely, you must all, gentlemen, have often longed to remove your cases from such surroundings to the quiet and peaceful repose of a well regulated hospital, where they would also receive proper diet and nursing from skilled and methodical hands. Another class which would receive most undoubted benefit from the institution of such hospitals is the lodger class. The condition of governesses and of young men—clerks, students, and such like—occupying lodgings often at a great distance from their homes, when struck down by illness and left to the tender mercies of their landlady, is so deplorable that I feel it to be quite unnecessary for me to do more than mention it. To the above may be added clergymen, lawyers, officers in the Army, Navy, and Civil Services, men who are engaged in public and private offices, persons of education with limited means, and many others. To each and all of these the home hospital will prove an inestimable boon. And here I would say at once that it is not proposed to take people from their *comfortable* homes to a hospital because they are ill, but to provide institutions for the treatment and cure of disease as in hospitals, by skilled nursing, rest, and regulated diet, under proper sanitary and hygienic conditions, with the comforts of home, for the benefit of a large class of the community who have no homes, or whose homes are ill-adapted for the successful treatment of serious illness. Further, I wish it to be known that, whereas the first object of the Home Hospital Association is not gain, but the advantage of the community and the relief of suffering, still it must be distinctly understood that it is regarded as essential to the success of these homes, that they shall from the first be entirely self-supporting.

As I have already said, it is proposed that each patient should choose his own doctor, an arrangement which it is hoped will prevent any professional ill-feeling, and also help to overcome the prejudice existing in the minds of so many against entering a hospital. Nor is this the only advantage in the medical arrangements; for it is also proposed that there shall be a resident medical man attached to each hospital, who will always be at hand in case of emergency, and who will assist in carrying out the treatment of the other medical men. Speaking for myself, I am at present doubtful whether a resident medical man is or is not a *sine qua non*. It is allowed that these hospitals must be small and scattered; there will then be very little work for the resident medical officer, whilst his maintenance and salary will be an increased burden on the hospital. It might be better to appoint the nearest medical man to visit the hospital twice a day and in cases of emergency, and to give him a small salary for so doing; or to call him, in lieu of salary, to those cases which have no choice as regards the doctor by whom they are attended. This latter plan will help to get rid of one difficulty that has been greatly felt; it is also a plan that has already been found to work exceedingly well in cottage hospital practice, and I can see no reason why it should not do so when applied to home hospitals. It might be supposed theoretically that it would lead to a good deal of professional jealousy, but practically that is not found to be the case, and we may leave this arrangement with confidence, in my opinion, to the good sense and discretion of the medical profession.

Speaking of this system after several years' experience, Mr. Edmund Crossman of the Hambrook Cottage Hospital says:—"This professional intercourse is not the least valuable point in the cottage hospital system to the medical profession in the country. For the most part, practising each in his own district, without much time for social intercourse, and accustomed to act upon his own judgment and responsibility, a feeling of distrust and jealousy too often springs up, which, in most cases, only requires for its removal more frequent professional communication. The neutral territory to be found in village hospitals is the starting-point for that neighbourly feeling and action which promote the interests of the profession as much as that of the public, and the consultation held over the hospital patient is often the commencement of cordial co-operation in private practice." What has proved so great a success in cottage hospitals for the poor may surely be tried in similar institutions for the well-to-do classes.

Another advantage attending the establishment of these hospitals is, that they will do away with a large amount of almost necessary fraud which is at present carried on. I refer to the abuse of hospital charity. What is the class of people, who can afford to pay for their treatment,

* Read in the Public Medicine Section at the Annual Meeting of the British Medical Association in Manchester, August 1877.

to do under present arrangements? If they go to the hospitals and beg to be taken in on payment, they are turned away. Some have consequently felt justified in resorting to what is really a system of fraud, until they have almost begun to look upon it as a right that, whenever they are taken dangerously ill, they shall be treated gratuitously in the general hospitals. By this means, the charitable public is robbed and the profession deprived of its well earned fees; but, after all, however, it is perhaps hardly right to abuse this class of people too much; for what are they to do? Are they to risk their lives amidst the troubles and discomforts of home, or is it to be wondered at that they persuade themselves that a little deceit in such a case is justifiable? Gentlemen, by the establishment of home hospitals, you will, I believe, be not only meeting the bodily wants of this class, but you will also help to raise them socially from the pauper class to which, in this respect, they seem fast falling. It seems to me lamentable that, by a mischievous system of misplaced charity, their pride and self-respect should have fallen to such low depths, that the artisans of this country now undoubtedly regard free medical treatment as no degradation, but as a distinct right.

Again, the great cry in these days is for nurses. We have nursing institutions springing up all over the country, and it has become quite the fashion for ladies to take to nursing as a livelihood; still there are not enough. To show how the establishment of home hospitals will partly help us to abate this difficulty, I feel that it is necessary only to quote the words of Mr. Walter, M.P., in his speech at the Mansion House on this subject. He says: "Look at the waste of labour in the present domestic system of nursing. Supposing that, in an ordinary street, there are twenty cases of illness, and that each home has a nurse, what an enormous waste of power is there compared to what there would be if the invalids were all under one roof!" Thus we see how wheel turns within wheel, and how, by the establishment of these invalids' homes, instead of strengthening the present complicated hospital system, with its abuses, as our opponents assert we shall do, we shall in reality help to get rid of two of these burning questions; viz., the abuse of hospital charity in the in-patient departments, and the scarcity of nursing help at present available for those who are able and willing to pay for such comforts.

I feel that it is necessary, before leaving this part of my subject, to touch briefly on two questions: 1. What are we to do with infectious cases? 2. Shall convalescent seaside homes form part of the scheme?

As regards the former, there seems some reason to think that, in the metropolis at least, the present accommodation for these cases is sufficient. I shall have to return to this branch of the subject, so will merely draw attention here to the ease with which the present fever hospital could be amalgamated in this larger scheme with, in my opinion, mutual advantage, the hospital gaining patients, of which there seems a scarcity at present, and our scheme finding a hospital ready built and at hand for the experiment.

As to convalescent seaside institutions, especially for the recovery of infectious cases, the outcry for them is so great and general that I think they must perforce form part of the scheme, and a part that cannot possibly fail of success. The necessity of change of air for a convalescent, the great saving, the extra care and comfort of living in such a house as compared with the disadvantages of lodgings, and the lessened risk to the general public, are all strong points in favour of the establishment of convalescent homes for all who can afford to pay for such accommodation. So far for the advantages of our scheme. At first sight, they seem great indeed, and make us almost wonder what objections can be urged against it; but, on analysing the scheme more closely, we shall find the objections not inconsiderable, and into these we must now inquire.

Objections.—The first objection to be overcome is that of prejudice. This must not be esteemed a small matter; in fact, it is really the great objection: it would be a sad thing to build our hospitals and then find that hardly anyone would enter them; but so deep-rooted is the prejudice against hospitals in the minds of many, that probably it will only be after some years of care and patience that we shall find the homes will be largely patronised. It seems extraordinary that persons, when ill, should prefer all the fearful discomforts of home to the care and quiet of a hospital, yet such is the case, and the fact is not likely to be lessened in the minds of those whom I address; for all medical men know the very rooted prejudice existing on this question. It is more extraordinary still that the lower middle class (if I may so speak) feel this prejudice more strongly than the higher middle class, though they are more likely in reality to receive benefit from it; and it is only, I believe, by the example of the latter that we can hope in time to eradicate the prejudices of the former. In the meantime, it is our intention not to attempt too much at first, but to be content to do things gradually and with due caution.

The next chief objection is the financial aspect. First, we require money to float the enterprise; there is little doubt but that this will be readily forthcoming. Originally, it was proposed to form a limited company with shares to work the homes; but, after mature consideration, the Provisional Committee selected as a financial basis the system of governorships, by which a preliminary capital fund will be formed for the purpose of founding and furnishing the first home hospitals required. This principle is that which has long been successfully adopted in founding various institutions, such as public proprietary schools. The invalids' homes or hospitals thus founded will, by virtue of a graduated but remunerative scale of payments, prove permanently self-supporting. Many persons argue that it will be impossible to make these home hospitals self-supporting, but I am at a loss to know upon what they base their argument, because I find that, in other countries, similar institutions have not only proved so, but they have in several instances yielded a good profit over and above the working expenses. Gentlemen, on this point, I can only assure you that, if we do not succeed in making these homes entirely and absolutely self-supporting, you need have no fear that we shall consent to add another to the already too extensive list of eleemosynary medical charities; for such a result will be regarded as a complete failure, and the scheme will be abandoned.

It has been asked, Why is not the present fever-hospital self-supporting, and why is it so little used? The reasons for this, in my opinion, are many and obvious. It is a single building, or nearly so, of its kind, and consequently little known; whereas, if home hospitals were regularly established, they would soon become well known and sought after. This hospital also at one time took in pauper cases, and, I fear, the reproach still clings to it. Being single, it often entails for removal to it a prolonged, perhaps dangerous, journey from the other end of London, whereas it is part of my scheme to have these home hospitals small but numerous, so that they are ready of access to every one. A person admitted into this hospital is thrown suddenly amongst total strangers, without even the privilege of being attended by his own family doctor, should he so desire it; the reverse of this is a great advantage to the present scheme. The present hospital has too much the form and rules of a hospital, with perhaps too strict a discipline for the feeling of home comfort, while it is a principle in the home hospitals to combine more of the hotel character with them, thus greatly increasing the feeling of homely ease and independence. Other reasons will probably present themselves to the minds of my hearers, but I think I have sufficiently pointed out the differences in the two cases.

An opponent of this scheme stated, at the Mansion House meeting, as an argument against the establishment of home hospitals, "that it was the opinion of the great mass of medical men that it was desirable to reduce the number of hospitals for surgical cases to a minimum; for every gentleman of standing would sooner do an amputation, or any other such case, at a private house". Now, let us grant him, for a moment, that such cases do very badly in large general hospitals, still I must maintain that the cases are not analogous. It is designed to establish numerous small hospitals in London, which would come much more under the designation of cottage hospitals, and I would refer this gentleman to my book on that subject, in which I have conclusively shown the very much lower rate of mortality in cottage hospitals after surgical operations than in large general hospitals, and this in spite often of less skilled and mature surgical experience. These results, in cottage hospital practice, could not, I believe, be surpassed in home practice, were it possible to collect such statistics. This is, to my mind, a conclusive answer to this objection.

Lastly, we have that old bugbear professional jealousy. Gentlemen, you will, I think, agree with me that it is time for this term to be dropped from our vocabulary; it is an old one that, in its time, has done the profession nothing but harm, and caused many a sneer from outsiders. In reality, I believe that it has been for some time only just alive; let it die. In proof that this is so, let me again bring before you that excellent movement, the cottage hospital system. This has for many years been carried on quietly and unostentatiously in your midst, on much the same principles on which it is proposed to establish these home hospitals; viz., payment by patients for their board and maintenance, attendance by a doctor of their own choice, and the supervision of the nearest medical man as house-surgeon; to these principles it is now only proposed to add one more, and that, I believe, in the right direction; viz., payment to the doctor for his services. Now, this cottage hospital movement has had a very fair trial, but at first the same objections were brought forward as those of which we now hear, more especially this one—professional jealousy; but we find that, in practice, no such feeling has been called into being, but the

movement has rather tended to draw into closer relationship and friendship our country brethren. It is necessary on all occasions to "bear and forbear"; no doubt at first cases may arise and cause for the moment some heart-burning, but, with a little tact and patience, they may easily be avoided, and it would be a great scandal on the medical profession if such an objection were allowed to upset a scheme with so many obvious advantages.

It will be seen that I have treated the subject of home hospitals in a general sense. My reason for doing so is, that the Provisional Committee have thought it best to raise the necessary funds before deciding the exact basis upon which these homes shall be worked. That the ultimate decision will be a wise and satisfactory one is assured by the fact that, amongst the members of the Management Committee who will decide these important details, are the treasurers of Guy's and St. Thomas's Hospitals, Dr. Quain, Mr. John Erichsen, and Mr. Ernest Hart. The chief object I have in raising the question to-day is to afford all the members of the Association who take an interest in this scheme—which is one more step in the cause of hospital reform—an opportunity of expressing their views on the subject for our guidance and instruction. That the home hospital is calculated to supply a great and long felt professional want is proved by the fact, that I have the pleasure to append to this paper a declaration signed by nearly every leading member of the medical profession in London, who have endorsed the scheme with an unanimity and a readiness seldom, if ever, equalled on any former occasion, and I leave the issue, therefore, with confidence in your hands. The scheme is the outcome of ten years' hospital experience, and it is gratifying to me to be able to state that, in less than a fortnight, nearly £4,000 have been subscribed by the general public.

REPORT OF THE COMMITTEE ON THE REGISTRATION OF DISEASE.

TWELVE years have now elapsed since the British Medical Association at the meeting in Leamington appointed a Committee on the subject of the registration of disease. It will be well, therefore, briefly to recall the work that it has done, and the results that have so far followed. Great care was taken in the first instance to frame a schedule of diseases that it was desirable should be recorded weekly, but which it would not be overburdensome to contributors to fill up. This schedule was adopted by the Association, and was accepted by voluntary Associations in Manchester and Salford, St. Marylebone, London, and Newcastle-on-Tyne, and also by Dr. R. Brown of Preston, and Dr. A. Hill of Birmingham. By these agencies, the registration of new cases of disease coming under treatment in public institutions was for a time regularly carried on, but one by one they have been discontinued, and at the present time the only places that are still systematically carrying on the undertaking are Manchester and Salford. In 1866, your Committee strongly supported Dr. Farr's proposal for the appointment by the Government, in each of the registration districts of the kingdom, of a specially qualified Registration Medical Officer. It was considered that this measure would greatly improve the machinery of mortuary registration, and that this officer would be the suitable authority for collecting, publishing, and otherwise making available the returns of disease obtained by local Associations. In 1869, the late Dr. Sibson was requested by the Association to explain to the Royal Sanitary Commission the views of the Association respecting the importance of the Registration of Disease and the mode in which it could best be carried out. Letters on the subject were also sent to the Commission; and in the Report of this body there were embodied some very important and conclusive arguments in favour of a scheme identical with that of the Association for a representative system of disease registration. In 1870, a deputation from the Association waited upon Mr. Goschen, then President of the Poor-law Board, and were favourably received, but no action was taken in the matter. In 1871, a Memorial was addressed to the Right Honourable James Stansfeld, then President of the Local Government Board, praying for the establishment of a national system for the registration of disease, and pointing out the importance of this undertaking, both as a means of suppressing epidemic disorders and of dealing with other diseases arising from local causes. In 1873, another Memorial and a Petition to the House of Commons was presented, pointing out that no scheme had even been proposed in the Legislature for carrying out this all-important means of arresting the progress of epidemic and other disease. In this year, an attempt was made by Government to utilise the return of cases of disease occurring in poor-law practice, but the arrangements made were imperfect and unsatisfactory. No improve-

ment has since then been effected, however, and no means have been afforded to local authorities for early intelligence of the presence of disease. In the last report, it was urged that, in addition to the registration of certain non-infectious diseases occurring in public practice, it was desirable that information of every case of infectious disease occurring in both public and private practice should be required from persons in charge of the case, or from the householder. Your Committee can only now repeat this recommendation, and suggest that steps should be taken to frame a legislative enactment that would enforce the registration of all cases of infectious disease, on the method already approved by the Association; and to this end they propose that the subject be referred to the Parliamentary Bills Committee to consider in what form it can be best dealt with by the Legislature.

ARTHUR RANSOME, *Chairman.*

REPORT OF THE MEDICAL REFORM COMMITTEE.

YOUR Committee have to report that, during the year which has elapsed since the meeting at Sheffield in August 1876, they have deemed it advisable to refrain from pressing forward the Medical Act (1858) Amendment Bill, introduced in April 1873 by the Right Honourable Mr. Headlam and Sir H. Selwin-Ibbetson, Bart., which is generally known as the Bill of the British Medical Association.

That Bill provided for the admission to the General Medical Council of direct representatives of the profession in the proportion of one-fourth of the members of the Council, and would give to the Council, thus modified, more important and greater powers than it at present possesses. It would enable the Universities and Corporations to form conjoint examining boards for each division of the kingdom; but, in case of failure to do so in either division of the kingdom, the General Medical Council would then be empowered to form a conjoint examining board for such division of the kingdom.

It provided that the conjoint boards should be formed on the principle of equal fees and equal examinations, so as to avoid the scandal of men rejected by one examining body gaining admission to the profession, without further study, through the less stringent requirements of another. Above all, it enjoined a practical as well as a theoretical examination and a sound preliminary general education in all candidates for the medical profession. The provisions of the Bill were settled in the interest of the public equally with the profession, both interests being indissolubly connected; it aimed at securing those afflicted by illness from the inefficient treatment of incompetent men, and protecting them from the designing craftiness of charlatans, while it tended to elevate the profession socially and to increase its influence by the weight of extended general and professional attainments.

Your Committee also recommended the registration of a distinct qualification in State Medicine.

It may be well to repeat what appeared in the Report of the Committee in August 1873, that "all the petitions against the Bill (which the Committee had an opportunity of examining), though with M.D. attached to the signature, emanated from persons whose names could not be found in the *Medical Register*, a convincing proof that, whether advantageous to the community and profession or not, unqualified practitioners and quacks regarded it with peculiar dread and displeasure".

In the Report of the Medical Reform Committee, made to the Association at the meeting at Norwich in 1873, allusion was made to the work of the General Medical Council in urging the formation of conjoint schemes of examination. Your Committee desired to leave the field clear for their operations, a course which was then and since sanctioned by the Association. Your Committee, being aware that the English medical authorities were both active and earnest in their efforts to combine, have in consequence studiously refrained from embarrassing their proceedings by separate parliamentary action, notwithstanding the distinct declaration in debate by an eminent member of the House of Commons in favour of the general measure of the Association in preference to the piecemeal legislation by little isolated Bills, required by various corporations to enable them to combine in a conjoint scheme.

Your Committee are happy in the knowledge that their forbearance has borne good fruit, for they have to congratulate the Association on the success which has at last crowned the efforts of the Universities and Licensing Corporations of England in establishing a conjoint board of examination for their division of the kingdom. A great advance has been thus effected—the separate licences of the English Corporations will no longer be attainable, and, as regards English qualifications, the possession of a licence in one branch of the profession will no longer enable the owner to practise all its branches. For the future, if the

scheme be carried out, every practitioner will be fairly examined in England in all departments of professional knowledge.

Your Committee regard this as a most important though partial recognition of one of the objects for which the Association has so long contended; unfortunately, it does not apply to Scotland, where the temptation to secure separate qualifications will now have greater force, nor yet to Ireland, where the Apothecaries' Society may still grant its separate licence for the modest sum of half-a-guinea, and so qualify its fortunate possessor to be placed on the *Medical Register*, enable him to practise all branches of the profession, and that in every division of the kingdom.

Your Committee feel that, as long as this state of things endures, and they have little hope that the example of the English medical authorities will be voluntarily followed either in Scotland or in Ireland, so long the Medical Reform Committee must represent the influence of the Association, and continue its labours, until, through pressure, conjoint boards of examination framed on the principle of equal fees and equal examinations are established in each division of the kingdom.

No advance has been made in regard to the modification of the composition of the General Medical Council. As time has gone by, your Committee were not without hope that it might have been suggested in the Council itself. As this has not happened, your Committee deem it important that the question of direct representation of the profession in the General Medical Council should again be prominently brought before the Association. They cannot conceive a more fitting locality in which to refer to the necessity of a modification of the General Medical Council than this great and wealthy city, where science and art are both alike fostered and cultivated, where there is a large and flourishing School of Medicine, with a magnificent hospital, with accomplished professors, and every appliance for teaching, where, to sum up all, Owens College is situated; and yet in this great community, the medical profession is unrepresented in the General Medical Council.

Your Committee here desire to place the past action of the Association in this matter before the meeting. But for the ever-to-be-lamented loss of Mr. Southam, whose services on the Committee and in every good cause were never wanting, he would himself have told you that, in the negotiations preceding the passing of the Medical Act of 1858, the Government of that day made it understood that, when the Act was passed, the general body of the medical profession should be represented in the Council. He and the late Mr. Nunneley of Leeds have stated this in the presence of your Committee when attending deputations to ministers. He stated that the representation was then delayed solely on the ground that there was no *Register* of the profession—that the first step was to form the *Medical Register*, and then, the constituency being established, representatives would be accorded to the registered members of the profession. This distinct understanding has never been acted on.

In the year 1866, when the Government and the General Medical Council were exchanging communications as to Reform of the Medical Act of 1858, Mr. Husband, our respected treasurer, moved in Committee of Council the appointment of a Subcommittee to prepare resolutions as to direct representation for the meeting in Dublin in 1867. The Committee prepared resolutions in favour of the addition of eight members, elected by the direct votes of the registered members of the profession, to the Medical Council. These resolutions were first approved in the meeting of the Council, and afterwards cordially accepted and passed at the general meeting.

On June 30th, 1868, the Committee attended as a deputation to the General Medical Council, and submitted the resolutions for acceptance. Dr. Andrew Wood and Sir D. Corrigan argued strongly in favour of them. Dr. Parkes said a good case had been made out for considering whether the constitution of the Council might be improved by the introduction of a new class of members, and whether its counsels would not be thereby strengthened. He believed this would be the case, because the opinions of bodies elected by representatives were always regarded with more consideration. Dr. Sharpey stated that the Council was pledged by its proceedings to an inquiry into its constitution, and the question of its alteration would be inevitably raised in any amended Medical Bill.

On July 8th, 1868, the action of the Committee was approved in the Metropolitan Counties Branch, and it was unanimously resolved that the number of members of Council be increased by at least one-fourth.

On July 12th, 1868, a deputation of the Committee of Council of the Association waited on the Marquis of Ripon, Lord President of the Privy Council, to seek his aid in favour of the principle embodied in the resolutions.

At Oxford, the Committee was strengthened by the addition of several members who were not on the Committee of Council.

In 1870, the Direct Representation Committee opposed the Medical Act (1858) Amendment Bill of the Marquis of Ripon, because it did not provide for the direct representation of the profession in the General Medical Council, and procured its withdrawal. The late Professor Hughes Bennett, the late Dr. Sibson, Dr. Stewart, Dr. Chadwick, Mr. Husband, Mr. Michael, and especially the late Mr. Southam, took a prominent part in the opposition.

In the ensuing meeting at Newcastle in August 1870, the Direct Representation Committee was merged in a Medical Reform Committee with greater powers, and the "Bill of the Association" has been the result of their labours.

Your Committee will not dwell at further length on their proceedings—they have extended over a long series of years; but they again desire to submit to the Association whether the principle of direct representation is one for which they are still to contend. The Apothecaries' Society of Dublin, which comprises a very small number of shareholders—some of them women, and some, it is said, with more than one share, granting its licence for half-a-guinea—nominates a representative, and will always do so under the present Act, on the General Medical Council. That representative has the special interests of his own corporation to watch over and maintain. The great body of the medical profession, with no private interests to serve, including the important provincial Medical Schools of Manchester, Liverpool, Birmingham, Bristol, and Leeds, have no voice, no representative, in the General Medical Council. In the matter of medical reform, it is for the Association to decide whether the struggle for this bare meed of justice is still to be continued; if so, there is no cause to despair; the Association struggled for twenty-six years before the Medical Act of 1858 was obtained. In the words of an important medical journal of November 14th, 1868, it was stated: "If practitioners will combine throughout the country to impress their views on members of Parliament, and in every other way to co-operate with the Committee of the British Medical Association, such an amendment of the Medical Act will be effected as is necessary in the interest at once of the public and the profession." If it be the will of the Association, if it will earnestly and steadfastly aid its Committee in its labours, that prediction may yet be fulfilled. No measure of medical reform can ever be final which leaves the profession—including its many provincial schools—without any representative, without any voice in that General Medical Council which it helped to create, and of which the profession alone defrays all the expenses, the rich Universities and Corporations, fully represented on it, contributing nothing to the funds. Your Committee deem it due to the memory of Hughes Bennett, Sibson, Nunneley, Clayton, and Southam, who have fallen during the struggle, to continue the good fight, and with that object your Committee recommend the reappointment of the Medical Reform Committee, with power to add to their number.

(Signed) EDWARD WATERS, M.D., Chairman and Convener.

KING'S NORTON.—The medical officer of health reported that the population was estimated at 14,000, and that 559 births and 295 deaths had been registered in 1876; so that the annual birth-rate was 43.0, and the death-rate 20.15, per 1,000 population, or, excluding deaths not belonging to the district, 18.71 per 1,000, against 18.3 in 1875. There was not any death from small-pox or measles, 7 from scarlet fever, 8 from whooping-cough, 2 from fever, and 5 from diarrhoea. The drainage is "on no system whatever", being uncertain and unsatisfactory, consisting of pipes of various dimensions terminating in ditches or streams, or into "dumb wells" which foul the soil. The water-supply is very indifferent, as eleven samples were impure out of nineteen. There is no hospital accommodation for infectious diseases. A copy of precautions to be used for preventing the spread of infectious diseases is appended.

MACCLESFIELD.—Dr. Bland reports that this borough suffered severely from measles and whooping-cough in 1876, as well as from scarlet fever; the three diseases causing a mortality of 177 out of a total from all causes of 1,157 deaths, which give the high death-rate of 28.1 per 1,000. There were only 1,288 births, which afford a birth-rate of 35.2, but only 110 births to each 100 deaths. The mortality amongst infants was enormously large, as there were 265 deaths under one year, which are equal to 23 per cent. of the total deaths, and 20.5 per cent. of the births. There is not any hospital for infectious diseases in the borough; and Dr. Bland gives, in an appendix, a table of the cost of building and furnishing several hospitals in other sanitary districts. The total number of nuisances placed on the books in 1876, including those unremoved in 1875, was 1,849, of which only 836 were abated, leaving more than one-half on the books, which does not indicate great speed in their removal.

FORTY-FIFTH ANNUAL MEETING
OF THE
BRITISH MEDICAL ASSOCIATION.

Held in MANCHESTER, August 7th, 8th, 9th, and 10th, 1877.

PROCEEDINGS OF SECTIONS.

SUBJOINED are abstracts of most of the papers presented to the several Sections of the Association at the Annual Meeting. The papers themselves will, as opportunities occur, be published in full in the JOURNAL.

SECTION A.—MEDICINE.

Wednesday, August 8th.

The Chair was taken by the President of the Section, Sir WILLIAM JENNER, Bart., K.C.B., M.D., F.R.S., who delivered an address, which was published at page 179 of the JOURNAL for August 11th.

Portraits of Phtisical Diseases.—Dr. ANDREW CLARK exhibited a series of portraits of phtisical diseases of the lungs, and read a paper explanatory of his views with regard to the pathology of phtisis. He discussed three of the portraits at length, and gave particulars of the cases from which they were taken as illustrative of what he considered the three forms of phtisis: pneumonic, tubercular, and fibroid.—Dr. WADE (Birmingham) alluded to the importance of Dr. Clark's remarks in their bearing upon the treatment of phtisis. He considered the local origin of this disease highly necessary to be remembered. He believed in the reality of hæmorrhagic phtisis, and mentioned some cases in illustration.—Dr. BRADBURY (Cambridge) could not agree with the threefold division of the varieties of phtisis made by Dr. Clark. He would like to have his opinion concerning the nature of tubercle. He was convinced that pleurisy often originated phtisis; and remarked that tubercle is frequently found in pneumonic cases. He regarded all forms of phtisis as products of inflammation.—The PRESIDENT observed that the microscopic specimens demonstrated by Professor Charcot were entirely contradictory of the views enunciated by Dr. Clark. From the earliest time that he (the President) taught medicine, though he had not used the term "fibroid phtisis", the pathological change thus characterised had been well known, and had been fully described by Addison.—Dr. CLARK, in reply, said that he had, in his paper, particularly acknowledged what former observers had done. He drew a picture of the different forms of phtisis, contrasting their clinical history, and insisted that, although the anatomical elements were the same, the forms which the disease assumed, pathologically and clinically, were different, and justified different names. As to the nature of tubercle, he could give no answer. It could not be defined; its origin was not known, but all knew what it meant. The several forms of phtisis were not found in their simplicity at *post mortem* examinations, but this was due to the fact that each begot secondary changes of a different kind.

Hydatid Tumour of Left Kidney successfully treated by Aspiration. By J. B. BRADBURY, M.D. (Cambridge).—A boy, aged 8, living in Cambridgeshire, had a large tense elastic tumour occupying the whole of the left side of the abdomen. Over the tumour, the margins of which were rounded, there was dulness on percussion, and at the upper part a hydatid fremitus could be detected. The colon, instead of passing in front of the swelling, was pushed to the right side. The tumour was aspirated on July 6th, and 44 ounces of hydatid fluid withdrawn. After this, the cyst effected a communication with the pelvis of the kidney, the urine containing pus. The tumour filled again, and pain and swelling over the lumbar vertebræ were complained of. A second aspiration was performed on July 16th, and 31½ ounces of purulent fluid withdrawn, in which numerous echinococci were detected. After this, the case progressed favourably, pus and occasional small hydatid cysts being for some months passed in the urine. The cure was quite complete when the patient was last seen, the urine being quite free from pus and albumen, and the colon having assumed its normal position.

DISCUSSION ON THE TREATMENT OF INTERNAL ANEURISM.

Abstracts of the following papers relating to aneurism were read.

The Treatment of Internal Aneurism. By HENRY SIMPSON, M.D. (Manchester).—This paper showed the beneficial influence of long-continued rest in the recumbent position, and of a spare, but sufficiently nutritious, diet, with as small a quantity of fluid as the patient could bear. Cases were brought forward in which a cure had been

thus effected. The use of anodynes and other medicines was indicated, and the administration of large doses of iodide of potassium advocated. If these measures did not suffice, the careful use of galvano-puncture was recommended, founded on the results obtained in five cases.

Two Cases of Aneurism of the Abdominal Aorta: one Cured by the Administration of Iodide of Potassium, the other by Arterial Compression. By G. H. PHILIPSON, M.A., M.D., F.R.C.P. (Newcastle-upon-Tyne).—The first patient was a labouring man, aged 26, with a negative history of syphilis, who was considered to have aneurism of the abdominal aorta, near its bifurcation. The aneurism was believed to be of the lateral sacculated variety, enlarging to the left. The treatment employed was the maintenance of the horizontal position in bed, the administration of iodide of potassium, and the ordinary meat diet. The iodide of potassium was commenced in doses of ten grains three times each day, and was increased to forty grains for each dose. After seven weeks of treatment, it was found that the pulsation had disappeared, and that the murmur could not be heard. He resumed his occupation after seventeen weeks. The second case was that of an iron-shingler, aged 25, with a history of previous syphilis. The aneurism was regarded as one of the abdominal aorta, situated near the bifurcation, of the lateral sacculated variety, and enlarging to the right. The treatment was quiescence in bed in the recumbent position, the administration of the iodide of potassium, and the ordinary meat diet. The iodide was commenced in doses of ten grains three times each day; it was increased to forty grains for each dose, and was continued for five weeks. The pulsation was only diminished; it was determined, therefore, to employ arterial compression. Lister's abdominal tourniquet was applied to the abdominal aorta four inches above the umbilicus, upon three occasions: upon the first for half an hour, upon the second for three-quarters of an hour, and upon the third for one hour and a half. Upon each occasion, the patient was fully under the influence of an anæsthetic: upon the first and second, of chloroform, and upon the third of chloroform and ether. About forty-eight hours after the third application, the aneurism solidified, the size being estimated about equal to that of an ordinary cricket-ball. Three weeks afterwards, the tumour had wholly disappeared, and no evidence of the aneurism was discernible. In both, the lesion of the arterial coats was looked upon as inflammatory in nature, and not as atheromatous. In the treatment, whether constitutional or mechanical, the principle was recognised that it is necessary for the circulation to be enfeebled or impeded in order that the aneurismal sac may become filled with the constituents of the blood, and, in process of time, rendered impervious. The term constitutional treatment was considered to include the dietetic, medicinal, and postural requirements. In the first case, the result was gained by constitutional treatment alone; in the second, by mechanical treatment after the constitutional treatment had been unprofitable. The effect of the administration of the iodide of potassium, in association with rest and regular diet, in the first case, was conjectured to have been the gradual filling with the constituents of the blood and in the subsequent shrinking of the aneurismal sac, but without the obliteration of the aorta. In the mechanical treatment—that by the application of pressure—more than this was effected; for it might be assumed that the current of blood along the aorta, and thence into the aneurism, was either wholly or in a great measure arrested. The interval of time that elapsed between the compression and the consolidation would be in favour of the supposition that laminated fibrin was first deposited and coagulum subsequently superadded, filling the aneurismal sac and blocking the aorta. This was the explanation that was offered. If it be admitted that the supposition was correct, it is unnecessary to apply pressure wholly to interrupt the circulation, but rather that the circulation should be impeded; moderate compression should be employed to lower the force of the circulation; and the mechanical treatment should be in accord with the constitutional treatment. The conclusion deduced was, that aneurismal tumour of the lower portion of the abdominal aorta may be successfully treated by arterial compression on the cardiac side of the aneurism, but that the method was dangerous, and should not be employed until the constitutional treatment had failed; and that, if arterial compression were employed, it should be moderate and prolonged rather than complete and of short duration.

Some Indications for the Diagnosis and Treatment of Aortic Aneurism. By F. A. MAHOMED, M.D. (London).—This paper was devoted to an elaboration of the aids afforded by the pulse in the diagnosis and treatment of aneurism of the aorta. The characters of the pulse associated with aneurism, recognisable by the finger, are—1. Delay; 2. Diminution in volume; 3. Diminution in force; 4. Persistency. Explanations of these characters are afforded by the sphygmograph, and the aneurismal pulse is studied by aid of a scheme. The sphygmographic characters

of the aneurismal pulse are—1. A sloping upstroke = delay; 2. Diminished volume of wave; 3. Impairment of percussion = diminution of force; 4. Obliteration of secondary waves; 5. Inequality of pressure employed on two sides. The results of comparison of the pulsation of the two radials for diagnostic purposes in aneurism of the subclavian, ascending arch, innominate, transverse arch, root of subclavian, descending arch, were given; and the value of the results obtained in discussing the question of ligature of one or more of the great vessels was discussed. Possible sources of fallacy in a sphygmographic diagnosis were—tumour other than aneurism; pressure of aneurismal sac external to vessel; endarteritis; abnormality of vessels; inaccuracy of observation. Certain indications were afforded of general arterial tension and dilatation of the aorta, and their bearing on treatment considered; and the measure of the amount of arterial tension present, and the result of treatment upon it; the effect of certain drugs on the circulation, especially with a view to their use in the treatment of aneurism.

Notes on Cases illustrating the Diagnosis and Treatment of Internal Aneurism. By F. T. ROBERTS, M.D. (London).—After some introductory remarks bearing upon the points to be noted in the diagnosis of internal aneurisms, and the data upon which such diagnosis is founded, the author summarised and grouped the causes of error and the difficulties which may prevent a correct conclusion from being arrived at, as illustrated by cases which had come under his own observation. Proceeding to the subject of treatment, it was first pointed out what were the only plans which could be reasonably adopted. Then a brief account was given of cases recently treated by the author by means of rest, restricted diet, and medicinal agents, with their results. The signs of improvement to be looked for were discussed, and the difficulties in carrying out this plan of treatment indicated, with the causes of failure.

Dr. CLIFFORD ALBUTT (Leeds) laid before the meeting the remarkable results to be derived from digitalis in the treatment of aneurism, which he considered the drug for this disease. It should be given in increasing doses until it brought down the pulse to 45, which should be kept at this rate so long as the patient tolerated it, even for months. Dr. Allbutt had watched two cases for three and nine years respectively, and these were at least in abeyance. Experience had proved to him that such modification of the heart's force was the reverse of injurious.—Dr. MACKAY (Birmingham) bore testimony to the value of iodide of potassium in the treatment of aneurism, and also to the beneficial effects of digitalis.—Dr. GAIRDNER (Glasgow) agreed with Dr. Simpson. He had been favourably impressed with iodide of potassium, especially at the early period, combined with more or less of Mr. Tufnell's system. If, in the first instance, a strong and decided effect were obtained by this treatment, the question arose, How long the patient could be kept on his back? Practically, it was impossible to continue this method indefinitely. Dr. Gairdner quoted some cases in illustration.—Dr. BURNEY YEO (London) remarked that some cases of aneurism were not amenable to treatment by rest, and related instances bearing out this observation. He thought that the rules for treatment must be very general.—Dr. SIMPSON replied, and said that there seemed to be a general concurrence of opinion as to the treatment of internal aneurism; and that they were agreed in the main. The question as to the limit of time to which the treatment by rest and diet should be carried out could not be answered categorically. Each case must be treated on its own merits. He had seen ill-effects from too strict a limitation of diet. It was not difficult to arrive at the amount of food required. He had never seen any permanent harm from the treatment by rest, and several of his cases had been cured.—Dr. WOOD subsequently offered some remarks on Dr. Mahomed's paper, and especially as to the effects of digitalis, to which Dr. MAHOMED replied.

Thursday, August 9th.

The Chair was taken by the President, Sir WILLIAM JENNER, Bart., K.C.B., M.D., F.R.S.

On some Affections of the Nervous System dependent on Gout. By J. RUSSELL REYNOLDS, M.D., F.R.S. (London).—In this paper, Dr. Reynolds gave the following reasons for believing that many so-called "nervous affections" are due to a gouty habit: 1, the actual presence of gout in the joints of the individual at the time or at previous times; 2, the evidence of gout in ancestors or collateral relations; 3, the frequent occurrence of acid eructations, with chronic dyspepsia; 4, the emission of pale, limpid, acid urine, of low specific gravity, and with traces of albumen or sugar, or both; 5, the variability of symptoms, both as to kind and place; 6, the presence of some alteration in skin-nutrition, such as eczema, psoriasis, etc.; 7, the impossibility of referring the symptoms to any known disease of the brain or spinal cord;

8, the immediate relief of the symptoms after treatment by colchicum and saline aperients. He classified the symptoms of which he spoke under the following groups: 1. Mental disturbances; 2. Pain in the head; 3. Modified sensations (vertigo, noises in the ears, deafness, numbness, etc., in the limbs, sciatica, various muscular pains, etc.); 4. Modifications of muscular action (palpitation and various affections of the muscles of the limbs). As guides in diagnosis, he referred briefly to disorders of the stomach, varicosity of veins, brittleness of the nails, and slight conjunctivitis.

DISCUSSION ON THE TREATMENT OF PLEURISY.

The following papers on this subject were read entire or in abstract.
On the Mortality of Pleurisy considered in relation to the Operation of Paracentesis Thoracis. By WILSON FOX, M.D., F.R.S. (London).—The object of this paper was to show that paracentesis thoracis, even when practised with small trocars, and aspiration, or other means adapted to prevent the entry of air into the pleura, is not always so safe and innocuous an operation as is now frequently taught. The author held that the operation is not to be withheld when urgent reasons exist for its performance, such being grave dyspnoea, threatened failure of cardiac action, hectic, or signs of purulent infection. It is not, however, to be accepted as the best or the safest mode of getting rid of the fluid, or as an operation to be resorted to whenever fluid, whether in large or in small quantity, is found in the thorax; for undoubtedly the safest and best mode of the removal of serous effusion is by spontaneous absorption, and even in purulent effusions a spontaneous external perforation is a much less dangerous and fatal event than an artificial opening. The papers contrasted the mortality of hospital statistics in pleurisy with that of operation by paracentesis, and showed that the latter is vastly in excess of the former, even when allowance is made for the probably more severe nature of the cases selected for operation. The author specially pointed to the contrast in this respect offered by serous effusions, the mean mortality of which in recent operations by paracentesis is 16 per cent., but which without operation do not prove fatal (except in the rarest instances) in uncomplicated cases. One chief cause of this mortality after paracentesis of serous effusions is the occurrence of purulent transformation subsequent to the operation, and of the reality and fatality of which proof is given by tables. The author believed this transformation to be in most cases directly due to the operation, and he therefore held that this should not be performed in cases of serous effusion without grave reasons of urgent necessity. The paper concluded with some remarks on the high mortality of operations in cases of purulent effusion, amounting even within recent periods to a mean of 45 per cent., and in some series of recent observations to 50 per cent., of the cases operated upon, which, therefore, regarding the necessity of the operation in the latter class of cases as a question in some respects *sub judice*, the author considered that improvements in the method of treatment are still urgently required.

The Treatment of Pleuritic Effusions. By T. CLIFFORD ALBUTT, M.D. (Leeds).—The author divided his subject into the following heads: 1. Dry pleurisies; 2. Inflammatory pleurisies with highly fibrinous exudations; 3. Quiet pleurisies with large serous effusion; 4. Empyema; 5. Pleural dropsy. 1. With dry pleurisies, of course, he had not to deal. 2. Acute fibrinous pleurisy is usually attended with moderate effusion, which ebbs when the flow is complete. He gave a full account of his treatment of these cases and of the hastening of the ebb of sluggish effusion. In some cases, the effusion becomes so excessive as to demand operative interference, but fortunately they do not, as a rule, tend easily to run to pus. The difficulty with them is the presence of fibrin which blocks the trocar. The aspirator is useful in these cases, and repeated punctures are better than fumbling at one opening. There is no need to empty the cavity, as absorption is generally set quickly going, and, except in cases of a low type, reaccumulation is not to be expected. 3. Quiet pleurisies with copious effusion generally need operation. If the chest be full, it should not be delayed an hour, as sudden death may occur at any moment, or, if on the right side, anasarca of the legs, etc. If not quite filling the cavity, the presence of a large quantity of fluid soddens and spoils the lung, and tends to pus. In these cases, the aspirator is undesirable; it is better that the lung should expand quietly. The cavity need not be wholly emptied, as absorption often completes the cure. As there is in these cases a strong tendency to the formation of pus, the operation should be carried out on the antiseptic plan. Reaccumulation does not occur as a rule. 4. Empyema should be removed at once by free incision in a dependent part on the antiseptic plan, and antiseptic dressing kept up. Repeated aspiration is objectionable; it rather favours absorption, and does not prevent the formation of a pulmonary fistula. Moreover, it is impossible to say when a patient is cured, as remnants of pus may break out months or

years afterwards, and may decompose *in situ*, or may set up tuberculosis. After operation, any increase of temperature is a mark of imperfect drainage or bad nursing. No method can make a vast internal abscess of the chest anything but a terrible malady. If a pulmonary or other fistula have formed, the counter-opening must, nevertheless, be made in the same way, and the chest drained. 5. Pleural dropsies, though dependent on disease elsewhere, may always be tapped readily if the symptoms be urgent. The tapping is as simple as the tapping of ascites, but must be more gradual, as pressure cannot be used. There is no probability of pus-transformation; but, if convenient, the tapping may be done under an antiseptic atmosphere.

The Natural History and Treatment of Pleuritic Effusion. By JAMES F. GOODHART, M.D. (London).—The paper contained an analysis of 352 cases of pleurisy taken from the clinical records of Guy's Hospital for the last ten years, and from those of the Evelina Hospital for Children for the last eight years. Notes of several cases were given in illustration of various points. In speaking of paracentesis in serous effusion, the author arrived at the conclusions that—1, the duration of the illness extends in proportion to the amount of fluid in the chest; 2, the cases which gave the most satisfactory results by paracentesis were recent; 3, if (as Dr. Goodhart supposed) chronic cases owe their chronicity to something besides the presence of fluid, the withdrawal of the fluid cannot be expected to yield definitely good results. He afterwards spoke of the treatment of empyema by simple aspiration, simple paracentesis, subaqueous or syphon drainage, drainage without precautions for excluding air, and free incision of the chest.

Paracentesis of the Chest in the Treatment of Pleuritic Effusion. By HENRY BARNES, M.D. (Carlisle).—With a view of illustrating the value of paracentesis of the chest, the author gave the results of his experience. The cases reported were eleven in number, and comprised three cases of simple acute pleurisy, two cases of acute pleurisy occurring as a complication of enteric fever, three cases of chronic pleurisy, and three cases of empyema. In these eleven cases, paracentesis had been performed thirty-eight times: in four cases, once; in two cases, twice; in two cases, three times; in one case, four times; in one case, six times; and in one case, fourteen times. In the cases of acute pleurisy, the operation was performed as soon as the dyspnoea was at all urgent, and repeated if there appeared any re-accumulation of fluid. If the chest was more than half full of fluid, and the effusion did not appear to be disappearing under the influence of treatment, the author recommended the operation to be performed. If the effusion occupied two-thirds of the pleural cavity, immediate operation was recommended, even if the dyspnoea were not very urgent. It was also advised that the operation should be performed earlier on left-sided pleurisies than on right, on account of the danger of syncope being greater. All the cases recovered, and it was believed that convalescence was greatly expedited, and the urgent symptoms relieved, by the paracentesis. In the cases of chronic pleurisy, the operation was practised for the removal of effusion immediately there was any urgency in the symptoms, and as soon as the ordinary treatment failed to produce absorption, and repeated as often as necessary. All the cases recovered. In the cases of empyema, the advantage of paracentesis was specially shown. In the first case, after being tapped four times, the patient recovered without any further operative procedure being required. In the second patient paracentesis was performed six times, and then free opening and counter-opening were made and a drainage-tube introduced. The patient recovered. In the third case, paracentesis was performed on two occasions, and the patient speedily got quite well. The risks of the operation were then discussed, and it was pointed out how they might be obviated. Some remarks were also made upon the method of operating. The place recommended for the puncture was in the eighth or ninth interspace, posteriorly in a perpendicular line with the angle of the scapula. The aspirator apparatus most approved was the Rasmussen bottle with Fraentzel trocar. Some remarks, in conclusion, were made on the after-treatment.

Notes on Pleuritic Effusion in Childhood. By THOS. BARLOW, M.D., and R. W. PARKER, M.R.C.S. (London).—The paper was based exclusively on what the authors had observed either conjointly or separately; and they thanked their respective colleagues at Great Ormond Street and the East London Children's Hospital for allowing them to use their clinical material. The notes were laid down on the following lines: 1. The difficulties of diagnosis between pleuritic effusion and other chest affections in childhood; 2. The difficulties of diagnosis between serous and purulent effusions; 3. The natural course of pleuritic effusion in childhood when unmodified by treatment; 4. The methods of treatment which had appeared to them the most successful. The authors concluded that the variation in the classical signs and symptoms is so great, that in many instances the diagnosis cannot be cleared up

without exploratory puncture. They recommended the use of the hypodermic syringe in every case of doubtful dulness in the pulmonary regions. They laid great stress on the fact that, in children, extreme retraction of one side of the chest is compatible with the existence of both serous and purulent collections in the pleura of that side. The old teaching that the passing of a serous into a purulent effusion could be discriminated by the onset of hectic, they believed to be incorrect. Marked hectic occasionally occurs with serous pleurisy; whereas in many cases of empyema it is present in very moderate amount and for some days not at all. Clubbing of finger-ends they had never seen with simple serous effusion, but they had seldom seen an empyema without it. The natural issue of unmodified serous effusion appeared to be absorption in most cases sooner or later. Serum may continue serum for many weeks without being converted into pus. Alongside of facts showing this, was to be remembered the extreme frequency of empyema in young children, and it seemed a question whether many cases of empyema are not empyema *ab initio*. As to the relation between tuberculosis and empyema, it was believed that the tubercle is more frequently secondary to the empyema than the reverse. With respect to spontaneous evacuation, that by means of rupture into the lung had appeared the least unfavourable, but it had been very uncertain; and protracted external spontaneous evacuation—between the clavicle and the nipple—had not given a single good result. In the treatment of serous effusions, the diagnostic puncture by a hypodermic syringe, the authors were quite certain, has been followed in some cases by rapid absorption. Where the history is recent, the effusion serous, and small or moderate in amount, they preferred to abstain from further operative interference. Where three weeks elapse without improvement, they would try the effect of removal of a small quantity, either by the hypodermic syringe or the aspirator. If the effusion were considerable, it is right to perform paracentesis at once not only to relieve dyspnoea, but to give the lung a chance of re expansion before adhesions bind it down, quite irrespectively of pyrexia. If the fluid be purulent, it was recommended to withdraw as much as possible with a hypodermic syringe capable of holding at least two drachms. Occasionally, this will remove all that is present in one spot, and gently moving the needle will give information as to the size of the cavity. The authors had found by experience the necessity of bearing in mind the possible existence of multiple collections of pus completely separated by adhesions. If there be more pus present at a given spot than the hypodermic syringe will remove, it is better to introduce the aspirator-trocar. The authors had not seen any English aspirator equal to that of Potain as made by Matthieu of Paris. A little bleeding in the course of the paracentesis had frequently stopped after the valve had been shut off for a few moments. If, after re-opening, blood should continue to come, it was recommended to stop the aspiration. In a large number of cases, aspiration had been performed under anaesthetics. This appeared to have three advantages: 1. The facility thereby gained of making a thorough exploration; 2. The avoidance of shock and collapse; 3. The avoidance of the troublesome cough so well known at the conclusion of paracentesis thoracis without anaesthesia. Chloroform preceded by a small dose of brandy appeared to them better than ether for these cases; and it was believed strongly that, if anaesthetics be used at all, they should be pushed on to complete insensibility. When the effusion was general, the authors found the angle of the scapula a better position for puncture than the midaxillary line. In localised effusions, the puncture ought to be made at the centre of maximum dulness. In a certain number of cases there had been excellent recovery after a single aspiration; seven, at least, of such cases had been observed. Successful results had been obtained after repetition of the paracentesis up to six times. If the pus do not become fetid, and if at each successive operation the quantity notably diminish, there seems no reason to limit the number of attempts to be made to cure the empyema by repeated aspiration. If the pus should become fetid or rapidly reaccumulate in larger quantity permanent drainage is recommended. In all cases, it was contended that this should be by a double opening. If possible, the first opening should be made in the front of the thorax, and the second below and internal to the angle of the scapula. A long probe, threaded with a piece of drainage-tube, may be passed downwards and backwards from the first opening, and the second incision made over the point of the probe when it is felt through the integuments. The drainage-tube should then be drawn through and secured by tying the two ends together. The authors contended that by the method of double opening there is the certainty of more complete and rapid evacuation of pus, and consequently of more rapid adhesion of the parietal and pulmonary pleurae, than by the single opening. They had often seen difficulties with respect to evacuation arise when a single opening had been made only in the mid-axillary line. Apart from the unfavourable shape of the pleural

cavity for drainage, it was important to bear in mind that when retraction begins to take place the ribs approximate most in the axillary region, and in a child especially, there is risk of the intercostal space through which the tube passes being so narrowed that the tube is gripped by the two contiguous ribs. In front and behind, the width of the intercostal space is greater and undergoes less diminution as the side retracts. Most of the cases with which the authors had been concerned were dressed with oakum. They had seldom had need to use stimulant injections, but in one case they saw marked and rapid improvement from the use of a solution of quinine.

On the Importance of Preserving a Vacuum in the Pleural Cavity after Paracentesis of the Thorax. By ROBERT J. LEE, M.D. (London).—The effect of admitting air into the pleural cavity is to diminish or entirely annul the atmospheric pressure on which expansion of the lung depends in respiration. So long as a permanent opening exists, as in the treatment of hydrothorax or empyema with a drainage-tube, atmospheric pressure is induced in inverse ratio to the quantity of air which passes into the pleural cavity. The method of treatment proposed in this communication combined the advantages obtained from the use of the drainage-tube with those which belong to the aspirator. The instrument consisted of an ivory cup attached closely to the thorax over the opening of the drainage-tube, to which cup an apparatus for exhausting the air in the pleural cavity was adapted, by which means atmospheric pressure might be constantly and gently exerted on the lung. The term "continuous aspiration" was proposed for this method of treatment. The general accuracy of the theory on which it depends had been satisfactorily tested with an elastic cup similar to the India-rubber cupping-glass, which adheres by its expansile power. Various modifications had been made in this, the first instrument used; and now a separate exhaustor had been adopted, by which the atmospheric pressure might be regulated and sustained. The author was indebted to Mr. W. D. Napier for the suggestion that the respiratory movements of the thorax and abdomen might be used as the exhausting power; a special apparatus was in process of manufacture under the direction of Mr. Napier and the author by Messrs. Maw, Son, and Thompson.

Abstract of Cases of Pleurisy treated by Paracentesis. By D. J. LEECH, M.B. (Manchester).—The paper contained a notice of nineteen cases in which paracentesis had been performed, with a short account of fourteen in which the subsequent history was known. In the other five cases, the patients were lost sight of, after being tapped once. It also included a history of five cases of pleuritic effusion in which the operation had been considered desirable, but in which, from one cause or other, it had not been performed. Of the nineteen cases treated by paracentesis, all but one bore the operation well. The exceptional case suffered from intense dyspnoea whilst the fluid was being drawn off—from which, however, he recovered. Of the fourteen whose ultimate history was known, five were dead. The number of deaths which had occurred in those on whom paracentesis had been performed tended to show that the operation was not so uniformly successful as some had assumed. Of the five deaths, two were due to phthisis, which, in one of the cases at least, had nothing to do with the operation for removing the fluid. A third died more perhaps from a second tapping being delayed than from a second one being performed. In only one case did paracentesis seem to do harm. In this case, air entered into the pleural cavity at the moment of the withdrawal of the trocar before the tap of the cannula could be turned. The patient took a deep inspiration just at the time of the removal of the trocar. In a case of empyema after scarlet fever, the patient was operated on three times; on the last occasion with a large trocar, the air being allowed to enter freely, but no drainage-tube being kept in. The entrance of the air on this occasion seemed to have a deleterious effect. The sudden death of two cases in which the accumulation of fluid in one pleural cavity was a chief if not a sole cause of the disaster, showed, however, the danger of waiting too long before performing paracentesis. The impressions left by the experience of cases to which attention was called were these: 1. It is not advisable to interfere early, unless there be great dyspnoea and a very large accumulation of fluid; for—*a.* The operation of tapping tends towards the conversion of serous into purulent effusions; *b.* If the chest be not full of fluid, the danger of air entering the pleural cavity is great; *c.* Large accumulations of fluid which form rapidly are often rapidly and completely absorbed. 2. Pleuritic effusions that have lasted more than a few weeks without change in quantity rarely undergo absorption, require operation, and in nearly all cases do well.

Pleural Effusion, its Diagnosis, and Proper Treatment. By J. HADDON, M.D. (Manchester).—After pointing out the importance of the subject, the author called attention to the danger of overlooking pleurisy when accompanying pneumonia, and stated that the existence of pleurisy as

complicating pneumonia could be detected by the state of the temperature. When, in the progress of the inflammation, the evening temperature was lower than the morning, or the evening rise absent, it pointed to pleuritic complication. He recommended that, so soon as the effusion ceased, and absorption was not active within a day or two at most, as much fluid as possible should be removed by the aspirator. He mentioned six cases in which he had performed aspiration, in some early, in others late, in the history of the effusion. When pus was found, he recommended the aspirator to be fairly tried, and, in case of failure, putting in a drainage-tube and bringing it out at a counter-opening under antiseptic conditions, followed by the strictest antiseptic dressing.

On Pleurisy of the Apex. By I. BURNEY YEO, M.D., F.R.C.P. (London).—The object of the author of the paper was to call attention to the clinical aspects of a form of pleuritis which had not hitherto been described—an inflammation of the pleura covering the apex of one lung, and not associated with any pulmonary consolidation. The results of this affection were often discovered in autopsies, but it had been somewhat unaccountably overlooked by clinical observers. The author described the clinical course and characters of this disease, quoted some illustrative cases, and detailed what he considered to be its appropriate treatment.

Dr. GLYNN (Liverpool) called attention to the risk of sudden death immediately after the performance of paracentesis, and observed that this was a danger which should be always borne in mind. He mentioned a case in which this event had happened.—Dr. GAIRDNER (Glasgow) said that the late Dr. Budd and himself were the first in this country to adopt Bowditch's method of tapping in pleurisy. He had looked at the subject impartially, and had come to the conclusion that the operation should not be done in acute cases; but in others it was useful. He did not draw off all the fluid. On the whole, his inclination was to be more cautious than formerly, and less forward in pressing the use of the aspirator. He considered aspiration a good method, but we must be prepared for disappointments and for sudden accidents. Addison had stated that the mere fact of tapping deteriorated the nature of the fluid; but this was opposed by recent German authorities. Dr. Gairdner wished to impress the fact that it was easy to employ too much force in drawing off the fluid, and thus to do harm. The minimum force required should only be employed.—Dr. W. CARTER (Liverpool) observed that he had seen a considerable number of cases of pleuritic effusion treated by paracentesis—some purulent, some serous. He had never known a death occur from the operation; but there was often marked prostration, even where only a small quantity of fluid was removed. He inquired whether it was right to continue the treatment after severe pain had been felt, and also whether the operation should be performed in a sitting or in a lying posture.—Dr. SILVER (London) considered that the operation of paracentesis for pleurisy ought not to be lightly undertaken. With due care, however, and if executed properly, great advantages were to be derived from it in many cases. It was very important not to remove an excessive quantity of fluid. Even the withdrawal of a small quantity may be useful, other remedies then acting more efficiently. He insisted upon the necessity of using needles thoroughly cleansed and well soaked in carbolic acid.—Dr. BALTHAZAR FOSTER (Birmingham) urged the importance of antiseptic precautions, and also of the employment of antiseptic treatment in cases of empyema when a drainage-tube was introduced. He should classify cases in considering the treatment of pleuritic effusion. In acute cases, the quantity of the fluid and the urgency of the symptoms must be the guides. A patient ought not to be allowed to die with his chest full of fluid, as he had seen happen. We should not linger too long if the chest be two-thirds or three-fourths full of fluid, as this was not usually inclined to be absorbed by other treatment. The conditions were then not favourable for absorption. With regard to cases of empyema, if there were evidence of the existence of pus, the treatment should be conducted on surgical principles, as the pus could not be absorbed. He considered aspiration, if properly performed, the best and easiest method of operating.—Dr. BURNEY YEO (London) said that two facts were founded on the strongest evidence; viz.: 1. That paracentesis thoracis is a beneficial operation; 2. That the operation is occasionally perilous. We should try to discover to what cases these facts respectively applied. He drew particular attention to the constitutional condition of the patient as influencing the results, and was doubtful whether paracentesis should ever be done if there were a tuberculous or scrofulous diathesis present.—Mrs. GARRETT-ANDERSON (London) could not believe in the guidance of the constitutional state of the patient in performing the operation of paracentesis for pleurisy. She gave cases which had come under her observation in support of this opinion. The only guide was the actual necessity for the operation.

It should not be done if there were only moderate effusion.—Dr. M'CALL ANDERSON (Glasgow) said that, in slight effusion, it was madness to attempt paracentesis. If there were a decided quantity of fluid, the operation need not necessarily be performed; but we must wait to see if it were progressing or stationary. An unhealthy constitutional condition was no objection to paracentesis, but, on the contrary, often indicated the operation. It was attended with dangers, but much depended on the way in which it was performed. He had never seen any unfortunate results. We should not be too rash; but, even at the present day, the danger was in the direction of delay.—Dr. BROADBENT (London) observed that it was admitted on all hands that paracentesis is desirable. The question was as to the cases in which it should be done. He alluded to the age of the patient, and said that he always found it safer and less risky to have effusions in children than in older persons. He considered a bad constitution a reason for interference. Precautions should be taken in all cases. We should be very careful as regards the instruments, and should adopt antiseptic measures. The whole of the fluid should never be removed, especially if it had accumulated slowly, or if the patient be old.—The PRESIDENT remarked that very little reference had been made to the results of the operation at different ages. It was one of the gravest kind in patients at all advanced in life, who had rigid chests, which could not retract. He did not think passive effusions so difficult of absorption as Dr. Allbutt seemed to imply, for he had never met with one at *post mortem* examinations. He should like to know whether the mortality differed according to the side of the chest affected, and especially with reference to sudden death. Coagula in the great vessels might give the explanation of this sudden death. As to the constitutional condition, tuberculous persons were the very individuals in whom he would recommend paracentesis. The compressed lung was particularly disposed to become the seat of tubercle, if there were a hereditary tendency. He had never seen a sudden death from fluid in the pleura, and therefore it could not be very common. He agreed with the conclusions of Dr. Gairdner on the whole, and was rather cautious in advising tapping for pleurisy.—Dr. WILSON FOX, in reply, said that he could give no information with regard to age. In the statistics collected by him, most of the deaths occurred in persons under middle life. He considered absorption of pus was possible. Dry punctures, due to the attempt at operating having been made over thick adhesions, had led to a cure in some instances. He thought there was no great difference between Dr. Allbutt and himself as to the cases in which the operation should be performed.—Dr. ALBUTT also replied, and stated that absorption was uncommon in large effusions, and that they generally became emphysematous. It was difficult to know when life was threatened, and he had seen cases die suddenly without warning, which had produced a deep impression upon him. He would not lightly operate in slight cases, but only when the chest was full. It was a question whether paracentesis favoured the conversion of the fluid into pus, but he thought it did. Antiseptics had not proved particularly favourable in his hands.

Rapid Death in Diabetes Mellitus. By BALTHAZAR FOSTER, M.D. (Birmingham).—Dr. Foster described cases of diabetes in which death came on quickly without any apparent cause; the premonitory symptoms being pain in the hypochondriac regions, lessened secretion of urine, great restlessness, and dyspnoea of a peculiar kind. The inspirations were deep and ample, filling all the chest; the respiratory murmur exaggerated; the pulse small and rapid; and the surface cold. Towards the end of the case, signs of collapse occurred, and finally coma. Dr. Foster discussed the mode of origin of these symptoms, and drew attention to a peculiar condition of the blood which he had observed: a remarkable creamy appearance, reddening on exposure to air, and showing, under the microscope, a large amount of molecular matter from breaking down of blood-corpuscles. These appearances, Dr. Foster had found, could be produced by adding acetone to healthy blood. Other substances failed to produce them. The development of acetone in the blood of diabetics was known to occur, and Dr. Foster considered that the group of symptoms which he described might be referred to poisoning by acetone, and might be called *acetone-ania*—a term already employed by Cantani in Italy and by some German physicians.—Dr. CLIFFORD ALLBUTT (Leeds) inquired whether there was a smell of acetone in the breath. In one case, he could not detect any chemically or by the smell; nor in another case by the smell alone.—Dr. GAIRDNER (Glasgow) alluded to a case of very rapid death from diabetes which he had seen, in which the urine was largely loaded with sugar and albumen. The patient was a tea-taster. He had met with several such cases.—Dr. BROADBENT (London) asked if there were any diminution in the amount of urine and sugar.—The PRESIDENT thought Dr. Gairdner's case was merely

the outcome of long-standing disease. He had seen several cases of the same kind. He alluded to the importance of examining the urine two or three times a day in cases of diabetes.—Dr. FOSTER replied that he had not made any chemical examination of the breath. Dr. Gairdner's cases came under a different category. The sugar in his cases became lessened two or three days before death, and the specific gravity of the urine diminished, the sugar being chemically converted in the blood into acetone.

On Some Points in the Clinical History of Chorea. By W. R. GOWERS, M.D. (London).—The object of the paper was to illustrate by cases some points in the common or occasional clinical history of chorea which have hitherto received little attention. I. *An increase in the irritability of nerve and muscle to electrical stimulation*, to both faradic and voltaic stimulation. The change can be observed best in cases of hemichorea. Five cases were narrated in which it was observed, and in some of these it was proved to disappear on the subsidence of the chorea. The same fact has been noted by Benedikt and Rosenthal, who have also observed a change in the nerve-reaction to voltaism which Dr. Gowers partially confirms. The significance of the increased irritability is probably an altered state of nutrition of the fibres of the nerves and of the motor nerve-cells of the spinal cord, under an irritation transmitted downwards from the diseased cerebral region, and is another illustration of altered nutrition in functional disturbance. II. *The relation of the muscular disturbance of chorea to voluntary movement.* The inco-ordination of voluntary movement varies independently of the spontaneous spasmodic movements. Instances were mentioned in which the spontaneous movements were slight and the inco-ordination great, in which there was much spontaneous movement and little or no inco-ordination, and in which the relative proportion of the two varied at different periods of the same attack. Reasons were given for regarding the inco-ordination as something distinct from mere inability of the will to still the spontaneous spasm. As far as the observations went, they suggested the conclusion that the spontaneous spasm was in excess late in a case and during relapses. The independent variation of the two elements suggests that they depend on a morbid condition of distinct and perhaps separate regions. III. *The relation of chorea to other convulsive affections.* If chorea depends on an unstable condition of grey matter, it is not surprising to find it occasionally associated with other diseases which we ascribe to a similar instability, such as hystero-epileptic and epileptoid convulsions of various kinds, and even true epilepsy. In illustration of this, a series of cases were narrated, exhibiting—1. Chorea, with remarkable choreo-epileptic seizures during the height of the affection; 2. General chorea succeeding unilateral convulsions of six months' duration; 3. Chorea, succeeded immediately by persistent unilateral convulsions and hystero-epileptic fits; 4. Chorea, more severe on one side, succeeded immediately by convulsions on that side; 5. Chorea, followed after an interval of some years by epileptoid seizures; 6. Chorea, succeeded after many years by true epilepsy.

Infantile Pneumonia. By W. SQUIRE, M.D. (London).—Pneumonia is among the most fatal of the acute diseases of children. The annual number of deaths from this cause of children under five years of age for England is nearly fifteen thousand. This number is alone exceeded under the heading "convulsions", where several different conditions are included. Pneumonia and bronchitis are now so well distinguished in this country that, instead of the former, as in the returns for 1842, causing six times more deaths than bronchitis, pneumonia is now returned as causing only half as many for all ages, but double the number for young people and children. The more bronchitis and pneumonia are separated, the less is the latter found to be connected with cold weather or climate. The seasonal mortality from pneumonia differs from that from diseases of the respiratory organs generally, and agrees with that from laryngitis, quinsy, and croup; these diseases having a nearer relation to some of the acute specific diseases and to constitutional ailments than to those of a local or accidental or accidental origin. This conclusion, stated ten years ago by the author for croup, and by Ziemssen of Berlin for pneumonia, has been thoroughly worked out from the London mortality returns by Dr. Sturges, and more recently in the *Scottish Meteorological Journal* by Mr. Buchan and Dr. Mitchell; their results are in the main confirmatory of those arrived at by Jürgensen in Ziemssen's *Cyclopaedia*. A paper by Drs. Grimshaw and J. W. Moore of Dublin on pythogenic pneumonia supports the same view. Infantile pneumonia is sometimes excepted from these conclusions on the ground of its being catarrhal or a mere extension of bronchitis; one object of this paper was to show how frequently acute pneumonia occurs in children, and that infantile pneumonia, excluding the complications of systemic disease and the pulmonary complications of measles and whooping-cough, conforms exactly to all the etiological and pathological characteristics of true pneumonia. As instances of the frequency of pneumonia in children, the

experience of Steinitz of Breslau with 84 cases was adduced, and of Ziemssen of Berlin, who gives 186 cases of pneumonia, specifically stated not to be catarrhal, of which 117 occurred in the first six years of age, and 69 in the next ten years. Details of four consecutive cases in the author's practice, from November 1876 to June 1877, showed that acute lobar pneumonia is not uncommon in children. These, and other cases given, commence suddenly with high temperature and greater disturbance of respiration and circulation than other acute diseases of childhood. When children are too young to complain, and when, as in most cases, catarrhal symptoms are absent, the pneumonia is very likely to be overlooked and the disease attributed to some other fever, or to meningitis. The high temperature of the ingress steadily maintained, often, as in three of the above cases, at and above 104 deg. for days together, distinguishes pneumonia from the specific fevers; the temperature chart for measles differs more widely than the others from that of pneumonia in all points but one, and that at the end, when there is a sudden fall on the completion of the local process. Convulsions in young children frequently take the place of the rigor of commencing illness in adults; whether meningitis is expected or not, always examine the chest, especially at the back. Secondary pneumonia often comes on with no marked rise in temperature; it should be considered as part of the disease it complicates.—Dr. DAY (London) recommended the application of cotton-wool to the chest of a child, covered with oil-silk. This could be kept on for three days without harm. Experience showed that bronchopneumonia is far more common in London than acute croupous pneumonia.—Dr. FARQUHARSON (London) had seen several marked cases of acute croupous pneumonia in children, but not under two years of age. He drew attention to the frequency with which the apex of the lung is involved in children; the disease spreads up to this part, and, therefore, this part should be properly examined. He was in favour of the use of aconite for children. The application of cotton-wool was also beneficial.—Dr. BRIGGS (Burnley) recommended the use of large sheet-wool, with glazing outside. This did not need oil-silk.—Dr. CROMPTON (Manchester) said that cotton-wool was much used in Manchester as an application to the chest. It must be put on in thick layers.—The PRESIDENT observed that secondary pneumonia after the acute specific fevers in children often involved the apex of the inferior lobe of the lung.—Dr. SQUIRE replied that his cases showed that acute croupous pneumonia is more common in children than is generally supposed. He did not use aconite in these cases, because they ran their course satisfactorily without medicine.

Friday, August 10th.*

The chair was taken on this day by Dr. HENRY SIMPSON, Vice-President.

International Uniformity in Physic. By E. SEGUIN, M.D. (New York).

The Use and Abuse of Chloral. By OSCAR LIEBREICH, M.D. (Berlin).

Observations on Renal Affections in Children. By W. H. DAY, M.D. (London).—Dr. Day said, that if less frequent than some of the other ailments to which early life is liable, renal affections in children are of more than ordinary gravity and interest. It is not yet settled whether albumen is excreted by the epithelial lining of the tubules, or thrown out with the liquor sanguinis in the glomeruli of the kidney, and reabsorbed along with the great bulk of the water as the urine passes down the tubules. He divided albuminuria into temporary and permanent. Persistent and permanent albuminuria indicates disease of the kidney; temporary and passing albuminuria does not necessarily involve structural change. An illustrative case was then related. He thought that albuminuria in many cases was owing to some loss of functional power to reabsorb albumen on the part of the epithelial lining of the tubules—in some cases due to congestion, and possibly in other cases to excess of albumen in the blood. He then related a case of persistent albuminuria, extending over two years to his knowledge, without any deterioration of the general health. The significance of albuminuria in children is not yet perfectly appreciated. It would be often found, if looked for, in cases where its presence is not suspected.—Dr. MORLEY ROOKE (Cheltenham) had met with a class of cases closely resembling those brought forward by Dr. Day. He described a case of intermittent albuminuria, without any renal products under the microscope, the albumen disappearing with rest, and returning when the patient assumed a vertical position. He had treated the case with perchloride of iron and small doses of strychnia. He attributed the condition to renal congestion, from want of tone in the renal vessels.—Dr. DAY suggested the use of milk-diet, and to keep the patient warm.

The Treatment of Professional Cramp. By L. BIANCHI, M.D. (Naples).

Position an Auxiliary in the Treatment of Cholera. By Surgeon-Major C. M. JESSOP (Clifton).—The author recommended the hypodermic use of chloral-hydrate to overcome cramp, vomiting, and purging; and, when these had ceased, a nervine tonic, the semi-recumbent posture, and getting the patient out of bed as soon as possible.

Posthemiplegic Chorea. By JAMES ROSS, M.D. (Manchester).—Dr. Ross exhibited two patients, and described the cases.—Dr. WOOD alluded to cases in which movements are due to hysteria and are under control. He inquired how they were to be distinguished from cases of organic disease.—Dr. CHARCOT (Paris) said, in answer to Dr. WOOD, that it is very difficult to distinguish between hysterical contractions and such as are due to organic lesions. There seems really only one chief difference of the two—that is, the intensity of contraction, which is increased in hysterical contractions. All the other distinctions are not fully narrated, though some are important, such as the loss of sensibility in hysterical contractions; the fact that the upper member is more affected than the lower in hysteria; very important is the fact which had been already pointed out by Todd, that in hysterical hemiplegia no facial palsy is found. Spinal epilepsy is common to such forms.—Dr. DRESCHFELD (Manchester) made some remarks respecting Dr. ROSS's cases, and said that these and other cases showed that the condition named "athetosis" is not a disease, but a symptom which may be due to very different lesions. In old cases of cerebral disease, descending sclerosis accounts for the posthemiplegic contractions.

On our Present Knowledge of Diphtheria. By R. H. SEMPLE, M.D. (London).

Treatment of Fifty Cases of Rheumatism by Salicylic Acid and Salicylates. By W. CARTER, M.B. (Liverpool).—The author considered that the results which he had obtained testified to the value of salicylic acid. To speak of it, however, as a specific, with 8 per cent. of failures, and not a few recorded deaths in spite of its free employment, seemed to him to be claiming for it a position which had not yet been established. At the very least, however, it was a most valuable addition to our means of combating a formidable disease, and one which, by diminishing materially in most instances the length of the febrile stage, lessened greatly the chance of serious cardiac complications.

One Hundred Cases of Rheumatism treated by Salicin and Salicylic Acid. By E. H. JACOB, M.B. (Leeds).—The cases were under treatment in the Leeds Infirmary. After referring to the large number of reported cases under this treatment, and the small percentage of cardiac complications noted, he gave the general results under four heads: 1, when the result was good; 2, moderately so; 3, of no avail; 4, fatal cases. Of the whole number, sixty-three died very well, with an average duration of symptoms after treatment of 2.9 days, and an average stay in hospital of 12.9 days. In the second class were thirty cases, with an average duration of eleven days, and stay in hospital of thirty-five days. Two cases appeared not to be influenced by the drug, besides five cases which proved fatal. Forty-five cases were admitted without cardiac complication; of these, three contracted pericarditis while under treatment, making a percentage of cardiac disease under treatment of 6.6. Relapses were very frequent, five patients being readmitted with second attacks, and two a third time. The drug most used was sodium salicylate, in doses of thirty grains every four hours in the acute stage. The toxic effects were vomiting, nausea, deafness, and tinnitus. No albuminuria, cutaneous eruption, or delirium, could be traced to the use of the drug. Sodium salicylate had been much used for chronic rheumatism in the out-patient department at the Leeds Infirmary; and, out of thirty cases in which notes had been taken, twenty experienced considerable benefit.

Anteversion of the Liver simulating Enlargement. By T. D. GRIFFITHS, M.D. (Swansea).—The author said that anteversion or rotation forwards of the liver on its transverse axis was not very uncommon. In this position, the anterior border of the liver fell below the ribs; the upper surface was turned forwards, and the hepatic dulness in the nipple line was increased, and, in extreme cases, became equal to the antero-posterior diameter of the liver. It was important to recognise this displacement, as it simulated enlargement of the organ. Three cases were given in illustration.

Paralysis of the Diaphragm with Peculiar Laryngeal Symptoms. By E. LONG FOX, M.D. (Clifton).—A boy, twelve years old, had been struck on the upper part of the back some months before. The symptoms gradually developed were: pain and tenderness over the epigastrium, great protrusion of the abdomen, no apparent action of the diaphragm, sleeplessness, and a most peculiar noise during respiration. At first, inspiration only was noisy; but gradually expiration also became resonant. The sound resembled the clucking of a hen; but, as the disease advanced, every breath was exactly like the scream of a

* Of the papers included in this day's list, some were taken as read.

peacock. Under gelseminum, strychnia, and faradisation of the phrenic nerves, the diaphragm regained its power in about three months; but fully ten months elapsed before the noisy respirations ceased.

Cases of Asthma Nervosum successfully and permanently Cured with Arsenic Inhalations and Galvanisation of the Pneumogastric Nerves. By ADOLPHE WAHLTUCH, M.D. (Manchester).—Seven cases came under the author's observation within the last six years; four patients suffered from nervous asthma only, three also from frequent attacks of bronchitis catarrhalis; in one case, the father and sister were likewise subject to asthma. The treatment consisted in—*a.* Inhalations: twice-a-day the use of the spray of a solution of arsenical salts, such as the arseniate of potash, of soda, of ammonia, in gradually increasing doses (one-sixth to one-half of a grain); *b.* Galvanisation: the daily application of a continuous current (for five minutes, and gradually increasing the current from five to thirty small Smee's cells) to each of the nervi vagi separately. 1. A gentleman, aged 23, suffered nine years from asthma nervosum; under treatment six months, freedom from attacks five years and a half. 2. A gentleman, aged 25, three years ill; treatment one month, no attack during five years. 3. A gentleman, aged 38, one month ill; treatment one month, no attack since, two years. 4. A lady, aged 23; father and sister suffering from asthmatic attacks; twelve years ill; five months under treatment, had no attack since, a year. 5. A lady, aged 42, eight years ill; six months under treatment, no attack since, eight months. 6. A lady, aged 33, a year ill; a fortnight under treatment, greatly benefited. 7. A lady, aged 37, fourteen years ill; one month under treatment, benefited. The last three patients were also subject to catarrhal bronchitis.

Recent Researches on Pyæmia. By P. M. BRAIDWOOD, M.D. (Birkenhead).—The author commenced by stating the position he took in his monograph on the subject, published in 1868, and using this as a starting-point, he referred briefly to Dr. Burdon Sanderson's important paper (Appendix A in *Reports of the Medical Officer of the Privy Council*, No. VI, 1875), which details recent observations on the phenomena of the febrile state, and his views on infective inflammations. He next detailed the researches he had conducted before the enforcement of the Vivisection Act, and which formed two series; the former (including twenty-five experiments on rabbits and dogs) were pursued by the author in the preparation of his Fothergillian prize essay, while the latter (including twenty-two experiments on animals) were a continuation of the line of research already entered on. The fluids used for infecting the animals were of varied nature and origin, in some instances novel. One mode of infecting the animals had not been used by previous investigators. He inoculated in thirteen rabbits a solution of lochia itself or mixed with antiseptics; in four rabbits and one dog, pus or purulent fluid from infected animals; in four rabbits, septic fluid produced by macerating muscle in distilled water; in two rabbits and one dog, grumous fluid removed from the peritoneal cavity of infected animals. Seven rabbits and the two dogs recovered, while those that died presented for the most part the pathological appearances of septicæmia or pyæmia. Again, in eleven experiments, the animals (rabbits) were infected by injection into the vaginal wall: seven rabbits and two dogs were inoculated subcutaneously; in one experiment, the septic fluid was introduced directly into a vein; in three experiments, it was introduced into the abdominal peritoneal cavity; in three, it was applied to a wounded surface. Dr. Braidwood thought it might be concluded from this series of experiments that human lochia can infect animals with septicæmia; that subcutaneous injection is not a successful method of inducing septicæmic infection; that the secondary deposits found in viscera after the successful inoculation of an animal with human lochia differ in appearance (and, as will afterwards be seen also in microscopical character) from those produced by successful inoculation with septic fluid obtained by macerating muscle in distilled water; and that so-termed antiseptic solutions added to these septic fluids before inoculation do not destroy their septicity. In the second series of experiments on twenty-one rabbits (twelve does and nine bucks) and on one dog, the author employed for injection into fourteen rabbits and the dog a solution of fourth-day lochia from two cases of natural parturition and from one patient who received slight laceration of the perineum during delivery; into seven rabbits was injected purulent fluid removed from some of the animals which had died from septicæmia; of these, twelve rabbits died, while nine rabbits and the dog recovered. In ten rabbits, inoculation was performed *per vaginam*; in six, *per perineum*; and in five, subcutaneous injection was performed. In the case of the dog, the lochial solution was injected into the pelvic cavity *supra pubem*. Of the rabbits injected *per vaginam*, five died; of those injected *per perineum*, five; of those injected subcutaneously, two. Among those inoculated with a lochial solution, eight died; with pus or purulent fluid, four. In four instances, anti-

septic solutions were added to the infecting fluid before it was employed, and of these, three succumbed to experimentation. Moreover, in many of these experiments the lochial solution was subjected to dialysis before being inoculated, but the results showed no special difference in the septic power of the dialysed *contra* the undialysed portions used. The last observation deserving special notice was that among this second series two rabbits received *per vaginam* each half a drachm, while a third received a whole drachm of fourth-day lochial solution removed from a patient who had a rapid delivery on the second day after she showed small-pox, some of the pustules being situated within the vaginal canal. Of these animals, one died, and showed secondary deposits in the liver at the necropsy. Hence that state of the system which developed variola in the patient seems either not to have affected the septic quality of the lochial solution, or at all events it did not intensify its septicity. The author next drew attention to two microscopical observations made during his conduct of these researches. No relation could be made out between the presence of bacteria and such organisms in septic fluid and the intensity of the infection induced by such fluid. In the majority of the lochial solutions and other septic fluids employed, no bacteria or like organisms were detectable by the microscope. The secondary deposits found in the lungs, liver, or other viscera of animals infected by the means above detailed, presented, on microscopical examination, great uniformity. In those animals which died after the injection of lochial solutions, the secondary visceral deposits were for the most part small, often minute white or yellowish-white spots surrounded each by a red zone. On microscopical examination, each spot showed in its centre plugging or embolism of one or more capillaries, followed by the ordinary changes consequent on this process. In the lungs there was often to be seen also dark red or blackish points of subpleural extravasation, which, examined microscopically, seemed to have their origin in embolism; occasionally, these secondary deposits, especially in the liver, attained a considerable size, being as large as peas. On the other hand, the secondary deposits resulting from the infection of animals with an aqueous solution of macerated muscle appeared of caseous consistence. These were of irregular form, not surrounded by a zone of congestion, were larger, distinctly raised above the surface of the viscus, and cut gritty. Examined microscopically, they seemed to originate from capillary embolism, like the former variety of secondary deposits, but they differed in presenting a distinct lining membrane or wall, derived, probably, from a connective tissue metamorphosis of the tissue of the viscus, and were filled with broken down blood-corpuscles and granular debris.

Case of Cancer of the Stomach in an Infant five weeks old.—By C. J. CULLINGWORTH, M.R.C.S. (Manchester).—Mr. Cullingworth exhibited the stomach of an infant who died from cancer of the pylorus at the age of five weeks. At birth, and for the first nine days of life, the child (a male) was to all appearance in good health. On the tenth day, he began to vomit, from half an hour to an hour after taking food. There was no pyrexia; the tongue was clean; the bowels constipated; and the motions dark and scanty, without any ill smell. All the usual signs of gastro-intestinal irritation were absent. It was feared, therefore, that the vomiting, which persisted in spite of all treatment, medicinal and dietetic, was due to an obstruction situated high up in the alimentary canal, though of what nature it was not easy to conjecture. The vomiting became more urgent, and the evacuation from the bowel more scanty. Emaciation increased from day to day. For many days, the abdomen remained natural, but eventually it became enlarged and tympanitic. At this time, the vomiting took place at long intervals, and the vomited matters were large in quantity. Convulsions manifested themselves during the twenty-six hours preceding the child's death, which took place twenty-nine days from the first attack of vomiting. At the *post mortem* examination, the stomach, dilated and hypertrophied, occupied almost the whole abdominal cavity. The right or pyloric half was greatly hypertrophied, the thickening gradually increasing towards the pyloric orifice. The wall of the pylorus itself measured one-third of an inch in thickness. A small pear-shaped tumour, one inch in length, sprang from the inner surface of the lower border of the pylorus. It was softened and ulcerated at its centre, and completely closed the pyloric orifice. The intestines were collapsed and empty. Dr. Dreschfeld had examined the specimen microscopically, and reported that the tumour was a cylinder-celled epithelioma, and that there was enormous hypertrophy of the muscular coat of the stomach in the neighbourhood. The specimen was laid on the table, and sections of the growth were exhibited under the microscope. The author remarked on the extreme rarity of malignant disease of the stomach in infancy, and referred to the only other case he had been able to find, viz., that of Dr. Thomas Williamson (*Monthly Journal of Medical Science*, 1841, p. 23).

Successful Treatment of Pneumonia and Bronchitis. By H. GREENWAY, Esq. (Plymouth).

Syphilitic Aphasia. By C. R. DRYSDALE, M.D. (London).—Dr. Drysdale in this communication narrated the histories of four cases of syphilitic disease accompanied by aphasia. The first case related to a gentleman of eminence, who in 1851 contracted syphilis, and had consulted him for several years for vertigo and other symptoms, which he (Dr. Drysdale) had put down to this disease. In 1871, this gentleman was seized with complete aphasia and right hemiplegia, both of which remained incurable and still persisted. In another case, the disease came on in the first year of the patient's disease, and during the period when an universal eruption of syphilitic roseola was present. In this case, there was almost complete aphasia, with right hemiplegia. Both symptoms persisted, although both became a little ameliorated by time. The seizure took place in 1869; and the patient, a man, remained helpless up to 1875, when last seen. The third case related to a gentleman who contracted syphilis in 1870, and died of it in 1876. In this case, the vertigo mentioned in the first case was very well marked and distressing. It persisted for years, the patient becoming of violent temper; and culminated in 1876 in aphasia and paresis of the left extremities, with epileptiform attacks, in one of which he eventually died. The fourth case referred to a man who had contracted syphilis five years before, and contaminated his wife, who had several dead children. Here there supervened a fit of aphasia, which remained permanent, but which was not accompanied by hemiplegia or paraplegia. Dr. Drysdale had seen other cases in the practice of his medical brethren in London and Paris, and thought that the diagnosis of syphilitic aphasia, although often obscure, might with care usually be made out. The age at which such disease takes place is, on an average, some thirty-four years. Far more men than women suffer from it, perhaps thrice as many. The prognosis is very bad; about one-half of the cases die in a few years. In the case of non-syphilitic aphasia, which is almost always due to an organic cause, such as softening of the frontal convolutions of the left anterior lobe, caused by embolia of the Sylvian arteries, there is almost always some point which distinguishes this form from that due to syphilis. Probably syphilitic aphasia more frequently than ordinary aphasia coincides with left hemiplegia; but, at any rate, there is a great variety in the nervous symptoms observed in syphilitic aphasia, as compared with ordinary aphasia. Syphilis may attack several parts of the connective tissue in the cranium at once; and, even when confined to one spot, its influence radiates round about it, so as to cause the production sometimes of aphasia with palsy of the upper extremities and anesthesia of the lower, or accompanied by paraplegia or by double hemiplegia and ptosis. Occasionally, as in one of the cases above cited, it is merely the power of speech which is affected; and of course the intellect suffers, and notably the memory. Large doses of iodide of potassium, fifteen grains every two hours, or even more, are indicated at the commencement of attacks of syphilitic aphasia. Mercury also may be given.

On Current Measurement in Electro-Therapeutics. By J. DIXON MANN, L.K.Q.C.P.I. (Manchester).—The writer, after alluding to the difficulties in the way of estimating the dose of electricity administered to a patient, the result partly of variations in the battery and partly of variations in the cutaneous resistance of the patient, described a galvanometer which he had devised for medical use. This instrument gives indications of absolute current value, constant for all instruments constructed after this method, enabling any one accurately to record or reproduce a given dose of electricity. As showing the necessity of current measurement, Dr. Mann instanced the results obtained by Charcot, Luys, and Dumontpallier in investigating the *modus operandi* of Burq's method of treatment; these investigations showed that the beneficial results of M. Burq's system were due to electrical action, and that the success of the treatment depended entirely on the dose administered, a current of from 10 to 15 deg. producing effects on the patient which ceased when the galvanometer was deflected to 45 or 60 deg. Dr. Mann then proceeded to give the result of a series of original investigations made by him for the purpose of determining the amount of fibrin precipitated from the blood by a measured current in a measured time, with a view of ascertaining the current strength most suitable for the electrolytic treatment of aneurism.

Medical Electricity: its Scope and its Limitations as a Remedy. By H. TIBBITS, M.R.C.P. Ed. (London).

The Continuous Current in Certain Neuralgiae and in Spasmodic Asthma. By A. S. MYRTLE, M.D. (Harrogate).—Dr. Myrtle had found the use of from five to twenty cells of Leclanché's continuous battery of great therapeutic value in many forms of superficial neuralgia, and especially in those cases where the pain had a decided fixity in its nature, such as migraine; intercostal neuralgia; neuralgia of cer-

tain groups of muscles, such as the pharyngeal and laryngeal, accompanied with great difficulty in swallowing and breathing; of the abdominal muscles, accompanied with such intense pain on assuming the erect posture, or in walking, as to render the patient unable to do either for even a very short period without intense suffering. For the relief of neuralgic pain in more deeply seated nerves, such as the lumbar and sciatic, thirty to forty cells are required. In most cases, the nerves affected are far less sensitive to the faradic current than the healthy nerve is; and, as far as Dr. Myrtle's observation went, it matters little how the poles are placed, so long as the affected nerve is made a part of the chain through which the electric current passes. In no case ought the current to cause pain, but a mild tingling or pricking; and, when the skin is tender and thin, it should not be kept applied to the same spot for more than a very few minutes (two or three) at a time, else a crop of angry pustules will put in an appearance. A few applications are of no use, as this agent must be employed daily for from five to fifteen minutes, and regularly, until the pain is entirely subdued. In spasmodic asthma, he had met with great success from the use of the constant current. He had seen in ten minutes the respirations reduced from thirty-eight in the minute to eighteen, with complete relief to all painful symptoms. Here he had never found it necessary to make use of more than ten to fifteen cells, and had applied one pole over the par vagum in the neck, the other over the eighth intercostal space.

Observations on Certain Forms of Paralysis. By C. ELAM, M.D. (London).

Value of Koumiss in the Treatment of Nausea, Vomiting, and Inability to retain Food in the Stomach. By V. JAGIELSKI, M.D. (London).

SECTION B.—SURGERY.

Wednesday, August 8th.

THE President, EDWARD LUND, Esq., Professor of Surgery in Owens College, Manchester, delivered an address on the After-History of Surgical Cases, which was published at page 180 of the BRITISH MEDICAL JOURNAL for August 11th.—A vote of thanks to the Chairman for his address was proposed by Dr. SAYRE of New York, and seconded by Mr. COOPER FORSTER of London.

Primary Osteo-Sarcoma of the Femur: Amputation of the Thigh: No Return in Stump: Rapid Recurrence in the Lung: Death. By F. A. HEATH, M.R.C.S. (Manchester).—The author related a case, which had occurred in his own practice, as supporting a view expressed by Sir William Fergusson and held by himself; viz., that large malignant growths springing from the long bones do not, after amputation, if the whole of the diseased structures be removed, return in the stump, but at some distant part; and that, therefore, it is not necessary to amputate above the knee in the case of the tibia, or at the hip-joint in the case of the femur being the seat of the primary growth. The author afterwards referred to another case, formerly under his care, in which he had amputated at the hip-joint for a very large tumour of the thigh of a similar nature to the above. The man recovered from the operation, but subsequently died from recurrence of the disease in the viscera without any return in the stump.—Dr. GEORGE H. B. MACLEOD (Glasgow) had operated for similar tumours, and with similar results. In three cases in which he had removed the limb at the hip-joint, the disease recurred in internal organs, and in one the lung was alone affected. He was of opinion that, while it was necessary to operate wide of the disease, no extra security against recurrence was afforded by amputating through a joint.—Mr. T. PRIDGIN TEALE (Leeds) supported the view expressed by the author, and alluded to a case in his own practice of a boy who died of recurrence of the disease in the lung three months after operation.—Mr. O. PEMBERTON (Birmingham) opposed amputation at the joint, for the reason that, in osteo-sarcoma and osteoid cancer, recurrence takes place in the internal organs, whether the limb is removed in the continuity of the bone or at a joint. He considered that general experience points to sparing the patient the increased risk of amputating at the joint, while at the same time care must be taken to go wide of the disease.—Mr. BIRKETT (London) expressed a corroborating opinion, and referred to two cases then in his memory in which the disease recurred internally and away from the stump. One was an osteoid cancer of the forearm, in which amputation was performed above the elbow, and the recurrence was in the lung. The other was a malignant growth in the fibula of a child, following a blow. Without any return in the extremity, the little patient died of cancer at the base of the skull in the sphenoid bone. He thought that, whether the amputation be performed through a joint or not, death sooner or later follows from a return of the disease in some distant organ.

Cancerous Infiltration of the Tongue and Sublingual Tissues: Removal of the Disease by Syme's Operation. By F. A. HEATH, M.R.C.S. (Manchester).—In performing this operation, the author, having secured the tongue with a ligature and divided the lower lip and tissues over the chin, transfixed the jaw on each side of the middle line, and passed a silver wire through the holes. The lower jaw was then divided at the symphysis, and the diseased portions were subsequently removed by the galvanic *écraseur*. There was no hæmorrhage of consequence at the time. The patient, a spare man aged 52, made an excellent recovery, and was exhibited to the Section, it being then six months since the operation.—Mr. BERKELEY HILL (London) and Dr. MACLEOD (Glasgow) spoke on this paper. The latter expressed astonishment that the operation was so seldom performed. It was the one he usually adopted. Its employment, however, depended upon the extent of the disease. He did not like the galvanic *écraseur*, but preferred the ordinary wire or chain. He had never lost a case of excision of the tongue *quoad* excision, although he had had patients in whom the disease recurred very rapidly. The longest interval before recurrence, in his practice, had been five years. An objection he had to the galvanic cautery was the contraction at the fauces which often followed cicatrization after its use. In two out of three cases in which he had employed it, the hæmorrhage was as free as when the knife was used. With the ordinary *écraseur*, the bleeding was not formidable; it was controllable and often stopped of itself. He referred to a method of excising the tongue by which the diseased portion was removed by a V-shaped incision, after temporary ligatures had been applied to the base of the organ. The flaps of the tongue were then stitched together. The plan had been recommended to him by a continental surgeon.

On the Treatment of Hip-Joint Disease by Extension with Motion, as practised by the American Surgeons, instead of Continued Rest and Immobility. By WILLIAM ADAMS, F.R.C.S. (London).—The object of the author in the present paper was to direct attention to the recent advances which had been made in the treatment of hip-joint disease by the American surgeons, to whom we are indebted for the discovery of two very important principles, and also for their practical application by means of most ingeniously contrived instruments. The first principle is that of extension as a means of relieving the most acute pain in joint-diseases, especially applicable to the knee and hip-joint disease. The second principle is that of extension combined with motion, applied during the treatment of hip-joint disease, so as to promote recovery with free motion in the joint, instead of the ordinary result of an ankylosis obtained by long continued rest and immobility. The principle of extension for the relief of pain is applied by means of the weight-and-pulley apparatus whilst the patient is in bed. The principle of extension with motion is applied during the subacute and chronic stages of hip-joint disease, by means of instruments which enable the patient to walk and take outdoor exercise without crutches, and without bearing any weight on the affected limb. The instruments now generally in use in America for the application of extension with motion, whilst the patient is allowed to walk, are those invented by Dr. Taylor and Dr. Sayre of New York, and also one by Dr. J. C. Hutchinson of Brooklyn, all of which are improvements on the instruments first invented for this purpose, in the year 1855, by Dr. Henry Davis of New York, who, in his work on *Conservative Surgery*, p. 212, also claims to have discovered the principle of weight-extension for the relief of pain. The author's experience in the use of these instruments was very limited; but during his recent visit to America he had seen them applied with advantage in a large number of cases, and he expressed a hope that English surgeons would submit them to the test of practical experience.—Dr. SAYRE (New York) exhibited his splint for hip-joint disease, and gave a description of the most recent improvements in it. These consist in the addition of screws whereby the limb can be abducted and rotated; while flexion and extension, or forward and backward movement, can be effected, if desirable, by a movement of the upright of the splint at the abdominal belt. Further, flexion at the knee can be performed by means of a hinge and screw in the upright on a level with that joint.—The PRESIDENT spoke in favour of the splint, though in practice he had found that the relatives or friends who have the care of the patients never keep the perineal strap properly adjusted.

A Case of Ununited Fracture of the Femur treated successfully by Operation. By REGINALD HARRISON, F.R.C.S. (Liverpool).—Mr. Harrison narrated the particulars of a case where, after various means for obtaining union of a fracture of the femur of some months' standing had failed, the following operation was practised by him. The patient was a sailor twenty-six years of age. An incision was made by which the fractured ends were sufficiently exposed. As the bones overlapped, the lateral surfaces of the fragment were bared to the extent of

their overlapping; viz., nearly three inches. To hold the fragment thus, bared in close apposition, the bones were encircled by two pieces of copper bell-wire. The bones being held together in this way, a drill-head was passed through both fragments, one end of which was left projecting through the wound. The wound was closed by suture, and the limb placed on an interrupted long splint. On the fourth day, the drill-head was removed. Union progressed satisfactorily; and two months after the operation the wires were removed, when union was found complete. The patient recovered with three inches of shortening, and has resumed his occupation as a sailor. The author of the paper considered that, whilst contact of the opposing surfaces of the bone was thus maintained by the wires, by encircling the bones with them, and not passing them through the bone-structure, the risk of an excessive or prolonged inflammatory action was avoided. After union was complete, some minute portions of bone were exfoliated. Two years after the operation, the wound remained soundly healed, and but little inconvenience from the shortening was experienced by the patient in the exercise of his duties as a sailor.—Mr. J. WRIGHT BAKER (Derby) thought that, in many cases of non-union of fracture, the cause was malnutrition. In his own experience, a strumous condition had been associated with the non-union; and in a very cachectic person, the subject of tapeworm, who was under his care, the fracture remained ununited for a long time. Union was obtained after the tapeworm had been completely expelled.—Dr. MONKS (Wigan) asked, if silver wire had been used, whether it would have been as necessary to remove it as it was the copper wire.—Dr. HOWARD (New York) considered a less quantity of wire would have been advantageous. Necrosis had followed the operation, and, in his opinion, necessarily so. Had less wire been used, there would have been less necrosis. He thought silver-plated copper wire better than copper wire. It was undesirable to allow the end of the wire to protrude, as suppurating in the soft parts was thereby kept up.—Mr. HARRISON replied that it had been his intention to use silver wire, which he preferred to copper; but he was unavoidably obliged to employ the latter. He admitted the objection to the protrusion of the wire through the wound, but considered that silver wire, equally with copper, ought to be removed as soon as there was any indication that it was no longer necessary.

Retropharyngeal Abscess. By JOHN CHIENE, F.R.C.S. (Edinburgh).—C. M., aged 13, a baker's apprentice, was admitted April 15th, 1877, to the surgical wards of the Edinburgh Royal Infirmary. The patient suffered from acute cervical disease, accompanied by a large abscess pointing in the mouth. Mr. Chiene opened the abscess laterally in the neck, passing behind the right sterno-mastoid muscle and carotid sheath. The case was treated antiseptically. Eight ounces of pus escaped. A drainage-tube four and a half inches long was inserted, and the head fixed with an immovable apparatus. The drainage-tube was removed on June 11th, and the sinus closed on July 23rd. The patient can now move his head without pain. There is irregularity of the spinous processes of the third, fourth, and fifth cervical vertebræ. The posterior pharyngeal wall is healthy.—The PRESIDENT remarked upon the extreme interest and great rarity of the case. He did not know of any previous instance in which either art or nature had so opened a retropharyngeal abscess. It added another to the many examples of successful healing after abscesses had been opened on the antiseptic plan. He inquired as to the quantity of pus evacuated.—Mr. RIVINGTON (London), without personally advocating the use of the aspirator, asked if the author had ever used that instrument through the mouth in such cases, and what his experience was with regard to its use in abscesses connected with bone.—Mr. CHIENE replied that eight ounces of pus were removed. He had never used the aspirator in psoas or lumbar abscess; while tension was relieved for a time by it, pus reaccumulated again and again, and death was the ultimate result.—Mr. LENNOX BROWNE (London) asked if the method of extreme distension had been used with success in any of these cases.—Mr. MCGILL (Leeds) inquired as to the length of time requisite for recovery after opening abscesses connected with bone, was it months or years? Antisepticity seemed to do away with surgical fevers.—Mr. ANSTIE (Devizes) narrated a case of large lumbar abscess in which he used the aspirator with great success, indeed, with the result of saving life, which was seriously threatened before its use. The sinuses quite closed in seven weeks.—Dr. EMRYS-JONES (Manchester) found that the aspirator-tube was always plugged when the pus was at all curdy. There was no definite time laid down by Mr. Lister (whose practice he had closely watched) for the healing of abscesses opened on his principle, but the principle was good and the method satisfactory; the saving of life, indeed, was its result.—Mr. CHIENE could not lay down any rule as to the time of healing; it was not a definite one: it was longer in the case of abscesses connected with scrofulous disease of bone than in others. The saving of life ultimately was a great and sufficient object.

Case of Multiple Exostosis in a Boy. By THOMAS JONIS, M.B., F.R.C.S. (Manchester).—William S., aged 9, was admitted into the Children's Hospital, Penlebury, on July 3rd, on account of a number of osseous outgrowths connected with the different bones of the body. They occupied the following situations: both ends of the right clavicle; the upper end of each humerus, about two inches from the shoulder-joint; the carpal end of the right radius at the root of the styloid process (there was also considerable enlargement of the lower third of the bone); the anterior and outer surface of the lower end of the left radius; the lower end of each femur (there was also a small growth on the posterior surface of the right femur); the upper and inner side of each tibia; the lower ends of both tibiae and fibulae; also the external surface of the left fibula. In addition to these smaller growths, there was a large firm irregular mass springing from the posterior surface of the right tibia and fibula about two inches below the knee. This was removed; and, on section, was found to consist principally of cancellated bone-tissue enveloped by a thin layer of cartilage. Its attachment to the fibula was much firmer and more extensive than to the tibia. There were spiculated growths on the dorsal surface of the ring and middle fingers of the right hand, and on the outer side of the second phalanx of the middle finger on the left hand, together with enlargement on the dorsal surface of the left ring-finger immediately anterior to the joint between the metacarpal and second phalanges. The boy presented a peculiar deformity of the left ulna; the lower third of the bone appeared to be in a rudimentary condition and to join the radius, thereby destroying the power of pronation and supination of the forearm on that side. There was an entire absence of similar bony growths in any member of the family, either immediate or remote. The boy had every appearance of health, and there was no evidence of either syphilis, struma, or rickets.—The PRESIDENT asked if the growths affected the bones near the attachments of large muscles especially. He had observed this in other instances.—The patient was exhibited, and it was seen that the insertion of the deltoids and of the adductor magnus of each thigh, and the bicipital ridges of the humeri, were seats of the affection in a well-marked degree.

Rhinoplasty. Dr. JAMES HARDIE exhibited two cases of rhinoplastic surgery. The operation had been performed to repair the destruction caused by lupus. The method of operating was that proposed and advocated by Dr. Hardie in a paper published by him two years ago.

The Treatment of Spina Bifida by Injection of Iodo-Glycerin Solution. By WILLIAM BERRY, L.R.C.P. Ed. (Wigan).—After enumerating the different modes of treatment that have been employed, together with a few remarks on the coverings and contents of the sac, the author briefly reported the results of two cases he had treated after the manner recommended by Dr. Morton of Glasgow. In concluding, Mr. Berry pointed out that little or no fluid should be drawn from the sac previously to the injection, with the exception of what is taken at the preliminary tapping, and also that two, or at most three, tappings and injections are sufficient, if sufficient interval be allowed for absorption to take place.—The PRESIDENT and Mr. WM. ADAMS made some remarks on the connection of spina bifida with other congenital deformities.—Mr. LUND raised the question as to there being any causal connection between such deformities.—Mr. ADAMS thought the association of club-foot with spina bifida more frequent when the spina bifida was low down than when in the cervical region. He looked upon glycerine and iodide of potassium as a good form of injection, and narrated a case in which evident improvement followed a second injection of the remedy.

Spina Bifida.—Mr. W. C. WILLIAMSON (Manchester) exhibited a very interesting but obscure case. It was supposed to be spina bifida with large fibro-cellular growth in connection with the membranes. The tumour spread over each gluteal region, and caused considerable deformity of the whole region of the buttock. It gave some who examined it the impression that it was one of those coccygeal or sacral tumours such as have been described by Von Ammon, Oslander, and others.

Excision of Lachrymal Gland in Obstruction of the Nasal Duct. By EDWYN ANDREW, M.D. (Shrewsbury).—In long-standing bad cases of nasal obstruction with great muco-purulent discharge, extirpation of the gland was recommended as the best, if not the only, means of curing the disease. The incision should be made through the skin and subjacent structures at the outer and upper front at the angle of the orbit, close to its margin, the gland felt for, and removed by a hook and curved scissors. The edges of the wound should be brought together by sutures, and a drainage-tube introduced at its most dependent part. Some swelling and impairment of the movements of the lid remained for about a month; the discharge gradually lessened and generally ceased in about eight weeks, when the cure was complete.

SECTION C.—OBSTETRIC MEDICINE.

Wednesday, August 5th.

THE chair was taken by the President, W. O. PRIESTLEY, M.D., F.R.C.P., who delivered an address, which was published at page 181 of the JOURNAL for August 11th.

Transfusion of Blood. By D. LLOYD ROBERTS, M.D. (Manchester).—Transfusion was broadly divided into immediate and mediate transfusion. Immediate transfusion was naturally the method which first suggested itself. The idea of passing blood from one animal to another by means of a tube is fascinating in its simplicity; but, unfortunately, the operation is attended by grave difficulties. When living blood is brought into contact with inorganic substances, its fibrin generally begins to solidify in about three minutes after the blood has left the circulation. In its passage, the blood deposits on the inner surface of the transfuser a layer of fibrin, which, gradually becoming thick, tends eventually to occlude the cannula. In some instruments intended for immediate transfusion, the efferent cannula is introduced within the vein of the blood-giver, and from this arises a fresh danger—the risk of phlebitis. Another disadvantage of immediate transfusion is the proximity of the giver to the recipient of the blood. The danger of embolism, which, however, is not so great as was once supposed, has led to the addition to the blood of various chemical agents which either retard or prevent coagulation, as phosphate of soda (Hicks), carbonate of soda (Neudörfer), ammonia (Richardson), but a preferable plan, perhaps, is to deprive the blood of its fibrin by beating with a glass rod or a bundle of twigs, and then filtering the blood, heat being maintained by immersing the vessel containing it in warm water (about 105 deg.) Those who favour immediate transfusion hold that the vitality of blood is diminished by manipulation; that defibrinated blood rarely produces even a temporary amelioration, and never the excellent effects which sometimes result from the introduction of undefibrinated blood; that blood, deprived of its fibrin, is liable to produce ecchymosis and parenchymatous hemorrhages (Taburé), and that coagulation is retarded and the contractile power of the crassamentum diminished after injection of defibrinated blood, showing its unfitness in the treatment of hemorrhages from recent wounds or in cases of uncontrollable hemorrhage (W. Müller). The advocates of mediate transfusion maintain that all the vital elements remain unimpaired after the removal of fibrin from the blood in which the microscope then reveals no appreciable loss of red discs, nor any disturbance in the proportion of white and red corpuscles (1 to about 330). There is no evidence that blood by defibrination suffers any degradation in its nutritive or therapeutic properties; indeed, it is held that the corpuscles, red and white, are the life-giving elements; while many physiologists regard fibrin as excrementitious. Dr. Brown-Séquard's experiment of injecting defibrinated blood into the separated limbs of animals, followed by the formation of fibrin (especially when the muscles were tetanised) was cited in support of this view. So likewise was the fact that, in the blood of patients suffering from inflammatory and febrile diseases, fibrin is present in excess. It is said, too, that the gases of the blood are practically unaltered by defibrination; since oxygen, the only important gas, exists only in a feeble state of chemical combination with the hæmoglobin of the corpuscles and requires a tolerably perfect vacuum for its release; that venous blood, when undergoing agitation in the presence of air, gives off, as the spectroscope shows, carbonic acid and absorbs oxygen; and that the complicated instruments required for immediate transfusion and the difficulties encountered in the operation seriously detract from its usefulness. The oxydation or other change in the caoutchouc employed in the construction of these instruments is a great drawback; for, after the apparatus has been out of use for some time, it will very likely be sought in an emergency, and then, too probably, either it will prove unfit for use, or the specially skilled assistance needed will not be attainable. Instruments for immediate transfusion tend to become more and more complex; and, though one familiar with them may use them with marked success, their complexity must deter the unpractised operator. From time to time, the transfusion of the blood of the lower animals into human veins has been tried; but, when the blood of one species is injected into an anæmic animal of another species, though it acts as a temporary stimulus, the apparently beneficial effects subside in a few hours, and death results (Blundell). The blood of an animal is not, in small quantities, positively injurious to a human being, but simply useless; and this seems natural, for it is well-known that the size of the blood-corpuscles and the odour of the blood differ in different species, and these differences point to the conclusion that the blood of each species possesses qualities suited to that species but to no other.

Transfusion of Blood. By Dr. J. ROUSSEL (Geneva).—Dr. Roussel presented a paper, extracts from which were read by Dr. Lloyd

Roberts. In it, he said that the indispensable conditions of a good transfusion were the following. 1. The transfused blood should be from a similar origin to the blood to which it is added, *i.e.*, blood from man to man, and venous blood into veins. 2. It should continue to be vital and unaltered in its most intimate composition, in its corpuscles, fibrin, gases, density, temperature, and movements; not having been subjected to contact with the air, its germs and dust, or any other materials, such as metals, glass, ivory, sulphuretted India-rubber, etc. 3. Its quantity and the velocity of the flow should be entirely under the control of the operator. 4. The whole operation should be simple, rapid, and without any danger to either subject. Dr. Roussel then described his apparatus for immediate transfusion.

Dr. MARTIN (Berlin) advised transfusion of pure human blood. He could not countenance the use of defibrinated blood, or of any not human. Transfusion was performed as a rule at too late a stage to save the patient; he advised that anæmic vomiting should not be waited for, but that as soon as the pulse became very weak and irregular, and a tendency to fainting appeared, after the loss of a large quantity of blood, the operation should be at once resorted to. He showed the apparatus used by his father, which consisted of a simple glass syringe and a long thin elastic cannula, and advised simplicity of apparatus.—Dr. ATTHILL (Dublin) was in doubt as to the value of transfusion in all the cases in which it was practised. He had had three cases at his hospital: one died, one recovered. He thought that in some the patient might have done better without it. Of the two unsuccessful cases, in one harm seemed to be done, for, after the injection of ten ounces of defibrinated blood (without the pulse improving at all), the patient complained of great pain in her side, and died in great agony in an hour and a half. He was in favour of using defibrinated blood, as there would be then less danger of embolism. He showed Dr. R. McDonnell's instrument, which consisted of a glass receiver and a long elastic tube, at the end of which was a cannula. With this, he thought there was no danger of air entering, and that there was no need for hurry, as the blood, by keeping up its temperature, could be kept out of the body for as long as half an hour.—Dr. ROUSSEL (who spoke in French) explained the use of his instrument, showing how air was excluded by the passage of water through it, and by obtaining the blood in a space from which the air had been extracted. He pointed out the advantage of having it made of pure India-rubber.—Mr. HIGGINSON (Liverpool) gave some account of his own practice. He had little to add to his published remarks.—Dr. GRAILY HEWITT (London) had carried out Dr. Martin's ideas in constructing another instrument, which, he thought, was a better one. He considered that the difficulty was, how to tell that the patient required transfusion. In many cases, persons almost at the point of death recover. He could not think that Professor Martin wished them to perform the operation in all cases in which the pulse became weak and irregular. He recommended that the blood used should be pure and should not be interfered with. He thought there was an objection to Dr. Roussel's instrument, as from its composition it would become hard, and as a practitioner might only have occasion to use it at times very far apart, that on each of these occasions he would have to obtain a fresh one. It could not be expected that, after an interval, say of twelve months, the instrument would be quite ready for use.—Dr. HENRY BENNET (London) explained for Dr. Roussel, in reply to Dr. Hewitt, that, although difficult to obtain it quite pure, if the India-rubber used were pure, the instrument would last and be quite ready for use at any time during years. Dr. Roussel had used his own for eight or nine years.—Dr. HARDIE (Manchester) expressed a doubt whether those who spoke against the use of defibrinated blood were able to show that any accidents had arisen from the blood being thus treated. One objection to direct transfusion was the necessity for using complicated instruments; he had known a case in which, when he wanted it, the direct instrument had failed; and so he used defibrinated blood from a simple syringe. He considered that defibrinated blood should certainly be always used.—Dr. BRAXTON HICKS (London) agreed with the difficulty of saying exactly when transfusion is necessary. He mentioned that when the patient is collapsed it is difficult to find the vein. He was in favour of direct transfusion, but it was not possible in all cases. He had found great difficulty in getting a supply of blood, for the usual blood-giver (the husband) was often so much affected that only a small quantity of blood could be obtained. He, therefore, recommended that a saline solution should be used, either alone or in conjunction with blood; he also should use a saline solution instead of water for driving the air out of Dr. Roussel's instrument. He showed a syringe for injecting blood or saline solution.—Dr. ADDY (Manchester) had used warm milk with saline solution with temporary success. He thought that such fluids might be used when blood was not forthcoming.—Dr. LYSTER (Liverpool) thought that transfusion would be put out of court on many occasions by the danger to the giver of the

blood. He thought Dr. Roussel's instrument was the best for the purpose.

Investigation of the Interior of the Uterus by the Carbolised Hand at long intervals after Delivery. By J. MATTHEWS DUNCAN, M.D. (Edinburgh).—A case of severe septicaemia was narrated, in which the operation was performed with success. It was done on the fourth day after delivery, and a patch of fetid chorionic membrane removed from the fundus uteri. The alarming symptoms were at once removed. The case was followed by historical remarks bearing on the proposed operation, as well as by physiological, pathological, and experimental details, in illustration of its feasibility.—Dr. BRAXTON HICKS said that he had passed his hand into the uterus a month after delivery.—The PRESIDENT deprecated rashness in the matter; he thought that the idea might be made use of in cases of retained membranes after abortion.—Dr. GRAILY HEWITT did not agree with Dr. Duncan as to spasmodic contraction of the uterus: there was no spasm; only, the upper part of the uterus being filled, it could not contract when the lower part did.—Mr. CARSON (Liverpool) had introduced his hand into the uterus nine days after delivery to remove a firmly adherent portion of placenta.—Dr. HENRY BENNET (London) thought that most of the cases of difficulty of removing membranes, and of rigidity of the uterus, were the result of pathological conditions present before pregnancy. He advised that in all these cases the uterus should be examined two months after delivery.—Dr. McCLINTOCK (Dublin) thought that, if the symptoms were due to the presence of a portion of placenta, Dr. Duncan's method of treatment should be employed. He had seen much benefit from anti-septic injections of the interior of the uterus.—Dr. HADDON (Eccles) said that he so frequently passed his hand into the interior of the uterus, that he was surprised that his patients did so well. He considered that there was no danger whatever in the operation.—Dr. ATTHILL (Dublin) objected strongly to the last speaker's statements. He did not think the introduction of the hand free from danger after the birth of the child.—Dr. M. DUNCAN, in reply, said that with regard to Dr. Hewitt's remark about spasmodic contraction of the uterus, the facts of hæmorrhage taking place, and of the partial adhesion of the placenta, show that, while the lower part of the uterus contracts, the upper part dilates. He thought that it would be found that in many cases the introduction of the hand was safe.

Tarnier's Forceps.—Dr. ATTHILL showed Tarnier's forceps, and remarked that, while it allowed rotation of the head, the difficulty of adjustment and the continuous pressure on the head of the child would prevent it from coming into general use.

Thursday, August 9th.

Case of Peculiar Crossing Inspiration in a New-born Child. By HUGH MILLER, M.D. (Glasgow).—The case was that of a child who suffered from birth from a constant impediment, in the form of a crowing long-drawn effort, ending usually with an abruptness which seemed to point to some obstacle in the glottis. With the exception of the two eldest members of the family, all the children previously born were similarly affected. The usual means were employed to establish healthy respiration, and failed. Dr. Foulis, surgeon to the Throat Dispensary, was associated with the case; and the only treatment which he found of use was holding the lower jaw forward by means of the fingers placed behind the angles, and so pushing it forward. The child died nineteen hours after birth. The *post mortem* examination showed venous congestion present in skin and organs generally; an undersized thymus gland, the lungs expanded only to the extent of one-third, and a small larynx and trachea. The measurement of the parts, which was taken in *millimètres*, was: the diameter of the trachea, five and a half; total length of rima glottidis, five, of which three and a half were formed by the ligamentous part of the cord. As no measurements of the larynx at birth were on record, Dr. Foulis also examined other four children to compare with the above figures, and the average was found to be about five *millimètres* for the diameter of the trachea, seven and a quarter *millimètres* for the rima glottidis, and four and three-quarters for the ligamentous cords.

On the Intra-uterine Application of Styptics in Post Partum Hæmorrhage while Removing Placental Remains or Coagula. By WALTER BERNARD, F.K. and Q.C.P.I. (Londonderry).—The inestimable value of the injection of perchloride of iron into the uterus in *post partum* hæmorrhage, which has been introduced and established in this country by Dr. Barnes, could, the author was of opinion, be simplified by means of the apparatus shown. If prophylactic means, cold, ergot, and firm grasping fail, in extreme cases, the direct application of styptics is, as a rule, now adopted. Before this step, Dr. Barnes says, "it is important to clear the uterus of placental remains and clots, so that the fluid, when injected, may come into immediate contact with the walls of the cavity". If by this act the uterus still refuse to contract,

and, on the withdrawal of the hand, refill during the preparation for the second operation (that is, the introduction of the uterine tube and the injecting of the fluid), how can the solution be brought into immediate contact with the walls of the uterus? The hand-spray met this difficulty, by aspersing the fluid from the dorsal surface of the hand, while the surgeon was removing the contents with the palmar. It might be observed by its action that force was obviated in the scattering of the spray; moreover, the hand being in the uterus secured against the retention of any of the injection.

On Hæmorrhage from the Retroflected Uterus, and its Treatment. By J. BRAXTON HICKS, M.D., F.R.S. (London).—The author urged that the weighty and engorged fundus uteri was most relieved by support, put aside the objections to this method of treatment, and brought forward cases to refute them. The finger and not the sound was employed to bring the uterus into its normal position, and the after-treatment adopted was the use of a Hodge's pessary.—Dr. COPEMAN (Norwich) said that, in these cases of hæmorrhage from the retroflected uterus, there were often fibroids within the uterus. He thought that Hodge's pessary was often dangerous, and now used only tow or cotton-wool, which were easily applied and also easily removed.—Dr. THORBURN (Manchester) said that, if the same attention were given to the Hodge's pessary as to the tow pessary, there would be no harm resulting.—Dr. BANTOCK (London) thought Hodge's pessary very efficient. He thought that the sound should be almost always used in replacing the uterus. If the uterus be not in its normal position after the introduction of the pessary, this should be removed at once.—Dr. THORBURN reported a case of hæmorrhage, for the relief of which he removed a small mucous polypus, without good effect; but, on putting a retroflected uterus into place, and supporting it by a Hodge's pessary, the hæmorrhage at once subsided.—Dr. ATTHILL (Dublin) believed in a properly placed Hodge's pessary, but said that this would not alone effect a cure in all cases. The cases most suitable for treatment by the Hodge's pessary alone were the subacute cases, such as the early stages of subinvolution. As for the tow pessaries, recommended by Dr. Copeman, they must be used through a speculum and by a skilled hand.—Dr. BRAXTON HICKS, in reply, said that, in speaking of these cases of retroflected uterus, he was not referring to any containing fibroid tumours. He could not agree with Dr. Bantock as to the use of the sound, and did not lay much stress upon the uterus being in its exact position at first.

On Abnormal Softness of the Nulliparous Uterus, as a Factor in the Etiology of Uterine Distortions, and as a Cause of Impairment of Power of Locomotion. By GRAILY HEWITT, M.D., (London).—Eight years ago, the author directed attention to the connection between marked distortion of the uterus and impaired locomotive power, under the designation of "uterine lameness". Further observations on this subject had led him to the conclusion that a very unusual softness of the uterine tissues is a nearly constant accompaniment of this tendency to alteration of shape of the nulliparous uterus; and the present paper was intended to illustrate, by clinical data, the connection between the undue softness of the uterus and its consequent pliability, and impairment of power of locomotion thereon consequent. A series of twelve cases, taken from the author's private case-book, from June 1873 to November 1874, were related, in which the impairment of locomotive power, associated with uterine disorder, came under notice in a more or less typical form. This typical form might be thus described: A young, generally unmarried, woman; an invalid for some months or some years; more or less feeble; unable to walk more than a short distance, sometimes only across the room, without producing aching or severe discomfort; power of recovering the legs generally present, the impairment not amounting to paralysis, unless in very extreme cases. Further general characteristics were: A general inability to take food in proper quantity; frequent nausea, the latter intensified by the vertical position; emaciation, and an approach to actual starvation were observed in long-standing cases; menstrual disorders were frequently present, though variable in nature. The malady was troublesome and tedious in the highest degree; after months or years of inefficiency, the patient became a confirmed invalid. In the twelve cases detailed, these symptoms were observed; and on examination there were found to be present various degrees of alteration in the shape of the uterus, together with, in most of the cases, a very abnormal pliability of this organ. Clinical observation of these cases proved that the difficulty in locomotion arose from the circumstance that, in the erect posture, the alteration in the shape of the uterus became intensified. The author called particular attention to the marked softening of the tissues of the uterus, as a feature most worthy of notice. He considered it due to an impairment of the nutrition process in the uterus itself. The general impairment of nutrition was extreme in the cases described; the uterus participated; the general strength having been restored by

adequate remedies, the local (uterine) weakness always became lessened in a commensurate degree. A great cause of this malnutrition of the uterus in young women was insufficient attention to the dietary during the growing age. The uterus being unduly pliable, it was readily flexed and distorted by physical exertions of various kinds. These distortions gave rise to discomforts and pains of diverse kinds. Locomotion had the effect of increasing the pains; and hence, after a time, locomotion ceased to be possible. The treatment practised and advocated by the author consisted, in the first place, of assiduously nourishing the patient; and, in the second place, of maintaining the uterus in its proper position and shape so long as the undue softness persisted. The latter object was secured in some cases by the maintenance of the horizontal position alone; in other cases, where the malady is of long standing, by the assistance of vaginal pessaries, adapted to restrain the descent of the fundus uteri backwards or forwards as the case might be. The following propositions embodied the author's views. 1. The discomfort in walking, or produced by the vertical position, is due to an alteration in the shape of the uterus. 2. The alteration in the shape of the uterus may be quite temporary, though, by a process of repetition, it tends to become permanent. 3. A softened condition of the uterine tissues renders the organ very liable to such alterations of shape as will give rise to uncomfortable sensations, or even to acute pain. 4. This softened state of the uterus is usually associated with general debility of the whole system. 5. The softening is essentially an indication of malnutrition of the uterus.—Dr. COPEMAN (Norwich) had seen two cases of a similar character, in which the difficulty of locomotion was mental; in each case, there was a slight displacement of the uterus; he put this right with the finger, and soon had the patient well again. He considered the symptoms of a nervous character, and should not think of using pessaries.—Dr. MCCLINTOCK (Dublin) did not think that Dr. Hewitt had made out a case. He had not found abnormal softness in cases of this character; thought that local treatment would only keep up irritation.—Dr. J. WHITEHEAD (Manchester) thought the symptoms mentioned by Dr. Hewitt were those of ataxia, or loss of power in the lower part of the spine.—Mr. SAVILLE (Rotherham) asked if any particular habits had had anything to do with these cases.—The PRESIDENT did not think that displacement always caused reflex irritation. That might come from the ovaries. He deprecated instrumental treatment and frequent examination in unmarried women.—Dr. GRIGG (London) wished to know if Dr. Hewitt had examined the urine of his patients. In similar cases, he had found the urine loaded with phosphates, and had cured the cases by treatment of that condition.—Dr. NUNN (Savannah, U.S.A.) thought that symptoms similar to those related by Dr. Hewitt might occur either from uterine or from other disease.—Dr. GRAILY HEWITT, in replying, said that Dr. Copeman had used mechanical means. Dr. McClintock's remarks as to the absence of proof of softness of tissue would be best answered by an appeal to his (Dr. Hewitt's) experience. He had not looked for this softness; it had been forced upon him. He did not know of any habits likely to bring on the disease.

Fœtal Therapeutics. By ALFRED H. MCCLINTOCK, M.D. (Dublin).—The object of this paper was to defend and strengthen the proposition that medicines given to the mother, for some considerable period of pregnancy, can produce beneficial effects on the fœtus. The author touched briefly (time not permitting him to do more) on the experiments which have been made to test the possibility of any direct transmission to the child *in utero* of drugs administered to the mother; and which experiments seem to have determined this question in the affirmative. This result is corroborated by the fact that many diseases, e.g., variola, syphilis, scarlatina, etc., though contracted by the mother at varying periods *subsequently* to impregnation, may, nevertheless, affect the offspring of such impregnation. He alluded to cases in America, where hypodermic injections of morphia and of atropine, given to the woman during labour or pregnancy, were considered, and with every appearance of truth, to have injuriously affected the fœtus *in utero*. He cited the experience of Simpson with regard to the good effects of chlorate of potash in cases where the fœtus dies *in utero* at sixth, seventh, or eighth month, from what Simpson called placental phthisis. He also cited the experience of Dr. Thorburn as to the influence of chlorate of potash, chloral, nux vomica, and iron, upon the fœtus, when administered to the gravid woman. Lastly, the author described the results of his own experience in the cases of women prematurely giving birth to dead children; and recommended, for the purpose of saving the life of the fœtus, a combination of chlorate of potash and the tincture of the perchloride of iron, given in pretty large doses, for several weeks during the latter half of gestation. In his hands, this combination had been signally successful in saving the life of the fœtus, and consequently in prolonging gestation to the full term. He related several instances where women, who had previously borne

one, two, three, and, in one remarkable case, nine dead children, went to the full time when treated on the plan he recommended, and who gave birth to living children. In one of these cases, the treatment was omitted in the succeeding pregnancy, and the child was lost. He also mentioned four cases he had under treatment, and who were then in the last month, and had daily consciousness of the vitality and vigour of the child, by the frequent and oftentimes unpleasant activity of its movements. Dr. McClintock ended his paper by very briefly summing up the heads of evidence in support of the possibility and reasonableness of therapeutic treatment of the fœtus, whether we admit or deny that the medicines directly act upon the fœtus. 1. It is a well-known fact that diseases, e.g., syphilis, small-pox, scarlatina, ague, etc., contracted by the pregnant woman, may be communicated to the fœtus she is carrying. 2. Careful investigations have demonstrated that various drugs, given to the pregnant woman, may reach the fœtus, and be found in its blood or secretions. 3. Clinical observations establish the fact that therapeutical effects on the fœtus *in utero* follow the administration of various medicines, when given to the mother for a sufficient length of time.—Dr. DARBY (Bray) mentioned a case in which there was a history of the husband having suffered from syphilis; there were fourteen dead children born in succession; but the mother, during her fifteenth pregnancy, having taken a course of bichloride of mercury, the child was born alive.—Dr. NUNN (Savannah) related a case, in which the mother taking strychnia, the child was born with tetanic spasms.—Dr. THORBURN (Manchester) remarked that it was to the general practitioners of the country that we should have to look for the further elucidation of this subject. He mentioned a case in which iron, administered to the mother, had a darkening effect on the hair of the child.

Latent Gonorrhœa as an Impediment to Marriage. By J. THORBURN, M.D. (Manchester).—The author reminded the meeting of a remarkable paper, written by Dr. Noeggerath of New York, in 1872. This paper endeavoured to show that gonorrhœa in the male is rarely, if ever, cured, but remains in a latent form; that this latent form is nearly always communicated after marriage to their wives, producing in them sterility, abortion, and constant liability to uterine and pelvic inflammations; 80 per cent. of all men were also stated to be in this position previous to marriage. Dr. Thorburn then referred to the way in which these opinions had been more or less accepted by subsequent writers on gynecology. Denying this possibility, he appealed to the statistics of eighty-one private families, carefully collected by him. He showed that there had been 33 per cent. of male gonorrhœic infections previous to marriage, twenty-six in all; and, taking all the cases of abortion, sterility, uterine and pelvic inflammations, and living births that had occurred in these eighty-one families, he showed conclusively that there was the merest fractional difference in their proportion between the previously and not previously infected classes. As regards inflammatory pelvic affections, the balance was fractional in favour of the free gonorrhœic cases; in the other respects, equally fractional in favour of the non-gonorrhœic. The conclusion was that the *latente gonorrhœe* of Noeggerath is mythical; and is not, as it otherwise would be, an imperative barrier to marriage.—Dr. BANTOCK (London) agreed in the main with Dr. Thorburn. He did not think that women, who had contracted gonorrhœa, were any worse off during pregnancy than others who had not had the disease.

Friday, August 10th.

Treatment of Uterine Flexions by the Intra-uterine Stem: with Cases. By THOMAS CHAMBERS, F.R.C.P. (London).—The paper contained a narrative of cases treated by the author, and set forth the class of case adapted for the stem, the mode of operating, and the after-treatment. The chief objections to the stem treatment were severally examined and refuted. He said there were two difficulties from which women, suffering from uterine flexion, sought to be relieved: pain and sterility. Pain divided the sufferers into two classes: those in which the pain is present during the period only, and those in which it is continued through the interval as well. The special treatment adapted for each class was set forth. The author divided the cervical canal on both sides, including the internal as well as the external os uteri, with a Simpson's hysterotome, and places the stem in position at once. This plan was more satisfactory in its results, was a saving of time to the operator, and gave less pain to the patient. The operation was easy, simple, and safe, if carefully performed; and the stem might be worn for two or three months, or longer. He gave particulars of one case, where the stem was worn six months with very great benefit. He had treated fifty-three cases: some had been cases of great anxiety, but none were fatal.—Mr. DONOVAN did not believe in leaving foreign bodies within the uterus; he objected to stems.—Dr. HENRY BENNET (London) said that, as Dr. Chambers had appealed to the experience

of members, he felt bound to state that his whole experience was antagonistic to the doctrines and treatment recorded in the paper read. The uterus enlarged under the influence of every physiological or pathological excitation, from the presence of an ovum, of a tumour, of any form of irritation or inflammation. On removal of the exciting influence, its tendency was to fine down. In retroversion, invariably connected with increased volume and weight, all that was necessary was to remove the cause, and to wait. Time was an important factor in uterine therapeutics. Results rapidly obtained were not to be depended upon. Patients should be kept for a length of time under observation, and should be seen and examined at intervals. There was now a craze for the displacement theories of morbid uterine phenomena, and for their treatment by mechanical means. Every winter, in the south of Europe, he picked out pessaries from the vagina of a large number of women, married and unmarried; these women had been sent abroad to travel (many of them with young husbands), much to their detriment.—Dr. BANTOCK (London) used the intra-uterine stems with good effect, more especially in cases of antelexion. In his opinion, they did not cause inflammation of the uterus.—Dr. MATTHEWS DUNCAN (Edinburgh) agreed with Dr. H. BENNET. There was a fashion in these matters. Years ago, every woman suffering from uterine disease was said to have a dislocated uterus; at a later period, no one had any affection of that sort; and now, once more, every woman was getting her uterus dislocated again; and he defied all the doctors in Christendom to put it right.—Dr. DIDAMA (Syracuse, N.Y.) was opposed to intra-uterine stems; occasionally, they killed someone.—Mr. OAKLEY (Halifax) was much in favour of intra-uterine stems, but at first only left them in for a short time, if the uterus were irritable.—Mr. SPENCER WELLS (London) would take a medium course. He could not agree with Dr. H. BENNET that the patient should undergo frequent examinations through a term of years.—Dr. H. BENNET had not said anything of the sort: he had said that they should remain under supervision and be examined at long intervals.—Mr. WELLS was glad to hear this statement of Dr. BENNET. He thought that the intra-uterine stems were sometimes useful.—Dr. CHAMBERS, in reply, said that Dr. H. BENNET had not noticed his chief point and indication for treatment, viz.: pain during menstruation. He quite expected opposition, just in the same way as ovariectomy had been opposed; and he felt sure that his intra-uterine stems would give great relief. He had had many cases, some of them very difficult ones. The uterine stems gave great ease during menstruation, and often cured sterility.

Drainage in Ovariectomy. By G. G. BANTOCK, M.D. (London).—The author was much opposed to drainage through the vagina; he was in favour of drainage through the abdominal wall. He would insert the drainage-tube whenever there were any large adhesions from which there might be oozing, or in any case where there was inflammatory change in the cyst.—Mr. SPENCER WELLS hoped and thought there will be found some way of draining the lower part of the pelvis; at present, in spite of all care, discharges sometimes collect in that spot. Previously, he had said, in reference to the drainage-tube: "In cases of doubt, do not use the tube." Now, he would say: "In cases of doubt, use the tube." Fluid should come away at once.

Dropsical Uterine Fibroid Tumours.—Dr. WORMS (Paris) read a paper (in French) on dropsical conditions of uterine fibroid tumours. These differed from the ordinary fibro-cystic tumours in being true myomata, and characterised by intermittent discharges of fluid *per vaginam*.—Dr. H. BENNET (London) suggested that, in cases like those just narrated, there was spasm of the os uteri, and that the fluid was backed up by that; and that, on its giving way, there was the gush of fluid spoken of.—Dr. GRIGG (London) had known cases of a similar discharge from fibroid tumours. He could not agree with Dr. BENNET's explanation.

Transfusion of Blood.—Dr. THORBURN (Manchester) narrated a case of transfusion, which had taken place that morning. He had been called in consultation to a woman almost moribund from *post partum* hæmorrhage; and having obtained the assistance of Dr. McClintock and Dr. Roussel, they, after some delay, injected five and a half ounces of blood from the veins of the husband to those of the wife. The patient seemed to rally after the operation. In regard to Dr. Roussel's instrument for the transfusion of blood, Dr. Thorburn thought that, although a good and carefully designed instrument for the purpose, and one likely to be of use in cases of disease where there was no hurry, either in the obtaining of the operator or of the blood, in cases of *post partum* danger, where everything was hurried and the operator perhaps not skilled in the use of this instrument, some simpler form of apparatus was to be preferred; for Dr. Roussel's instrument was not fit to be used except by one thoroughly accustomed to its use. He remarked that there was no tendency of the blood to coagulate in the instrument during the operation.

During the business of the Section, the President (Dr. Priestley) having to leave, the Chair was taken by Dr. McCLINTOCK. A vote of thanks was proposed (and carried by acclamation) to Dr. Priestley, for his conduct of the business of the Section. At the conclusion of the business, a vote of thanks was proposed (and carried unanimously) to Dr. McClintock for his conduct in the Chair.

The following papers were (from want of time) taken as read :

The Constitutional and General Treatment of Certain Urinary Diseases. By T. MORE MADDEN, L.K.Q.C.P. (Dublin).

On Reflex or Eccentric or Irritative Albuminuria. By G. DE G. GRIFFITH, L.R.C.P. (London).

Tractor on the Midwifery Forceps. By J. ROUSSEL, M.D. (Geneva).

On Some Forms of Puerperal Fever. By S. NESFIELD, M.D. (Manchester).

Statistics of Waterford Lying-in Hospital. By J. ELLIOTT, M.B. (Waterford).

Obstetrics in the Country. By F. H. V. GROSHOLZ, L.K.Q.C.P. (Manchester).

THE DINNER.

THE annual dinner in connection with the Association took place on Thursday, August 9th, in the large Hall of the Assize Courts. Covers were laid for upwards of four hundred. Dr. EASON WILKINSON (President of the Association) presided; and was supported by the Bishop of Manchester; the Mayor of Manchester (Mr. Alderman Heywood); General Sir Henry de Bathe, Bart.; Sir William Jenner, Bart., K.C.B.; Sir Thomas Bazley, Bart., M.P.; Mr. Hugh Birley, M.P.; Mr. Oliver Heywood; Professor Ludwig (Léipsic); Professor Charcot (Paris); the Rev. Dr. Haughton (Dublin); Dr. Falconer (Bath); Mr. Spencer Wells; Dr. Matthews Duncan (Edinburgh), etc.

After the usual loyal toasts, which were given from the chair, Dr. WATERS (Chester) proposed "The Army, Navy, and Reserve Forces".

General Sir HENRY DE BATHE, in responding, said he deeply lamented the present arrangements of the Army Medical Department. He did not think they were at all likely to add to the social position of the medical officer or to the comfort of the soldier. [*Cheers.*] He had known in this district no fewer than six medical men attached to one regiment in the course of twelve months. Whatever might be the qualifications of their own "medical man", people usually preferred his services to those of an abler practitioner; but the soldier had no such privilege, and the medical officer was so frequently changed under the present arrangements that he could not give satisfaction, or himself be satisfied with his position. [*Cheers.*]

Lieutenant-Colonel SOWLER responded for the reserve forces.

Mr. E. LUND (Manchester) proposed "The Bishop and Clergy of the Diocese".

The Bishop of MANCHESTER responded to the toast. In the course of his remarks, he advised his hearers to read a letter which appeared in the *Times* of that day with reference to the condition of the Protestant Church in Germany. He thought that Prince Bismarck would soon be in a position to deal with the matter if he would unuzzle the press. In Manchester, they had a free press; and, as in the saline draught which was sometimes administered in medical cases, in his own case the editor of the *Courier* supplied the acid, the editor of the *Guardian* furnished the alkali, and the editor of the *Examiner and Times*, with his skilful hand, stirred up the mixture. [*Laughter.*] With regard to the weekly papers of Manchester, there were some, rather of a skittish character, which he did not think could make a livelihood without him. In conclusion, his lordship expressed his gratitude for the generous feeling which had been manifested by the members of the Association with regard to the address delivered by him in the Cathedral, and remarked that the alliance between the medical and clerical professions ought never to be severed. [*Cheers.*]

The toast of "The Houses of Parliament" was proposed by Dr. GAIRDNER (Glasgow).

Mr. H. BIRLEY, M.P., in responding, said the members of the legislature were connected with the members of the medical profession in a bond of relationship of the most important character as regarded the people of this country. During the last session, he had been engaged with two other medical men, who were also members of the legislature, in a very important but painful investigation. He felt the legislature had a close connection with the medical profession in those scientific views to which they had of late so largely applied themselves, and in which they had rendered such conspicuous benefits to the community. [*Hear, hear.*] Members of Parliament had of late days given a very conspicuous instance of what has been called physical endurance.

They had a meeting the other day which lasted twenty-six hours, and some of the gentlemen present remained during the whole of that period; and he thought they must have been very much indebted to their medical men for their powers of endurance. [*Cheers and laughter.*]

Sir THOMAS BAZLEY, M.P., also briefly replied to the toast.

Mr. OLIVER HEYWOOD proposed "The British Medical Association", remarking on the marvellous strides which medical science had made of late years and the advantages which had resulted from the formation of the Association. Speaking of the devotion manifested by all members of the medical profession, he said there was no other body of men that did more without the reward of gold and silver than that which was represented there. [*Cheers.*]

Dr. FALCONER of Bath, President of the Council, responded, and assured those gentlemen who were their guests that evening that the Association would ever cherish grateful remembrances of the pleasant visit they had made to Manchester.

In answer to calls, Mr. ERNEST HART, Editor of the BRITISH MEDICAL JOURNAL, also responded to the toast.

Dr. MATTHEWS DUNCAN (Edinburgh) gave "The Orators and Presidents of Sections".

Sir WILLIAM JENNER, in responding, referred to the pleasure he had derived from taking part in the meetings of the Association and in seeing the prominent part taken by many of his former pupils. He thought they must all desire that their profession should stand high in the esteem of the world. It was not for the esteem itself; they did not care for that unless it was founded on true and right principles. [*Hear, hear.*] Let them not have the peacock's feathers; strip them off and merit the esteem in which they were held, even though they were russet brown. In order to merit the public favour, they must be in a position to do them some practical good, and the more they approached a scientific basis in all their proceedings the higher would their profession be in the public esteem. [*Cheers.*]

Other toasts, including that of "The Mayors and Corporations of Manchester and Salford" and "The Owens College", were proposed and responded to, after which the company separated.

ENTERTAINMENTS.

SOIRÉE AT OWENS COLLEGE.—On the evening of Tuesday, August 7th, the President of the Association and the Senate and Council of Owens College held a reception at that institution. The guests began to arrive shortly after seven o'clock, and in a short time the various apartments and corridors of the spacious building were thronged with a large and fashionable gathering of ladies and gentlemen. The President of the Association (Dr. Eason Wilkinson) and the Senate of the College received their visitors at the corridor adjoining the main entrance. Amongst those present were the Bishop of Manchester, the Mayor of Manchester (Mr. Alderman Heywood), a very large number of the members of the British Medical Association, gentlemen connected with the Magistracy, the Bar, members of the Corporations of Manchester, Salford, etc. In the Natural Philosophy Room, there was a collection of philosophical instruments; while a number of drawings and diagrams illustrating the antiquity of man were displayed in the Engineering Drawing Room. The Library contained a collection of paintings by local artists, and on the tables were arranged a number of attractive microscopic objects. An interesting display of rare books and manuscripts was made in the anteroom on the upper corridor; and the Geological Museum on the ground floor attracted much attention. Refreshments were served in the Board Room; and in an adjacent lecture theatre an excellent selection of music was performed by the Band of the 106th Regiment. In the course of the evening, an address on The Present Position of State Medicine in England was delivered in the chemistry lecture theatre by Dr. Arthur Ransome before a large audience. [It was published at page 214 of last week's JOURNAL.] At the same time, Professor Boyd Dawkins gave an address in the Engineering Room on the Antiquity of Man. In dealing with this subject, he exhibited specimens illustrating the history of man with Great Britain, from the pleistocene to the historic period, and referred to recent discoveries in the caves at Cresswell as establishing the theories he adduced as to the existence of man in the pleistocene period. Subsequently, Professor Osborne Reynolds explained, and gave illustrations of, the formation of vortex rings; and Professor Gamgee demonstrated the use of some new instruments invented for physiological research. Professor Core also illustrated by experiments in the Natural Philosophy Room the use of a number of physical instruments exhibited there. The soirée, which was thoroughly successful, was brought to a close about eleven o'clock.

CONVERSAZIONE AT THE TOWN HALL.—On Wednesday evening, August 8th, a very large assemblage, including the Bishop of Manchester, most of the members of the City Council, Mr. Heywood, M.P., etc., attended the *soirée* given at the New Town Hall by the Mayor and Corporation of Manchester to the members of the British Medical Association. The suite of entertaining rooms, the public hall, and the corridors were open for promenade; and the guests were received by the Mayor and Mayoress in the Reception Room. The arrangements, not only with regard to refreshments, but for the general convenience of the visitors, were excellent, and the reception was thoroughly successful. The Banqueting Room, which was thronged with guests during the evening, contained some very rare plate, which was greatly admired. The collection, which had been sent by Messrs. Elkington and Co., included specimens of Pompeian plate, cloisonné enamels, a number of curious specims, English worked in the Chinese pattern, and a fine copy of the "Milton Shield", worked in gold, silver, and bronze. In the Public Hall, Mr. W. T. Best of Liverpool gave selections on the great organ from Gounod, Bach, Handel, and other composers. The Band of the Manchester City Police was stationed near the foot of one of the grand staircases, and played an admirable selection of music during the evening. The reception closed about eleven o'clock.

GARDEN PARTY AT MANLEY HALL.—A garden party was given on the afternoon of Friday, August 10th, in Manley Park, by the President and Reception Committee. There was a very large assembly, consisting not only of members of the Association, but also of a large number of the general public, to whom invitations had been issued, and the Hall and its handsome grounds were thrown open. The Bands of the King's Dragoon Guards, of the 106th Light Infantry, and of the Theatre Royal, Manchester, were stationed in different parts of the Park, and during the afternoon performed admirable musical selections. The Park being in beautiful condition, the afternoon proved one of universal pleasure.

EXCURSIONS.

EXCURSION TO BLACKPOOL.—A party, consisting of nearly two hundred members of the Association, having travelled by special train from Manchester, arrived at Blackpool at about eleven o'clock on Saturday morning. They were received at the station by Dr. Leslie Jones, Aldermen Hardman and McNaughtan, and other gentlemen, and conducted to the pier, which was gaily decorated for their welcome. An elegant luncheon was served in the Pavilion, during which some lively selections were performed by Mr. de Jong's band. Afterwards, there was a most enjoyable trip to sea in a north-westerly direction. On landing, there were carriages in waiting, and the party had a pleasant drive along the Parade, by the South Pier, and through the town. They visited most of the places of interest and amusement: the Raikes Hall Gardens, where there was a special performance; the Winter Gardens; also the sea-waterworks, which provide those residing at Blackpool with the great luxury of a sea-water bath in their own houses. At half-past four o'clock, the party were entertained at a magnificent banquet by Mr. Cocker, the Mayor of Blackpool, at his residence, Cornwall House, where they were met by many distinguished guests. When the loyal toasts of "The Queen", "The Prince of Wales and the Royal Family", and "The Army, Navy, and Reserve Forces", had been cordially received, the following were given:—"The Bishop and Clergy", proposed by Dr. Royle (Manchester), and responded to by the Vicar of Blackpool; "The British Medical Association", proposed by the Mayor of Blackpool, and responded to by Dr. De Bartolomé (Sheffield); "The Mayor of Blackpool", proposed by Dr. De Bartolomé, and responded to by the Mayor; "Our Guests", proposed by Dr. Leslie Jones (Blackpool), and responded to by the Mayor of Manchester; "The Mayoress and the Ladies", proposed by Dr. Irwin (Manchester), and responded to by Dr. Pierce (Manchester) and Dr. Milner Fothergill (London). The party then adjourned to the Aquarium, which adjoins Cornwall House; and the day was concluded by a special concert in the Pavilion, conducted by Mr. de Jong (who performed a beautiful solo on the flute), supported by Miss Edith Wynne. At ten o'clock, the party started by special train for Manchester. All who attended this excursion will not soon forget the generous hospitality and hearty welcome which they received.

EXCURSION TO CASTLETON.—The excursion to Castleton was conducted by Mr. Dacre Fox and Professor Boyd Dawkins, to both of whom the party (about forty-five in number) whom they guided were under great obligations. At Chapel-en-le-Frith carriages were waiting

to convey the party to "Windy Knoll", where they inspected the site, still full of fossil bones of the great find of remains of the primæval bison, urus, reindeer, etc. The soil is still full of these relics of an earlier age; and Mr. Dawkins here gave a short explanation of the natural features of the land which led to make this the drinking-place of migrating herds of the early British mammals, and led to the accumulation on this spot of masses of their bones. Here, too, an interesting and extensive subterranean limestone cavern was lighted up and inspected, and its mode of formation was explained. The party here divided; one descending a beautiful pass to the Speedwell lead-mines and the great cavern, to which it leads after half-an-hour of navigation on an underground stream which traverses the disused shaft of the lead-mine; and the other reaching the same destination later by mounting and crossing the "Shivering Mountain". At Castleton, a plentiful repast was provided; and Mr. Pennington, a local squire and geologist, who had throughout shown the utmost attention to the visitors, received, with Mr. Dawkins and Mr. Fox, the thanks of the party. Afterwards, they had an opportunity of inspecting an admirable local museum of specimens of geology and natural history, which Mr. Pennington has formed and maintains for public use. Subsequently, the whole party adjourned to the Peak Caves, which were illuminated from time to time for the purpose; and so home pleasantly and cheerfully, much delighted with an excursion which was in all respects interesting, refreshing, and instructive.

EXCURSION TO LANCASTER.—About fifteen members only availed themselves of the invitation from Lancaster. They were met at the station by nearly all the resident practitioners, and, carriages being in waiting, were taken immediately to the County Asylum. Having seen this institution and enjoyed the beautiful view from the high ground adjoining, they repaired to the Royal Albert Asylum. Here a substantial luncheon awaited them. After a very careful inspection of this institution, the visitors viewed the church and castle. A tea with the secretary (Mr. C. Johnson) wound up the proceedings. The entertainment was given by the members of the Committee of the Royal Albert Asylum and the medical profession jointly, and all details were left to Dr. Shuttleworth and the local secretary. The governor of the castle and several members of the Committee of the Royal Albert Asylum accompanied the party, and a lady in the neighbourhood very politely placed a handsome carriage and pair at their disposal.

EXCURSION TO MACCLESFIELD.—Forty-five members availed themselves of this excursion, and five ladies joined the party. The party reached Macclesfield at 10.30 by train from Manchester. They were met by conveyances, and were conducted first to the silk-factories of John Birchenough, Esq., the Mayor of Macclesfield, who, with his two sons, personally conducted the members over the two immense establishments, and, in the most courteous manner, explained all the details of the work. The entire process of the manufacture of silk, from the raw material as it arrives from China to the beautiful finished articles for the Paris market, was studied under the most favourable circumstances. The order, cleanliness, and attention to sanitary requirements which prevailed in both factories were much commented upon, as well as the healthy and tidy appearance of the operatives, many of whom were young girls. These, in several of the rooms, were singing as they worked. The party then, resuming their carriages, proceeded on to the County Asylum, beautifully situated about a mile from the town, on an elevated plateau between five hundred and six hundred feet above the sea. The members were conducted over the establishment in two parties by Dr. Deas, Medical Superintendent, and Dr. Lyle, the Assistant Medical Officer. The Asylum was opened about six years ago, and can accommodate nearly seven hundred patients. It is built on the modified block system, and is characterised throughout by great lightness and cheerfulness, and is generally well arranged for the treatment of the insane on the advanced modern principles. After this, the party proceeded two miles further, to Henbury Hall, the seat of T. Unett Brocklehurst, Esq., High Sheriff of the County of Chester. Mr. Brocklehurst had invited a select party of guests, about forty in number, to meet the members of the excursion. After luncheon, Professor Gairdner of Glasgow proposed the health of Mr. Brocklehurst, and thanked him, on behalf of the members, for the splendid hospitality with which he had received them. Mr. Mould of Cheshire proposed the health of the Mayor of Macclesfield, and a vote of thanks to him for his kindness in throwing open his establishments for their inspection. Dr. Eyton Jones of Wrexham proposed a vote of thanks to Dr. Deas for the trouble he had taken in arranging and organising the excursion. The party then divided into two sections, one of which drove to Buxton *via* the well known Cat and Fiddle Inn; the road passing through beautifully varied scenery,

and reaching at the Cat and Fiddle a height of nearly one thousand eight hundred feet above the sea. The other division of the party, accompanied by the High Sheriff and a number of his private guests, proceeded through the park of Henbury to Alderley Park, the beautiful seat of Lord Stanley of Alderley. The old-fashioned gardens and the famous beech-woods were visited, after which the whole party were courteously received at the Hall by Lady Stanley, and entertained with tea and other refreshments. After this pleasant rest, and much gratified by Lady Stanley's kind attention, the party walked through the woods along the Mere, and, taking carriage once more, drove to Alderley Edge, the beautiful views from which were duly admired. Arrangements had been made to visit the copper mines in this locality; but want of time compelled the omission of this part of the programme.

EXCURSION TO NORTHWICH.—On Saturday, the 11th, about eighteen members of the Association, with several ladies, availed themselves of the opportunity of visiting the Marston rock-salt mine at Northwich, which was brilliantly illuminated for the occasion. The party were exceedingly delighted with their expedition, and expressed admiration at the extent and beauty of the mine. They were afterwards entertained at luncheon by Mr. Charles Williams, surgeon, at his residence, where some of the gentry of the neighbourhood had been invited to meet them. Dr. Howard of New York interested and amused the company by a short lecture on a new method of resuscitating the apparently drowned; the Rev. Dr. Haughton of Dublin kindly undertaking the rôle of the drowned man.

EXCURSION TO SOUTHPORT.—This excursion was attended by nearly a hundred members of the Association, who travelled from Manchester by the train which arrived in Southport a little after twelve. The party was met at the station by the honorary secretary, Dr. G. A. Woods, and the treasurer, Mr. W. Heath, and conducted in open carriages and wagonettes to the Palace Hotel, at the extreme south of the town, where light refreshments were provided. Thence they proceeded to view the Winter Gardens, where each member was presented with a flower. They then passed to the Aquarium, the large size of which, the variety in the tanks, and the rarity of the specimens, excited much admiration. A crocodile, the largest in England, and two electric eels excited much attention. The way in which the eels discharged their electric current was exhibited by placing small fish in their tank. At the Prince of Wales's Hotel a splendid champagne luncheon was spread, at which the Chairman (Dr. Woods), on behalf of the public bodies, the corporation, and the profession, bade the members of the Association a hearty welcome. The table decorations—fruit, flowers, and glass—were most elegant, and the menu was excellent. After luncheon, the party divided: one section visiting the sewerage works, the new hospital, the botanic gardens, and the glacierium; the other proceeding to the baths, the pier, and for a short excursion on the sea. At about half-past five, the whole of the visitors sat down to a splendid banquet at the Victoria Hotel; Dr. G. Woods presiding. The National Anthem and several glees were sung by the Undercliffe (Bradford) Glee Party. The usual loyal toasts, proposed by the Chairman, were succeeded by the following:—"The Army, Navy, and Reserve Forces", proposed by Mr. Alderman Smith, and responded to by Mr. Jeston of Henley-on-Thames, who served in the Peninsular war with the Duke of Wellington; "The Prosperity of Southport", proposed by Dr. F. T. Roberts of London, and responded to by Dr. Vernon, medical officer of health for the town; "The Visitors", proposed by Dr. Lang, and responded to by Dr. Henry Bennet of London and Mentone, and Dr. Spencer Thomson of Torquay; "The Chairman", by Dr. Silver. Free admissions to the Theatre and Concert Hall were distributed to the visitors. The honorary secretary, Dr. G. A. Woods, and the treasurer, Mr. W. Heath, were indefatigable in their attentions for the comforts of their guests.

CAMBRIDGE.—The public health of the town is said by Dr. Anningson to have been satisfactory in 1876, as the birth-rate was 31.1 and the death-rate 17.44 per 1,000 population. A summary of the action taken to prevent the spread of infectious diseases is given, including small-pox, and of the proceedings taken under the Public Health Act. Dr. Anningson also reports the results of a systematic examination by himself of two hundred houses, showing that very many were in a bad sanitary condition, and some unfit for human habitation. He also reported on the action taken as regards offensive trades, by which an ammonia-manufacturer and a candle-maker were compelled to abate the nuisance arising from their premises; and also as regards the slaughter-houses and skin-scrapers.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, AUGUST 25TH, 1877.

THE ADDRESS IN OBSTETRIC MEDICINE.

DR. BARNES's address in Obstetric Medicine, delivered at the meeting of the Association, will have been read by many, as it was listened to, with deep attention. He selected as his theme the relation of obstetrics to medical science and the organisation of the profession. On these topics he has on previous occasions given utterances to opinions with which, no doubt, many of our readers are acquainted; and that he should seize the opportunity afforded him of expressing his views with the force of matured conviction to such an audience as was assembled in Manchester, afforded additional evidence of his zeal for the prosperity and honour of that department of medicine which he has long worthily followed, and of his desire that it should occupy its right position in contributing to the advancement of medical science.

All that was said in the address deserves, as it no doubt receives, most careful attention; and there is no man among living British obstetricians who could have said it with more distinctness and power, or with greater right, than Dr. Barnes. Standing in the foremost rank among the cultivators of a special branch of medicine, he is no specialist in the sense in which he defines the word. "The specialist in medicine is one who, limiting his attention to one or more detached parts of his art, specially neglects other parts which are essential to the making of the true physician." Such an one is not the obstetric practitioner who embraces in his range of study all the knowledge he can collect from every source.

All departments of the ordinary physician's and surgeon's practice are mutually interdependent. Each aids and enlightens others. And, while obstetrics is indebted to medicine and surgery for much of the progress which it has made, it was one of the special objects of Dr. Barnes to show how, reciprocally, the obstetrician's studies may be made available for the interpretation of some of the now difficult problems of physiology and pathology.

The pregnant female, in Dr. Barnes's view, is the subject of a ready made physiological—it may be a pathological—experiment, performed under the most simple conditions.

"It will be admitted that the true foundation of all medicine lies in the study of physiology. It will also be admitted that the study of physiology cannot be thoroughly pursued without the aid of experiments. We must observe Nature not only in her ordinary moods; we must question her workings under conditions devised by science. It may be said with truth that the whole study of medicine is but a part of the study of physiology. All disease is the reaction of the living economy under the influence of conditions accidentally applied. These accidental conditions are in reality experiments. If we could watch and take accurate note of all the actions and reactions of the economy under these accidental experiments, many pathological problems that continue to baffle our speculations would be solved; we should certainly detect in many cases the links that are now missing in the chain of evidence. We should thus seize the clue to the institution of special experiments, crucial and luciferous. There is great hope already in this direction in the study of the specific or zymotic fevers; and syphilis has been studied with considerable success in this way. But in a vast number of instances, embracing those which follow upon or which induce chronic organic or structural alterations, the factors concurring to the results we see are often so manifold, so intricate, so

complicated, so protracted in their operation, as to defy continuous or complete observation and analysis. Their origin is seen dimly through the mist of time; their progress is traced doubtfully through the myth of history. Now, it is precisely in many of these diseases that woman presents the pathological factors in the simplest form, under conditions of time that admit of the most complete and satisfactory observation. Pregnancy taking place in a healthy woman may be regarded as an experiment performed under the most simple conditions, from which the complications that disturb and thwart observation of disease in man are eliminated. Starting with a young and healthy woman, we are enabled in the first place to witness a series of the most interesting and instructive physiological phenomena."

The nervous, vascular, respiratory, and secretory systems all undergo modifications of function which may remain within the physiological limits, or may, suddenly or gradually, pass into the domain of pathology. Pregnancy, in fact, may prepare for study a series of morbid conditions, the induction of a title of which in a rabbit or guinea-pig would subject the unlicensed perpetrator to the penalties of the Cruelty to Animals Act. We recommend all experimental physiologists and pathologists to study well Dr. Barnes's comments on the manner in which the observation of pregnancy may be expected to explain the phenomena of kidney-disease, of eclampsia, chorea, ague, jaundice, and other conditions; and trust that the path which he has so clearly indicated will be frequented by many followers. From the study of pregnancy and of labour—"the grandest of all surgical operations"—as Dr. Barnes would have it studied, it may be confidently anticipated that much benefit would accrue to the science and practice of general medicine and surgery. There is much ground for Dr. Barnes's complaint that an omission has been made by the Council of the Pathological Society of London in not placing an obstetrician on the committee for the investigation of infective disease. Much light might be thrown on these by the study of them in the puerperal woman, compared with other conditions in which they occur.

Holding obstetrics to be an integral part of medicine, capable of giving to as well as receiving from the general stock of medical knowledge, Dr. Barnes feels that it has been too much neglected by certain of the medical corporations—notably the Royal College of Surgeons of England. His remarks on the conduct of this body, if severe, have much of justice in them; and we feel that no words of ours could add force to them. From the time when the separate licence in midwifery was instituted by the College, we have always felt that, while it was right that those already possessing the member's diploma should avail themselves of it, the proper course would be to include obstetrics as an integral part of the examination for the general diploma. Other examining bodies have long done this.

Towards the end of his address, Dr. Barnes offers some rather severe remarks on the proposal to train women to a lower standard of medical practice than that which men are expected to attain.

"Medicine is one, all parts concurring to form a perfect whole. We have no place for specialism. We recognise no detached qualifications or degrees in medicine. We repudiate utterly the proposition that there is one standard which it is necessary to attain to qualify for the treatment of the diseases of men; and another, a lower, standard to qualify for the treatment of diseases of women. The new doctrine, that there is a special, an inferior, kind of medical knowledge that is good enough to apply to the care of women, is the most transcendent of all medical heresies, the most flagrant wrong, the grossest insult, ever inflicted on woman. And all this under the plea of doing justice to woman!"

We recommend our readers to study diligently Dr. Barnes's address on Obstetric Medicine. If there be any who think that he has been too jealous for the honour of his department of practice, too sensitive that it has been made to occupy the position of a Cinderella, they will, on reflection, become convinced that he has made out a good case for regarding the said Cinderella as worthy of far better treatment than that of being compelled to be content with the crumbs and scraps that fall from the table of professional and public estimation.

NEW FRENCH LAW REGARDING THE HOSPITAL CARE AND TREATMENT OF MILITARY PATIENTS.

AN important law has been recently passed in France regarding the hospital service of the army. It is one which will materially add to the resources of the Government for the treatment of the sick and wounded among the troops in case their numbers are largely increased by a state of war; and, at the same time, will enable the patients to be widely distributed over the country, so that the evils arising from massing them together in large military hospitals will be prevented. The law embodies a system by which a large proportion of the military patients may be treated in civil hospitals by their respective local staffs. The army surgeons will thus be more completely at the disposal of the Minister for War for employment in case of need in the field.

According to the French code of army medical regulations, the hospitals in which troops may be treated are divided into several classes. These are, 1. The *permanent* hospitals, which are maintained in the country, in time of peace as well as in time of war; 2. The *temporary* hospitals, which are formed on extraordinary occasions, as in time of war, or when troops are assembled for special purposes; 3. The *ambulances*, which are formed for administering first help to sick and wounded, and which follow the movements of army divisions and corps on active service; and 4. *Convalescent dépôts*, for receiving soldiers who, though discharged from hospital, are not considered to be strong enough to rejoin their corps for duty. Each of these classes has a distinct organisation, and special regulations for its management. The permanent and temporary hospitals are generally maintained and conducted by complete military staffs, but, in exceptional cases, may be provided for by contract. Thus soldiers are sometimes treated in civil hospitals when there is no military hospital, or an insufficiency of military accommodation; a daily rate for their care, treatment, and maintenance being arranged between the Intendant, representing the Minister for War, and the Committee of Management of the hospital. In the civil hospitals of some few places there have always been a certain number of beds reserved for military patients, this number being fixed by a special arrangement with the Minister of War.

By the new law, the utilisation of civil hospitals for the reception of military patients has been greatly extended, and the regulations regarding the disposition of sick soldiers in them have been defined with more precision. There is always to be with each army corps, and generally at the head-quarters of the military district which it occupies, a general military hospital, not merely for the reception of patients, but also for the special instruction of hospital attendants, and for the maintenance of all the hospital transport and stores which will be required for the army corps in case of the troops having to prepare for active service. One of the great difficulties of the French army medical department during the Franco-German war arose from all the hospital stores being centralised at Paris, so that, when once the city was surrounded, all further supplies were cut off from the armies in the field. This difficulty will be avoided in future by having all the hospital equipment for each army corps stored in its own district. But, with a few exceptions, all the other military hospitals at present existing in the cities of France are to be successively suppressed, and the civil hospitals are to be used instead of them for the medical treatment of the troops. The arrangements for this purpose have been mutually agreed upon by the Ministers for War and for the Home Department. Whenever the garrison consists of more than 300 soldiers, special wards are to be set apart in the civil hospital of the place for their reception; when the garrison is less in number, the sick among the military are to be treated in the ordinary hospital wards with the rest of the patients. When the strength of the garrison amounts to 1,000 troops or more, the sick soldiers in the special wards of the civil hospital are always to be looked after by army surgeons; below this number, the sick are to be confided to the care of the civil practitioners, whenever there is not a military surgeon available for the duty. In all instances where the mili-

tary patients are treated in the ordinary hospital wards mixed with civil patients, the treatment is to be conducted by the physicians and surgeons of the hospital; and it is especially ordered that under these circumstances, although a garrison surgeon shall have the right to visit the military patients, he has no power to mix himself with the treatment of their ailments or to give any orders in respect to the nursing or management of them. It is impossible not to see the advantages of these arrangements from an economical point of view, but it may be doubted how far they will conduce to promote military order and discipline. At any rate, such arrangements could only be carried out in a country where the army is formed on the principles of conscription, not of enlistment; and in which the government holds authority over the civil hospitals established in it. No system of the kind could be applied in this country, in which the civil hospitals partake largely of the nature of private institutions, as regards their endowments, constitution, and management.

DEATH CERTIFICATION IN SHEFFIELD.

MEDICAL Officers of Health would render valuable service to the public, as well as the medical profession, if, in their periodical sanitary reports, they would invariably furnish detailed information as to the certification of causes of death within their respective districts. Dr. Griffiths's report on the sanitary condition of the borough of Sheffield in 1876 affords in this, as well as in many other points, a good example of satisfactory treatment of the subject, which is important from many points of view. During last year, 6,666 deaths were registered within the borough. The cause of death was certified by registered medical practitioners in 5,964 and by the coroner in 176 cases; in the remaining 526 cases the cause of death was uncertified, and was inserted in the death-register from information furnished either by unregistered or unqualified practitioners, or by the ordinary informant of the death, in most instances a relative of the deceased. Thus, in Dr. Griffiths's words, in 326, or 7.9 per cent., of the deaths registered, "no scientific evidence of the cause of death was forthcoming at the time of registration, affording dangerous facilities for the concealment of cases in which gross, if not criminal, negligence may have contributed to the death recorded". The proportion of uncertified deaths in Sheffield, which was equal to 8.2 and 6.8 per cent. in 1874 and 1875, rose again, therefore, to 7.9 per cent. in 1876; it may be noted, moreover, that in London, during 1876, only 1.4 per cent. of the deaths registered were not certified either by medical practitioners or by coroners. Thus the proportion of uncertified deaths was more than five times as large in Sheffield as in London. It is worthy of note, too, that in the two registration subdistricts of South Sheffield and Park, in which the death-rate last year was considerably higher than in any other parts of the borough, the proportion of uncertified deaths was so high as 13.6 and 14.0 per cent. respectively. Such a state of things requires investigation, as Poor-law medical relief is available in cases where those in charge of sick persons cannot afford to pay for medical assistance.

The Registrar-General has frequently noticed, when alluding to the proportion of uncertified deaths, that it almost invariably shows an intimate relation to the proportion of inquest cases. In London, the proportion of inquest cases to total deaths in 1876 averaged 6.8 per cent. In Sheffield, however, only 176 inquest cases were registered during the year, showing a proportion of but 2.6 per cent. of the deaths; in the other large English towns, the proportion of inquest cases ranged from 3.8 in Oldham to 8.0 in Manchester. The proportion of inquests held in 1876 was considerably smaller in Sheffield than in any other of the twenty largest English towns. Dr. Griffiths says "the death-register of Sheffield affords undoubted evidence that too few inquests are held within the borough"; and adds that, in many cases, the cause of death is returned as "unknown" by the relations of the deceased, who have neglected to provide medical assistance, and are the legal informants of the deaths. Considerable numbers of deaths, resulting from different forms of violence, are, indeed, registered in Sheffield without

any certificate, either from medical practitioner or coroner. In support of this serious assertion, one or two examples are quoted, which are striking enough to claim mention here, so important is their bearing upon the unsatisfactory condition of the administration of inquest law. The cause of the death of an infant, aged three weeks, was registered by the mother (who signed by mark) as "found dead in bed, supposed to have been overlaid"; the death of the son of an engraver, aged two years, was referred to "asphyxia from drowning", the father signing the entry as informant; and the child of a forgerman, aged thirteen months, "accidentally run over by a cart", was registered on the information of its father, without any form of certificate. The small proportion of inquest cases in Sheffield shows an indirect as well as a direct bearing upon the proportion of uncertified deaths in the borough; but with regard to this excessive proportion, there are no means for ascertaining, without special inquiry, how far it is due to the services of unqualified medical practitioners and prescribing chemists, and how far to the neglect to provide any form of medical assistance in cases of illness. From whatever cause, however, it may arise, it is an undoubted source of mischief and danger, and calls for serious attention. Dr. Griffiths suggests the formation of an influential local Medical Defence Association, which would at any rate serve as a wholesome check upon unqualified medical practice. The subject is one which might usefully be brought under the notice and consideration of the local Branch of the British Medical Association, a representation from which to the coroner for the borough might probably induce him to hold a few inquests in cases where parents and others neglect to provide medical assistance in illness. Such a course would doubtless in Sheffield, as it has done elsewhere, soon effect a marked reduction of the proportion of uncertified deaths.

WORKHOUSE MORTALITY.

WE have frequently called attention to the deficiencies of Local Government Board Reports with regard to the vital statistics of our workhouse establishments. The intimate relations between public health and pauperism, and the increasing tendency to turn our workhouses into hospitals for the poor, invest with considerable interest any figures throwing light upon the health of our pauper population. A parliamentary return moved for by Mr. Hopwood on August 10th, 1876, has just been furnished by the Local Government Board, showing, among other things, the number of deaths which occurred in workhouses in each of the unions of England and Wales during the year 1875. The return in question contains little more than the bare numbers of deaths, without any details as to age or length of workhouse residence of the deceased paupers, and does not even afford a clue to the average number of inmates of the different workhouses during the year. The information, such as it is, however, is not devoid of interest, and may be turned to useful account.

During the year 1875, no fewer than 28,574 deaths were registered in the workhouses of England and Wales; these were equal to 5.2 per cent. of the total deaths recorded. As the average proportion of paupers receiving indoor and outdoor relief during the year was rather less than 3 per cent., it is evident that, with a large number of the poor, serious illness is identical with pauperism, and that very many of those who die in workhouses do not belong to the class of habitual paupers. If it were possible to supplement this return with one showing the number of paupers who die while in the receipt of outdoor relief, the extent to which the working-class population of England depends upon Poor-law relief in illness would be somewhat startling, and would afford the strongest incentive for the adoption of a more vigorous health-policy, if only on the score of economy. It should be stated that the return in question only professes to give the deaths in what may be called workhouses proper: pauper sick asylums, district and separate pauper schools, and similar establishments, find no place in the return. This omission detracts considerably from the completeness of the return, especially as regards the metropolitan district. In

the workhouses of Middlesex, Surrey, and Kent, however, the workhouse deaths were equal to 7.8 per cent. of the total deaths in these metropolitan counties. The smallest proportion of workhouse deaths was recorded in Wales, where it was so low as 2.3 per cent. Poor-law relief in Wales, however, is principally dispensed out of doors; and this proportion, therefore, does not afford a true clue to the extent of pauperism in the principality. In Durham, however, the proportion of workhouse deaths was less than 3 per cent., and correctly reflects the small extent of pauperism among the mining population of that county. In Lancashire, a large proportion of the population of which resides in its numerous manufacturing towns, the percentage of indoor-pauper to total deaths in 1875 was 6.5; while in Yorkshire it did not exceed 3.4. The proportion of pauperism, measured in this manner, varies very considerably in the mainly agricultural population of different English counties. In Devonshire, for instance, the proportion of deaths in workhouses to total deaths averaged 3.8 per cent.; in Norfolk, 4.6; in Shropshire, 4.9; in Essex, 5.2; in Suffolk, 5.5; in Cambridge, 5.6; Gloucester, 5.7; Worcester, 6.6; Hampshire, 6.6; Sussex, 6.9; Berkshire, 7.0; and Hertfordshire, 8.3. Without further information, it is impossible to say how far these figures correctly represent the proportion of pauperism in the several counties, or how far the percentages are affected by the local administration of Poor-law relief. The variations, however, are sufficiently remarkable to call for further materials to render an useful analysis of our workhouse mortality possible. This subject is, indeed, of the first importance in connection with the national administration of Poor-law medical relief.

THE sentence on Sophia Martha Todd, lately convicted of child-murder at Liverpool, has been commuted to penal servitude for life.

MR. J. A. LANGDON has been appointed by the Turkish Ambassador to a surgeoncy in the Turkish army.

INSPECTOR-GENERAL of Hospitals and Fleets Dr. William Smart was presented to the Queen last week for the honour of investiture as Knight Commander of the Bath.

WE understand that Dr. Greenhalgh has retired from the office of Obstetric Physician and Lecturer at St. Bartholomew's Hospital; and it is rumoured that the post will be offered to Dr. Matthews Duncan of Edinburgh.

A BAZAAR was held last week in the grounds of Dover Court, Southsea, in aid of the fund for establishing a Children's Hospital in that town. A sum of £200 was realised and handed over to the treasurer of the Building Fund.

ACCORDING to a return obtained by Mr. Talbot, M.P., 2,105 persons were removed to lunatic asylums, etc., by officers of the Boards of Guardians last year; 1,747 persons were admitted to workhouses, etc., and subsequently removed to asylums, etc.; and 358 were removed to asylums and other places without previous admission to workhouses or infirmaries. The return relates only to the metropolis.

THE PHARMACEUTICAL CONFERENCE.

THE annual meeting of this body commenced on Tuesday, August 14th, at Plymouth. Professor Redwood, President for the year, opened the proceedings by an address, sketching the progress of pharmacy in this country. He commenced by referring to the satisfactory evidence of the continued prosperity of the Association and to the objects it was desired to promote, namely, the advancement of the art of pharmacy by an extension of pharmacological studies and researches, and by encouraging the cultivation of the knowledge which will best enable the druggist to fulfil the duties which the requirements of the public and the medical profession impose upon him. He remarked that it was a significant fact that, although prosecutions were frequently instituted against ignorant quacks, and although the College of Physicians took

proceedings against members of the College of Surgeons for prescribing in other than surgical cases, yet for a century or more the apothecaries were permitted to pursue an illegal practice, which commenced with the treatment of trifling ailments, but grew by degrees until it surpassed in extent the practice of legally qualified physicians. In the seventeenth century, druggists, as distinguished from grocers, assumed a recognised position. To the title of druggist, they afterwards added that of chemist; but the chemist and druggist was for some time, with a few exceptions, a mere dealer in drugs and chemicals; had nothing to do with the dispensing of medicines prescribed by the physicians; and it was not until the middle of the last century that he undertook the duty of dispensing medicines, in consequence of the apothecaries having relinquished the position they originally occupied and usurped the functions of medical men. After referring to the rise and progress of pharmacy on the Continent, where it was much earlier recognised as a distinct branch of the healing art, Dr. Redwood took up the history of the subject again by narrating the encroachments of the apothecaries on the one hand on the physicians, and on the other on chemists and druggists, whom they tried to prevent selling compounded medicines or dispensing. By the Apothecaries' Act of 1815, the practice of apothecaries has been regulated; a clause being introduced, however, exempting chemists and druggists from its operation, and specifying the acts for which such exemption was granted. After a long interval, measures having a similar object were adopted for regulating qualifications of chemists and druggists; but what has since been done by the Pharmaceutical Society was too well-known to his audience to need comment on that occasion.

EXTENSION OF KING'S COLLEGE HOSPITAL.

KING'S COLLEGE HOSPITAL is now being enlarged by an extension of its north wing, and the work is rapidly proceeding. New rooms will thus be added for the resident medical officers, and a large room is being fitted up for the accommodation of the clinical clerks and dressers. The alterations thus effected, and the opening of a ward hitherto kept vacant, will give an addition of thirty beds to the hospital, bringing up the total number of beds to over two hundred. It is somewhat to be regretted that the Hospital authorities do not see their way at present to complete this side of the building, by throwing out this wing to the limits of the property in this direction. We are glad to see that the stone-paving surrounding the hospital is being replaced by wood-paving; this cannot fail to prove a great boon to patients, doctors, and others working and sleeping in the hospital.

THE RADFORD LIBRARY AT ST. MARY'S HOSPITAL, MANCHESTER.

A LIBRARY at St. Mary's Hospital, Manchester, was founded in 1853 by Dr. Thomas Radford, Consulting Physician to the hospital. The library consists of four or five thousand volumes, and contains many rare and important works. It is devoted chiefly, though not entirely, to obstetrics and the diseases of women and children. The munificent founder has placed an endowment fund of £1,000 in the hands of trustees for the maintenance and extension of the library. A catalogue of these works has been prepared by Mr. C. J. Cullingworth and printed, thus adding to the value and usefulness of the library.

TRAINED NURSES FOR THE SICK POOR.

THE following memorial has been presented to the Lord High Chancellor. "The memorial of the Metropolitan and National Nursing Association for providing Trained Nurses for the Sick Poor sheweth, 1. That your memorialists have learnt that Her Majesty has called upon your Lordship to frame rules for the future administration of the Royal Hospital of St. Katherine by the Tower. 2. That your memorialists submit that it was among the original objects of this hospital to maintain a body of sisters who should visit the sick and infirm within and around its precinct, and that these sisters, drawn from the class of gentlewomen, have formed part of the permanent staff throughout all the various changes which the foundation has undergone. 3. That it

would, therefore, be strictly in accordance with the intention of the founders and with the past history of the hospital, if a Nurses' Home for the benefit of the sick poor were established in connection with it, in the east of London, and if a portion of its funds were applied to the maintenance of such an institution. 4. That the Association represented by your memorialists was founded two years ago for the purpose of providing skilled nursing for the sick poor in their own homes, that it is already carrying on this work in two districts of the metropolis, by the agency of nurses drawn from the class of gentlewomen (of whom the larger number have been trained in the Nightingale School for Nursing), and who reside in the district homes under proper superintendence; and experience has amply proved both the demand for and the value of their services. 5. That this Association has also incorporated a previously existing society which has been established in the east of London for the same purpose since the year 1868, and is, therefore, specially interested in the district in which St. Katherine's Hospital was originally situated. 6. That in the event of your Lordship thinking fit to establish one or more Nursing Homes in connection with the Hospital, your memorialists are prepared to undertake the management and supervision of such Homes, under such rules as your Lordship may deem suitable. 7. Your memorialists append papers showing the origin, objects, and work of the Association. And your memorialists ever pray." This memorial was signed by the Duke of Westminster, the Earl of Glasgow, the Earl of Lichfield, Sir Edmund Lechmere, M.P., Sir Sydney Waterlow, M.P., the Viscountess Strangford, Miss Florence Nightingale, Rev. Harry Jones, Bishop of St. Albans, Mr. J. A. Hardcastle, Dr. Acland, Mr. Robert Wigram, Mr. A. H. Brown, M.P., the Hon. George Brodrick, Mr. G. T. Biddulph, Sir James Paget, Dr. Mouat, Mr. Andrew Johnstone, Captain Fortescue, Mr. W. Rathbone, M.P., Mr. H. B. Carter, Dr. Sieveking, Mr. F. D. Mocatta, and Dr. Shrimpton.

WANT OF SANITARY ARRANGEMENTS FOR THE HOP-PICKERS AT FARNHAM.

THE Farnham Local Board have taken into consideration the want of accommodation for the hop-pickers in their barracks. Mr. Sloman, one of the leading surgeons in the town, considered that the Board were bound to consider the subject as one of considerable importance in a sanitary point of view. It is well known that at the time of hop-picking much overcrowding occurs, and thereby the health of the district is endangered. We are sorry to see that some of the large hop-growers of the district opposed any inquiry.

DEATH FROM THE BITE OF A DOG.

AN inquest was held last Saturday at Chelmsford on a lad, and a verdict was returned of "Death from hydrophobia". Having previously enjoyed good health, he suddenly became insensible, fell to the ground, and was strongly convulsed. Dr. James Nichols was called in and found the boy suffering from strong epileptic convulsions. Chloroform arrested the convulsions temporarily; a hypodermic injection of morphia was then given but without any good effect; and he died within thirty hours from the onset of the symptoms. The boy had not been liable to epileptic fits previously. It appeared that he had been bitten by a dog some months previously, the wound had not healed, and his thumb had been kept bound up, but he thought nothing of this as "he had been bitten lots of times, but nothing hurt him". A *post mortem* examination revealed no coarse lesion, but the membranes of the brain were congested.

HOW SMALL-POX IS SPREAD.

A WOMAN was lately summoned by the sanitary authority of Liverpool for having wilfully exposed her son while suffering from small-pox without taking proper precautions against the spread of the disease. The sanitary inspector went to a house in a crowded court occupied by two families consisting of nine persons, with a magistrate's order for the removal of the body of a boy, who had died of small-pox, to the public mortuary. He then found a son of the defendant suffering from

small-pox, and advised his removal to the hospital; the woman became abusive, and the inspector said he should remove the boy under a magistrate's order. Before this could be carried out, the woman removed the lad to another house, and also carried there the bedding he had used without its being disinfected. A second child in the same house also developed the disease. Both patients were subsequently taken to hospital. It was proved by the medical officer of the district that small-pox had spread from this court to the adjacent quarter of the town. The woman was fined £1 and costs.

THE LIVERPOOL TOWN COUNCIL AND OWENS COLLEGE.

THE Treasurer and Principal of Owens College, Manchester, have requested the co-operation of the Town Council of Liverpool in their endeavour to obtain a charter of incorporation as an University. The request did not meet with a very cordial response. The Liverpool School of Science, as represented by their Secretary, Mr. S. Leigh Gregson, drew the attention of the Council to their own claims as an educational body, and called upon the Council to consider the need for a permanent and united scheme of education in Liverpool as a distinct centre. Several members of the Council expressed a doubt as to the advisability of increasing the number of the Universities, suggesting that by such increase in their number the value and standing of the degrees conferred might be diminished. It was resolved to take no action in the matter.

DR. CONNEAU.

A PARIS correspondent writes to the *Daily News*:—Dr. Conneau, one of the oldest friends of Napoleon III, and his private physician, died at Porta, in Corsica, on August 16th. He was born of French parents at Milan in 1803. While a medical student, he became secretary to Louis Bonaparte, the ex-King of Holland, and afterwards he practised medicine for a time in Rome. After the insurrection of 1831, he left Rome, and became household physician to Queen Hortense, Louis Napoleon's mother. He joined in the abortive Boulogne invasion, shared the Prince's captivity in the fort of Ham, and contributed materially to his escape. He attached himself to the person of the Prince in England, and returned with him to France after the Revolution of 1848. When the Empire was established, Dr. Conneau was appointed principal physician to the household. He was in 1852 returned to the Corps Legislatif as a Government candidate for the Somme, and continued a deputy till made a Senator in 1867. His son and the Prince Imperial were for many years playmates. Queen Hortense left him a ring by her will, and expressed the desire that her son might never separate from him. The Emperor's friendship for him never flagged, and it is believed to be entirely owing to an oversight that no mention of him was made in his will. Dr. Conneau was liked by everybody who knew him.

DEATH UNDER THE USE OF ANÆSTHETICS.

AN inquest was held last week in the case of a woman who had died while under the influence of chloroform at the Moorfields Ophthalmic Hospital. The patient was a very stout woman, forty-six years of age, and was about to undergo the operation for senile cataract. She was not known to be the subject of organic disease, but it was afterwards ascertained that she had suffered from shortness of breath on moving about and on going up stairs. To her friends she had expressed a great dread of chloroform, but she had not mentioned this to any surgeon at the hospital. At the time when the operation was to have been performed, the woman was lying on her back with the head slightly raised, and the house-surgeon administered about forty drops of chloroform by means of Clover's inhaler; there was no struggling, but, from the first, respiration was noticed to be shallow, and the pulse feeble, though regular. The face then became suddenly livid; the chloroform was at once removed, and ether-vapour diluted with air in the proportion of three to one was administered as a stimulant. The lower jaw was drawn forward to prevent the tongue from getting into the

throat, and the chest was flicked with a wet towel. Artificial respiration was performed, and the lividity of the face diminished; but the pulse returned only temporarily, and the heart's impulse could not be felt. A large sized prostatic catheter was passed into the larynx, and an attempt was made to inflate the lungs. Venesection was performed, but only a few drops of dark blood could be drawn. Silvester's method of artificial respiration was kept up for three-quarters of an hour without success. At the necropsy, the body was seen to be covered with a thick layer of fat, and putrefaction had fully set in. The heart was flaccid and empty; the mitral valve was contracted, admitting only the tips of two fingers; the aortic valves were incompetent, and the muscular walls were in a state of fatty degeneration. There was also much fatty growth around the heart. The lungs were emphysematous and congested; the kidneys were fatty, and granular on the surface. Death appears to have resulted in this case from failure of the action of the heart.

THE GENEVA CONVENTION.

GERMANY has made representations to the Porte in regard to the inhuman conduct of its soldiers, resting their justification on the Convention of Geneva, to which Turkey has formally acceded. In the opinion of the German Government, that compact binds belligerents, not simply towards each other, but also towards neutral co-signatories, and any neutral has a right, therefore, to insist on its faithful observance. The Note in which Germany recalls Turkey to her duty will be communicated to the other Powers.

POISONOUS DISINFECTANTS.

AN inquest was held this week on the body of Rosannah Connolly, aged 42, who drank some carbolic acid on Wednesday night, the 17th instant, having mistaken it for water. The fluid was in a cup, and was intended for use as a lotion by her husband. Shortly after taking the poison the woman died. A verdict of accidental death was returned.

WATER-SUPPLY.

DR. FRANKLAND reports as the result of his analysis of the waters supplied to the metropolis and some of its suburbs during July, that, taking unity to represent the average amount of organic impurity in a given volume of the Kent Company's water during the last nine years, the proportional amount of such impurity in an equal volume of water supplied by each of the other companies, and by the Tottenham Local Board, was: Tottenham, 0.2; Kent (Shortlands Well), 0.3; East London, 0.7; Kent (Deptford Wells), 0.8; Colne Valley, 1.0; West Middlesex, 1.2; New River, 1.3; Southwark, 1.5; Chelsea, 1.9; Grand Junction, 2.2; and Lambeth, 2.3. The waters drawn from the rivers Thames and Lea contained a remarkably small proportion of organic impurity, and were efficiently filtered before delivery, the Lambeth Company's water alone excepted, which was "slightly turbid when drawn from the main". The waters supplied by the Kent and Colne Valley companies and by the Tottenham Local Board were of most excellent quality; this deep-well water is of unsurpassed purity, and is very abundant in the Thames basin, but it is as yet supplied to but a very small portion of the metropolis. Dr. Hill reports that the quality of the water supplied to Birmingham had improved in all respects, and was, with the exception of a few suspended particles, clear. The water supplied to Glasgow from Loch Katrine is reported by Dr. Mills as "out of condition during most of the preceding month, being of a very pale brown colour, containing plenty of muddy particles, with a few fibres, and considerable traces of iron".

THE CANAL BOATS ACT.

THIS Act will come into operation on January 1st, 1878, but it will not be enforced before January 1879. All canal boats, barges, or flats will have to be registered, marked, and numbered in a prominent place by their owners, stating to which place the boat is registered as belonging, before they can be used as dwellings. Certificates of registration, fixing the number of persons allowed to dwell in a canal boat,

or flat, will be obtainable of the officer of registration, for which a small fee will be charged. The boats will not be allowed to carry about infectious diseases, and provision will have to be made by the owner for proper ventilation and the separation of the sexes, and the boats will have frequently to be thoroughly cleaned, painted, and rendered habitable. Any person duly authorised by the proper authorities will have power to enter these boats and detain them until all the law requires is carried out, and the master of the boats shall, if requested by the officer, produce to him the certificate of his registry. A child living in a canal boat, barge, or flat is to be subject to the compulsory clauses of the Education Act which are in force at the place at which the boat is registered as belonging to, and they will be treated in every respect as children of other working classes are, and not thrust into the corner without questions being put to them, as has been the case in some instances hitherto. Power is given to canal companies or associations to appropriate any portion of their funds for the establishment or maintenance of schools wherein the children living in canal boats may be lodged, maintained, and educated. The master, and also the owner of a canal boat, barge, or flat will be liable to a fine of twenty shillings for each time the boat is used as a dwelling contrary to the Act; and fines are specified for breaches of the Act, which does not extend to Ireland or Scotland.

LUNACY LAW.

A PARLIAMENTARY volume of nearly six hundred folio pages has been issued, containing the evidence given before the Committee on the Lunacy Laws. The Committee report as follows. "The Committee, having regard to the short time which remains for consideration of their report during the present session, resolve to report the evidence to the House, and to express an opinion that the Committee should be re-appointed next session for the purpose of agreeing upon a report to be submitted to the House."

LEWES DISPENSARY AND INFIRMARY.

FOLLOWING the example of London and other large towns, it is proposed to appoint a Hospital Sunday at Lewes for the benefit of the Infirmary. The movement seems likely to receive the support of the various churches and chapels of the town and district.

SUDDEN DEATH OF MR. NESS.

MR. JOHN NESS, of Helmsley, Yorkshire, died suddenly at Plymouth on August 18th, at the age of seventy-two. Mr. Ness, who had been for many years one of the coroners for the county of York, had gone to Plymouth to attend the meetings of the British Association, of which he was one of the oldest members. While preparing to join the excursion to Eddystone, he was suddenly attacked with faintness, which passed on to a fatal syncope. Mr. Square gave evidence at the inquest that, according to the symptoms, death appeared to have resulted from disease of the heart. Mr. Ness was for many years past a member of the British Medical Association.

MEDICAL APPRENTICESHIPS.

DR. R. ROBERTS of Portmadoc, President of the North Wales Branch of the Association, in the course of an address which he delivered on taking the chair, made some observations on the subject of practical education during the studentship which are well worthy of attention, as they express a view which is probably very prevalent at the present moment, that the teaching of medical students is defective in the particulars to which he calls attention. His remarks were as follows.

"I wish to draw the attention of the members to, in my opinion, the grave mistakes involved in the practical abolition of apprenticeship. I cannot believe that the five years' indentured pupilage, required by the regulations of the Society of Apothecaries, is a day too long, particularly if served with a general practitioner in a mixed practice. During that time, in his young years, the pupil not only learns practical pharmacy and the uses and doses of drugs, but becomes familiar with the routine of general practice in the surgery and con-

sulting-room, and has the great advantage of visiting patients, and attending to medical and obstetrical cases, not upon his own responsibility, but with the feeling that he has always his principal to fall back upon in case of need; and his master to censure him in case of unskillfulness or neglect. He has ample opportunities of learning practical surgical duties, such as cupping, bleeding, dressing wounds, introducing catheters, etc., and also of treating fractures and dislocations: all this instruction he undergoes with the full knowledge that he is bound by his indenture to do his work, and that the law invests his master with large powers of coercion and correction, in case of neglect or wilful default. A habit of discipline and self-control is thus early acquired, which, together with the practical experience he gains, is most valuable to him in after-life. I might contrast the old system of apprenticeship, which I have imperfectly described, with the curriculum now too much in vogue. The student goes straight from school to a metropolitan or other large town, to attend lectures, and to observe practice at hospitals. He is thus thrown at a tender age, among all the temptations of a big-town life. He attends the lectures, which he is, for a very long time, unable to follow or understand. He daily walks through the wards of the hospitals, in a crowd of other students, at the heels of one of the physicians or surgeons, and hears the patients interrogated, sees their tongues examined, their pulses felt, and his attention may be occasionally called to cases of rare or special kind, but seldom or ever to the common disorders of suffering humanity, which he will mostly have to treat in ordinary practice. He hears prescriptions dictated, which to him are all double Dutch, as he has no practical acquaintance with any of the drugs, or the compounding of them. He witnesses operations performed in the theatre, but is not allowed to try his 'prentice hand upon anything except the 'subjects' in the dissecting-room. He, perhaps, reads hard, and goes up for his examinations, inflated and 'crammed' with theoretical knowledge—it may be

*A bookish blockhead ignorantly read,
With loads of learned lumber in his head.'

After spending in this manner portions of four short years in acquiring knowledge, he receives his diplomas, and is launched upon his unfortunate countrymen and countrywomen as a 'fully qualified medical practitioner'. Of course, in nine cases out of ten, medical men so educated have the sense to perceive that they must learn the practical part of their duties, and they forthwith advertise for assistantships, condescending to accept salaries of from £100 to £120 a year, and their board and lodgings for being taught the real, or, at any rate, the most important work of their profession. But that is not all, and I hear the same complaint from many of my professional friends. The qualified assistant so educated is generally too conceited and self-sufficient to acknowledge his ignorance, or to consult his employer, as an apprentice would. The employer, therefore, not only pays for a light which does not shine, but is constantly kept anxious and on the *qui vive* lest his qualified assistant, through some maltreatment of a case, may bring him into trouble. I think, therefore, that these gentlemen ought, in justice, to pay handsome premiums, rather than receive salaries, for the opportunities afforded them of becoming practical practitioners, ere establishing themselves in practice upon their own responsibility. I must apologise for dwelling so much upon this subject, but I cannot help feeling strongly that something ought to be done either to return to the old and well-tried system of apprenticeship, which, as you know, still obtains in the profession of the law and most trades and callings of the higher sort, or to adopt some other plan by which the same advantages of real practical medical education in early life shall be secured."

ASSOCIATION OF GERMAN NATURALISTS AND PHYSICIANS.

THE programme of the fiftieth annual meeting of the Association of German Naturalists and Physicians, which will be held in Munich in September, is before us. There will be twenty-five sections, including Zoology (President, Professor von Siebold), Anatomy (Professor von Bischoff), Physiology (Professor Voit), Pathological Anatomy (Professor von Buhl), Medicine (Professor von Ziemssen), Diseases of Children (Professor H. Ranke), Surgery (Professor von Nussbaum), Gynaecology (Professor von Hecker), Psychiatry (Professor von Gudden), Ophthalmology (Professor von Rothmund), Otology and Laryngology (Professor Rüdinger), Public Health (Dr. Kerschesteiner), and Military Hygiene (Dr. Friedrich). The meetings will commence on September 17th and terminate on the 22nd. Addresses will be delivered by Professor Waldeyer of Strassburg on Von Baer and his work in Embryology; by Professor Haeckel of Jena on Modern Embryology;

by Professor Klebs of Prague on the Changes in Medical Opinion during recent Decennials; and by Professor Virchow of Berlin on some subject not yet announced.

SCOTLAND.

DR. ANDREW SMART, we regret to know, has been passing through an unusually severe attack of general rheumatism, accompanied by one or two inflammatory attacks of another kind, such as laryngitis, etc. The prostration is necessarily considerable, but we are glad to state that there is no chest-complication.

AT present, there is living in the east end of Glasgow an old woman who has reached the ripe age of 102, having been born in 1775. Her name is Campbell. She was born in the parish of Mullin, Perthshire, and for upwards of sixty years was employed in outdoor farm-work. She has had a pretty large family, and lost her husband in 1846. For the last thirteen years, she has lived in Glasgow. Though at so advanced an age, she can still at times read without glasses, if the print be large.

A LARGE number of bakers have been prosecuted and fined in Edinburgh for contravening the Bakehouses Regulation Act by not keeping their bakehouses in a cleanly state. There have been, in all, thirty-nine prosecutions within the past fortnight.

A TELEGRAM from Cape Town has been received, announcing the death of Dr. Black, the head of the party sent out by the Free Church of Scotland to Lake Nyassa last winter. Dr. Black, who was educated in Glasgow, left this country in May 1876, and since then very encouraging letters had been received from him. No particulars of his last illness are known.

THE mortality from zymotic diseases in Edinburgh during the month of July was remarkably low. Of 322, the total number of deaths during the month, only 32, or about 10 per cent., were due to these diseases; and, deducting 16 deaths from whooping-cough, the number of deaths from other infectious diseases was only 16, being less than 5 per cent. There were no deaths at all from infectious disease in the southern suburbs; while the whole city was free from scarlatina and small-pox, and there were only two deaths from measles.

THE end of last week and the beginning of the present have been marked in the south and east of Scotland by four days and nights of continuous rain, causing great damage to crops, and flooding the low-lying country in very many parts. The rainfall during the present year at the Edinburgh reservoirs, from January 1st to August 14th, has been 33.60 inches; while during the same period in 1876 it was 24.25 inches, and in 1875 only 18.80 inches.

THE AIR OF GLASGOW.

A YEAR ago, the authorities of Glasgow set on foot an investigation into the condition of the air in the city, its composition, impurities, amount of humidity, etc.; and appointed a chemist, Mr. Dixon, to make the necessary experiments. The first official report was published last week. In it, we find the impurities divided into five tables; viz., carbonic acid, sulphur in combination, chlorine free and combined, nitrogen in the form of ammonia, and nitrogen in the form of albuminoid ammonia. The average amount of carbonic acid collected varied from 3.14 per 1,000 to 2.99. The other constituents varied within small limits. It is remarked at the end of the report, that an examination of the fluctuations presented in the tables given, particularly in regard to the substances above mentioned, shows, among other things—1. That the general character of the air prevailing in any part of the city can only be ascertained by means of observations carried on continuously for some time under the varying circumstances of weather; 2. That the effect of a fresh breeze of wind in

purifying the atmosphere of the city is very marked; 3. That these circumstances, with the fall of rain, appear to merit careful examination. These investigations are to be continued, and the results published monthly.

DRAINAGE OF PEEBLES.

THE Town Council of Peebles have recently turned their attention to the drainage of the burgh, which has not hitherto been in at all a satisfactory condition. The whole of the sewage has for a long time been discharged into the Eddleston Water; and this in summer created a considerable nuisance, especially after the withdrawal of the greater part of the water from the bed of the river for the use of the Thorburn mills. The Council frequently spent sums of money in flushing out the river; but the effect was only of a temporary nature. In consequence of a report from Dr. Littlejohn, the Medical Officer of the Board of Supervision, Mr. Buchanan, C.E., was instructed to prepare drainage-plans; and, these having been adopted, the works have just been completed. Under this new scheme, intercepting drains have been laid down on each side of Eddleston Water; and into these, instead of into the stream, the sewage is discharged. These and the other drains all fall into a tunnel outside the town; and, though for the present the sewage is to be discharged into the river Tweed, the scheme can be adapted at little cost to any plan for utilising the sewage which may afterwards be agreed upon. The water-supply of the town has also been recently improved by the introduction of a large new supply from the Meldon Burn.

THE REGISTRAR-GENERAL'S RETURN FOR JULY.

THE return of the births, deaths, and marriages for the eight principal towns of Scotland, for the past month, shows that there have been 3,929 children born, of whom 336 or 8.3 per cent. were illegitimate; only 4.7 per cent. of the births in Leith were illegitimate, while in Aberdeen the rate was 12.9 per cent. 1,246 marriages were registered, which is exactly the July average for the last ten years. The deaths numbered 2,044, being 535 or more than 25 per cent. below the average. This is equivalent to an annual mortality of 16 persons per 1,000 in Aberdeen, 17 in Dundee, 19 in Edinburgh, 21 in Greenock, and 22 in Glasgow, Paisley, Leith, and Perth. Thirty-eight per cent. of the deaths were of persons under five years of age; the figures in individual towns varying from 20 per cent. in Perth to 47 per cent. in Leith. Zymotic diseases proved fatal to 324 persons, that is, caused 15.8 per cent. of the whole mortality. This is the smallest number and the smallest proportion of deaths from this class of diseases in July since the Registration Act came into operation. Among these deaths, 14 were registered as due to typhus and 19 to enteric fevers. The deaths from inflammatory affections of the respiratory organs amounted to 16.9 per cent. of the total mortality. Two deaths were caused by delirium tremens, and seven by the direct effects of intemperance. The month has been cold, damp, wet, and windy, the barometer low, and the wind more completely from the west than is usual in this month. The mean temperature was 57.2 deg. Fahr., and the mean rainfall 4.02 inches. In Edinburgh there fell 4.75 inches, and in Greenock 4.92 inches.

PAUPER LUNATICS IN SCOTLAND.

THE Commissioners of Lunacy in Scotland, in their report for last year, call attention to the fact that the increase in the admissions both of private and pauper patients into establishments during 1875 and 1876 has been unusually great. The admissions for 1876 show an increase of 31 per cent. on those of 1858, while the increase of population has been little more than 16 per cent. Till the last two years, the admissions of private patients have shown no tendency to increase. The Commissioners make an unpleasant suggestion that possibly the large increase in the number of pauper patients admitted in 1875 and 1876 may be, in some measure, due to the grant from Government towards the maintenance of pauper lunatics. It is almost certain, indeed, that the relieving of local taxation in such a matter as the cost of lunacy

will have a tendency to lead parochial authorities to include among lunatics persons who would not be so included, if the whole burden of their maintenance fell directly and exclusively on the ratepayers of the parish. It would not be safe, the *Pall Mall Gazette* thinks, however, as yet to attribute the unusual increase of the number of pauper lunatics which has taken place during the last two years to the operation of the grant, though the Commissioners have had occasion in a considerable number of cases to inquire into the necessity for placing persons on the roll of lunatics whose unsoundness of mind appeared to be slight, and who had previously been treated as ordinary paupers. If further experience should show that this relief of local taxation is leading to an unnecessary and undesirable increase of the number of pauper lunatics, the Government may eventually require either to adopt some measure for determining those who ought, in their own interests, or in the interests of the community, to be treated as insane, or to devise some scheme by which the local burdens could be relieved without an increase of the number of pauper lunatics.

LOCH KATRINE WATER.

THE monthly report of the quality of Loch Katrine Water, prepared by Professor E. J. Mills, F.R.S., of Anderson's College, shows that the water was very pale brown in colour, and contained muddy particles, with a slight amount of fibrous matter. Its most serious impurity, the organic carbon, exceeded last month that of the whole of the metropolitan waters, and is this month about one-third higher than in August 1876. Two-thirds of this constituent are easily removable by suitable filtration.

IRELAND.

ACCORDING to the report of the Irish Local Government Board, there were last year in Ireland fewer paupers in the workhouse than were ever known in any previous year, and a smaller number died in the workhouse hospitals.

DOWNPATRICK WATER-SUPPLY.

THIS town is in a very bad condition as regards its water-supply. The registrar of the district some time since drew attention to the matter, and stated that one-third of the inhabitants could not be supplied with water, and that nearly all the wells and pumps had been condemned. The sewerage and sanitary arrangements of the working classes, he adds, could not be worse. The improvement of the water-supply is under the consideration of the sanitary authority; but the movements of this body are not very energetic, although it is probable that a sum of £6,000 will be applied for as a loan next year to carry out the necessary waterworks for this town.

MEDICAL WITNESSES AT INQUESTS.

AT a meeting of the Corporation of Dublin last Monday, a report from No. 3 Committee was received on the subject of medical witnesses at inquests. The report recommended that remuneration at the rate of £150 *per annum* should be paid to Dr. Egan as medical witness to the city coroner; the same to take effect from the passing of the Coroners' Act of 1876. Sir George B. Owens moved the adoption of the report, on the understanding that the coroner was to be at liberty, where he thought fit and when it was necessary, to call in a local medical practitioner who might know something about the case. The report, having been seconded, was passed, with a result of leaving things pretty much as they were previously.

QUEEN'S COLLEGE, BELFAST.

THE report of this institution for the session 1876-77 shows a remarkable increase both in respect to the total number of students in attendance and to the new entrances; there being 437 in attendance, of whom 151 were new students. Of these 437, there were 268 studying medicine, 120 arts, 13 civil engineering, etc. The President of the

College, whilst recording his satisfaction at the great benefits conferred through the restoration of the additional grant to its original amount of £1,600, for the maintenance and support of the various departments, expresses an opinion that very shortly additional accommodation will be required both in the library and in the museum of natural history. Measures have been recently adopted for securing to the medical students of the College facilities for additional clinical instruction in the hospital and infirmaries of the Belfast Union Workhouse. The President refers to the increasing necessity and importance of extending to the graduates of the University the privilege of being endowed with the elective franchise, to secure for them as soon as possible the advantage of representation in Parliament. The justice and expediency of this have been officially brought under the notice of the Government, and the question has been pressed on their attention; and, seeing that the claim is fully admitted, it is to be hoped that a member will speedily be assigned to the Queen's University in Ireland. As the President points out, to leave it in a state of isolation as the only unrepresented university in the empire, when already it commands a constituency which will steadily increase every year, would injure the great interests of education, and deprive the graduates of constitutional privileges to which they are justly entitled.

THE WOUNDED IN THE RUSSO-TURKISH WAR.

A NAVAL correspondent of the *Times* gives the following interesting details of the operations of the English Medical Relief Societies.

There are at present at work in Turkey three distinct organisations, all wearing the Red Crescent and all employed in the same manner. The Stafford House Committee had, up to the middle of last June, confined itself to sending out stores and money to be distributed and administered chiefly by Ahmed Vefyk Pasha, President of the House of Representatives; but it was then thought necessary to appoint a Special Commissioner, Mr. Barrington Kennett, under whose direction the following work has been done. Seven English surgeons have been engaged and are now at work, while four or five more are on their way out from England. Several local surgeons, principally Greeks and Armenians, have been employed in their own districts, and are found to act very well on the whole. In addition to these, Lord Blantyre, who is one of the most active and energetic members of the Stafford House Committee, has, at his own expense, and with very liberal salaries, despatched eight surgeons, who, though independent to a certain extent, are affiliated to the Stafford House Committee, and receive from it any money and stores over and above those provided by Lord Blantyre, which they may require. These fifteen surgeons are distributed as follows: four to Erzeroum, three to Adrianople, two to Silistria, one on transport duty on the Rustchuk and Varna line, three in Shumla-Rasgrad district. A waggon transport under Colonel Borthwick, known as Mahir Bey in Turkey, is doing most valuable work in the Shumla district, and has lately transported great numbers of sick from the Shumla Hospital to the Shumla Road Station. Lord Melgund had also kindly undertaken to distribute some of the Stafford House money in the Osman Bazar district. A waggon transport is being organised in the Eski Saghra district for communication with the Balkans and the head of the Jamboli-Tirnova Railway. This particular line of transport is most urgently required, and will be superintended by Mr. Barrington Kennett. A large supply of stores has been forwarded to Erzeroum under charge of Lieutenant Malcolm Drummond, R.N.; these will be distributed in that district by two of Lord Blantyre's surgeons. Hospitals have been established at and supplies sent by the Stafford House Committee to Rustchuk and Varna. These hospitals have since been handed over to the Red Crescent Society, who will bear the expenses of working them, the Stafford House Committee supplying doctors and stores. Mr. E. R. Pratt of Rystonhall has come out to act as Assistant Commissioner, and has been left in Constantinople, with free powers to act for Mr. Kennett during his absence. The Stafford House Committee is now under the protection and enjoys all the privileges of the Red Crescent, as secured to that body by the Geneva Convention.

The Red Crescent Society is the National Ottoman Society for the Relief of Sick and Wounded, and was established under the personal favour of His Majesty the Sultan, who contributed £2,500 to the subscriptions. His Majesty takes great interest in the Society, and has given them a Committee-room in the Dolma-Baghtché Palace. For some

time there was a great dearth of money, but subscriptions have lately come in, and they now hold about £16,000, which has chiefly come from the Mussulman population of India. Sub-Committees are formed in all the principal towns in the Provinces, which are composed of the representatives of the Ottoman Bank and the local medical officers of health. They are energetically preparing and distributing large supplies of stores, and have undertaken to provide each army in the field with hired or bought trains of country waggons, supplied with mattresses and a surgeon. Besides the Rustchuk and Varna Hospitals before-mentioned, they are fitting up a large hospital at Anatole Kavak, on the Bosphorus, and another on the Dardanelles.

The third Society is the British National Society for Aid to Sick and Wounded, which Society despatched the ship *Belle* of Dundee, under Mr. Commissary Young, with seven surgeons, and are distributed as follows: two surgeons with their staff with the army of Sulciman Pasha, in the Balkan districts; two at Varna, who will join the staff of Mehemet Ali Pasha, the Commander-in-Chief; two at Batoum; and one who will probably remain on board the ship, as she is to be converted into a hospital transport-ship, and will ply between all Black Sea Turkish ports and Constantinople. After the defeat of Reouf's army, on which occasion they were in the very thickest of the battle, for many days and nights their labours were incessant, and many Turkish soldiers have to thank Dr. Leslie and Dr. Meyrick for limbs or lives saved. Their attentions, too, to the poor wounded women and children were incessant, while they sacrificed every thought of personal comfort and rest to alleviate their sufferings.

In addition to the above Societies, there are several ladies' committees in Constantinople and the Bosphorus that are doing very valuable work in preparing bandages, making beds, sheets, and such like necessities. At Therapia, Mrs. Layard, Lady Kemball, and Mrs. Hanson have been most active, and have received grants of money and material from the Stafford House and Red Crescent Committees. The Princess of Reuss has also formed a Committee at Buyukderé with the same object, and has already supplied a very great number of beds and bandages to various hospitals.

All these societies and sub-committees are working together with the sole object of relieving suffering, regardless of creed or nationality, and sinking anything like petty competition among themselves. They all alike require money, or contributions in kind; and among the latter, I may specify that what is most required at present is as follows: Iron splints, carbolic acid, carbolised tow, and quinine. If the war is prolonged, the large stock they have at present will soon be exhausted. But, in the meanwhile, a great amount of good is being done for the wounded soldiers, whereas the wounded women and children are still unprovided for.

ASSOCIATION OF MEDICAL MEN HOLDING IRISH QUALIFICATIONS.

A MEETING of medical men practising in England with qualifications obtained in Ireland was held at Owens College, Manchester, on Wednesday, August 8th. Dr. B. W. FOSTER of Birmingham was called to the Chair; and Dr. THOMPSON of Leamington acted as Secretary. The following resolutions were passed.

1. Proposed by Dr. THOMPSON (Leamington) and seconded by Mr. A. KERR (Preston)—“That it is desirable to form an Association consisting of practitioners in England holding Irish qualifications.”

2. Proposed by Dr. JOY (Birmingham) and seconded by Dr. WOODS (Warwick)—“That the Association meet once a year during the annual meeting, and at the same town as the British Medical Association, with the object of promoting social intercourse among the members of the proposed Association.”

3. Proposed by Dr. THOMPSON and seconded by Dr. JOY—“That Dr. Foster of Birmingham be the first President, and that the office be annual.”

4. Proposed by Dr. FOSTER and seconded by Mr. KERR—“That Dr. Daniell of Cathcart Road, West Brompton, and Dr. Thompson of Leamington, be appointed Secretaries; and that they are hereby empowered to make the necessary arrangements for the first annual meeting in 1878.”

5. Proposed by Mr. KERR and seconded by Dr. WOODS—“That the membership of the Association be limited to medical men holding Irish qualifications wherever resident.”

6. Proposed by Dr. FOSTER and seconded by Dr. THOMPSON—“That the annual subscription be two shillings and sixpence.”

Vote of thanks to Drs. Foster and Thompson closed the meeting.

BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.

DURING the recent meeting in Plymouth, two important papers bearing on public health have been read in the Section of Economic Science and Vital Statistics.

On certain Laws of Population. By WILLIAM FARR, M.D., D.C.L., F.R.S.—Dr. FARR said that the unity of the human family was an accepted scientific truth, and all races and nations were alike endowed in structure, intellect, passions, and faculties; and according to the most recent calculations—those of Peterman—the population of the whole world was 1,424 millions. In the last century, some thinkers called in question the account of the origin of mankind as stated in the Book of Genesis, and held that it was impossible that in the period so many could have descended from two ancestors—Adam and Eve. Euler undertook to meet the objection. He showed that by a process of doubling the population from one pair it might amount to any conceivable number. It had been laid down that a population can double itself in 25 years. It was true that if the population increased to its present pitch in 5,880 years, it might have doubled itself every 200 years. The inhabitants of the earth would in 200 years approach 3,000 millions; and at the same rate the difference between the birth-rates and the death-rates was nearly constant, although the rates themselves varied widely. To every unit of life in England there was annually .03492 added by birth, and .02231 deducted by death. The rates of increase was 1.01261, which implied that at that rate the population would be doubled in 55.3 years. Taking 1,000 as the basis, the birth-rate was 34.92, and the death-rate 12.31 in England and Wales. Carefully prepared statistics showed that at these rates of increase the periods of doubling in eight of the States of Europe would be as follow: England and Wales, 53.3 years; Sweden, 61.1; Prussia, 64.3; Netherlands, 77.1; Austria, 86.0; Spain, 93.9; Italy, 100.5; and France, 361.3 years. And what did we find actually going on in English districts? In 56 populous districts, the death-rate was .0251, and the birth-rate was .381; and consequently the rate of increase was 1.013. In 54 healthier districts, the death-rate was .0167; that was .0084 lower than in less healthy districts. The natural increase of population in the healthiest districts was 1.0134. If the districts were arranged in four groups, the death and birth rates were .0251 and .0381, .0220 and .0356, .0192 and .0323, .0167 and .0301. These four groups of districts, therefore, would double their population in nearly the same periods, as their rates were 1.0130, 1.0136, 1.130, and 1.0134. Thus within certain limits the reduction of mortality had no absolute tendency to accelerate the natural increase of population. Where the death-rate reached a much higher pitch, the birth-rate no longer kept pace with it; but the diminution of the mortality of England by sanitary improvement was in no danger of multiplying by multiplying men beyond the means of subsistence. Experience proved the contrary, and, therefore, to keep a population stationary or to retard national growth there was needed neither, if war pestilence or famine pestilence nor a war between man and man, but between the lowest forms of life and human life. He introduced the term zymotic to characterise the class of epidemic, sudemic, and contagious diseases. It is from the Greek word *zuma* (leaven), and it implies that these diseases have this in common with ferments, that they spread, multiply, and effect transformations of organic matter. Thus the transparent lymph in a small-pox pustule (*variola*) contains a multitude of small microscopic bodies (*variolads*), which, introduced into the body of a single man, multiply into millions, and, under certain conditions, infect a whole city. They grow, multiply, and die, and in these processes prove fatal to thousands of men. Scarlet fever, measles, whooping-cough, typhoid fever, cattle plague, and cholera are due to bodies. Each specific "zymad" produces its zymotic disease. Nor can the different species be differentiated in any other way than by their effects on the living body. When were they created? We do not know. We do know when they were first described, and we know that in the sense of Mr. Darwin they give rise to varieties. The small-pox matter is sometimes quiescent. Then varieties of it spring up, which spread rapidly. Summer cholera was for centuries common in London. Suddenly in Asia a new variety sprang into existence and ravaged Europe. We know under what wretched conditions this variety was created, under what conditions typhus that kills judges has been produced in prisons, erysipelas, pyæmia, puerperal fever, scurvy, gangrene, dysentery in hospitals, armies, and fleets. Some varieties, like putrefaction, can be raised at will. Upon the other hand, milder can be substituted for malignant varieties, as in the instance of

vaccine substituted for variola. Some forms of pestilence have been extinguished. Thus plague, that once ravaged London every twenty years, has been stayed; and, by stopping the supply of infected water, Asiatic cholera loses its terrors. By sanitary measures which are known and are at the hands of the physician, engineer, and administrator, many zymotic diseases can be subdued, if not extinguished. In striving after this glorious end, you cannot now be terrified by the phantom of population increasing in geometrical progression. If the birth-rate could be reduced, it would be wise in this country to accept that policy which has been advocated by Malthus, J. S. Mill, and Dr. Dugdale, and practised by the French peasant. Admirable as was the thrift and industry of the French peasant, he (Dr. Farr) could no more hold that England was called upon to practise his social philosophy than to revolutionise our agriculture by either cutting up the land into infinitesimal parcels or ceasing to employ in its culture the several capitals of the landlord in acres, the farmer in stock, the labourer in thews, sinews, and inherited skill. Many current French statisticians now regarded with apprehension the declining population of France. This policy was put forward to lessen the nursery of the working classes and to raise their wages by lessening the supply of labour. Their nursery had been diminished and their wages raised. Under the opposition policy of increase, let them, then, go on as heretofore in keeping up their numbers and trusting in God, marrying and giving in marriage, as our returns showed they did, in prosperous times, and waiting in adverse times.—After some remarks by Lord HOUGHTON and Mr. WALFORD, Mr. W. L. COLLIER considered that those statisticians who had attacked the doctrines of Malthus and J. S. Mill, endorsed by Cairns and Senior, had failed. Had the working classes been considered with families of seven or fifteen, as the case might be, struggling for existence on 16s. a week? Dr. Farr said, marry first and sustenance would come after; but the higher and middle classes reversed the position. They did not marry until their means enabled them to do so with fair prospects of comfort, and yet they preached a doctrine of imprudence and improvidence to the working classes. Those classes, however, would find that J. S. Mill was the best friend they ever had. The doctrine of Malthus was based upon the fact that the poor we always had with us. But Mill held that we ought to have no poor in the sense of abject indigence.—Mr. HEYWOOD highly approved the paper of Dr. Farr.—Mr. T. R. BOURNE said that in those cases where there were families of five and food only for two, it would mostly be found that what was wanted had been consumed in drink. As a matter of fact, the large families did the best; and all the greatest men in science and as statesmen were mostly members of large families and younger sons, upon whom early struggles for mental growth had produced brilliant results.—Mr. GEORGE HURST thought population had dangerously increased in this country.—Mr. TURNER said that those who were afraid of the ratio in which the population increased seemed to forget that food was increasing on all sides in even a greater ratio.—Mr. FISHER (a Canadian) said that those who thought emigration the proper remedy for overpopulation, should remember that the colonies did not want the children of rickety paupers.—Lord FORTESCUE must remind the section that Mr. Chadwick had been for years recognised by all Europe as one of the most distinguished economists of our time, and indeed, as such, had had the honour conferred on him of being made a member of the French Institute; that Dr. Farr had also long been recognised as a high economic authority; and both of these—to whom, as an ex-Secretary of the Poor-law Board, he could add, in a much humbler degree, himself—had always strenuously inculcated thrift and prudence.—The discussion closed with a vote of thanks to Dr. Farr.

The Water-Supply of London. By F. J. BRAMWELL, Esq.—The paper was the joint production of Mr. Bramwell and Mr. Edward Easton, who, in conjunction with Sir J. Bazalgette, had been requested by the Metropolitan Board of Works to consider and report upon the question of the London water-supply. In compliance with that request, they had recently reported, making suggestions for the improvement of that supply in relation to the quality of the potable water, and the provision of water at an adequate pressure for the extinction of fires. The authors made no apology for bringing the economic view of the question of the London water-supply before this Section, because the subject was an extremely important one, and the questions involved in its economic consideration, therefore, of very considerable interest. The present average daily supply of water to London was, in round numbers, 125,000,000 gallons. In 1874, the population supplied was 3,665,000, dwelling in 511,000 houses, and the daily supply in that year was 116,250,000 gallons. This water-supply was in the hands of eight companies. The aggregate capital was £11,196,000. The gross income from water was £1,137,000. In addition to this, there were £16,000 derived from land rents, making a total of £1,153,000. The expenses were £447,500. The nett income was £785,700. London,

in common with other towns, required water for these principal purposes: drinking and culinary purposes, cleanliness—personal, domestic, and civil—the extinction of fires, manufacturing, road-watering, and miscellaneous. If ever there was a place where it was necessary that the drinking-water should be wholesome and the fire-extinguishing water should be adequate in quantity of pressure, that place was London, with its vast population. Though they may not be crowded very closely upon each acre, the ground, as compared with other towns, was, nevertheless, from its very extent, in a condition which forbids the enjoyment by many of its inhabitants of even an occasional glimpse of the country, or the chance of breathing uncontaminated country air. Under these circumstances, it was most desirable that the supply of drinking-water should be of the most wholesome character possible. Moreover, if disease break out in London and spread, the extent of the disaster and the difficulty and loss in stamping out the disease made it of the highest importance that the public health should be preserved. With reference to fire-extinguishing, it was not too much to say that there was probably no place in the whole world where so much value in properties was aggregated together as in London, and this was itself a sufficient reason why the provision should be the best of all in London, without entering upon the further question of the large numbers of human beings who would be put into danger by serious fires. That London should suffer so little as it did from disastrous fires was owing to the excellent organisation of the Fire Brigade and the unwearied diligence and assiduity of Captain Shaw. The London Fire Brigade under his management had gone on from year to year, coping with the increase in their labours arising from the increase of London. But there was a point beyond which it would be impossible for them to protect the metropolis, unless in some way their powers were increased. That point had already been reached. The report of Sir Selwyn Ibbetson's Committee clearly recognised this; and, no doubt, the Metropolitan Board of Works would feel it their duty to comply with the recommendations of the Committee and arm themselves with power to increase the Fire Brigade. Except in rare cases, the primary want of a pure and agreeable potable water was not satisfied, nor was the other want, that of a supply adequate in volume and pressure, to be unfaithfully obtained at the spot where a fire may break out. In spite of all the efforts of the Companies, the public were not satisfied, nor could they be so long as the supply of water was derived from a river into which was poured the sewage of a great part of the large population of the Thames Basin above the intakes of the Companies, and also the surface-drainage from the highly cultivated, and, therefore, highly manured land of that basin. The paper insisted that water in much larger volumes and pressure should be supplied for fire-extinction. With regard to drinking-water, there had been proposals for going to Cumberland to bring the lake-water of those districts by gigantic aqueducts to London; but, after full examination by the Railway Commissioners, those propositions had been rejected. If such works could be carried out, the cost would be enormous; besides, such plans did not contemplate bringing into London the water from such a height as would dispense with the aid of pumping. The whole of the pumping expenditure would, therefore, be continued. Then the mains would require to be extended. There would also be the cost of repipeage of the metropolis, and the provision of hydrants. The paper recommended the separation of the water for drinking purposes and that for the extinction of fires and other purposes. While it was all but impossible to find 125,000,000 gallons *per diem*, it was manifestly possible to find 30,000,000 gallons or more water pronounced by Dr. Frankland to be of the finest spring from the chalk. This had been recognised by the report of the Duke of Richmond's Commission. Their proposition was to make on the high ground to the north and south of London reservoirs four hundred feet above the ordnance elevation; that these reservoirs should be supplied by pump-engines drawing their supply of spring-water at a distance of from eight to fifteen miles beyond the reservoirs in the open country; that the reservoirs should all be united by large arterial mains traversing London from north to south, and that these mains should be united by subsidiary mains passing along the sides of all the streets. From these latter mains a service would proceed to each house, delivering the water into a close vessel having one draw-off tap and containing, according to the size of the house, from three to ten gallons, and filling up gradually after having been emptied. On these mains also would be placed hydrants for fire extinction. These would provide pure water for drinking and sufficient pressure for fire extinction. On the subject of expense, the paper showed that the plan could be carried out without increase to ratepayers.—In the discussion that followed, Dr. FARR said it was, he believed, certain that satisfactory water could never be got from the Thames.—Sir J. WATSON (Provost of Glasgow) stated that lately in Glasgow, even with large supply from Loch Katrine, it had been found expedient to

economise that water by taking inferior water from the Clyde and distributing it by separate mains for manifold purposes.—Mr. E. EASTON, with considerable experience in the supply of chalk-water to different towns, such as Brighton, Ramsgate, and others, did not believe that the softening of the water was of so much importance as was generally supposed.—Mr. BALDWIN LATHAM remarked that it was difficult to know what was good water, what was bad. In January last, when Dr. Farr was reporting a low death-rate, Dr. Frankland was concurrently reporting that the water supplied was entirely unfit for drinking purposes.—Earl FORTESCUE expressed his general concurrence as an old sanitary reformer.—After some further discussion, Mr. BRAMWELL said it had been objected that by his plan the water supplied would be hard; but it was not generally known that soft water was bad for cooking, and as by his scheme it was not proposed to supply water for washing, but for drinking, softness was not requisite. It was altogether a mistake to suppose that soft water made the best tea. It certainly gave a strong family brew a good "essence of stick", but if any one wanted tea which had the delicate and effective flavour of the herb, hard water should be used. Burton ales derived their flavour and excellence from the presence of sulphate of lime with water, that making a hard water. If, however, softness were required, it could be had by Clarke's process at a cost of £1,500 a year for sixty millions of gallons *per diem*. He did not mean to say that the Metropolitan Board had as yet adopted the principle he had put forward. The subject had been referred to himself, Mr. Easton, and Sir Joseph Bazalgette, and they had reported to the Board, which he trusted would give some weight and consideration to their views. To the credit of Devonshire, it could claim to be the first to have separated a supply of potable water from other waters. He hoped the Board of Works would adopt the principle.—A hearty vote of thanks was then given to Mr. Bramwell.

ARMY MEDICAL SCHOOL AT NETLEY.

THE distribution of prizes to the most successful students of the army medical school at Netley took place on Monday, the 6th instant, in the lecture-hall of the Royal Victoria Hospital at Netley, in the presence of a numerous attendance from Haslar, Portsmouth, and the neighbourhood. The ceremony brought to a close the thirty-third session of the school. It had been attended by fifty-two candidates for the three medical services of the Queen; namely, seventeen for the army, thirteen for the navy, and twenty-six for the Indian Medical Service, and, in addition, two surgeons of the Indian service, who were home on furlough, availed themselves of the opportunity of going through the work of the school, which they did with persevering industry and attention.

There are two prizes awarded at the conclusion of each session of the school; namely, the Herbert Memorial Prize of twenty pounds to the candidate of either service who gains the highest number of marks; and the Martin Memorial Prize to the candidate who gains the highest number of marks in military medicine. An account of the origin of these two prizes was given in the BRITISH MEDICAL JOURNAL for February 17th, 1877.

After a severe and well sustained competitive examination, commencing on Monday, July 30th, and ending on Saturday, August 4th (thus extending over six days), the Herbert Prize was won by Dr. Jarlath Mullen of Queen's College, Ireland, a candidate for the Army Medical Service. Hitherto the Herbert Prize has almost always (with five* exceptions only) been gained by a candidate of the Indian Service; but, on this occasion, the highest number of marks at the combined examinations of London and Netley was obtained by a candidate of the British Service. The competition at Netley embraced written answers to questions in military surgery, medicine, pathology, and hygiene; practical tests in the chemical laboratory and microscope-room as to proficiency in the analysis of water, food, and other practical inquiries in hygiene; the microscopic examination of morbid parts, descriptions of morbid appearances in organs; the examination and diagnosis of test-cases (medical and surgical) in the wards of the hospital, and the case-books kept by each candidate during his period of service in the wards.

The Martin Memorial Medal was gained by Dr. Thomas King Rogers, M.B. of the London University, M.R.C.S. The competitive examination for this prize embraces special questions in military medicine. Eighteen candidates competed; namely, two army, three naval, and thirteen Indian medical candidates. Mullen, of the Army

*The following are the names of officers in the Army Medical Service who have gained the Herbert Prize.—Clembe, Cottle, Langridge, Harrison, and now Mullen.

Service, Hatch and Owen of the Indian Service, and M. J. McCarthy of the Naval Medical Service, particularly distinguished themselves in this competition, this last named gentleman gaining the full number of marks for his well kept case-book. The names of the following candidates were also submitted to the notice of the authorities (in addition to the prize-takers) as worthy of special commendation:—Murphy, F. H. S., of the Army Medical Service; Hatch, W. K.; Owen, W.; Masani, H. D.; Gillies, W.; Jack, D. M., of the Indian Service; Williamson, W. C.; Geoghegan, C. E.; and McCarthy, M. J., of the Naval Service.

Sir John Garvock, G.C.B., the military commandant of the Portsmouth District, and one of the most distinguished general officers of the service, was kind enough to honour the occasion by his presence, attended by his aide-de-camp; and, after giving the prizes to the successful candidates, with encouraging words of congratulation to each, he said that it gave him very great pleasure to be present at the conclusion of the session of the Army Medical School; for he knew, from what he had heard of the school, that whatever was done at Netley would be done well. He was also glad to have the opportunity of thus publicly expressing his appreciation of the services rendered by the medical profession to the soldiers and sailors of the army and navy. All knew that the sufferings brought about by war are very terrible—very terrible indeed; but the medical service of the army had always greatly contributed to relieve at all times the sufferings of the wounded under such circumstances; and he feelingly referred to the extreme suffering which it was at this moment the fate of many to endure on the far-off banks of the Danube, and how much they would be alleviated by the services of the medical profession. More than thirty years ago, he himself well remembered how much he owed in his hour of need to the kind and skilful services of his friend Dr. Massy (at present the principal medical officer at Netley); and, if Dr. Massy did not remember the services he rendered to him, he himself could never forget them. He then congratulated the candidates on having all passed, and, at the same time, warned them not to suppose that for that reason their work was at an end. On the contrary, he encouraged them to continue to be students; that there was much yet to be discovered in the science of medicine, and suggested that some of those now before him should be the discoverers of truths. If they did not continue to work and to study at their profession, they would be apt to forget what they had already learned; and they were surrounded by great temptations to be idle; on the other hand, there were great inducements for them also to engage in work; for example, there was a prize open for competition to those of the Army Medical Service.* Then there was another open to the medical officers of the navy;† and now he was given to understand that there would soon be a third prize announced for competition, and open to the medical officers of each of the three services.‡ It was not possible for all of them to get prizes and medals, but, nevertheless, they would find that success in life depended upon their not being idle. Men who acquired a high position in life did not owe it to chance or luck, but to the fact that, when boys, they had been industrious at school, and, when they had grown up, they had continued to be diligent workers, and gained whatever high position they might have attained by industry and hard work. It was for them to go and do likewise.

HOSPITAL AND DISPENSARY MANAGEMENT.

OUT-PATIENT DEPARTMENTS.

DR. F. J. BROWN of Rochester writes to us to suggest that the out-patient department of hospitals might be rendered useful to the medical practitioners in the neighbourhood of hospitals in the following manner. Surgeons might be authorised to send their patients to hospitals for the performance of minor operations, such as bleeding, cupping, leeching, the opening of abscesses, galvanism, the fitting of splints, the use of baths, etc. Such patients should pay 2s. 6d. on producing the surgeon's letter or order. This would be a great boon both to the surgeons and to their patients, for it is extremely difficult to get leeching performed at patients' homes, especially in the case of lodgers.

* Referring to the Alexander Prize.

† The Gilbert Blane Prize.

‡ The Parbois Memorial Prize. It appears that a sum of money has been subscribed in this country and in India, sufficient, when invested, to give a prize of £20 every third year, and with it a gold medal not exceeding in value £15, to the successful competitor for this prize. The competition will embrace some topic in hygiene, and will be open to the medical officers of each of the three services. The conditions will shortly be announced.

ASSOCIATION INTELLIGENCE.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting of this Branch will be held at Stockton, on Tuesday, September 25th.

Gentlemen desirous of reading papers or making other communications, are requested to give notice to the Secretary.

G. H. PHILIPSON, M.D., *Honorary Secretary*,
Newcastle-upon-Tyne, August 20th, 1877.

BORDER COUNTIES BRANCH: ANNUAL MEETING.

THE annual meeting of the above Branch was held at Carlisle on Friday, July 20th, 1877: the retiring President, Dr. BARNES, took the Chair at one o'clock, and there were fifteen other members present.

New Members.—John Highet, M.B. and C.M., was elected a member of the Branch. Thomas Rigg, M.D., and John W. Hinnings, L.R.C.S., and L.R.C.P.E., were elected members of the Association and Branch.

Report of Council.—Dr. MACLAREN, Secretary, read the following report of Council. The Council have the pleasure of submitting their ninth annual report to the members of the Border Counties Branch. At the commencement of the year, there were one hundred on the list. During the year, seven new members have been elected, five have resigned, two have left the district, and four have died; so that the number at present is ninety-six. During the year, meetings were held at Carlisle, Whitehaven, and Penrith. The Council regret that, though papers were read and discussions took place on subjects of great interest and importance, yet the attendance has been much less numerous than they have wished. They have come to the conclusion to recommend the Branch to limit its meetings to two in the year. With the view of carrying out this change, they also recommend the alteration of Rule v as follows: "That the annual meeting be held in the month of June or July, in some convenient town in the district, the date and place to be fixed by the Council; and that such other meetings be held during the year as may be determined on at the annual meeting." During the year, a tariff of fees was agreed to by the Branch after much discussion and consideration. It has been printed and circulated to the members. With the view of simplifying the business of the Branch and facilitating the collection of subscriptions, the Committee recommend that these be payable on January 1st of each year instead of July 1st as heretofore.

Financial Statement.—The balance in hand at the commencement of the year was £7:7:1; the receipts, consisting of sixty-five subscriptions for the year, twenty-two arrears from previous years, and three subscriptions paid in advance, amount to £11:5; total, £18:12:1. The disbursements amount to £13:10:11, leaving a balance on hand of £5:1:2.

Dr. BARNES then introduced the President for the year, Dr. Lockie, who took the Chair.

Alteration of Rule.—It was proposed by Dr. CAMPBELL, seconded by Dr. KNIGHT, and agreed to, that Rule v read as follows: "That the annual meeting be held in the month of June or July in some convenient town in the district, the date and place to be fixed by the Council; and that such other meetings be held during the year as may be determined at the annual meeting."

Meetings.—It was resolved that an autumn meeting of the Branch be held at Thornhill in October, and a spring meeting at Keswick in June.

Office-Bearers.—The following were elected office-bearers for the ensuing year—*President-elect*: J. Gilchrist, M.D. *Honorary Secretaries*: R. Maclaren, M.D., and J. Smith, M.D. *Council*: H. Barnes, M.D.; E. Hoggan, M.D.; T. F. P'Anson, M.D.; W. J. Kennedy, Esq.; A. A. H. Knight, M.D.; R. B. MacBean, M.B.; W. Reeve, M.D.; M. W. Taylor, M.D.; R. Tiffen, M.D. *Representative on the Parliamentary Bills Committee*: W. Reeves, M.D. Dr. Barnes was elected a permanent Vice-President.

President's Address.—Dr. LOCKIE read his inaugural address, on Some Anomalies in Diseases. After referring to the difficulty of the task the general practitioner proposes to himself, owing to the wide scope of his studies and the almost infinite variety of diseased conditions, he dwelt at some length on some of the anomalous forms of epilepsy, illustrating them by cases which had occurred in his own practice, or which had been recorded by others. He then described some of the anomalies of locomotor ataxy, referring especially to the

observations of Professor Charcot, as recorded by him in his recent work. Anomalous cases of Bright's disease, of renal calculus, and of enteric fever, were the subjects of the remaining portion of the address.

Communications.—Dr. MACDOUGALL read a paper on Disarticulation of the Knee-Joint, and showed a case.

Dr. MACLAREN showed two Compound Fractures of the Arm successfully treated by the Antiseptic Method.

Several pathological specimens were exhibited by Drs. LOCKIE and MACLAREN.

Dinner.—The members and their friends afterwards dined together: Dr. LOCKIE in the Chair, and Dr. BARNES in the Vice-Chair.

REPORTS OF SOCIETIES.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, JULY 4TH, 1877.

CHARLES WEST, M.D., F.R.C.P., President, in the Chair.

Suppuration in Uterus.—Dr. GALABIN showed an uterus, in the cavity of which suppuration had occurred from occlusion of the cervix, due to cancer. The organ had been punctured. A drainage-tube was afterwards inserted. The patient died with general purulent peritonitis. The specimen was referred to Drs. Roper and Galabin for report.

Cæsarean Section: Transposition of Viscera.—Dr. W. SQUIRE, for Dr. BUCKELL of Winchester, read the notes of and showed the viscera of a case in which Cæsarean section was performed twenty to thirty minutes after death. The child was saved. The mother died suddenly of dilatation of the aorta, rendering the aortic valves incompetent. At the *post mortem* examination, the viscera of the chest and abdomen were found to be transposed.—The PRESIDENT thought the case of interest, as showing that a child could be recovered a considerable time after the death of the mother.—Dr. AVELING said that it was believed that a child might be born alive an hour after the mother's death.—Dr. PLAYFAIR knew of one case in which a live child was born half an hour after the death of the mother.—Dr. ROUTH said that much depended on the cause of the mother's death. He had performed Cæsarean section in a case of death from apoplexy, but the child was dead from carbonised blood.—Dr. DALY had seen Cæsarean section done twenty minutes after rupture of the uterus, but the child was dead.

Elephantiasis of the Vulva.—Dr. PLAYFAIR showed a specimen of elephantiasis of the vulva, removed by him; it was amputated, and the bleeding vessels died.

Additional Cases of Ovariectomy performed during Pregnancy.—Mr. SPENCER WELLS had arranged in a table the particulars of all the cases in which he had performed ovariectomy during pregnancy. The age of the patient was given, the period of pregnancy when ovariectomy was performed, the weight of the tumour removed, and the results to mothers and children. Full particulars of four cases, hitherto unpublished, were given. The author concluded that, as eight of the nine mothers recovered, as pregnancy proceeded in five, and living children were born after natural labour, as in two where labour came on soon after ovariectomy, there was no unusual hæmorrhage nor difficulty; and as four of the patients had borne children at various periods since the labour which followed the ovariectomy, these facts would have their just influence in the formation of professional opinion upon the best mode of treating cases of pregnancy complicated by ovarian tumour.—Dr. PLAYFAIR asked Mr. Wells what his experience was of tapping and induction of premature labour. Dr. Playfair was in favour of ovariectomy, because of the unfavourable results which followed when labour was allowed to go on with small ovarian tumours.—Dr. MURRAY related a case where he induced labour at the eighth month, and then performed ovariectomy successfully. He thought that when the tumour was fluid, it was safer to tap; and even if it were solid but small, and pregnancy was far advanced, labour might take place before the tumour would cause great inconvenience.—The PRESIDENT said that Mr. Wells's results tended to show the comparative safety of ovariectomy during pregnancy. Probably the operation should be done early, for the advance of pregnancy might give rise to the suppuration of the cyst and death. If ovariectomy could not be done, owing to the nature of the tumour or other circumstances, premature labour might be induced.—Mr. LAWSON TAIT had in several cases been able to push up small ovarian tumours impeding labour, and had obtained favourable results. He was of opinion that ovariectomy was better practice than the induction of premature labour. He had once performed the operation during pregnancy; miscarriage occurred on the seventh day after, and

the woman soon died. The pedicle was found to be gangrenous.—Dr. CARTER had seen two cases of pregnancy with ovarian tumours. Both cases went to the full time and did well. The children were alive and healthy. He asked Mr. Wells on what other cases had he been consulted, which had not been operated upon.—Dr. GALABIN asked if Mr. Wells attached any importance in making the choice of operation to the stage of pregnancy reached. In the cases tabulated, miscarriage had occurred in all in which ovariectomy had been performed later than the fourth month; but in none of the others. If this were confirmed, it would seem preferable at such a stage to induce premature labour, and not to delay ovariectomy if indicated in the earlier months.—Dr. HEYWOOD SMITH asked if rapidity of growth influenced Mr. Wells in his choice of operation. He considered that any operation was extremely hazardous during the puerperal state and for two months after delivery. Tapping might be dangerous, especially if the cyst was forming rapidly, or if it contained puriform fluid; for fluid might escape and set up inflammatory mischief.—Dr. ROUTH thought that more cases were required before an opinion could be formed on the subject. Seven cases had been mentioned which ran natural courses without any interference. Dr. Routh had brought on premature labour successfully, and performed ovariectomy three months afterwards, but the patient died. Much depended on the size and rapidity of growth of the tumour.—Dr. CHAMBERS had seen a case of ovarian tumour associated with pregnancy. He tapped. A few days afterwards, abortion took place; at the fourth month, the patient recovered from the miscarriage and tapping, but the tumour began to grow again and the patient to lose health. The tumour was removed in about six weeks from the tapping, but the patient died. He thought that, had ovariectomy been performed instead of the tapping, the patient would have had a better chance of recovery.—Dr. SAVAGE saw no chance of obtaining a rule of practice in these cases from the present discussion. He asked if Mr. Wells would operate in a case of pregnancy, complicated by a solid or cystic ovarian tumour, when there was no suffering; and what operation would he choose if the patient suffered severely? Dr. Savage thought that ovariectomy was the only justifiable operation in the latter circumstances.—Dr. ROPER induced labour at the seventh month in a case complicated by an ovarian tumour as large as a fetal head. The child was alive. The patient did well, and had had living children at full time since; the tumour remaining unaltered.—Mr. SCOTT said the propriety of performing ovariectomy during pregnancy depended mainly on two conditions: the amount of suffering and constitutional disturbance present, and the position of the tumour. If the tumour were wedged in the pelvis, so as to impede delivery, early ovariectomy should be performed. If the tumour were well up in the abdomen, giving rise to no trouble, it might be doubted if operative interference were justifiable.—Mr. WELLS replied, that the patient and her friends had an undoubted right to share in the discussion; and it was often not only advisable but right to give them some share of the responsibility, when the decision involved a matter of life or death. He thought that removing the foetus, and soon afterwards removing the tumour, was extremely dangerous; for the puerperal state was not favourable to operation. It was necessary to observe more cases. It was probable that early was preferable to late operation. If a tumour could not be reduced by tapping, and the woman were not suffering, the clear course was to leave her alone. Cases had gone on with him, and living children had been born; but the tumour still remained, and caused anxiety and suffering.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, APRIL 21ST, 1877.

HENRY KENNEDY, M.B., Vice-President, in the Chair.

Paracentesis Abdominis in Ascites.—Dr. LYONS showed the thoracic and abdominal viscera of a pluriparous woman, aged between 45 and 50, who had extensive ascites in 1870. At that time there was a faint yellow tint of the conjunctivæ, with pallor and œdema of the lower limbs, but no albuminuria. Grumous vomiting set in, and she was apparently sinking when paracentesis was performed in May 1870. Sixteen quarts of serous fluid were drawn off with immediate relief. The fluid re-accumulated so rapidly that, between May 1870 and December 1871, she had to be tapped on thirty-five occasions, the fluid drawn off amounting to a total of five hundred quarts. Her condition subsequently improved greatly, her health became fairly good and there was no need for further tapping. Ten days ago, however, she was admitted to hospital almost moribund. Some time previously she had met with an accident, one of her ribs being fractured. A circumscribed abscess formed in the neighbourhood of the broken bone, and seemed to have caused secondary blood-contamination, resulting in purulent pleuritis and pneumonia. There was also extensive

recent peritonitis. The liver weighed two pounds four ounces, and had a specific gravity somewhat over 1060, the normal density being 1044. It did not, however, present the appearances of cirrhosis. The spleen weighed one pound ten ounces. There was chronic perisplenitis. The kidneys were healthy, so was the heart, which was no doubt small. No trace of ovarian disease was discovered. An old-formed thrombus partially occluded the portal vein.

Diabetes Mellitus with Secondary Pulmonary Tuberculosis.—The PRESIDENT (Dr. HAYDEN) showed the heart and lungs of a fair-complexioned intemperate man, aged 27, a carpenter, in whose case there was a phthisical family history. His illness extended over nine months. When admitted to hospital, he was passing 180 ounces *per diem* of highly saccharine urine, with a specific gravity 1040. A horribly fetid purulent expectoration came up in large quantities. After death, the right lung was found to be voluminous, and it was studded with tubercular deposits, many of them undergoing caseation. The left lung was the seat of vast anfractuons cavities with numerous trabeculae. Dr. Hayden suggested that the absence of splashing sounds during life might be explained by the presence of these trabeculae.

Enormous Thoracic Aneurism.—Dr. LYONS exhibited an immense aneurism, engaging the ascending, transverse, and upper descending thoracic aorta of a man who had seen twenty years' service in the army, and had afterwards been a teacher of gymnastics. The third, fourth, and fifth ribs on the right side were protruded. There had been no hæmoptysis of consequence, but the patient sank with œdema of the lower limbs, albuminuria, and general dropsy. The aortic valves were competent, but the aorta presented a striking example of atheromatous degeneration. The heart was enlarged. No lamination had taken place in the aneurismal sac. The kidneys were in advanced cirrhosis, their capsules thickened, and their structure dense.

SATURDAY, APRIL 28TH, 1877.

THOMAS HAYDEN, F.K.Q.C.P., President, in the Chair.

Tumour of Brain.—Dr. HENRY KENNEDY showed the brain of a nurse, aged 33, of rather intemperate habits, who was the subject of left hemiplegia. Severe attacks of right headache and pseudo-epileptic fits occurred at intervals. There was no aphasia, but cerebation was defective. The bodily temperature was persistently subnormal. Her sight was not affected. The brain was found very vascular, and a large, soft, almost gelatiniform, vascular tumour existed in the roof of the right lateral ventricle. The exact nature of the growth had not yet been ascertained, but it would be submitted to microscopical examination.

Sarcoma of Suprarenal Capsule.—Dr. W. G. SMITH showed a tumour engaging one of the suprarenal bodies, which was removed from the body of an elderly male subject in Trinity College dissecting-room. There was a large, rounded, elastic tumour in the left side, 8 inches long by 3½ inches wide. It was embedded in a loose capsule of connective tissue. A large vein, traversing the mass, opened into the left renal vein; and some large arteries also ramified over its surface. There was no discoloration of the skin. The right kidney was normal. The tumour consisted of two sacs, separated by a thick vascular septum, and its wall was made up of two laminae. A soft jelly filled the sacs; it abounded in lymphoid cells. Dr. R. J. Harvey regarded the tumour as a sarcoma engaging a metamorphosed suprarenal capsule.

Pyæmia: Endocarditis Ulcerans.—Dr. PURSER showed the heart, bladder, and portions of other viscera of a well-developed blacksmith, aged 30, who was admitted to hospital a week previously owing to an accident. On the following Tuesday, a group of "typhoid" symptoms suddenly set in. He became delirious; his temperature rose above 103 deg.; the respiration and pulse were very rapid. The heart-sounds were, however, good and normal. Later in the day, profuse sweating set in, and at midnight friction was heard over the base of the right lung where the respiratory murmur became feeble. The man died at 9 A.M. next day. The left lung was totally adherent, the upper portion being œdematous and the lower portion in a state of atelectasis. Recent lymph was effused in the right pleura, and the tissue of the corresponding lung was œdematous, with small abscesses in places. Six or seven ounces of clear serum escaped from the pericardium. There were traces of old-standing endocarditis; the posterior and right curtains of the aortic valves were adherent. In addition, recent ulceration was observed on the mitral valve, and an abscess existed in one of the musculi papillares. The aorta was thin and small, measuring only seven centimètres in diameter. It was nowhere atheromatous. The spleen was large and soft. There were no abscesses in it, but

there were traces of old perisplenitis. The liver weighed nearly six pounds, and was of a pale colour: it was not fatty, but was the seat of a parenchymatous degeneration: it contained no abscesses or infarctions. The left kidney was smaller than the right; both contained embolic abscesses, and were in a condition of parenchymatous degeneration. The intestines were distended with gas. The bladder was hyperæmic, containing bloody urine abounding with micrococci. The recently-inflamed endocardium was also beset with micrococci, so that the history of the case was one of hyperplasia, recurrent endocarditis, endocarditis ulcerans vel diphtheritica, and pyæmia.

Suppurating Multiple Hydatids of the Liver.—The PRESIDENT exhibited an example from the body of a soldier's wife, aged 28, who was admitted to hospital on April 8th, after a fortnight's illness. The patient had suffered from pain in the epigastrium two years ago. When admitted, she complained of excruciating but remittent pain in the left side of the abdomen and the epigastrium. There was no jaundice or emaciation, but in hospital she took only water, ice, and sips of alcohol. A clear and ringing double sound below the heart, a pulsation in the left side of the abdomen, and a prominence of the left lobe of the liver simulated aneurism; but these signs were soon found to be caused by an abscess in the left hepatic lobe, which was aspirated. Vomiting occurred on April 24th, diarrhoea on the 25th, and abortion on the morning of the 26th. She sank an hour afterwards. A ragged multilocular cavity existed in the left lobe of the liver. The right lobe was honeycombed with abscesses, the loculi containing thick greenish pus. No hooklets had as yet been found. There was no history of tapeworm.

Etiology of Presystolic Apex-Murmur.—The PRESIDENT showed the heart of a girl, aged 12, the subject of mitral regurgitation. She came into hospital with general œdema, dyspnoea, and slight jaundice on April 25th. Rupture of a chorda tendinea was found after death to have been the cause of mitral regurgitation, and a presystolic murmur (usually considered as indicative of mitral narrowing) was in this case due to roughening of the endocardium near the valve, lymph-granulations being discovered on the auricular endocardium.

CORRESPONDENCE.

THE DANGERS OF THORACENTESIS.

SIR,—The discussion on the treatment of pleuritic effusions last week at Manchester was conducted under such high pressure, and we were all so repeatedly warned of the virtue of brevity that, I fear, from the observations of subsequent speakers, the few remarks I made on this subject were more brief than clear, and were somewhat misunderstood; and, as there was no opportunity at the meeting of correcting this misapprehension, I should be greatly obliged if you would allow me to do so now.

What I chiefly wished to say was this: 1. That, when a lung, already the seat of tubercular disease, is compressed by a serous pleuritic effusion, the phthisis will often remain quiescent so long as that pressure is maintained, and that the removal of the fluid by thoracentesis is sometimes followed by rapid progress of the phthisis. Of this fact, I am perfectly sure; and I quoted a striking instance. 2. That the conversion of a serous into a purulent effusion after paracentesis is favoured by the presence of certain constitutional cachexiæ, as, e.g., the scrofulous cachexia. Of this also I cannot doubt. My statements were in no respect inconsistent with the fact advanced subsequently by the President, that a lung compressed by pleuritic effusion often becomes the seat of tubercle.

Of the influence of the tuberculous cachexia in determining the rate of mortality after paracentesis, the statistics collected by Dr. Wilson Fox and circulated at the meeting offer many illustrations. Of the nine fatal cases reported by Messrs. Hughes and Cock, it existed in six; of Trousseau's seven fatal cases, five were complicated with "tubercle or cancer"; of Kussmaul's eight fatal cases, three were tuberculous; of six cases operated on in private and recorded by Dr. West, the only fatal case was a tuberculous one; of Tutschek's six fatal cases, four were tuberculous; Oeri's two fatal cases, we are told, were both "phthisical"; and in both the serous effusion underwent purulent transformation.

But I need not continue to multiply evidence which exists in abundance in favour of the view I advocate.—I am, sir, your obedient servant,

J. BURNEY YEO.

Hertford Street, Mayfair, August 1877.

THE ORGANISATION OF CHARITY IN HOSPITALS.

v.

SIR,—The “benevolent British public”, when once it has become well accustomed to supporting an abuse by its money and patronage, is certainly not wont to withdraw such support very promptly, however overwhelming may be the facts and figures whereby the mischievousness of the abuse has been demonstrated. Not merely are the administrators and the supporters of our great medical charities so staunchly loyal to a vast system of entirely gratuitous, and almost entirely indiscriminate, relief that the largest, the richest, and the oldest of such charities have failed to modify it in any degree, but also they appear resolved to believe that it is only very lately, and by a handful of quite unimportant and eccentric malcontents that any objection to their mode of action has been raised. It has occurred to me, therefore, that, as you again allow me to call the attention of your readers to the abuse of medical charity in the case of hospital and dispensary out-patients, it may be not uninteresting or unprofitable to pass briefly in review the various important expressions of professional and public opinion which of late years have taken place with regard to this question both in London and in the country at large.

Some may remember that, as long ago as 1854, a paper on the subject was read by Dr. Guy to the Statistical Society of London; also, that during the sixteen years immediately following, there were not wanting occasional complaints and attempts in the direction of reform. The space at my disposal, however, will probably be sufficiently occupied, if I begin my *résumé* of this interesting and prolonged agitation with the year 1870, when, in consequence of an influentially attended private meeting at the rooms of the Royal Medical and Chirurgical Society, invitations to a conference on the present state of out-patient administration were sent to three hundred London physicians and surgeons, including those holding appointments at the various hospitals and dispensaries. These invitations were responded to by one hundred and fifty-six members of the profession, the chair being taken by the late Sir William Fergusson. Strong resolutions were passed respecting the abuse of out-patient medical relief and the necessity for provident dispensaries, and were supported by a mass of arguments, facts, and statistics; a large committee was appointed, including Dr. Protheroe Smith, Mr. Spencer Wells, Dr. Anstie, and Dr. Dickinson; four sub-committees were created for the special consideration of general hospitals, special hospitals, dispensaries, and Poor-law medical relief respectively; and exhaustive reports prepared by these four sub-committees were afterwards adopted and published by the general committee. Within a year from this date, in March 1871, a medical committee was appointed by the Council of the Charity Organisation Society to consider the same subject, with especial reference to medical institutions of a provident character; and, in the following October, after holding fifteen meetings, this committee issued a careful and detailed report, together with a body of “suggested rules” for the establishment and management of provident dispensaries. In pursuance of one of the recommendations embodied in this report, an important conference on medical out-patient relief was summoned in the month of December following by the Council of the Charity Organisation Society, the meeting taking place in the house of the Society of Arts, under the presidency of Mr. W. H. Smith, M.P., and being attended, amongst others, by Mr. Stansfeld (then President of the Local Government Board), Lord Jocelin Percy, Sir Charles Trevelyan, the Rev. Harry Jones, Colonel Fremantle, Mr. Gurney Hoare, and Dr. Guy. Interesting speeches were made by Sir Charles Trevelyan, Mr. Stansfeld, Mr. W. H. Smith, Dr. Acland, Dr. Meadows, Mr. Fairlie Clarke, and others, and the following resolution was unanimously carried:

“That this conference is of opinion that there exists a great and increasing abuse of out-door relief at the various hospitals and dispensaries of the metropolis, which urgently requires a remedy.”

Soon after this, special meetings of the St. George's and the St. Giles's committees of the Charity Organisation Society were convened to consider the best means of giving effect to the principles sanctioned at the conference, and at St. George's a special committee was appointed to carry out such practical measures as were resolved on in the course of the meeting, the result being that two circulars were drawn up, one addressed to the various free dispensaries of the district, inviting their co-operation, and urging on them the adoption of the provident system; the other addressed to the governing bodies of the Westminster, St. George's, Victoria, and Belgrave Hospitals, informing them of the circular to the dispensaries (a copy of which was enclosed), asking their sanction to the principles expressed in it, and placing the investigating machinery of the Committee at their disposal.

In the same year, Mr. Phillips Joddrell, one of the governors of St. George's Hospital, having brought before the Board of Management certain suggestions for reform in the administration of the out-patient department, and having, at an unusually large meeting, found no one willing to support them, addressed to each of the subscribers a letter, in which he called attention to the existing abuses, and deprecated the absence of any response on the part of the hospital authorities either to his own resolutions or to the circular sent to them by the St. George's Committee of the Charity Organisation Society. In March of the same year (1872), there was held at the Society of Arts a meeting of the Metropolitan Counties Branch of the British Medical Association, in which similar opinions were expressed, and papers were read by Mr. Donald Dalrymple, M.P., “On the Provident System of Medical Relief from a National Point of View”, and, by Dr. Ford Anderson, on the same system, “from a Medical Point of View”. Again, in the year 1873, Dr. Ford Anderson prepared and published a statement, comparing the incomes of one hundred provident dispensary patients with the incomes of one hundred free dispensary patients, the result being that the former were found to exceed the latter only by the sum of one shilling and fourpence farthing per patient per week, while the actual income of the free dispensary patients was shown to amount, on an average, to £1 2s. 8d. per week, a sum out of which it appears sufficiently evident that the ordinary subscription to a provident dispensary—namely, one penny per week for each adult, and a halfpenny per week or less for each child—could in most cases be paid both with ease and with advantage.

In the month of March in the same year, a permanent society of London physicians, surgeons, and general practitioners was, under the name of the “Hospital Out-patient Reform Association”, constituted for the express purpose of making known the abuses of out-patient departments, and of furthering measures for their reform. After an interesting inaugural meeting, a committee was appointed to bring the proposals of the Society before the governors of the various hospitals, and, by the advice of this committee, a paper upon the Society's work was, in the following August, read by Dr. Alfred Meadows in the Public Medicine Section of the British Medical Association, on the occasion of the annual meeting. In March 1874, the first annual meeting of the Hospital Out-patient Reform Association was held in rooms of the Medical Society of London, the report adopted sufficing to show that a large amount of interesting work had been done, and that recommendations for reform had been transmitted to fifteen of the general and thirty-three of the special hospitals. In the same year (1874), a memorial was presented to the Board of Management of the St. George's Hospital, condemning the abuses of the out-patient system, and urging the co-operation of the hospital authorities with certain provident dispensaries recently established in the vicinity; and the sixty-one signatures which were appended to this document included those of the Duke of Westminster, the Earl of Shaftesbury, the Hon. and Rev. Robert Liddell, Sir William Fergusson, Sir William Gull, Sir James Paget, Mr. Thomas Hughes, and Mr. Gathorne Hardy. In the autumn of the same year, a special inquiry was conducted by the Charity Organisation Society into the circumstances of six hundred and forty-one out-patients at the Royal Free Hospital. The investigation was undertaken at the request, and with the assistance, of the authorities of that institution; and, when the results were afterwards classified (though the most liberal allowances were made for doubtful cases), only one hundred and sixty-nine of the applicants were considered as suitable objects for this particular kind of relief.

We are thus brought down to the year 1875, when, as it will be scarcely necessary to remind your readers, there was presented to the British Medical Association the celebrated memorial which formed the subject of my first letter, and respecting which so much correspondence has recently taken place in your columns. It is noticeable, too, that, for some time after this, the conviction which was entertained by the profession and by the public that a remonstrance so striking and so influential could not be permanently ineffective appears to have prevented the inauguration of any important measures of reform, a circumstance which may also in part be due to the fact that, as soon as the memorial was prepared, the Hospital Out-patient Reform Association decided, for a time, to suspend operations lest there should be any appearance of rivalry between its proceedings and those of the memorialists.

The important meeting assembled by the Council of the Charity Organisation Society at the house of the Society of Arts in the April of the present year, the able paper read at that meeting by Sir Charles Trevelyan, and the distinguished support which it received, are matters of too recent a date, and have been too fully reported in your pages, to need more than this passing mention; but I may add that the proceedings on that occasion gave rise very shortly afterwards to a

meeting of the Medical Society of London, under the chairmanship of Dr. Buchanan, at which the need for provident dispensaries was once more urged upon the profession, especially from the medical and sanitary point of view; also it will be remembered that, at the recent debate on Home Hospitals at the Mansion House, it was especially urged that the proposed association should "co-operate with the managers of the present hospitals supported by private charity, with the object of preventing the abuse of hospitals by those who can afford to pay for their treatment".

The number and magnitude of the proceedings which have taken place in London alone have left me no space to mention the many considerable agitations and reforms which have been effected contemporaneously in the provinces; and it will also be seen that I have enumerated only those remonstrances which have been directed against the system from without, reserving for another letter all account of the consequent reforms which have in a few instances taken place in hospitals and dispensaries, both in London and in our large country towns. I may, however, mention that, during the present year, important action has been taken, both in Liverpool (where the subject has been under the consideration of the Northern Medical Society) and in Warrington (where a telling paper on the abuse of medical relief was read by Dr. Gornall at the annual meeting of the infirmary and dispensary), also that a provident system far more extensive in proportion to the population than any established in London has been successfully created in Manchester, Salford, Derby, Northampton, and Coventry; and that serious attention has for some time past been given to the subject in Glasgow, Southampton, Lancaster, and Birmingham. It may be remembered, too, that, in the last named city, at the recent annual meeting of the Birmingham and Midland Counties Branch of the British Medical Association, an interesting paper (afterwards made the subject of a leading article in the *Standard* of June 27th) was read by the President for the year, Mr. Gamgee, Surgeon to the Queen's Hospital.

With regard to the articles, leaders, letters, and pamphlets which have appeared on this subject during the last seven years, they are too abundant to be remembered or enumerated, even though we exclude the numerous reports issued by committees of inquiry; but, among those which have come under my personal notice, I may mention an able article in the *Quarterly Review* for April 1874, two in *Fraser's Magazine* for August and November 1874, two in *Macmillan* in 1872, two of special power and detail which were published in Nos. 89 and 90 of the *Westminster Review*, and were afterwards reprinted in the form of a book: one on "The Limits of Un-aid Service", in the *British and Foreign Medico-Chirurgical Review*; several letters to the *Times* and the *Lancet* by Sir Charles Trevelyan; a pamphlet entitled *Facts and Figures*, by Mr. Nelson Hardy; a sermon by the Rev. Llewelyn Davies; an able and most detailed paper read by Mr. O'Hanlon, in 1873, to the Statistical Society of Manchester; a social science paper by Dr. Shrimpton, in which the unhealthiness of out-patient waiting rooms is especially insisted on; a number of letters and articles in various medical and in a few provincial papers, and in especial the well known leader in the *Pall Mall Gazette*, in consequence of writing which Dr. Chapman was deprived of his position at the Metropolitan Free Hospital; also the letters in that paper and in the *Daily News* which were written in remonstrance by Mr. Phillips Jodrell. I have already alluded to a popular and successful work of fiction entitled *Great St. Benedict's*, which has been founded on the tragedies of the out patient system; and I would also call attention to the section which treats of hospital abuses in the well known work *Contrasts, Dedicated to the Ratepayers of London*.

Another strong condemnation of the present system is embodied in the fifth annual report of the Local Government Board; and the recent agitation at Birmingham has called forth, so recently as the 16th July, a striking leader in the *Daily Telegraph*, in which it is pointed out that, in 1867, one in five of the inhabitants received gratuitous medical assistance; while, in 1876, this proportion had risen to one in three; the increase of recipients of medical charity being fifty-six per cent., while the increase of population was only thirteen per cent. The article then contrasts with this state of affairs the fact that, in Manchester, during the three years for which the provident system has been in operation, the ten provident dispensaries in that town have acquired two thousand nine hundred members. Probably, however, the most exhaustive compilation which has yet appeared on this subject is a pamphlet of upwards of one hundred and fifty pages which has recently been republished by Sir Charles Trevelyan, and which, in addition to the paper read by him on April 17th at the Society of Arts, contains the whole of the subsequent discussion, a number of letters upon the question of medical relief from workmen in the employ of Messrs. Spottiswoode and Co. and Messrs.

Eyre and Spottiswoode, and some very valuable and voluminous appendices, including reprints of the more important reports mentioned in this letter, tables of free and of provident medical institutions, etc.* I may mention, too, that the recent number of the *Edinburgh Review* contains a paper, which I have not yet had an opportunity of reading, but which, I am informed, is also directed against the abuses of our hospital system.

It is possible that I may have omitted from this list certain measures and writings as important as some that I have specified; but I think I have said enough to show that, if the medical charities err in ignorance, their ignorance has not proceeded either from reticence or from inaction on the part of the advocates of reform.—I am, sir, yours obediently,

A MEMBER OF THE CHARITY ORGANISATION SOCIETY.

PROFESSIONAL CATHOLICITY.

SIR,—In the *Standard* of the 14th instant, was an account of the medical practice of an old man aged 86, who unfortunately was not a "qualified medical man", whose speciality of treatment consisted in the administration of "bitters" internally and the external use of some metal rods bearing the names of certain planets.

The appearance in to-day's BRITISH MEDICAL JOURNAL of a letter, accompanied by a homoeopathic resolution, from George Wyld, M.D., raises in my mind the question, whether, if this old man had possessed a "qualification", or if a "qualified medical man" were to adopt his principles of treatment, the medical profession might expect to be called upon to support "professional Catholicity" by smiling upon such practice or him who adheres to it.

At present, to my perhaps darkened mind, the old man to whom I have alluded, who is said to have borne the title of the "White Witch", was as deserving of being met in consultation by members of the medical profession at large as some who have obtained more conventional titles.

The impertinence of speaking of "your school" and "the school to which I belong", as of equal or proportionate quantities, is, I think, beyond remark.—I am, sir, yours truly,

A COUNTRY SURGEON.

August 18th, 1877.

CONTAGIUM VIVUM.

SIR,—I had not the advantage of hearing Mr. Robert Hamilton's paper (read before the Surgical Section), of which he speaks in his letter in the JOURNAL of August 18th. With reference, however, to his hypothesis that septic organisms in a latent state of vitality exist in healthy tissues, resuming their activity under favourable circumstances, I venture to point out that the observations of Dr. Burdon Sanderson in 1871 are opposed both to this and to the similar theory held by Béchamp. Dr. Sanderson showed that the normal liquids and tissues do not possess zymotic property. One of his experiments also proved that the products of inflammation are not always zymotic; thus, on "March 20th, pus was collected from a deep-seated abscess in the thigh of a child by introducing the capillary end of a collecting tube into the path of the bistoury which had been used for opening it, the bistoury having been itself immersed in boiling water. It was then transferred to a small eprouvette and exposed to the air. On March 30th, there were no bacteria. It was then diluted with boiled and cooled distilled water. It was again examined on April 3rd, when it contained no organic forms whatever."—I remain, your obedient servant,

ARTHUR DOWNES, M.D.

Metropolitan Medical Review, Longmans and Co. Price one shilling.

SOUTHAMPTON.—The number of births registered in 1876 was 1,943, and of deaths 1,252; the birth-rate being 34.08 and the death-rate 21.96 per 1,000 population. The death-rate was high, in consequence of an outbreak of scarlatina, which caused 122 deaths, against 25 in 1875, although isolation of the patients and disinfection of the clothing and bedding in the disinfecting-chamber were duly practised. There were also 39 deaths from diphtheria, 25 from whooping-cough, and 15 from measles. There were 284 deaths under one year, 140 between one and five, and 828 above five years of age; also 14.6 deaths in each 100 births. The population is estimated at 57,000. A house-to-house inspection was carried out amongst a certain class of houses with good results, as a large number of nuisances were discovered and speedily abated; two houses unfit for human habitation were closed under a by-law; proceedings were successfully instituted against the proprietor of cement works, the common lodging-houses periodically inspected, and all other necessary sanitary work actively carried out under Dr. Osborn's supervision.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

GLANFORD BRIGG UNION.—This report is arranged in the order required from a medical officer of health by the Local Government Board; viz.: (1) tabular statements of the sickness and mortality, classified according to diseases, ages, and localities; (2) a summary of the action taken for preventing the spread of disease; and (3) an account of other matters in which he takes part. Under the heading of sickness, Mr. Moxon says that he has no available means of ascertaining its amount in his district; but, as the nearest approximation, he gives a table showing the deaths from all causes at different ages in thirty-nine localities. Its population is estimated at 36,000; and the deaths in 1876 are returned at 570 in number, which would give a death-rate of 16 per 1,000 population. The number of births is not stated. There was not any death from small pox; but there were as many as 48 from scarlet fever, and 15 from typhoid. The infant mortality was large, having been 40 per cent. of the total deaths in the whole district, and as high as 83 per cent. in the villages of Ashby, Frodingham, and Scunthorpe. Mr. Moxon considers this excessive mortality to have been caused by overcrowding in ill-ventilated dwellings and improper food. As regards the sanitary work, he says that "steady progress has been made in the removal of many causes injurious to the health of the population"; and that, out of 438 nuisances, all had been abated except 9. The rainfall in 1875 was above the average.

LEEDS.—The births registered during the year were as many as 11,510, which yield a birth-rate of 40 per 1,000 population; and the deaths were 7,719, which afford a death-rate of 27.5. The death-rates for the different registration districts are given; but, as the deaths in the Workhouse, House of Recovery, Infirmary and Hospital, as well as in the Small-pox Hospital, are not spread *pro rata* to population over the whole district, or carried to the districts from which the patients came, the calculations are rather seriously in error. Dr. Goldie himself shows this by stating that, if all these deaths, 449 in number, were deducted from the district in which they were registered, the death-rate would be reduced from 32.0 to 23.8 per 1,000 population. A table for ten years is given of the deaths from zymotic diseases, which, however, is comparatively valueless, for want of being calculated in decimal death-rates. There were 20 deaths from small-pox, which disease was introduced by a tramp, and then spread by the father of the family who next took it, through going to work by day and nursing his sick wife and children at night. There were 146 deaths from fever, and a total of 381 cases investigated, of which 215 were traced to infection, 23 imported, and in 162 cases the drainage of the houses was defective. The deaths from diarrhoea were numerous—viz., 559—of which 60 per cent. were of children under one year. The infantile mortality of Leeds is very high; viz., 209 per 1,000, against an average of 176 in the eighteen large towns of England. Scarlet fever was very prevalent, as 847 cases and 234 deaths were reported. A map is attached, showing the localities in which the scarlet fever and other fevers prevailed. Of the 847 cases reported on, 575 were traced to infection, and 214 were contracted at school. Whooping-cough caused a large number of deaths—viz., 222—which was at the rate of 0.78 per 1,000 living. As regards alcoholism, Dr. Goldie says that only 15 deaths were recorded from this cause on his sheets; but it is manifest that this number must be small, as very many of the working classes drink excessively. He refers to the working of the Food Adulteration Act, to school-inspection, overcrowding, the public bakehouses, slaughter-houses, and regulations for the removal of night-soil, road-scrappings, and house-refuse. The report of the sanitary work is satisfactory, as there were 19,563 houses inspected, of which 8,774 required some sanitary improvement; 14,066 articles of clothing and bedding were disinfected; 16,269 letters and notices issued, and nearly 10,000 nuisances abated. There were also as many as 26,621 pounds of meat destroyed as being unfit for human food.

BIRMINGHAM.—The population of the borough in June 1875 was estimated at 366,325, and the number of occupiers at five per house. There were 14,862 births registered during 1876, so that the birth-rate was 40.57 per 1,000 population, which is considerably higher than the average of the last ten years. The number of deaths registered was 9,668, giving a death-rate of 26.34 per 1,000, which is much above the average of the preceding ten years. There were 2,958 deaths

under one year of age, being much above the mean, as it gives the large proportion of 18.4 deaths under one year in each 100 deaths, and as many as 19.9 in each 100 births. The excess of infantile deaths is chiefly due to an increased mortality from diarrhoea, which may be accounted for by the unusually high temperature of the third quarter of the year. There were 2,145 deaths from zymotic diseases, which is equal to a mortality of 59 per 1,000 population, against 13.9 for London, and is higher than any other large town in 1875. There were no fewer than 868 deaths from diarrhoea, 438 from whooping-cough, 265 from scarlet fever, 204 from fever, 174 from small-pox, 141 from measles, and 55 from diphtheria. The death-rate in the summer quarter from diarrhoea was as high as 6.8 per 1,000. Dr. Hill attributes the mortality from diarrhoea to improper food, the use of contaminated water, exposure to draughts of cold air, breathing impure air, improper and insufficient clothing, and the indiscriminate use of teething-powders. In regard to the small-pox deaths, Dr. Hill refers much of the mortality to the want of efficient vaccination, as 12.86 per cent. of the cases occurred in persons not vaccinated, which was more than usual; whilst no less than 39 per cent. of the deaths happened amongst the unvaccinated. There were 446 patients admitted into the Borough Hospital, of whom 26 suffered from scarlet fever. Dr. Hill made a representation, under the Artisans' Dwellings Act, respecting thirteen streets and one lane, in which the annual rate of mortality varied between 28 and 73 per 1,000 population. The Council, after duly considering the report, declared it to be an unhealthy area. He also refers to the want of adequate by-laws to prevent the erection of improperly constructed dwelling-houses. The water-supply is defective, for want of adequate filtration, and the continued use in some parts of the borough of well-water, which in all instances was contaminated with excretal matters and unfit for domestic use. The general sanitary state of the borough is declared to be unusually good. The number of nuisances reported on by the inspectors was 13,207; the number of visits paid, 50,585; of nuisances removed, 12,532; of summonses issued, 855; of persons convicted, 843; of filthy houses white-washed, etc, 5,452; and of premises disinfected, 1,062; the seizures of bad meat, 191; and the weight destroyed, 21,919 lbs. The work under the Food Adulteration Act was small, as only 73 samples were analysed, of which 23 were tea, 18 milk, 8 mustard, 7 pepper, 6 coffee, 4 flour, 3 sweets, and 4 of other articles. Of these, 28 were adulterated; viz., 10 of milk, 9 of tea, 4 of pepper, 2 of mustard, 2 of coffee, and 1 of milk of sulphur.

KENSINGTON.—Dr. Dudfield points out that the Kensington Registration District includes not only the two sub-registration districts of Kensington Town and Brompton, but also Paddington, Hammer-smith, and Fulham; so that the error of placing deaths to Kensington parish which do not belong to it may easily be made. Indeed, there is but little doubt that Sir H. Cole fell into this error, and would not admit it. The area of Kensington Parish is 2,196 acres; the estimated population in 1875 was 143,500; the number of births in the year, 3,609, and of deaths 2,221; which would give a birth-rate of 31.2 and a death-rate of 19.4 per 1,000 population. There were 25 deaths of infants under one year, 40.3 per cent. of deaths of children under five years, and 15.6 deaths out of each 100 registered births, which is rather high for such a parish as Kensington. There was not any death from small-pox registered in 1875; but there were 23 deaths from measles, which were much below the average; 83 from scarlet fever, which was in excess, the mean of ten years being 73; no fewer than 107 from whooping-cough, or 38 deaths per 1,000, against a mean of 24.3; only 29 from fever, which was about one-half the average; and 107 from diarrhoea, which was also less than usual. Some cases of small-pox occurred in 1876, the origin of which could not be detected. As sick persons who are not paupers cannot be removed to the hospitals of the Metropolitan Asylums Board, the Kensington Vestry have made arrangements with the authorities of the Small-pox Hospital for the reception of such non-pauper cases as are without sufficient lodging and accommodation. The deaths registered on the coroner's certificate were 5.9 per cent. of the total deaths, against 6.8 in all London; and the deaths from violence were only 1.9 per cent. of total deaths. There were, however, 33 deaths which were not properly certified, the certificates having been given by unregistered medical practitioners. This, although not an offence under the Registration Act, is one which has been successfully dealt with at the East End of London. Why, therefore, do not the Kensington medical practitioners take the matter up? Dr. Dudfield refers at length to the regulations for slaughter-houses and the proposed regulations for cow-sheds, as well as to a correspondence respecting the charges brought against him and the other officers of the vestry by Sir H. Cole. The sanitary work appears to be actively carried out, as nearly four thou-

sand houses were inspected, besides mews, slaughter-houses, cowsheds, offensive trades, and other places. Dr. Dudfield states that a number of articles have been disinfected free of cost for poor persons, and at the cost of the owners when they could pay, by a private firm; and regrets that there is neither a disinfecting-chamber nor mortuary in Kensington Parish. He refers to the water-supply, and makes an abstract of Dr. Frankland's analysis; and also to the quality of the gas supplied, which is taken from the quarterly reports of the chief gas-examiner.

SIDMOUTH.—The registered births in 1876 are reported as being 106, which are equal to 30.3 per 1,000 population; and the deaths as being 53, which gave a death-rate of only 15.15 per 1,000. There were only 7 deaths under one year, so that there were less than 7 deaths in 100 births, which is a singularly small average. There were only 3 deaths from zymotic diseases; viz., 1 from enteric fever and 2 from diphtheria, which latter happened in a house that was much overcrowded. Dr. Pullin also says that 14 deaths out of the 53 occurred amongst visitors, who when they came were suffering from mortal disease; so that the deaths of residents only reached 12 per 1,000. He also states that Sidmouth presents many localities which are suitable for different diseases, and expresses his belief that, when more of its hill-slopes and vales are built upon, it will become a first-rate health-resort for the sick. He gives a meteorological table for Sidmouth, Penzance, and Torquay, showing that the mean temperature for the year at Penzance was 0.1 deg. Fahr., and at Torquay 0.5 deg., higher than Sidmouth; but that the rainfall was much less than in either of the other health-resorts. A comparison of the monthly mean temperatures shows that Penzance is warmer than Sidmouth in the first four and the last three months of the year, but not so hot in some of the summer months. If a similar comparison will give as satisfactory results for a number of years, and the range of temperature is not large, the climate of Sidmouth must be rather better even than that of Torquay for invalids.

LENTON.—Mr. Hatherly states that there has been an epidemic of scarlet fever in the district, which has caused 13 deaths; and that neither disinfection nor isolation was carried out thoroughly, although it was done as perfectly as circumstances would admit. There were also 2 cases of typhoid, both of which were imported, 8 deaths from measles, 6 from diarrhoea, and 3 from whooping-cough. He complains that the emptying of privy-middens is carried out in the daytime, and that there are many more which require to be constructed on the board's principles. He recommends the provision of means of isolating cases of infectious diseases, more careful supervision over the erection of houses, and the making of drains. The population is estimated at 6,600. The number of births registered was 237, or 35.9 per 1,000 population; and of deaths 137, or 20.7 per 1,000. The mortality from the seven chief zymotic diseases was 5.0, from pulmonary affections 3.18, from tubercular 2.12, from wasting and convulsive diseases of infants 3.33, per 1,000 inhabitants. There were 65 deaths of children under five years, which was at the rate of 48 per cent. of the total deaths and 9.8 per 1,000 population, which are high numbers.

ILKLEY.—The population is estimated by Dr. Scott at 3,000, which is a great increase since 1861. A new drainage-scheme has been lately carried out in such a manner that the surface-water has a separate system of sewers from those that carry the sewage from the houses to the precipitating tanks, which are at a considerable distance from the village. The water-supply has been much improved, as the water-company have transferred their works to the board, and new springs have been led to the reservoirs. The water is good, as only ten and a half grains of solids are found per gallon in one spring, and as little as five and a half grains in another; and the quantity stored during the year would give one hundred gallons per day for each inhabitant. There were 99 births and 63 deaths registered in 1876, and of these 19 were of infants under one year old, which gives a very high death-rate. Dr. Scott says that part of these deaths arose from premature birth or twin-births. The inspector of nuisances reported on sixty nuisances, part of which have been abated, but some have not been attended to. Dr. Scott also refers to the difficulty of compelling persons to keep pigstyes clean, and asks the local board to prohibit the keeping of pigs within a given distance from a dwelling-house.

RADFORD.—Mr. Hatherly reports that the district did not suffer from any marked epidemic except from summer diarrhoea, but that there was a limited outbreak of typhoid, which he attributed to pig-nuisances. The largest number of deaths arose from bronchitis; then from phthisis, atrophy and debility, and diarrhoea, the latter causing

nearly half of the total mortality from zymotic diseases. There were 718 births and 428 deaths, giving a birth-rate in 1876 of 42.8 and a death-rate of 25.5, against 30.1 per 1,000 inhabitants in 1875. The death-rate per 1,000 living under one year was unusually high—viz., 10.1—chiefly from "local and developmental diseases", as 117 were registered from these causes out of 172 deaths. The death-rate per 1,000 population from seven principal zymotic diseases was 4.29; from pulmonary affections, 4.77; from tubercular diseases, 3.70; and from wasting and convulsive diseases of children, 5.90. There were 465 nuisances abated, against 425 in 1875. Although the drainage of Radford is said to be much improved, yet 1,997 "privy middens" were emptied in 1876; and general overcrowding still continues, so that there is plenty of room for additional sanitary work.

HALIFAX.—Dr. Britton commences his report by alluding to his re-appointment to this combined district for five more years, and congratulates the authorities on the activity with which they have carried out the necessary sanitary works. The population was estimated at about 86,000 for the whole district, which includes seventeen different local authorities. The birth-rate varied between 27.2 and 43.4, the death-rate varying between 10.3 and 25.0, in different districts; the highest death-rate occurring in the same district as the greatest birth-rate. The proportion of deaths under one year in 1,000 deaths varied enormously in the different districts, having been as small as 93 in Midgley, and as high as 295 in Sowerby Bridge and 317 in Brighouse. Tables are also given for each district, so that the report is voluminous; but they lose much of their value by not being added up. Dr. Britton reprints a table of deaths under one year per 1,000 births from Dr. Kuborn's paper read at the Brussels Congress, which we reproduce:—In Sweden, 153; Denmark, 156; Scotland, 156; England, 170; Belgium, 186; Holland, 211; France, 216; Prussia, 220; Spain, 226; Switzerland, 252; Italy, 254; Austria, 303; Russia, 311; Bavaria, 372.

CALCUTTA.—This report deals with the first quarter of 1877, and shows a large increase in the number of registered births as compared with former years, which has arisen from previous neglect of registration, except amongst the European, Hindoo, and Mussulman communities. The number of births registered was 1,710, and of deaths 3,106, so that the deaths amongst Europeans must have very largely exceeded their births, or else the non-registration of births must have been greater than we should have expected from the wording of the report. There were 941 deaths registered from fevers, 555 from cholera, 363 from dysentery and diarrhoea, 26 from small-pox, and 1,221, or only 39.3 per cent. of the whole, from other causes; so that above 60 per cent. of the total mortality was caused by the four named diseases. Dr. Payne shows good cause for his belief that cholera usually results from the drinking of impure water, as the epidemic ceased in several districts on the water-tanks being cleaned out, and did not increase in March, when it is usually expected. Dr. Payne remarks, as to the mortality from fever, that he has not been able to trace the prevalence of enteric fever as distinct from other forms of the disease. He refers to the efficacy of proper sewers in reducing the mortality from fever and other diseases. The annual death-rate for the quarter is not given in the report. The prices of the principal articles of consumption are also stated, by which we learn that the best mutton fetches more than double the price of the best beef.

LEEDS.—In the last monthly report, Dr. Goldie says that the annual birth-rate was 40.8 and the death-rate 25.0 per 1,000 living, which is 1.8 below the average. The death-rate of infants was 7.0, and at the age one to five years it was 4.8 per 1,000, which is about an average for Leeds. The mortality from zymotic diseases was below the mean, although there had been an endemic of typhoid.

BASFORD.—This rural sanitary district includes 53,326 acres, with a population of 46,070 in 1876. The births were 2,073, and the deaths 913, giving a birth-rate of 45.7 and a death-rate of 20.07 per 1,000 population. Mr. Whitgreave complains of the large proportion of uncertified deaths (nearly 4.5 per cent.) There were 452 deaths under and 461 above five years of age, showing a large proportion of infant mortality. Bronchitis, convulsions, diarrhoea, and scarlet fever caused a large proportion (233) of these deaths. The death-rate from "fevers" was lower than usual. The large proportion of children of the labouring classes and of illegitimate births is assigned as the chief reason for the 35 per cent. of total deaths amongst infants under one year. There is also a report from the surveyor and inspector of nuisances on the water-supply, which is very scarce in many places; and on the drainage, which is very defective in many of the villages.

THE Local Government Board have refused to sanction the re-appointment of Dr. William G. Forbes as Medical Officer of Health for the Stokesley Rural Sanitary District at £40 *per annum*, as that amount is inadequate for the services required.

SUPERANNUATION.—The Local Government Board have granted a superannuation of £54:10, upon the recommendation of the Hackney Guardians, to Mr. R. B. Welch, who has just completed twenty-eight years of service. Mr. Welch's salary was £80.—At a meeting of the Atcham Board of Guardians on August 20th, a retiring pension of £50 *per annum* was unanimously granted to Mr. William Eddowes of Pontesbury, Salop, as a recognition of special efficiency, attention to the poor, and lengthened service of forty-one years.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

*BROWN, G. A., M.R.C.S.E., appointed Medical Officer of Health for the Tredegar Urban Sanitary District for five years.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following are lists of the candidates who passed the recent First M.B. Examination. Examination for Honours.—Anatomy.

First Class.

Gill, Richard, St. Bartholomew's Hospital
Pughe, Tiaeliesin Wm. Owen, Liverpool Royal Infirmary, and Guy's Hospital

Second Class.

Dalton, Norman, King's College
Banks, William, University College

Third Class.

Rushworth, Frank, St. Bartholomew's Hospital
Harvey, Alfred, Queen's College, Birmingham

Physiology, Histology, and Comparative Anatomy.

Second Class.

Money, Angel, University College
Sayer, Mark Feetham, University College
Woodridge, Leonard Charles, Guy's Hospital

Third Class.

Pughe, Tiaeliesin Wm. Owen, Liverpool Royal Infirmary and Guy's Hospital
Paddle, James Isaac, B.A., B.Sc., University College
Gill, Richard, St. Bartholomew's Hospital

Chemistry.

First Class.

Gill, Richard (Exhibition and Gold Medal), St. Bartholomew's Hospital
White, William Hale, Guy's Hospital

Second Class.

Woodridge, Leonard Charles, Guy's Hospital
Maylard, Alfred Ernest, Guy's Hospital } equal
Paddle, James Isaac, University College } equal

Third Class.

Jackson, Arthur, St. Bartholomew's Hospital

Materia Medica and Pharmaceutical Chemistry.

First Class.

Banks, William (Exhibition and Gold Medal), University College

*Castle, Hutton, St. Thomas's Hospital } equal

*Hine, John Edward, University College } equal

*Pollard, Elton, University College } equal

*Ponsford, Leicester Cuthbertson, University College } equal

†Baring, Gilbert Harry, St. Bartholomew's Hospital } equal

†Sayer, Mark Feetham, University College } equal

†Woodridge, Leonard Charles, Guy's Hospital } equal

Second Class.

Forsbrook, William Henry Russell, Westminster Hospital } equal

MacDonald, Greville Matheson, King's College } equal

Balls, James, King's College } equal

Outhwaite, William, St. Bartholomew's Hospital } equal

Third Class.

Hayle, Thomas Hahnemann, Owens College } equal

Jackson, Arthur, St. Bartholomew's Hospital } equal

Paddle, James Isaac, University College } equal

Gill, Richard, St. Bartholomew's Hospital } equal

* Obtained the number of marks qualifying for the exhibition.

† Obtained the number of marks qualifying for a medal.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 9th, 1877.

Blott, Herbert, Bassingbourne
Clements, William George, Ferresbury, Kent
Dingle, William Alfred, Millbrook, Southampton
Masser, Herbert Charles Pickard, Foleshill, Coventry
Todd, William, 301, Mile End Road, E.

The following gentlemen also on the same day passed their primary professional examination.

Bartlett, Charles Richard, St. George's Hospital
Fuller, Leedham Henry, King's College
Gardner, John Twincane, Guy's Hospital

Jones, Frederick Felix, Guy's Hospital
Morgan, Augustus Kusey, Guy's Hospital
Stace, Malcolm Vincent, Westminster Hospital

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 16th, 1877.

Battle, William Henry, Potter Hunworth, Lincoln
Bunting, Robert Obadiah, West Green Road, Tottenham
Chadwick, John, Milnrow, Rochdale
Cocksedge, Charles Ernest, Clapton Park
Greasley, John, Canterbury

The following gentlemen also on the same day passed their primary professional examination.

Ling, Maurice Edward, London Hospital
Pope, Herbert Francis M., St. Bartholomew's Hospital
Thomas, Richard Weddall, St. Thomas's Hospital
Underhill, George, Middlesex Hospital

At the recent examination for the prizes in Botany given by the Society of Apothecaries, the successful candidates were:—1. Arthur Henry Shakspeare Lucas, London Hospital: a Gold Medal. 2. Sydney Harland Henty, University College: a Silver Medal and a Book. 3. Charles Pardy Lukis, St. Bartholomew's Hospital: a Bronze Medal and a Book.

MEDICAL VACANCIES.

THE following vacancies are announced:—

AMERSHAM UNION—Medical Officer. Salary, £50 *per annum*, and fees. Applications on or before September 27th.

BEDFORD GENERAL INFIRMARY—Resident Surgeon. Salary, £100 *per annum*, with board and lodging. Applications on or before September 27th.

BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Resident Medical Officer. Salary, £80 *per annum*, with apartments, board, washing, and attendance. Applications on or before September 7th.

CARLISLE DISPENSARY—Junior House-Surgeon. Salary, £90 *per annum*, with apartments, coals, gas, and attendance.

CHORLTON UNION—Assistant to the Workhouse Medical Officer. Salary, £120 *per annum*, with residence and attendance. Applications on or before September 4th.

DENTAL HOSPITAL OF LONDON—Medical Tutor and Demonstrator of Dental Operations. Salary, £100 *per annum* to each of the offices. Applications to be made on or before September 15th.

HOLBEACH UNION—Medical Officer for the Sutton and Tydd Districts, and Public Vaccinator for the Sutton District. Applications on or before September 5th.

HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Junior House-Surgeon. Salary, £50 *per annum*, with board and residence. Applications on or before September 5th.

LIVERPOOL DISPENSARIES—Two Assistant House-Surgeons. Salary, £108 *per annum*, with furnished apartments, coals, gas, and attendance. Applications on or before September 1st.

NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road—Physician. Applications on or before September 11th.

ST. MARY'S HOSPITAL MEDICAL SCHOOL—Pathologist and Medical Tutor. Salary, £100 *per annum*. Applications on or before September 24th.

ST. MATTHEW, Bethnal Green—Resident Medical Officer. Salary, £200 *per annum*, with board and residence. Applications on or before September 27th.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

TONGE.—On August 15th, at Harrow-on-the-Hill, the wife of *Morris Tonge, M.D., of a son.

MARRIAGES.

DAVIDSON—RUSS.—On August 21st, at Holy Trinity Church, Clapham, by the Rev. S. F. Bridge, *Charles Davidson, F.R.C.S. Edin., of Hackney, to Gertrude Marian, second daughter of William Russ, C.E., of Cedars Road, Clapham Common.

PHILLIPS—GARRETT.—On August 16th, at Cushendun, County Antrim, by the Rev. F. Dobbs, Prebendary of Connor, assisted by the Rev. R. A. Phoenix, Rector of the Parish, George Arthur Phillips, Walsall, Staffordshire, Surgeon, to Mary Higginson, younger daughter of the late James R. Garrett, and granddaughter of the late Major John Higginson, of Springmount, County Antrim.

POPE—TOWNSEND.—On August 15th, at Old Edgbaston Church, by the Rev. H. H. Harvey, M.A., Vicar of St. Mary Magdalene, Oxford, assisted by the Rev. H. C. Ogle, M.A., Fellow of Magdalene College, Oxford, *Harry Campbell Pope, F.R.C.S., M.B. (Lond.), of Shepherd's Bush, son of *Edward Pope, Surgeon, of Tring, to Constance Nelly, daughter of the late Charles Townsend, Surgeon, of Birmingham.

DR. MAY of West House, Maldon, has been appointed a Justice of the Peace for the county of Essex.

DR. JAMES THOMPSON has been reappointed Borough Surgeon of Royal Leamington Spa.

BEQUEST.—The Treasurer of the Lock Hospital, Manchester, has received a cheque for £1000 from the executors of the late Mr. W. J. Rideout, being the amount (duty free) bequeathed to that institution by the deceased.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
THURSDAY...	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

LOST PROPERTY.—Any gentleman having lost a gold pencil-case at the recent meeting of the British Medical Association at Manchester may obtain the same on applying to Mr. T. M. Stone, at the Royal College of Surgeons, between 10 and 4 o'clock.

VACCINATION.

SIR,—A few days since I was called to see a child, three months old, who had recently been vaccinated at one of the public vaccination stations not far from here, and was suffering from great pain in the arm and convulsive fits. I examined the arm, and found that the child had been vaccinated in three places, so closely together as to form one immense vesicle; the surrounding parts were very much swollen and inflamed, and the pain so acute as to cause the poor child to be constantly screaming. I have seen the child each day since, and it is not yet quite free from pain.

I should very much like to ask the opinion of some of my *confrères* as to whether it is necessary to inflict such pain on a little infant in order to properly vaccinate it. Surely, if a child be vaccinated in two places, not very close together, and the vesicles run the ordinary course, and leave the ordinary pits, that is quite enough to prevent virulent small-pox being contracted. I believe the Local Government Board order four places to be done. If so, I cannot see the use; for it cannot be maintained that the virtue of vaccination lies in the number of vesicles made; for, if that were so, it would be as well to cover the arms and legs at once, and thus purchase a proportionately greater immunity.

I presume that vaccination has been efficiently performed when the vesicles have risen to a fair height by the eighth day, and have died away by about the twentieth day, each vesicle leaving a pit. If so, why will not one vesicle suffice? I believe that in Scotland only one vesicle is made.

The present custom of public vaccinators is, in my opinion, an unnecessarily painful one; and, until I am convinced that my practice of only vaccinating in two places is an erroneous one, I shall certainly continue to do so, and thereby spare the infants the pain which I am of opinion is unwarranted. I do not wonder at people joining the anti-vaccination party, when such a sight as that I was eye-witness of so commonly meets their gaze.—I am, sir, faithfully yours,
Sheffield, August 6th, 1877.

HERBERT JAMES HALLWICK.

PRINTED PILLS.—Messrs. Burgoyne, Burbidge, and Co., have introduced a novelty in coated pills, which are now so much in use, and which have many obvious advantages. Their coated pills are described as being round and uniform in size, quickly soluble in cold water, not liable to crack, having a vegetable and innocuous coating, capable of being kept for any length of time in any climate. Each pill has a distinctive colour, so that, in the event of any accidental mixture, there will be no difficulty in separating them; and, moreover, which is a special novelty which they introduce, every pill bears printed upon it its name and dose, and is a very important check to obviate the possibility of errors in dispensing. A check, to give a completely distinctive character to each preparation, is unquestionably a useful addition to the resources of the dispenser. We think this ingenious and simple method of preventing any error as to the character of these pills, which have hitherto borne a uniform appearance, however different their contents, is a distinct advance, and one likely to be both useful and popular. The price of these pills is at the ordinary rate.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

NITRATE OF FURFURINE PREPARATION AND USE.

SIR,—Can you or any fellow-member give me the chemical formula for furfurine nitrate, said to be a remedy for some forms of neuralgia, much relied upon by the late Sir J. Y. Simpson; inform me how it is made from bran; and refer me to any account of its physiological action and therapeutical value? I wish to use it in four somewhat similar and obstinate cases, but am averse to so doing until I know more about it. I have consulted Wood, Phillips, and other recent works likely to allude to it, but without finding any mention of it. The dose is said to be two to five grains. I, myself, the other day took ten, by way of experiment, whilst suffering from brow-ague, without result of any kind.—Yours truly,

AUGUST 1877.

SHEDDING OF HAIR AND TEETH.

INQUIRER.

SIR,—I should feel grateful to any of my brethren who would inform me of a reliable mode of treatment for arresting (a) the shedding of the hair of the head; (b) the same of the teeth. I have a patient, a lady in good health in every respect, who, about two and a half years since, found her front large fine and perfectly sound teeth loosening, and eventually coming out. The gums are now uneven, and look as though they had receded from her teeth. As for her hair, it has begun to get thin every September, becoming thick again towards Christmas; but this year it commenced to "thin" last April, and still continues to come out.—I am, Sir, yours truly,
July 26th, 1877.

MASTER IN SURGERY.

INFECTIOUS DISORDERS.

SIR,—In your issue of the 11th inst., there appears at page 208, a letter signed "W. Square, F.R.C.S.," dated 4, Portland Square, Plymouth, July 15th (Sunday), 1877. I shall make no attempt to unravel the mazes in which the writer has involved himself; but simply point out some of the numerous erroneous statements it contains, to show that none of the opprobrium, which he has attempted to fix on myself and the Sanitary Inspector, is due to either of us.

These erroneous statements, taken in the order adopted in his letter, are as follows.

1. The "closed cart" which he mentions, is a decent and comfortable small-sized van, well adapted for most of the purposes to which it is applied, especially where patients are able, as they were in these two cases, to sit up.

2. The payment made for the conveyance of each of these two cases was three shillings and sixpence, and not, as he presumes, seventeen shillings and sixpence.

3. The period of time which had elapsed between the two cases was not "ten" months, as he states, but one-third of that time, from March 19th to July 1st, three months and twelve days.

This is of much consequence, as it makes manifest that the centre of infection was become fixed in the house wherein the young gentleman dwelt; and that when the second case was placed in the lodging-house, that centre was not "got rid of," but a fresh and additional one instituted.

4. Of the Sanitary Officer (Inspector), he says he "is not in the way," and that to the workhouse authorities the merits of the removal are due. The Sanitary Inspector attended promptly on both occasions, and superintended the removal of each.

5. It is stated in his letter, "the lodging-house keeper has no other lodgers". That is not correct, unless it be understood to mean that she had not more than one other lodger in her house at that time. In addition to this, her own grandchild appears not to have been estimated as deserving any consideration as to its liability to the disease.

6. It is further stated of the lodging-house keeper—"She is now told by the Sanitary Authority" (myself in this case being the party charged with this folly) "that, for taking in a patient knowing him to be infectious, she is liable to a penalty of £20". She was not told anything of the kind; but she was informed, for the protection of any future lodger, that, having taken in such a case, she would, if she did not, after the gentleman ill of scarlet fever left her lodgings, and before she let them to another lodger, disinfect the rooms, bedding, etc., used by that gentleman, render herself liable to such penalty.

The same advice was given to the schoolmaster not to receive fresh pupils until all appearance of the epidemic in his house had subsided.

The writer in the next place asks you—"What am I to do in the future?" The answer to which I shall venture to furnish to him—be more exact and accurate in your statements. And, as the person charged with the duties of the Medical Officer of Health for this Borough, I cannot help giving expression to the sorrow which I feel to have to notice his concluding remarks, in which he answers himself by saying, that he shall not give his countenance to the Sanitary Authority; and that—

—"Monstrum horrendum, informe, ingens, cui lumen ademptum"—

his attention shall be devoted, and as "medical adviser, must be directed entirely, in the direction of evasion of the law"—I have the honour to be, sir, yours very truly,

THOMAS LITTLETON, M.B., F.R.C.S.,

Medical Officer of Health for the Borough of Plymouth.

1, Lansdowne Place, Plymouth, August 14th, 1877.

TREATMENT OF SPINAL DISEASE.

SIR,—In common with many other Surgical Instrument Manufacturers who attended the Association meeting at Manchester, I was a most interested spectator of Dr. Sayer's demonstrations. In the course of his remarks, he dealt some very hard blows at the system of mechanical support employed by surgical mechanicians in spinal cases, and illustrated by means of an ingenious model the patent fact that, whilst the weight of the head and shoulders is permitted to rest on the distorted vertebral column, no efforts of ours by lateral pressure can reduce the initial curves, but may very readily complicate them.

May I venture to say that every surgical instrument manufacturer fully recognises this fact, and that the first principle in the design of every spinal support is to provide vertical stems, so arranged as to length, between the pelvic band and arm-supports or crutches, as to lift the weight of the head and shoulders from the weakened spine and transfer it to the pelvis; then, and not till then, should circumstances require it, we endeavour to give support to the summit of the curves by spring or other pressure.

May I beg of your courtesy the insertion of the foregoing, in defence of a class whose best efforts are ever at the service of the profession?—Faithfully yours,
21, Bull Street, Birmingham, August 14th, 1877.

ASHTON T. SALL.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the **BRITISH MEDICAL JOURNAL**, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

CONFIDENTIAL DISCREPANCY.

At the last meeting of the Guardians of St. George's East, a difference of opinion between a district medical officer and the dispenser of the infirmary came under the notice of the board. The dispenser alleged that a prescription had been sent him for an old woman for "three ounces of salts", which should have been "three drachms". As both officers contended that the other was wrong, the prescription was produced; but this did not assist in the settlement of the question, for the doctor stoutly maintained that the sign upon it was for a drachm, while the dispenser, on the other hand, as vehemently declared that the true interpretation of the sign was an ounce. The matter was ultimately referred to the dispensary committee; but, as one of the guardians remarked, the matter, "if it had a ridiculous side, it had also a very serious one, for had the dispenser given the old woman three ounces of salts, it might have been the cause of her death, and the coroner's jury would not give a verdict which would excite the mirth of the person making the mistake". The chairman pointed out that "there really was so little difference between the medical signs for ounce and drachm, that he wondered people were not poisoned more frequently". With this cheering observation the discussion came to a close.—*Pall Mall Gazette*.

MATERNAL IMPRESSIONS.

SIR,—I know a gentleman living in London, whose mother was from an early time of her pregnancy in continual fear that her husband would chop off the thumb of his left hand. She knew that he was as good as his word, and he was determined to do it, in order to evade the French military service, into which many young men in the North of Germany were pressed at that time (1811). The child was born without any left thumb and with a shortened left arm.—I am, yours obediently,
London, August 14th, 1877. AUGUSTUS HEN, M.D.

R. H. M. D.—The fee payable to a medical witness in the Superior Courts, if resident within the town in which the case is tried, is one guinea for each day.

PUBLIC PROFESSIONAL ANNOUNCEMENTS.

SIR,—Will you kindly express your opinion on the following intimation? "A. H. B. will shortly enter upon the practice of his late brother, C. H. D.; meanwhile, he has arranged with Dr. E. to attend here as occasion requires until his arrival." Is a printed announcement in these terms, put in the window of the village druggist, in keeping with the profession? The nearest practitioners are five and six miles away, and it is one of them who has agreed to keep the place open until the arrival of the late doctor's brother.—Yours sincerely,
W.

* * Such a notice as that of which our correspondent gives a copy is, we think, permissible under the circumstances mentioned. But care should be taken to remove it as soon as it has served its purpose of affording convenient information to the public in the locality.

WE very much regret to see in a letter, published in the *Sydney Evening News*, New South Wales, a most objectionable letter, sent by L. Foucart, F.R.C.S., in which he makes some most offensive and entirely unfounded statements, apparently by way of attacking some professional brethren. Thus he says: "It has been the practice hitherto on the part of young men of the colony to go to Europe literally to walk an hospital, take the very lowest degree in the shortest time possible, such as B.M. of the London University, which can be obtained in one or two years' study, and was never intended as a qualification to practise, but merely a stepping-stone to three years' further study for the degree of M.D. These young men come back to us with simply a B.M. degree, possessed of little medical knowledge and less experience, make impostors of themselves by falsely calling themselves doctors and putting 'Dr.' over their doors, get themselves puffed up as wonders of cleverness by their interested friends, and through their influence are at once placed in prominent positions, for which they are neither fitted by training nor experience, but are content to make up for these palpable deficiencies by the basest subserviency and toadyism towards the illiterate *parvenu* who, for the most part, govern these institutions. The unreflective public are thereby attracted, and these tyros find themselves in practice and occupying positions for which they are perfectly unqualified, treat cases which they do not understand, and, as a sequence, fall into endless errors in practice; hence we hear day after day glaring cases of malpractice occurring in the hands of what are termed colonial gally qualified medical practitioners." The whole tone of the letter is extremely regrettable; and it is quite evident that if Dr. Foucart desire to raise the status of the profession, he has taken means calculated to do exactly opposite. Nor, on the other hand, can such a letter do anything to improve the estimation of his professional brethren for the writer's qualifications to assume the part of critic of the proceedings of his profession and of their relations to the public. No diplomas stand higher in this country than those of the London University; and among those who are practising here with the M.B. of the London University, which this gentleman thus depreciates, and who "make impostors of themselves by falsely calling themselves doctors and putting Dr. on their doors", are men such as Dr. Lionel Beale, F.R.S., and Dr. Handfield Jones, F.R.S.: a fact which may serve to console those whom Dr. Foucart attacks here with so much presumption and so little good taste.

THE MEDICAL AID REINTEGRATION.

SIR,—Allow me to suggest to "Licentiate" that the Medical Defence Association and its branches are the proper bodies to deal with this question, and that if the existing clubs refuse to listen to reason, it might not be impracticable to establish medical aid societies on principles more liberal to the profession and more advantageous to the working classes than the present arrangements, restricting the clubs to their more legitimate function, that of small financial insurance. Doubtless there would be difficulties, but so there are in all undertakings. As "Licentiate" observes, the members of clubs are not satisfied with the existing state of things, and would probably welcome a more efficient system in which they could really put their trust, even though it might cost them as much again as at present. I shall be pleased to forward "Licentiate" or any other gentleman a circular explaining the origin and objects of the recently formed branch of the Medical Defence Association, of which I am a member, and also a circular of the parent society, if he will kindly favour me with his name and address. Possibly "Licentiate" might form a branch in his district, unless one already exist.—Yours faithfully,
Shrewsbury, August 10th, 1877. W. J. MARSH.

ERRATUM.—In the *JOURNAL* for August 11th, page 207, column 2, line 12 from bottom, for "multipara", read "nullipara".

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

ARMY EXCHANGES.

SIR,—If, amongst the several causes of complaint made by medical officers of the army, there be one more emphatically dwelt on in every letter or article which appears in the papers than another, it is the hardship of prohibiting exchanges. This complaint is never omitted. Would it not be a wise measure, now that the season for going abroad has almost come, to modify this restriction, more especially as all those of long home service either went abroad or on half-pay last season, and a recurrence of this state might be easily prevented by not allowing any officer to make two consecutive exchanges? I feel confident that a circular conceding again permission to exchange would be received by the whole department with gratitude, and would do much to allay the strong feeling of discontent which exists. Could not the great desirability of such a course as is suggested be respectfully brought to the notice of the authorities?—Yours truly,
August 1877. A MEMBER.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Graily Hewitt, London; Dr. Braxton Hicks, London; Dr. G. G. Bantock, London; Dr. Elliott, Waterford; Dr. Bernard, Londonderry; Dr. H. Philipson, Newcastle-upon-Tyne; Dr. J. Ross, Manchester; Dr. R. J. Lee, London; Dr. Russell Reynolds, London; Dr. J. F. Goodhart, London; Dr. Burney Yeo, London; Dr. Martin, Berlin; Dr. Clay Shaw, Banstead; Dr. G. H. Savage, London; Dr. Henry Simpson, Manchester; W.; Mr. Cullingworth, Manchester; Dr. F. T. Roberts, London; Mr. T. Jones, Manchester; Mr. Chiene, Edinburgh; Mr. F. A. Heath, Manchester; Mr. Wm. Adams, London; Mr. R. Harrison, Liverpool; Mr. W. Berry, Wigan; Dr. E. Andrew, Shrewsbury; Dr. McKendrick, Glasgow; Dr. Nesfield, Manchester; Dr. Roussel, London; Dr. Thornburn, Manchester; M. M.; Dr. G. de Gorreger Griffith, London; Mr. F. H. V. Grosholz, Manchester; Dr. Matthews Duncan, Edinburgh; Dr. Hugh Miller, Glasgow; Dr. McClintock, Dublin; Dr. T. Chambers, London; Dr. J. Milner Fothergill, London; The Secretary of Apothecaries' Hall; Dr. W. Fairlie Clarke, Southborough; The Registrar-General of Ireland; Dr. Edis, London; M.D. Ed.; The Registrar-General of England; Mr. Eastes, London; Dr. Morris Tonge, Harrow; Dr. James Thompson, Leamington; Dr. J. B. Sanderson, London; Dr. Joseph Bell, Edinburgh; Dr. Henry Barnes, Carlisle; Dr. J. W. Moore, Dublin; Dr. Mahomed, London; Dr. James Murphy, Sunderland; Mr. Langdon, Marseille; Dr. A. Downes, London; Dr. Dowse, Highgate; A Country Surgeon; Dr. Melville Thomson, Newport, Salop; Mr. G. A. Brown, Tredegar; Mr. M. A. Knapp, Portsea; Dr. D. H. Tuke, Ambleside; B.; Dr. Joseph Rogers, London; Dr. Sawyer, Birmingham; Dr. May, Maldon; Our Edinburgh Correspondent; S. C. R. A.; Mr. Smart, Edinburgh; An Old Subscriber to the Journal; Our Dublin Correspondent; Mr. Dolan, Halifax; Mr. Corrie, Leeds; Dr. Philipson, Newcastle-on-Tyne; Dr. Leech, Manchester; Dr. Bucknill, London; Mr. W. Eddowes, Shrewsbury; Dr. Eddowes, Market Drayton; Mr. T. W. Hubbard, Lenham; Dr. G. H. B. Macleod, Glasgow; Mr. Burdett, Greenwich; Dr. Grattan, Chipping Ongar; etc.

BOOKS, ETC., RECEIVED.

Atlas of Skin-Diseases. Part II. By Louis A. Duhring, M.D. Philadelphia: J. B. Lippincott and Co. 1877.
Cyclopaedia of the Practice of Medicine. Edited by Dr. von Ziemssen. Vol. xv: Diseases of the Kidney. London: Sampson Low. 1877.
St. Thomas's Hospital Reports. New Series. By Dr. Bristowe, Dr. John Harley, and Mr. Wagstaffe. London: J. and A. Churchill. 1877.
The Gospel of the Kingdom. By Hugh Croskey. London: F. E. Longley. 1877.
The Cure of Rupture, Reducible and Irreducible; also, Varicocele and Hydrocele: by new methods. By Geo. Heaton, M.D. London: Tribner and Co. 1877.
Disease of the Mind. By Charles F. Folson, M.D. London: Tribner and Co. 1877.
St. Thomas's Hospital Reports. New Series, vol. xii. London: J. and A. Churchill.
Internal Urethrotomy with its Modern Improvement. By Edward Lund, F.R.C.S. London: J. and A. Churchill. 1877.
The Question of Rest for Women during Menstruation. By M. Putman Jacobi, M.D. New York: G. P. Putnam's Sons. 1877.
Hints on Ophthalmic Out-Patient Practice. By Charles Higgins, F.R.C.S. London: J. and A. Churchill. 1877.
The Laws of Life and Alcohol. By Dr. T. P. Lewis. London: W. Tweedie and Co. 1877.
The Spas of Aix-les-Bains and Marlioz, Savoy. By Francis Berter, M.D. London: J. and A. Churchill. 1877.

REMARKS ON SOME CURRENT MEDICAL TOPICS :

BEING THE

President's Address delivered at the Annual Meeting of the Metropolitan Counties Branch, July 24th, 1877.

BY SEPTIMUS W. SIBLEY, F.R.C.S.,
President of the Branch.

It is my duty and pleasure, in the first place, to offer you my most sincere thanks for the honour which you have conferred upon me in placing me in the distinguished position of your president for the ensuing year. I cannot but fear that this great distinction has been bestowed from a too kindly opinion of those who may have selected me for this important office. I feel that in the discharge of its duties I must fall far short of the standard exhibited by my predecessors, and notably by him (Mr. Hutchinson) who has now quitted the chair. Indeed, on looking back at the honoured names of those who have held the office of President of this Branch, I cannot but feel that it is a great distinction to follow, however unworthily, in such footsteps.

In making a few observations to this our annual gathering, I think that I cannot do better than follow the example of our accomplished ex-president, and make some remarks on the important medical topics of the day. It appears to me that it is especially the function of the Metropolitan Counties Branch of our Association to discuss these questions. In other Branches, the objects of the meetings are properly frequently scientific, as well as social. In the Metropolitan Counties, however, the consideration of scientific questions is so fully provided for in the various societies of the metropolis, that it is needless to occupy our meetings with such subjects, and we may, therefore, devote our time freely to matters concerning the welfare of our profession, and the general interests of the community as affected by the science of medicine.

A very little consideration will show that, although there has been a marked improvement during the last few years, the voice of our profession on questions of public health is not so powerful or authoritative as it ought to be. The private influence of medicine no doubt is great, and what we may fairly term the wonderful discoveries in sanitary science are beginning to exert their influence upon the public mind. The important observations which have been made as to the propagation of fever, for instance, and especially the work of the Medical Department of the Privy Council, have had a remarkable influence upon public opinion: both these and other facts are proving to the community that it is not safe to disregard the warnings of our profession, and that substantial advantages may be gained by listening to its teaching. From this point of view, our profession must regret the retirement of the late chief medical officer of the Privy Council. The active and clear intellect of John Simon has put before the public in a practical form many observations of vital importance. He has gained the highest esteem of our profession, and our country is under the greatest obligation to one who has devoted to its service, with remarkable success, a life of such brilliant powers. The scanty honours and meagre rewards which have been bestowed upon such a worker show how imperfectly at present the labour is appreciated by the public. Not the least good service which he has rendered is shown in the faculty of attracting others to work with him, and it is a matter of congratulation that there remains in the Department a staff of most able men, deeply imbued with the true spirit of philosophical inquiry, and well qualified to carry on the work.

Admission of Women to the Profession.—Upon the question of the admission of women to our profession, I cordially agree with that which has been said by my predecessor in office. Of all the professions into which women might seek to be admitted, that of medicine is, in my opinion, the least suitable. There would be far less objection to women entering many other professions, for instance, that of the law. There is no physical difficulty to prevent a woman from performing the duties of an attorney or solicitor; and even at the bar there is no reason, as regards physical capability, that she should not exercise as a barrister the persuasive powers of her sex. The profession of a civil engineer, in its various forms, I would also suggest as a more suitable sphere for female enterprise; and I should add that of the Church, were women not debarred by the apostolic injunction. From the practice of the medical

profession, women are, in my opinion, shut out by physical incapacity, and, handicapped heavily as they are by nature, they would stand but little chance of success in competition with men. How is it possible for a woman on a rough and perhaps wintry night to ride some five or six miles in an exposed country, to visit a patient who may require at the end of such a journey a doctor with clear judgment and a steady hand? It may be answered that women would not undertake the ordinary responsibilities of practice, but would devote themselves to special branches, such as midwifery, eye or skin disease. Such an arrangement would, however, be most unsatisfactory to the public. It is not desirable that practitioners should be educated to practise in particular departments, but it is expedient that all should be educated in every branch, and that they should afterwards select such departments of practice as they might feel themselves most qualified for. This is to a great extent the case at present; and if we look to the most successful specialists of the day, we find that they are, as a rule, men well educated generally in their profession, but that they have adopted some special department either because they possess a natural taste in that particular direction, or because accidental circumstances have thrown them in the way of a particular department of practice. Such an arrangement as this is much to the advantage of the public, as it provides for them men having an aptitude for each particular speciality; and it is for the good of our profession, as it affords to those with particular talents a field in which they may exercise their gifts. The admission of women into the profession would crowd the practice of certain specialities, and would interfere with the natural selection which would otherwise take place. It is urged upon our profession that it stands upon a different footing from all others, and that it is bound to show a greater amount of liberality, and therefore should open its doors to all who seek admittance. I do not know that there is much in such an argument; but if it is conceded that women should have the opportunity of proving that they are capable of overcoming all the difficulties of the situation, and of practising our profession with success, it becomes a question upon what terms they are to be admitted. Upon this point I think that there is but one answer. If they are allowed to enter at all, let them be admitted freely, and let them accept all the responsibilities of the profession they join. I do not think that it is desirable that they should be admitted to some examinations and not to others; but if they are allowed to join the profession, let them do so on the same footing as men. They should have a fair field and no favour; they must, of course, abandon their position as a privileged class, and should be admitted to the examinations on the same terms as men. I do not at all sanction the admission of women to lectures and hospital practice conjointly with male students; such an arrangement is open to the gravest objections; but when they have gone through the requisite study in a manner satisfactory to our examining corporations, they might be admitted to practice. It is, perhaps, natural that women should seek some field for useful occupation, as there is an excess of the female population, and in the ordinary course of events with the western practice of monogamy, there are a large number of women who never become mothers and do not preside over their own family circle. Is there, then, no sphere for usefulness for such individuals? As medical men we know that, at all events, in the upper and middle classes, spinster aunts frequently perform the most valuable services, assisting their brothers and sisters in the management of their families when from sickness or other cause the natural protector is unable to take care of them. Those individuals, whom we term with some degree of pleasantry but not without truth "unappropriated blessings", have a very important part to play in social life. We have frequent reason to lament that there is no spinster aunt or sister at hand to take charge of some poor invalid. I cannot think, therefore, that lack of useful employment can drive many to seek occupation in a sphere outside their own family. The work of women is not less dignified, and should not be less intellectual, than that of men; but they are protected against the rough and stormy conditions to which men are exposed. These asperities of life would break down the more sensitive and delicate nature of a cultivated woman, and would render her incapable of discharging her duties. Beyond this, there is the still weightier reason that it is scarcely possible for a woman to go through a course of medical education without losing that simplicity and purity of character which we so much value; there are subjects which cannot be discussed with freedom between the two sexes, and there are many matters with which women had better not be acquainted. I think, therefore, that in the truest interest of women it is better that they should not practise the medical profession.

Habitual Drunkards.—The question as to the care and treatment of habitual drunkards has already engaged the attention of this Branch of the Association. There is, perhaps, no social problem which is likely to occupy the public mind more than the question how to limit

the evil effects of drunkenness. As to the extent and gravity of the evil, I think, all to a great extent agreed; but as to what steps should be taken to remedy the mischief there is great difference of opinion. There is a matter in which our profession may exercise very great and salutary influence; and that is, in diffusing correct ideas as to the influence of alcoholic stimulants both in health and in disease. We may do much to eradicate false opinions as to the value of alcohol as an article of diet. There is a very prevalent idea that alcohol is a source of strength, and that a person will become weak because he ceases to partake of alcoholic stimulants. We are not yet able to determine precisely the amount of alcohol which, taken into the stomach, undergoes chemical change within the body; but a large part passes away unaltered, and we know that alcohol, as a rule, gives only the power of using the strength which already exists, and that it should, therefore, be looked upon as affording the means of putting forth, not of producing, strength. It is the feeling of fictitious power which is engendered by the use of stimulants which, no doubt, inclines so many to have recourse to them. Much good may be done in teaching the public the real properties of alcohol, and in enabling them to discriminate between the effect of food, which sustains strength and supplies the motive power of activity, and of stimulants, which call forth the forces which may lie dormant within. It is well established that the most perfect health may be maintained, under every possible variety of circumstances, without the use of alcohol. We have evidence upon this point from very varied directions, which itself is testimony to the correctness of the conclusion. Thus there are many tribes and races of people with whom abstinence from alcoholic beverages is in some a national characteristic, in others, a matter of religious observance; and, also, many individuals among ourselves do not take alcohol. A striking testimony as to the conditions of the human body which may fit it for its greatest capacity for exertion, is afforded by the trainers of athletes; whatever the object for which the athlete is to be trained, whether for walking, rowing, pugilistic encounters, or what not, experience testifies that the most perfect physical health is to be obtained either altogether without stimulants, or with the most moderate use of them. As to the use of stimulants in ill health, and in disease, we have still much to learn. There is good reason to believe that, in some forms of feeble digestive power, and in the debility of age, a moderate use is of essential service. Again, in some acute diseases stimulants appear to whip the flagging powers of life, and to enable the patient to struggle through a period of depression. In the debility and anæmia which is consequent on long residence in great towns, and on the harass of life, stimulants afford much comfort, and possibly are of considerable service. It is well, however, to look fairly into the question, Are stimulants of real use to a person in health? I think that it will be admitted by many that stimulants are taken because they are agreeable to the palate and their effect is exhilarating and pleasant, rather than because they are beneficial to health. The evil of alcohol, I fear, far outweighs the good, and if it were possible to annihilate alcohol in the world, humanity would be benefited in a degree which it is impossible to estimate, and, both in moral and physical condition, our race would rise to a higher level. Knowing these facts, it is right to sympathise with the movement in favour of abstinence, which has recently so much extended and which is now so warmly advocated by many clergy and philanthropists. All engaged in practice cannot but feel that there are a large number of habitually intemperate people, who ought not to be allowed to continue in their destructive course without some effort being made to reclaim them. We cannot be satisfied to remain quiet and to think cynically that the evil of drunkenness will cure itself, and that if the drunkard is allowed to have his own way he would soon destroy his life by his pleasure. We cannot be content to act thus, when we think not only of the moral ruin to the individual, but of the distress and misery which this entails upon his immediate relatives. These considerations should urge us to make an effort to save these victims from destruction. There is, I think, abundant evidence to prove that drunkards may be reclaimed. Our own experience will, probably, suggest some examples; but we can, no doubt, recall far more instances in which reform has been followed by relapse, and this has been repeated, perhaps, many times before the end has come. Moral pressure, and the shame produced by the discovery of the vice, will keep many right for a time; the pledge in some form or other will maintain others in temperance; but there are those in which none of these means will prevent them from following their vicious propensities. Are we, then, to leave these cases, or should we step in and force virtue on the vicious? If it can be so adjusted that there should be no fear of interfering with the liberty of the subject, and especially if some safeguard could be devised, so that the power to confine drunkards could not in any case be used fraudulently to incarcerate the innocent, I think that the proposal

would meet with general acceptance. There is in Dr. Cameron's Bill a clause which provides that a person who has been convicted before a magistrate for drunkenness three times in a twelvemonth may be sent to a reformatory. This certainly is a power not liable to abuse, and a person who has repeatedly come under the notice of the police as drunk and incapable, could have no reason to complain if he or she were deprived of liberty for a time, more especially as this incarceration would be likely to allow the individual time for reflection under forced abstinence, and would probably restore some power of self-control, which otherwise would be quite lost. It is, of course, necessary that the seclusion should be of sufficient duration to allow this self-control to be recovered. It would not be a new principle in our laws to sentence a drunkard to seclusion for the sake of reform, for we have an analogy in the laws relating to young criminals, who are sent to reformatories rather with a view to reclaiming their characters than as a punishment for the offences they may have committed. The charge of those cases whose conduct has brought them under notice of the police would be a proper commencement for legislation in the matter of habitual drunkards. The second step in the proposed Bill is one which requires much more consideration and discussion. When it is suggested that a summons may be taken out against any alleged habitual drunkard by the parent, husband, wife, relative, or guardian, we see at once that the door is opened to many abuses. If this provision were to become law, one cannot but fear many vexatious proceedings would be instituted. It should clearly be required that a strong *prima facie* case should be made out before a summons is granted; and unless the habitual drunkard had broken the law in some way, the evidence of drunkenness would require careful sifting. I cannot but think that, in cases where a person is so frequently under the influence of alcohol that his property is mismanaged and squandered, it would be right to deprive such individual of the direction of his affairs. The fear that the control of his property could be taken from him would exercise a powerful effect in restraining the tendency to drink, and it would, at the same time, save his relations from some of the distressing effects which so frequently follow intemperance.

The Amendment of the Medical Act.—During the present, as in the past, Parliamentary sessions, proposals have been made to amend the Medical Act. Recent cases, however, have brought prominently to light some fundamental defects in the original Act, and these should be remedied before attempting to extend the operation of the law in new directions. The first object of the Medical Act was to create a register of duly qualified practitioners, and to offer to the public a ready means of discriminating between those who had undergone a regular course of education and examination, and those who, without any real ground, passed themselves off as qualified medical men. Some means of distinction was necessary, as the examining bodies in the course of generations had become numerous and complicated, and the public naturally is not competent to determine whether a given qualification is sufficient or otherwise. Accordingly, a register was established, and a person having a diploma from any of the numerous corporations scheduled in the Act was entitled to have his name entered. Beyond this, some discretionary powers were given to the Medical Council to admit persons to be registered, although they might not fall within the classes contained in the schedule. There could be no difficulty in anyone duly qualified being registered, and the Register should therefore have become the test of qualification to practise. The framers of the Act, however, appear to have shrunk from adopting the logical conclusion that if a name did not appear on the Register the person is not legally qualified to practise, for section forty says:

"Any person who shall wilfully and falsely pretend to be, or take or use the name or title of, a physician, doctor of medicine, licentiate in medicine and surgery, bachelor of medicine, surgeon, general practitioner, or apothecary, or any name, titles, addition, or description implying that he is registered under this Act, or that he is recognised by law as a physician, or surgeon, or licentiate in medicine and surgery, or a practitioner in medicine, or an apothecary, shall, upon a summary conviction for any such offence, pay a sum not exceeding twenty pounds."

This clause, therefore, indicates that a person who is not registered may be recognised by law as a qualified practitioner. It may, indeed, be questioned if this was intended by the framers of the Act, but the law can only be interpreted according to its wording. Thus, in a recent instance, a person was summoned before one of our most acute and able magistrates for wilfully and falsely pretending to be a physician. The person in question exhibited a diploma of the Metropolitan Medical College of New York; his name did not appear on the *Medical Register*. There is no reason to believe that the diploma of this so-called Medical College is a guarantee of even the smallest

amount of medical education. Under these circumstances, after a very full and careful examination of the question, the magistrate felt himself unable, with the present wording of the Act, to convict the defendant, and this decision was confirmed on an appeal to the judges. The Medical Act, therefore, fails in its primary object, and the *Register* does not afford a solution to the question of who is a legally qualified practitioner. I think that the time has now come that the law should be made clear and distinct, and that it should be decreed that those only are legally qualified whose names appear on the *Register*. It would be necessary to enact that the Medical Council should have the power to register a person, having a Colonial or Foreign diploma of undoubted worth, who may wish to settle in practice in this country. With the cosmopolitan tendency of the present age, it is necessary to provide for these cases. It would be unjust and ungenerous to forbid one of our Colonial brethren, who might wish to practise in the British Isles, from doing so, provided he could show that his qualification is satisfactory, and it would also be illiberal to prevent any of our foreign *confères* from practising here, provided also that they should prove their qualification. We need not make a distinction in these two classes, although British diplomas are recognised in the Colonies, whereas there are increasing difficulties thrown in the way of British medical men wishing to practise in certain foreign countries. In asking for this amendment of the Medical Act, we are seeking no new powers, and the free trade which already exists in the practice of medicine would continue. The only change would be, that the public would have a ready method of discriminating between those who are duly and legally qualified and those who are not. If persons should elect to employ a practitioner without qualification, they should, of course, be allowed to do so, but they would do this with their eyes open. The power, however, of holding certain appointments, and of recovering fees, would naturally be restricted to those legally qualified.

In connection with this improvement in registration, we may consider the question of registration of the surgeon-dentists. The only speciality requiring separate legislation is, perhaps, that of dental surgery. It will be remembered that the College of Surgeons, some years since, under a permissive charter, organised a curriculum for the dental students, and granted a diploma of fitness to practise on attaining competence under the title of Licentiate in Dental Surgery. The measure secured a public advantage in the production of a large body of highly competent dental practitioners. It is now under consideration of the College of Surgeons to render the special education of the dentists still more complete, a proceeding which will surely meet with very general approval. The question of registration has been more than once mooted, and will, no doubt, be eventually carried into effect. While all qualified medical practitioners, and also chemists, are registered, the right to a distinctive registration cannot be denied to the competent dental practitioner; for all the arguments favourable to the registration of the two former are equally applicable to the latter body, and the synonym for registration is compulsory education.

London Water-Supply and Sewage System.—There are two subjects—water-supply and sewage—somewhat oddly associated together, which demand our very serious consideration. On looking at the various conditions which may conduce to good health, or may interfere with the due performance of the natural functions, the supply of pure water, on the one hand, and the efficient removal of sewage, on the other, stand prominently forward. Compared with the water-supply of many cities, and indeed of many country places, the service of London is perhaps well above the average. It, however, falls far short, both in abundance and purity of the supply, of some places, and there are defects in it which might be remedied with very little difficulty. Knowing as we do the vital importance of pure water, it is certainly remarkable that we should tolerate with so much complacency the pollution with sewage of the upper part of the Thames and Lea. For better or for worse, we may regard the system of main drainage in London as settled for many years to come. After the enormous expense which has been incurred, it would be of little avail to propose a different system; and yet it is open to question whether the plan of washing away all refuse matter by water, and pouring the resulting fluid into the river, is the best that could be devised. The plan is open to the objection that it is cumbersome and complicated in its arrangements; that it wastes a great quantity of valuable material, and becomes a source of danger, should there arise any imperfection in the drains by which the refuse matter is carried off. That it is possible to remove the sewage of a town without the admixture of water has been proved in various instances. The dry earth system, the method which is called the A B C, and other plans, are practically efficient; but it will, no doubt, require many experiments and very careful investigation to show which procedure offers the greatest advantages. Among various places in which these experiments are being made, we have in Manchester an

example on a somewhat large scale. Owing to the situation of this city, it has been found absolutely necessary to adopt other expedients than that of washing away the sewage. Various plans are, therefore, being tried, such as I have spoken of, and also a method in which cinders and dust-bin refuse are used to desiccate and deodorise the sewage. Our members attending the meeting at Manchester will be able to see the practical working of these expedients. If some such plan were found possible in London, there would be an immense gain in the fact that we should be able to do away with direct opening into the sewers. At present, in every house there is a free communication from the system of drains in the street with various parts of the interior of the house. There may be a trap at the point where the house-drain enters the street-sewer, but commonly this is not in working order. If, then, there should be some imperfection within the house—perhaps in the pipes of a closet, or a want of proper trapping in the sinks, or an overflow-pipe from a cistern opening directly into the drain, or it may be, as frequently happens, a rainwater-pipe opening without trap into the drain and allowing the foul gases of the sewers to escape in front of the upper windows of the house—in any of these and in many other ways the health of the inhabitants is at once placed in jeopardy. It may be said that these sources of danger all arise from want of due attention and care. This is, no doubt, perfectly true; but the fact remains that there are but few houses which, on close inspection, do not reveal some or several of these defects. It is necessary, therefore, that the arrangement of pipes and drains should receive more careful attention than it does at present, and I cannot but think that we ought to be dissatisfied with a system of sewage which exposes us to so many dangers. If a plan could be demonstrated to work well in which the sewage could be removed in a more or less solid form, there need be no direct communication with the sewers. The pipes carrying off liquids, and themselves provided with efficient traps, could be allowed to terminate over an open gulley, and no drain need enter the house. There being, therefore, no direct communication between the sewer and the interior of the house, many great sources of danger would be avoided. If, however, we do not attempt to alter the present arrangements as regards the carrying away of sewage, we may at least take care that the removal of sewage does not interfere with the supply of pure water. With the present outfall of the main sewers, there is no fear of contamination from this cause. But, although the Londoners do not pollute their own water-supply, they allow the inhabitants of towns above, such as Oxford, Reading, and Windsor, to pour much of their sewage into the water-tank. There certainly would be no great difficulty in stopping this source of contamination, and, in fact, of preventing any drains from entering the river above the places from which the water-supply is taken. This would apply, of course, to the river Lea as well as to the Thames. A small amount of organic impurity, and even possibly a certain amount of sewage, would not interfere with the practical purity of the water. We know that organic matter undergoes many and rapid changes of form. Thus, in the time of the old system of sewers, it was found that at Greenwich feculent matter, as ascertained by microscopic examination, had, to a great extent, given place to some forms of animal life—infusoria and rotifera. These animals, again, supported the existence of higher types; and indeed it has been said that the excellence of the flavour of whitebait may be attributed to the sewage upon which it has been ultimately reared. This, however, is only true for a moderate amount of impurity; a greater degree of contamination or a higher temperature would certainly lead to putrefaction. It was the offensive condition of the river which necessitated the construction of the main drains and the removal of the place for the discharge of sewage lower down the river. The rapidly increasing population on the borders of the upper part of the river tends to produce a serious amount of contamination of the water-supply to London, and, therefore, more stringent laws are required to prevent the pollution of the upper stream. It may, then, be possible materially to improve the condition of the Thames both by the prevention of contamination from sewage and also by greater attention to the cleansing of the river from dead weeds and other sources of impurity. When all this, however, has been done, the question would remain, Could not a purer supply be obtained from the Welsh lakes at Bala, even if it be out of the question to draw our supply from the lakes of Cumberland? Another very necessary improvement in our London water-supply would be the adoption of the plan of constant in place of intermittent supply. In a great majority of houses, the cisterns are seldom, if ever, cleansed, and the inhabitants, therefore, even if supplied by the water companies with a fairly good water, drink water from a dirty and polluted cistern, involving a fear of contamination of the water in the cistern from drain-effluvia from waste water-pipes and other causes. These risks would be avoided by the system of constant supply. It has, moreover, been

calculated that a smaller quantity of water would be used with a constant than with the intermittent, as there is so much waste with the latter. In the year 1876, the daily average to each individual was thirty-two gallons, a quantity far in excess of the amount actually used for the most ample ablutions and other purposes.

Hospitals for the more Affluent Classes.—In the course of practice, we meet with a considerable number of patients to whom some such establishment as the Parisian Maison de Santé would be a great boon. These individuals are of a social position which renders them ineligible as hospital patients, and, at the same time, the want of relatives and friends leaves them in a painfully isolated position, frequently to contend with painful illness with such imperfect attendance as may be obtained in an ordinary London lodging. It is by no means desirable to remove a sick person from his home-surroundings, where there are relatives and friends to attend to the wants of the invalid, unless under exceptional circumstances. The class to whom such accommodation would be useful are those who are comparatively friendless and alone, such as clerks and young men living in town away from their relations, governesses, and others. In these and similar cases, the regular attendance and care of a well arranged establishment would lessen very materially the suffering produced by illness. In the great majority of cases, the sick are, doubtless, far better treated at home surrounded by their relatives and various comforts. The visits of the medical attendant are not of service alone to the patient, but also to those about him. By no means the least valuable part of the doctor's visit may consist in the sanitary or physiological lessons he may incidentally teach to those about the sick person. I have long felt the desirability of providing accommodation for the class of patients mentioned; and lately a definite proposal has been made to establish home hospitals. This project deserves the attentive consideration of the profession, and, if carefully and judiciously carried out, it would be of great advantage to the public. It is a question whether it would be better to provide a new set of institutions for the class of patients of which we are speaking, or to make some extension in the arrangements of the present. During the last few years, the governors of the Fever Hospital have provided a certain number of beds for patients capable of contributing towards the cost of their maintenance. The authorities of the hospital were induced to do this in consequence of the opening of the Pauper Fever Asylums, which at once diminished the number of applicants to the Fever Hospital. They, therefore, looked around to find a new sphere of usefulness for this institution, and the plan which they have initiated cannot fail to be of the greatest utility to the public, both as providing a refuge for those suffering from illness and also as affording a means of isolation for this class of disease, and, therefore, helping materially to diminish the frequency of fever. This step, therefore, which has been taken by the Fever Hospital, supplemented as it is by some similar arrangements at the Small-pox Hospital, will, to a great extent, provide for the infectious diseases occurring in the comparatively friendless but not poor classes of society. The Institution for Invalid Ladies, again, provided accommodation for another class of invalids. Beyond these, also, it should be remembered that our general hospitals at times admit private patients who contribute to the expense of their support. I am inclined to believe that this system does not work well, as it interferes with the orderly arrangements of the hospital, and such patients seldom fully pay for the extra expense they cause. The establishment of a new set of institutions for the more affluent classes involves many questions which would have to be carefully considered. It would, I think, be impossible to organise such an institution on the scale of one of our large general hospitals. This would be out of the question, because patients of the class of which we are speaking, and paying for their accommodation and attendance, would require a greater amount of privacy, and separate rooms, or, at all events, wards containing only two or three beds in each. A hospital, therefore, to contain some hundreds of patients, would be at once cumbersome and unmanageable. It would, moreover, be impossible to maintain that uniformity and discipline which are essential to the proper working of a large institution. For these reasons, I do not think that a large establishment is at all desirable; what would be more serviceable would be a number of small homes managed on the plan of our cottage hospitals, and scattered over the metropolis. In the plan which has been placed before the public, it has been thought that the hospital might be quite self-supporting. This, I think, is very problematical; it is, however, possible that, if the scheme were set on foot by charitable assistance, it might afterwards, to a great extent, pay its own expenses. There would be a danger that the cottage hospitals should become too exclusively private hospitals for special operations. It would, no doubt, be well that these institutions should be used for this purpose; for it would be necessary to provide that they should take in all descriptions of non-infectious illness. There would

also be many practical difficulties in organising an institution of this description. It would, no doubt, be expedient to have no regular staff attached to the hospital, but to allow each patient to be attended by his or her own doctor. It would be necessary, of course, to make some provision; for these patients might not be acquainted with any medical man, for the nomination of a regular staff is open to great and obvious objections. It would, no doubt, be desirable to have a house-surgeon; but there would be much practical difficulty in defining his duties and authority. It would frequently happen that the medical attendant of a patient in the hospital would live at some distance, and, in all more severe cases, it would be necessary that the patient should have the advantage of the attendance of a house-surgeon on the spot, or of some practitioner close at hand. The house-surgeon would, therefore, be more or less in charge of all the patients under the supervision of a great variety of medical practitioners, holding perhaps very various opinions upon the subject of the management of their patients. The house-surgeon, under such circumstances, would be placed in a position of considerable difficulty; but, if a person of tact and judgment, might soon become the autocrat of the hospital. There would also be some difficulty in adjusting a tariff of charges; the patients, no doubt, would vary very much in social position, the amount of accommodation would differ, and more especially the expenses of nursing and dieting would vary greatly in different cases. The patients would, of course, pay for their medical attendance in the same way as they would in their own homes. Our profession is very generous, and rightly so, in giving its services to sick poor, and it is very liberal in waiving its claim to fair remuneration when circumstances call for it; but, as a rule, all patients admitted to this class of institution should pay for their medical assistance. These and many other considerations show that it will be necessary to enter into this question with much deliberation, and I do not urge them as objections to such a scheme; for I believe that most of these difficulties would be overcome, and that there is room for an institution organised on the cottage hospital plan. It is desirable, however, to try the experiment at first on a small scale, and to extend it by multiplication of small institutions, not by the creation of a great one.

The Isolation and Purification of Convalescents.—The isolation and purification of convalescents from infectious diseases is another matter which demands our consideration. There can be no doubt but that change of air is one of the greatest elements in conducing to recovery and restoring strength after acute disease. It constantly happens, however, that the change which is to bring health to the convalescent will carry disease and destruction to others with whom there may be contact on the journey or at the new residence. We very frequently meet with sad cases in which people in search of health visiting some watering-place have met with, and perhaps fallen a victim to, serious infectious disease. How is this frequent source of danger to the community to be avoided? Chiefly by greater care in disinfecting patients before they leave our supervision. In some diseases—for instance, in measles—proper care as to ablation, ventilation, and change of clothing will insure the individuals as free from infection in a moderate length of time. In others, however, such as small-pox and whooping-cough, and, chiefly of all, in scarlatina, it is impossible, in any reasonable time, to insure our patients as free from the possibility of communicating the disease to others. For these cases we require some locality set apart, where convalescents might undergo a quarantine. If this plan could be carried out with proper care, infectious disorders would become very much less frequent; for, in a large proportion of instances, it is the convalescents who propagate disease. It is, therefore, desirable to establish a city for convalescents as well, perhaps, as a city of health.

TASTELESS PREPARATIONS OF IRON AND QUININE.—The Apotheker Rozsnyay, of Arad, Hungary, whose tasteless preparations of quinine have already proved of considerable value, has lately brought out two new preparations of quinine and iron in which the taste of the ingredients is equally well disguised. One is in the form of a powder, which can be kept on the tongue for several minutes without the taste of either the quinine or the iron being in the slightest degree perceptible. The other is made up in the shape of pastils or bonbons, of round convex figure, with a sugary taste. An analysis by Dr. Hage shows each pastil to contain five centigrammes (three-quarters of a grain) of hydrate of quinine (combined with tannic acid) and fifty-nine millegrammes (nine-tenths of a grain) of oxide of iron (in the hydrated form). Numerous cases are cited in which these pastils have been administered to children and young females with the promptest and most beneficial results. For children of four to five years, one pastil every two or four hours was given.—*Pharm. Centralhalle für Deutschland*, January 4th, 1877.

FURTHER REMARKS ON THE NATURAL HISTORY OF PULMONARY CONSUMPTION.

Being a Dissertation read in the Medical Department of the Oxford Museum, June 6th, 1877.

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In the lectures which I had the honour to give before the Royal College of Physicians, now more than a year ago, I attempted to take, as far as I could do so, a general view of the various diseases which, leading by different means to a larger or smaller interference with the respiratory function, produce clinically the same symptoms of pulmonary consumption, but show by no means precisely similar *post mortem* appearances. The task of giving those lectures came upon me unexpectedly, and I made use of such materials as I had at hand or could easily lay hold of. Since then, in preparing the lectures for publication, though I have not found anything to withdraw, I have found much to support the views there stated, and I would supplement them by filling in more fully than I could do at the time the outlines I sketched. But it is impossible to avoid the conclusions that all individual experience only adds further proof to knowledge already well grounded, and that any originality to which a dissertation of this kind may be supposed to lay claim is, except in the handling of facts already observed, utterly out of the question.

The points I would further touch upon here are these:—The markedly perivascular and peribronchial growth which accompanies, with few, if any, exceptions, the course of acute tuberculosis in the adult and the child; the catarrhal commencement of ordinary phthisis; and the condition of the lungs, to which more attention has been lately drawn, due, as I suggested in my Goulstonian lectures, to the poison of syphilis. I would also make a few remarks on one of the causes of hæmoptysis.

The drawings* to which I would first call attention are made from preparations taken from a child, Henry B., aged twelve months, who died about four months ago with the symptoms of tubercular meningitis, and presented *post mortem* the appearances found in general tuberculosis. If these drawings be compared with those made from the lungs of a woman who was admitted into one of the metropolitan hospitals for supposed delirium tremens, but died after a short period of illness from general tuberculosis, they will show a striking similarity. And if, again, they be compared with other drawings made from cases of ordinary pneumonia and ordinary phthisis, that similarity will appear more striking still. Whether you examine the lung of the child or the lung of the adult, you cannot but be astonished at the very small amount of intra-alveolar growth present in the shape of catarrhal or desquamated cells, while, at the same time, you find the alveoli themselves collapsed and the vessels running along their walls intensely congested. I am, of course, not referring to those much rarer cases, to the absolute certainty of accurately diagnosing which Niemeyer has already drawn attention, in which the naked-eye appearances, easily taken for those of acute tuberculosis, resolve themselves, under the microscope, into districts of acute catarrhal pneumonia. And, in addition to this absence of catarrhal products and this collapse, you observe in the adult as well as the child the same growth in the walls of the smaller vessels and bronchi, the same distension of their lymphatics by numerous lymphoid cells between which, more marked in some portions of the preparations than in others, run more or fewer fine fibres, forming to some extent a network, the stroma probably of Dr. Klein's endolymphal structures.† And to this fibrillation, more or less advanced in the development of these lymphatic growths, I would draw strict attention, because these fibres of the endolymphal stroma are not to be confounded with that production of fibrous tissue which, whether in chronic pneumonia, in ordinary phthisis, or in the various forms of so-called fibroid phthisis, has its place of origin not in the adenoid, but in the truly fibrous tissue of the alveolar septa.

This strong contrast—the presence, on the one side, of lymphoid growth with but few, if any, intra-alveolar products; on the other side, the presence almost exclusively of the latter—leads me to lay great stress, as I have already done elsewhere, on the pathological line which marks off general tuberculosis from ordinary phthisis—a demarcation distinctly warranted by the very different clinical symp-

toms of the two diseases, but by no means yet, even among observers of a very late date, sufficiently recognised.

I have spoken elsewhere of the connection of the clinical symptoms in general tuberculosis with their *post mortem* results. I pass on, therefore, to speak of the other of these strongly contrasted affections; and I would insist upon a full study of this drawing, in which the microscopic appearances found in a case of galloping consumption have been most faithfully drawn. The part of the preparation from which this drawing was taken occupies at least four times the field of a microscope magnifying 270 diameters, and has been obtained by moving the slide forwards or backwards under the objective, so as to include the whole portion of affected lung, from the ragged wall of a cavity to the outskirts of perfectly normal lung-tissue. There is no perivascular or peribronchial growth. Beyond the margin of the cavity, there are fibrous structures in which are scattered cells which may be leucocytes, possibly lymphoid cells or pus-cells, most probably the latter. There are the remains of blood-vessels, almost diagrammatically marking out the limits of former alveoli; over the whole middle portion is a confused mass of cells and nuclei; but beyond the edge of confusion are alveoli in which catarrhal cell-development is more or less advanced or only commencing; nothing of the interstitial growth which it is easy to see in the drawings of acute tuberculosis. And outside all are the empty normal alveoli. Three different zones may thus be recognised: most internally, at the top of the drawing (a), the slightly thickened, probably pus-secreting wall of the cavity; (b) next a district of softening, which extends backwards to (c) catarrhal mingling with unaffected lung-vesicles. In very truth, this drawing might serve as an illustration of the second case which Charcot gives in his treatise on *Chronic Pneumonia*;* that of an unmarried woman aged 21 who died twenty three days after admission into hospital, with the clinical signs and symptoms, and the *post mortem* results of numerous small cavities in the right apex. Of this case, he is compelled to allow (page 41) that it is one "où la maladie affecte les allures de la phthisie galloppante". I have no doubt that it was so, or that the changes in the lungs were primarily pneumonic.

And yet, in spite of such contrasts as these drawings show, it is possible to read, side by side, the conflicting opinions of three writers observing apparently similar cases in the same hospital. Dr. Williams† and his son speak of "acute tuberculosis" as being the "worst and most surely and rapidly fatal form of consumption"; while Dr. Powell,‡ in a footnote to the table at the end of his book, holds that "acute tuberculosis cannot be regarded as a variety of phthisis, though it frequently supervenes as a fatal complication of the disease". It is scarcely necessary to say that I entirely agree with the conclusion of Dr. Powell.

I commenced purposely with the microscopic appearances of a case of "galloping consumption"; to my eyes they are those of the results of intra-alveolar inflammation, and I proceed at once with the clinical history of the case from which that preparation was removed. I have here a table of daily temperatures taken almost throughout the whole period the patient was under observation. There is nothing very special about this chart, except the persistently high range of temperature (over 104 deg. Fahr.), and its almost regular evening fall in the earlier part of the time, which, in the latter part, when the physical signs were most extensive, became a regular evening rise. The patient was a girl, M. C., aged 19, a housemaid; her father had died of phthisis, otherwise her family history was good. In August 1875, she had had a severe cough, with pain in the left side of her chest; had lost flesh, appetite, and strength; had had slight hæmoptysis, night-sweats, and aphonia. On admission to Victoria Park Hospital on August 28th, 1876—a year later—she was anæmic, with flabby muscles and slight clubbing of the fingers. The catamenia had ceased for thirteen months, *i.e.*, since the first commencement of her illness; there had been some diarrhoea, but the bowels were now regular; there was a hacking cough, worse at night; there were slight streaks of blood in the sputa. Expansion was somewhat deficient under the left clavicle as compared with the right, and the resonance was diminished there; on forced inspiration, there were abundant moist sounds in the same place, while the breath-sounds were weak under the right clavicle, and there was slight crepitation at the left base. Nine days later, there were moist sounds under the right clavicle, which rapidly crept downwards, while there were dullness and bronchophonic resonance at the left apex, and coarse large moist sounds over the lower lobe. Throughout the remainder of September and the first half of October, the disease kept on its way steadily; on the 13th of this last month, friction-sounds were heard

* I hope shortly to publish chromo-lithographs of the drawings referred to in the text.

† *The Anatomy of the Lymphatic System of the Lung*, p. 57.

* *De la Pneumonie Chronique*. Paris, 1850, 63 pp., with plate.

† *Pulmonary Consumption*, p. 3, 1371.

‡ *On the Principal Varieties of Pulmonary Consumption*, 1872.

on the left side, and, on the 17th, on the right side. On the 27th, she died, considerably emaciated. With the exception of the remark that no "miliary tubercle" was found in any of the organs of the body, I confine myself to a description of the *post mortem* appearances found in the lungs, which alone were diseased. The left pleural cavity contained about six ounces of clear fluid. The left lung was firmly adherent to the chest-walls in the greater part of its extent. The apex was one large cavity having very thin walls, less firmly fixed to the parietes than the rest of the lung; lower down was a series of smaller cavities surrounded by a thicker pleural layer so firm as to cause laceration of the lung during removal; these cavities were lined by irregular patches of cheesy matter, and contained a reddish-yellow fluid. The lower lobe was filled with racemose arrangements of whitish or yellow bodies from the size of a small pin's head to that of a pea, some softening in the centre and a few at the upper part forming small cavities. The right lung was adherent towards the apex; at the extreme apex were some cavities full of pus, while the rest of the lung showed similar appearances to those of the left lower lobe. So far, I think, this case is complete—a matter for which I have to thank Mr. Bark and some of the clinical assistant officers of Victoria Park Hospital; and everything throughout it—the thermometric range, the naked eye appearances, and the microscopical section—points entirely to the intra-alveolar inflammation from which I started.

This was a hospital case, in which patient and careful observation was comparatively easy. It may be instructive to compare with it two less complete cases occurring in private practice, because it will be seen that, in the main and sharp features of the affection, the three agree. On September 26th, 1870, I saw, in consultation with Mr. A. Roper of Lewisham, a lad, J. M., aged 19, a hammerman. He had been ill for only four months previously. There was dulness over the whole upper lobe of the left lung, with fine moist sounds. The thermometer placed in his axilla about 4.30 in the afternoon rose in the space of one minute from below normal to 103 deg.; his pulse was 132; his respirations 44; he was covered with great beads of sweat. He had a tearing cough, with but little thickish yellow expectoration. He had never spat blood; there was no striking loss of flesh; his appetite was good, his bowels regular. Two months later, I saw him again. There was loud tubular breathing over the left upper lobe, large and small crepitation over the left lower lobe, small crepitation over the right upper lobe, with pleural friction-sounds. A week later he died. The body was generally emaciated—a condition reached in the course of nine weeks. The whole of the left lung was adherent behind, and over the upper lobe strongly adherent in front, the apex being torn in removal. The pleura, especially that covering the upper lobe, was greatly thickened. The whole upper lobe was utterly disorganised, consisting of a ragged cavity or intercommunicating cavities containing sero-purulent fluid. The lower lobe was crammed with masses of cheesy matter beginning to break down. The bronchi were thickened and cheesy. Over the upper lobe of the right lung, there were signs of recent pleurisy, a few easily broken bands, with some fluid in the pleural cavity; the upper lobe had yellow deposits scattered all over it, and broke down somewhat easily; the middle and lower lobes were congested, but scarcely broke down under pressure. There were no "miliary tubercles" anywhere; the bronchial glands were healthy, and there was nothing abnormal about the larynx and trachea.

The statement I have already made elsewhere* that these cases of "galloping consumption" are the most difficult to unravel, is my excuse for quoting another case in private practice even less complete than the last. M. A. G., aged 22, a governess, consulted me in the summer of 1874; at that time, she presented no physical signs of phthisis, though from the history, which included the remark of the medical man she had seen some time before, that her left lung was affected, she must have had a pneumonic attack probably at the left apex. There was no history of phthisis in the family. She improved in her general condition, and I lost sight of her till June 28th in the following year. There were then impaired movement below the left clavicle, and somewhat coarse crepitation there and in the supraclavicular space, with some whispering pectoriloquy. She had "spat blood" five days before. She had been ailing for some time previously, but the symptoms had been looked upon as caused by irregularities in the catamenial function, against which all treatment had been directed. At the commencement of February 1876, there was no marked dulness, but tubular respiration at both apices, with creaking on forced inspiration. On February 19th, there were dulness under the left clavicle and tubular, almost cavernous, breathing under the right clavicle, with some small creaking there on coughing; no moist sounds anywhere. The temperature was 102 deg. By the end of the month, the temperature was normal; moist sounds

could be heard after coughing; the general condition was better. But the respite was a short one. At the end of March came an attack of hæmoptysis, the physical signs remaining unchanged. At the commencement of June, she began to get worse, the temperature rising again on the 10th to 102 deg., and continuing above the normal till the 24th. On July 4th, there was no dulness anywhere, but large crepitations over the left back and both apices especially; more distant over the right back. The hot weather added to her difficulty of breathing; the signs became those of general bronchitis, and she died, much emaciated and exhausted, on the 24th of the month. There was no *post mortem* examination. These three cases of rapid galloping consumption differ only in the swiftness with which the disease advanced. The lad was carried off in nine months; one of the women in little over a year from the first definite commencement; the other, who seemed to have pretty well recovered from one apical attack, fell a victim in also little over a year to a second attack of disease at that same apex. The absolute confirmation of the pathological condition is certainly wanting in the last case, though I have no more doubt that it would have revealed precisely similar changes to those in the two preceding cases than I have that the minute change in all is that represented in the drawing taken from the first case. I would observe also that, in each of these cases, the amount of expectoration was small, till in the last the rapid breaking down of the lungs was accompanied by a sharp and general bronchitis, with increased secretion: an instance of what Addison has laid down in speaking of cases of this affection:—"The amount of expectoration depends upon the extent to which the bronchial tubes are affected."* In all three cases, there were during life signs of pleuritic inflammation; in the two cases examined, the amount and extent of the adhesion was in exact proportion to the period during which the affection to which it was secondary had existed. There was a time when pleurisy was looked upon as an evil complication of phthisis, whereas in many cases, if not in all, in spite of its painfulness, it is to be hailed as one of Nature's helps, certainly diminishing the danger of pneumothorax, and, it may be also, in its direct effects, analogous to the callus that makes a splint about the leg of the wounded rabbit, imposing on the affected lung that rest which some have attempted to bring about in these days by the use of bandages †

It would be but waste of time to linger over cases of chronic phthisis. They differ only in point of slowness from the cases which I have described. The microscopical appearances found are almost identical, modified only by the larger amount of fibrous tissue present. The starting-point of the disease is still the same—the smaller bronchi and the alveoli.

And, if this be so—if a bronchial and alveolar catarrh be the commencement of pulmonary consumption—then the specific character of the disease is not to be sought for in the presence of some particular cell-growth, some tubercle, or phthioplasm, but it is to be found in some particular constitutional taint, due not only to inheritance, but also, I am more and more led to believe by a consideration of family histories, to what Mr. Darwin has called "the most wonderful of all the attributes of inheritance"—reversion ‡. And, if this predisposition, directly or indirectly inherited, to repeated bronchial and alveolar catarrh, and its further results, be the only specific character of phthisis, then, in the chronic cases at least—for, in the acute ones, we are powerless—our capacities of assistance are still large, though, to quote Addison again, "our resources are purely preventive" (*loc. cit.*, p. 19). We are at least able "to improve, strengthen, and fortify the general constitution...to remove all the predisposing and avoid all the exciting causes of inflammation of the lungs and their appendages" (*ib.*). And these measures are no less necessary in the cases which, like the third I have given, may at any time, so far as the individual patient is concerned, take on an acute course. I cannot but think that the fatal advance of the disease in that very case might have been once more arrested had there not been a want of care which amounted to an absolute neglect, till too late, of the second attack of apical pneumonia.

In practical illustration of these views, I would mention two cases in my own experience which might easily, I am sure, find themselves repeated in the experience of older physic ans. Both are men over 30, tall and delicately made; both are without any close phthisical relationships; both have presented the same symptoms of what I believe to be bronchial and alveolar catarrh. Beyond this, both happen to be men who are able to recognise the possible danger of this repeated catarrh, and, in another particular unlike our hospital patients, are in a position which enables them to make real use of simple advice. In both, an

* *Guy's Hospital Reports*, series II, vol. III, p. 19.

† See Perkwitz, *Lancet*, 1875, vol. II, p. 522.

‡ *Canalis and Parnis, in the Domestication of the Dog*, vol. II, p. 272.

attack of hæmoptysis, not large in amount, generally a spitting up of gobbets streaked with blood, or rust-coloured, has been preceded for a short time by a feeling of malaise and, as is apparent later, slight loss of body-weight. Cough and tickling in the throat have been followed by the hæmoptysis; the temperature has exceeded the normal by from one to three degrees; the physical signs, though on opposite sides of the chest in the two, have been the same; distant small crepitation about the second intercostal space on the right or left side; the slightest possible, if any, dulness; in one of the two, the slightest possible shrinking on the affected side after the second attack of blood-spitting. One is abroad, the other in England; both feel the benefit of a bracing, not a relaxing, air. In both, the attacks have come on after increased exertion and some exposure to cold. Both are now—and I heard of or from them very lately—in good condition and able to fulfil the daily needs of their work.

I might quote cases from hospital practice of a similar kind; but these are, I think, sufficient to show that we have to deal with a bronchial congestion which might go on to a further and serious alveolar catarrh.

I turn aside for the moment, to consider very briefly the statistics with which I have been concerned in hospital practice during the last ten years of cases of what I believe to be the purely intra-alveolar and most common type of pulmonary consumption.

The statistics set forth in the table are taken out of a number of over 10,600 cases. Every case in which there was the slightest doubt as to the diagnosis has been omitted. Of the 849 cases thus tabulated, it was possible to draw a very decided line in 421, or nearly one-half, in which one lung alone was affected. Of the other 428 in which both lungs were affected, the mischief was about equal in 314; in 114, it was more apparent on one side than on the other. Throughout, as in the statistical results of Dr. Hughes and others, the numerical preponderance is slightly on the side of the left lung. It must, at the same time, be remembered that the results obtained are only those of out-patient practice, in which large numbers of the worst cases would not appear, on account of inability to leave their homes; and the same remark applies to the comparatively larger number of men attacked as compared with women, a result, for many reasons, obviously untrue. One of those reasons is the well recognised fact of the influence of pregnancy in the early and rapid death from phthisis; and I cannot but think that this fact has been overlooked by various writers, who seem to take it to be almost demonstrated that males are affected in greater numbers than females. The Drs. Williams are somewhat contradictory on the subject. Dr. Pollock's cases, like mine, were those of out-patient practice, and show a large preponderance on the side of the men. I can only offer that the comparatively large number of cases I have seen of death in women at so early an age as twenty, soon after their first confinement, coupled with the fact that more women, married or unmarried, die from phthisis under the age of thirty than men—though my experience, as the elder Dr. Williams says,* may rest only "on the hazy tokens of vague memory"—lead me to a very different conclusion. This conclusion is also supported by the results obtained by Dr. Mayet in a paper published in the *Lyon Medical*.† He gives the numbers admitted into the Lyons hospitals for this disease in 1873 as 360 males and 596 females, or a proportion of the former to the latter of three to two; at the same time, he notices its occurrence between the ages of eleven and fifteen almost exclusively in female children. And, apart from the influence of pregnancy, this liability to early death from phthisis in women is not to be got rid of by such statistics as those of hospitals. In truth, the seekers of advice at hospitals have been to a very great extent sifted, as it were, unconsciously before they come; and, from statistics thus sifted in the first instance and then pared down, as my own have been, the conclusion reached is at best a guess.

Of statistical results less carefully reduced by elimination, I am compelled, from my own reasoning, to consider the conclusion even more misleading than a guess. Grisolle's repetition of Laennec's statements is carried much further to-day, when it is argued by a German physician‡ that, because destructive change has been found in the right middle lobe of the lungs in twenty-seven persons affected with syphilis, this condition is especially characteristic of syphilitic lung-affection. The mention of syphilitic lung disease brings me once more to the question whether or not there is a separate phthisis of the fibroid kind due to this poison. The subject has been very fully discussed lately at the Pathological Society, and, though many cases were brought forward

as illustrations of this particular affection, and though my friend Dr. Goodhart has kindly allowed me to read the notes of all the cases on which he based his remarks, I am compelled to say that they do not agree with the description of the very few cases quoted in my second Goulstonian lecture. They include mainly cases of gummata, gangrene, ordinary yellow deposits, with destruction of tissue or partial fibroid change. The case of a man with well marked syphilis, whom I mentioned more than a year ago as being under my observation, has impressed me still further with the rarity of this affection, a rarity more recently insisted upon by Drs. Wilson Fox and Pye-Smith. The *post mortem* examination of this last case revealed, indeed, a chronic pulmonary consumption in a body which had abundant evidences of syphilitic disease. But the condition of the lung was in no way like that described in my lectures and represented in these drawings. On the other hand, Fournier,* who recognises this particular form among others of "syphilitic phthisis" under the name of "pneumopathies hyperplasiques simples", gives a description of it which might indeed belong to those drawings:—"Les tuyaux bronchiques aboutissant à ces foyers scléreux sont généralement déformés, aplatis, oblitérés, et se terminent en ampoules. Quant au parenchyme pulmonaire proprement dit, il n'existe plus; il est remplacé par une gangue compacte, fibroïde, ou scléreuse à son degré le plus avancé." I cannot sufficiently assert that, in these uncommon cases, it is with syphilis of the lung, accompanied by all the clinical symptoms of pulmonary consumption, that we have to deal, not with the most ordinary form of lung-disease in a syphilitic subject.

Before I leave this subject of fibroid phthisis, I would refer, for the mere sake of doing justice to older workers, to that form due, as the Germans say, to the inhalation of dust. I had thought, when I wrote on this subject some eighteen months back, that Wepfer had been the earliest observer of this disease and its cause. But, in Albert Haller's collection of *Disputationes ad Morborum Historiam et Curationem facientes*, published at Lausanne in 1757, is an older paper on this subject: "Georg. Dan. Coschwitz et auctor Joannes Bubbe de Spadone Hippocratico Lapididarum Seebergensium Hæmoptysin et Phthisin Pulmonem (Pulmonalem?) vulgo die Seeberger Steinbrecher Krankheit Præcedente (Halæ, Julii 1721)." At page 118 of this work, the authors speak of "Pulvis ille a lapidibus effossis sub illorum effabricatione ad usus mechanicos secedens, ac sub respiratione in pulmones attractus, ibique indole sua terrea et adstringente tunicarum stricturas efficiens, variæque vasa quoque interspersa efficiens, sanguinisque legitimum circulum impediens."

The hæmoptysis of which I have spoken as occurring in the three cases of acute galloping consumption, like that in the two whose condition of lung is happily very different, was due, I believe, to the temporary congestion of the smaller bronchi, long ago referred to by Dr. Barlow and others, and more recently described by Dr. Dührssen,† in his paper on the treatment of hæmoptysis, as "Die initiale Lung-entzündung". There is another cause of loss of blood: a slow oozing either from degenerated bronchial capillaries or from small degenerated vessels in the walls of cavities. But the most dangerous is the bleeding from such an aneurism of the pulmonary artery as is seen lying in a cavity in this drawing. The man from whom the lung was removed died in the Victoria Park Hospital from suffocative hæmoptysis. Dr. Douglas Powell has tabulated, in the twenty-second volume of the *Pathological Transactions* (page 41), fifteen cases of fatal hæmoptysis of this kind, in twelve of which the source was found to be the rupture of either an aneurism or varicose dilatation. In two, the vessel was diminished or obliterated beyond. In this case of mine, the branch of the pulmonary artery runs along the wall of a moderately large cavity, and from the free side of the vessel bulges an aneurism which would hold an ordinary marble. The rupture has taken place in the sac just, as seen from the cavity, above and outside of what may be, for convenience sake, called the entrance of the artery into the sac. A bristle passed onwards into the branch beyond the dilatation travels only a very little way, and the artery in this case also seems to be diminished in calibre or obliterated.

I am afraid such cases as these are but pathological curiosities, reminding us only of the importance of insisting, in cases of chronic phthisis, on the absolute necessity of avoiding all exertion which would increase the blood-pressure in the pulmonary artery, the degenerated and unsupported branches of which are an ever present source of danger.

My apology for dwelling so long on isolated cases of phthisis is my belief that any rational treatment of the affection must be based on a careful study of individual cases, not on a study of pulmonary consumption as a typical disease with certain symptoms and a certain

* *Pulmonary Consumption*, 1791, pref., p. xlii.

† "De la Phthisie Pulmonaire dans les Hôpitaux de Lyon". *Lyon Méd.*, October, 1876, tom. xxii, p. 17.

‡ Grandber, "Über Lungensyphilis" and ihre Heilbarkeit durch die Schwefelquellen zu Neudorf". *Berl. Klin. Woch.*, 1875, No. 15, p. 195.

* *De la Phthisie Syphilitique*, *Ann. Chir. et M.*, 1757, Nos. 47, p. 73, etc.

† *Deut. Archiv für 1875*, 3. Jah. xvi, p. 333.

course. As an anonymous writer happily puts it in a late number of the *Medical and Chirurgical Review* (January 1877, p. 19): "There is no treatment of phthisis; there is a great variety of treatment, as there is a great variety of temperament, for those that suffer from phthisis." It would be idle to do more than suggest, as I have done throughout my remarks here and elsewhere on the natural history of this disease, the limits of prognosis in any individual case. Unhappily, those limits are often narrowed by the carelessness of the patient, who is blinded to his danger, or by the obstinacy of friends who are unwilling to believe the truth. And in this particular alone perhaps some of us may liken ourselves to that illustrious physician who is described by Tacitus* as "non quidem regere valetudines Principis solitus, consilii tamen copiam præbere".

CASE OF HYDATID CYST OF THE LIVER, CURED BY A SINGLE ASPIRATION :

WITHDRAWAL OF EIGHT PINTS AND A HALF OF PUS.†

By J. B. BRADBURY, M.D., F.R.C.P.,

Physician to Addenbrooke's Hospital, Cambridge: etc.

ON September 29th, 1876, I was asked to see, in consultation with Mr. Parkinson of Melbourn, a married man, aged 42, living at Barrington. The man was exceedingly ill, suffering from enlargement of the liver, and it was feared that he could not live many days. The history of the case was as follows. Five or six months previously to my seeing him he had had pain at intervals in the abdomen along the region of the transverse colon, which was not severe enough to prevent his working. The pain passed away "all at once" for some time. Nine weeks before I saw him, he caught cold and had headache. He remembered shivering and cringing over a large fire. From this he somewhat recovered, but about a fortnight afterwards he felt considerable pain in his chest and body, and observed his body swollen. He became very weak and lost flesh considerably. The pain increased, and, at one time, he had slight jaundice, with œdema of the legs. He never vomited.

On carefully examining the case, Mr. Parkinson and myself found a smooth globular tense swelling occupying the epigastric and hypochondriac regions, and encroaching on the umbilical and right lumbar regions. A feeling of fluctuation was perceived over the swelling. There was no redness of the skin, and not much pain on palpation; but, on placing the hand over the swelling, a friction-fremitus could be felt. There were no irregularities noticed on the surface of the swelling. The percussion dulness extended from the right nipple to the level of the umbilicus in a vertical line. The upper line of dulness extended nearly horizontally round the right side, being rather higher in front than behind. The lower line in front was convex downwards, the dulness extending lower on the right side than on the left. The lower edge of the liver was much thickened. There was bulging of the lower ribs on the right side, producing decided asymmetry. On the right side, there was good vesicular breathing above the line of dulness, which posteriorly extended downwards from the middle of the scapula. Over the dull region there was bronchial breathing and ægophony. The spleen was not enlarged. The urine was non-albuminous. The temperature was 99.2 degs. Fahr.

The man's aspect was worn; his features being drawn. His face was very pallid. He was very much emaciated.

The patient not being well off, I suggested, with Mr. Parkinson's concurrence, that he should be removed to the hospital for the purpose of introducing an aspirator into the liver. This was done on October 1st by Dr. Humphry, and eight pints and a half of pus were withdrawn, a large needle being used. About three ounces of the fluid were much clearer than the rest, which was thick and flocculent, so as at times to block up temporarily the instrument. The pus contained hooklets and shreds of hydatid membrane.

Careful notes were taken of the progress of the case from day to day after the operation, but with these I will not weary you. Suffice it to say, that the patient's progress was in most respects satisfactory. No eruption of urticaria and no sickness followed the aspiration, and there was but little abdominal tenderness. As is usual after tapping a hydatid tumour of the liver, the swelling returned after a few days, but again gradually subsided. The only features in the case which for a time gave one anxiety were the occasional elevations of temperature and the abnormal percussion dulness persisting on the right side of the thorax. In regard to the temperature, it was for some time

subject to somewhat regular variations, an increase taking place about every fifth day, and an almost normal standard being restored during the intervals (yet not quite normal, even then the evening temperature reaching 99 degs. Fahr.) Five such periodical rises were observed.

On November 8th, the man was made an out-patient, but I kept him under observation for some months, during the whole of which time he was taking cod-liver oil and quinine. When I last saw him, about the end of March, he was perfectly well—indeed, in better health than he had been for years, and I could detect nothing abnormal either in his abdomen or thorax.

Formerly, I should, in a case of *suppurating* hydatid cyst, have recommended the insertion of a large trocar and a drainage-tube; indeed, some of my earlier cases were treated in this way. More extended experience, however, has taught me that it is much better to use the aspirator, and if one aspiration be not sufficient, there is not the least objection to the operation being several times repeated. Fortunately, in the case I have brought before you, only one insertion of the needle was required.

REPORT ON A CASE OF UNILATERAL CONVULSIONS AND HEMIPLEGIA DEPENDING UPON A LESION OF CERTAIN CEREBRAL CONVOLUTIONS.

By BYROM BRAMWELL, M.D.,

Physician and Pathologist to the Newcastle-upon-Tyne Infirmary; Joint-Lecturer on Clinical Medicine and Pathology in the University of Durham College of Medicine.

AT the present time, when the localisation of the functions of the brain is exciting so much attention, it is of great importance that all cases of disease which tend to elucidate the subject should be recorded. Such cases of disease are of comparatively rare occurrence, and as Dr. Hughlings Jackson has well remarked, they are the only experiments which we can observe in man. This must be my apology for bringing before your notice to-day the following notes of a case which was sent under my care by my friend Mr. Wear, Surgeon to the Newcastle-upon-Tyne Dispensary.

Mary C., aged 37, hawker, married, was admitted to the Newcastle Infirmary on May 23rd, 1875, suffering from convulsions and right-sided hemiplegia. The people who brought her to the hospital stated that she had been convulsed more or less constantly since May 10th; that previously to this date she had enjoyed excellent health, but that she had received some years ago a severe blow on the left side of the head.

Her condition was noted on May 25th to be as follows. She was a stout muscular woman, and looked much older than her years. She lay on her right side. The face was pale; the right eyelid was partly closed; the eyeballs were turned upwards, and to the left; the pupils were equal, moderately contracted, and sensible to light. There was total paralysis of the right arm and leg; partial paralysis of the muscles of the right side of the face and cheek. She was unable to protrude the tongue, which was swollen, and abraded on its right side and at the tip; the result of contact against the teeth in the convulsions presently to be described. Deglutition was natural. The patient was conscious, and understood most things that were said to her. There was no true aphasia. Speech was thick and difficult to understand, owing to the paralysis of the muscles of articulation. She could localise impressions, though not perfectly. Muscular sensibility and contractility were natural. The *tache cérébrale* was slightly marked. A depression of the size of a threepenny-piece was to be felt two inches above the left ear. Pressure and galvanism over this spot did not seem to aggravate the convulsions. Every few minutes she was seized with a convulsion. The fits were of three kinds, and may, for the sake of description, be called *slight*, *moderate*, and *general*.

Different muscles were affected in each form. The sequence of the spasm was always the same.

In the *first or slight convulsion*, the muscles of the face and neck were alone affected, and that in the following manner. Both eyes were first firmly closed, and the right corner of the mouth drawn downwards in tonic spasm, the platysma being rigid. The eyes were next partly opened. The head and eyeballs were then slowly turned to the right side. Clonic spasms now occurred in the eyelids (the left being only slightly affected), in the muscles of the tongue, the right side of the face and neck (chiefly the platysma). After a short interval, the clonic spasms became less frequent, the head and eyeballs were turned to the middle line, the eyelids were widely dilated, and the countenance presented an animated appearance. The eyeballs

* *Annals*, lib. vi, c. 50.

† Prepared to be read before the Cambridgeshire and Huntingdonshire Branch.

were finally rotated upwards and to the left, the eyelids closed, and the patient apparently falls asleep.

In the *second variety, the convulsion commenced as before. After the head had been rotated to the right*, and as the clonic spasms were commencing, the fingers of the right hand were drawn into the palm, the hand was then flexed on the wrist; the forearm was next bent to a right angle and lay across the chest, the muscles of the right leg at the same time became rigid, and the foot strongly inverted. Clonic spasms occurred in the muscles of the arm and forearm, the flexors being chiefly affected. A few spasmodic twitchings were also to be observed in the leg and thigh, chiefly in the extensors. There was never any flexion at the hips or knee.

In the *third variety the convulsion became general. The fit commenced as before, and passed through the various stages enumerated above. After flexion of the right forearm the arm was slowly raised at the shoulder until it was at a right angle with the body; the tonic spasm at the same time passed to the muscles of the left arm and leg. The fingers of the left hand were drawn into the palm, the hand was flexed at the wrist, the forearm at the arm; the arm was then raised and brought over to the right side so that the hand was made to approach the forehead; the left leg was at the same time flexed on the abdomen, and slightly adducted; the knee was bent, the toes were spread out, and the foot flexed at the ankle-joint. The tonic spasm soon passed off; clonic spasms of the muscles of the body generally occurred, the patient foamed at the mouth, and made a quackling noise. As the clonic spasm came on, the left arm was abducted, thrown backwards at a right angle with the body, so that the under surface of the arm, forearm, and hand, were uppermost.*

In the general convulsions, the muscles of the right side of the body were much more powerfully contracted than those of the left. The body tended to turn over towards the right side.

The slight fits occurred every few minutes; the intermediate form frequently; the general convulsions only occasionally. (She had eight during the first twenty-four hours after admission.)

The sequence of the spasm never varied from that described.

It was impossible to ascertain whether the patient was conscious during the slight fit. She certainly was immediately afterwards.

She slept well, frequently yawned, and occasionally ground her teeth.

On ophthalmoscopic examination, the disc was seen to be large and pale, the vessels of medium size; the arteries could be readily distinguished from the veins. The rest of the fundus was of a deep cherry-red colour. The condition of the fundus in both eyes was the same.

The temperature in the right axilla was 100 deg. Fahr.; left 99.6 deg. Fahr. Radial pulse 120; respirations 24. The heart, kidneys, and other organs were, so far as could be ascertained, quite normal. The appetite was very good.

The diagnosis was—acute cerebral softening, depending either upon an embolism of the middle cerebral artery, or upon some irritation below the depressed portion of the skull.

The treatment consisted in the application of cold to the head, the administration of a purgative on her admission, followed by full doses of bromide of potassium, beef-tea, milk, eggs, etc., *ad libitum*.

May 27th. She had slept a great deal. The convulsions were not so frequent, and were much less severe. She was sensible on most points, but persisted in saying she was fifteen years of age. Temperature—right axilla, 99.2 deg.; left, 98 deg.: right hand, 98.2 deg.; left, 95.8 deg.: right ear, 98.2 deg.; left, 97 deg. The temperature in the axilla immediately after a general convulsion was one degree higher than before the fit.

May 28th. She had been very much better; was quite sensible last night, talked and laughed, protruded the tongue beyond the teeth, but never moved the right arm or leg. She had had no general convulsions since yesterday. The other conditions were the same. My surgical colleague, Dr. Arnison, saw the case with me. The question of trephining was considered. It was deemed expedient, as there was some improvement, to wait a few days and to continue the same treatment.

May 30th. She died somewhat suddenly at 9 A.M. this morning.

The previous history of the case was ascertained from her husband to be as follows. She was always very healthy and strong, and worked hard as a hawker until her present illness commenced. Eight years ago she received a severe blow on the left side of the head; the skull was fractured. She was laid up for a month at that time. Three years ago, she had five convulsions on one day. The right side of the body only was affected. These fits were brought on by a fright. For the last three years she complained of numbness in the forefinger of the right hand, and could not use her needle so well as she used to do. On May 10th, she went to bed very drunk. The next day she fre-

quently vomited, and said her head was giddy. On May 12th, she took a fit, and continued to be convulsed until her admission to the infirmary. The right arm and leg became paralysed a week after the fits attacked her. She never at any time complained of pain in her head. Her eyesight was hardly so good as it used to be. She generally got drunk every week.

The *post mortem* examination was made eight hours after death. Rigor mortis was present in the right arm and leg. Immediately below the left parietal eminence, there was a depression of the size of a threepenny-piece; a large white cicatrix ran across the scalp at this point. The scalp was adherent over the depression. The skull-cap having been removed, the dura mater was found adherent to the bone along the line of the vertex, and at a part corresponding to the external depression; the bone had been absorbed at this point. The resulting aperture was bridged across by dense fibrous membrane. A sharp lancet-shaped spiculum, or rather exostosis, of bone, about a quarter of an inch in length, projected from the inner table of the skull close to the aperture. The dura mater was not adherent to the subjacent structures. The arachnoid was in places white and milky. There was a small quantity of subarachnoid fluid. The vessels of the pia mater were slightly congested. At a part corresponding to the position of the projecting exostosis, was a well-marked depression on the surface of the cerebrum. Its exact position was an inch and a quarter above the fissure of Sylvius and just behind the fissure of Rolando. The exact position is marked in Fig. 1. The depression was triangular in

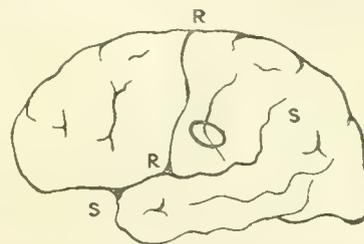


Fig. 1.—Outline of Left Hemisphere of Human Brain. S, S. Fissure of Sylvius. R, R. Fissure of Rolando. The circle O represents the position of the lesion in the case of M. C.

form, an inch in length, and half an inch in breadth. The arachnoid and pia mater were adherent round the margins of the depression. The brain-substance was exposed at the lower and posterior part of the depression; it was of a greenish-yellow colour. There was no great amount of vascularity round the part. The ventricles contained a small amount of fluid. The other parts of the encephalon were normal.

My friend Dr. Herbert Major very kindly examined the brain and sent me the following report.

On cutting through the brain-substance at the site of the lesion, the following abnormalities are apparent to the naked eye (the brain having been partially hardened in spirit). The grey cortex is abnormally thin, not more than one-third or so of its usual thickness. (Alteration in colour, etc., could not be estimated, owing to the action of the spirit.) Passing downwards from this atrophied portion of the cortex is a pale, almost white, tract. Seen on section, it is somewhat triangular in form, the base being the diseased cortex, and extended downwards into the white matter for about two-thirds of an inch, tapering rapidly to a point. This tract, besides being paler in colour than the surrounding tissue, appears to be closer and denser, while, at the same time, it presents numerous small holes. It is quite evident that this pale tract is formed by an abnormal state of the white matter. In other parts, so far as could be observed, the cerebrum presents nothing abnormal, with respect either to the white or grey matter, or the ganglia at the base.

Microscopical Examination.—On making a section through the cortex at the seat of the lesion, together with the subjacent white matter, absence of a portion of the cortex is again detected. The two outer layers are usually intact, but those situated deeper are altered or destroyed. The new elements of the two outer layers are not greatly altered; in a few instances, the nerve-corpuscles present a condition of granular degeneration, but not to any great extent. Passing downwards from the second layer, the cortex is seen to be greatly changed, the nerve-corpuscles are nearly absent, and their place is taken by large numbers of connective tissue corpuscles and fibres; and of the same structure is the white tract before described. The fibres of connective tissue corpuscles are observed: the majority are circular in form, present two or three granules, and are scattered in an irregular manner

or collected into groups. The other form consists of long spindle-shaped bodies placed closely side by side, and forms fibro-cellular bands very similar to the structure of the spindle-celled sarcoma or recurrent fibroid tumour. The nerve-fibres are atrophied and destroyed. The vessels of small size and capillaries are very few in number, but in all cases their walls are greatly thickened by proliferation of the nuclei, and their course is tortuous and irregular.

It will thus be seen that at the site of the lesion in the left hemisphere of the brain there is a wasted and atrophied state of the cortical substance, with destruction of some of the layers, while the subjacent white substance is altered and transformed into a dense fibroid structure in which the nerve-elements are no longer seen.

Remarks.—It will be perceived from the foregoing description—

1. That the lesion was very well defined and of limited extent ;
2. That the convulsions were of a constant character, and that the sequence of the spasm was always the same.

It may therefore, I think, be reasonably concluded—

1. That the motor centres for the muscles which were affected in the slight form of fits are situate in and about the seat of the lesion ;

2. That, in the more general convulsions, the irritation which originated in and about the lesion spread to surrounding and more distant (convulsions) parts.

This localisation is confirmed by Ferrier's experiments. He has shown (*Proceedings of Royal Society*, No. 111, 1875) that in the case of monkeys, on irritation of the lower termination of the ascending parietal convolution and the region of the inferior termination of the intraparietal sulcus (Circle 1, Fig. ii), there is retraction of the angle of



Fig. 2.—Left Hemisphere of Monkey's Brain, after Ferrier. S, S. Fissure of Sylvius. R, R. Centre for Respiration. Circle 1. Centre for Platysma. Circle 2. Centre for Eyeballs. Circle 3. Centre for Hand and Carpus.

the mouth and of the platysma on the opposite side. In one experiment, the application of the electrodes to this point gave rise to spasms of a choreic or epileptiform character, beginning in the left angle of the mouth, then affecting the left hand and arm, and lastly the left leg and tail.

On irritation of the angular gyrus (Circle 2, Fig. ii), he found the eyes are turned upwards and to the right ; that on longer stimulation the head is rotated to the right side ; that the ascending parietal convolution (Circle 3, Fig. ii) is the centre for the fingers and the carpus.

On comparing the position of these centres in the monkey's brain with the position of the lesion in the human brain (Fig 1), it will at once be seen how closely the two correspond. If we suppose the irritation to have been chiefly manifested at the periphery of the lesion, the results in many particulars are identical.

The case also strongly confirms Dr. Hughlings Jackson's views on epilepsy, viz., that it consists of a discharging lesion of the grey matter of the cerebral convolutions.

Other points of interest are the following :—

1. The powerful influence of bromide of potassium in controlling the convulsions. The general irritation of the brain, as manifested in the general convulsions, was completely allayed by the drug.

2. The long period of time (eight years) which elapsed between the receipt of the injury and death.

3. The fact that rigor mortis was present eight hours after death on the right, but not on the left side.

4. The difference in temperature of the two sides, and the fact that the temperature rose 1 deg. Fahr. during a general convulsion. The paralysis was evidently epileptic.

I regret that the operation of trephining was not performed, but it must be remembered that the patient was apparently improving. The exact cause of death, in the absence of a complete *post mortem* examination, could not be ascertained.

In conclusion, I must express my thanks to my friend Dr. Major for his careful examination and interesting report on the condition of the brain ; also to my friend Mr. Wear, for recommending the case to my care.

CLINICAL MEMORANDA.

A CASE OF IMPERFORATE HYMEN : CONFINED SECRETION ENTIRELY FLUID.

A FEW months ago, I was asked by a neighbouring medical man to visit with him a case of imperforate hymen ; and I have his permission for publishing the following facts, thinking they may be of some interest to the readers of the JOURNAL.

E. N., a fine well-developed girl, aged 15, had never menstruated, although for the past two years the usual symptoms had been present regularly without any flux occurring. Latterly, she had experienced so much pain and discomfort in the back and thighs with a sense of fulness in the vagina, that her mother, becoming anxious, consulted my friend, who at once discovered the nature of the case. On examination, we found the membrane was entire and much thickened ; and, on proceeding to give relief in the usual way, a sudden and violent gush of fluid, like porter and water, took place, flying up to the ceiling and against the opposite wall ; rather more than two quarts of this fluid was collected. The patient made a good and rapid recovery, and the menses have since occurred without further trouble.

The chief point in this case was the fluid nature of the retained matter, as in two or three similar cases, as also in works commenting on this subject, we have found the confined secretion to be of a treacly consistency.

T. WELLS HUBBARD.

CHRONIC POISONING BY SULPHATE OF COPPER.

POISONING by the salts of copper are very rare. The following cases are of interest, from the persistent vomiting extending over ten weeks in one case, and also from throwing some light on the symptoms likely to be met with in poisoning by the improper use of cupric salts as colouring in articles of diet.

On May 24th, 1877, I was requested to see E. H., aged 8, and A. H., aged 6, whom I found in bed, each with raised temperature, coated tongue, no rash visible, with vomiting at frequent intervals ; the latter seemed to be the milk unchanged given as food. On inquiry into the previous history of the cases, I found that on the afternoon of Whit-Monday (May 21st), the children had visited a relative at his farm, a little distance from the town. Left to their own enjoyment, they regaled themselves with unripe fruit in the garden, and afterwards, finding some wheat in a spare room, also partook of this. They were both shortly afterwards seized with vomiting. As this seemed to be the unripe fruit and wheat, the mother felt no cause for alarm ; but, as they still continued ill, and the vomiting remained, she thought it better for me to see them. With the above symptoms, I was somewhat puzzled to account for the obstinate vomiting, the food being regurgitated back as soon as taken, and never after they came under my care, of a blue or green colour ; but, on further investigation, I found that the corn they had eaten was part of the prepared wheat remaining of the "spring-sowing", and that the preparation consisted of a soaking in a strong solution of sulphate of copper.

They were given drop-doses of the wine of ipecacuanha with lime-water and mucilaginous drinks, under which treatment the elder child was in a few days convalescent. The younger became very prostrate ; the temperature still raised (102 deg. Fahr.) ; the bowels exceedingly constipated ; vomiting daily ; although other remedies were tried. I could not detect any lesion of lung or intestine. This continued for about ten days, when her health began to improve, and she was ordered milk and lime-water, beef-tea, wine, with carriage exercise. Her friends about this time removed from the neighbourhood, and I did not see her again until July 7th. She had become much emaciated, and was ordered cod-liver oil and nourishing food. I find she became much worse on the 27th, and died on July 30th in a convulsion. No *post mortem* examination was made.

J. FLETCHER HORNE, F.R.C.S.Ed., Barnsley.

RUPTURE OF KIDNEY : RECOVERY.

As the following case is one of not very frequent occurrence, I think it may prove interesting.

D. M., aged 56, of temperate habits, whilst unroofing a stable on July 23rd, was precipitated to the ground, a distance of seven feet, by the giving way of a beam upon which he was standing. He was much shaken, but did not think there was anything amiss with him. He helped to clear away the rubbish that fell with him, and then walked home, a distance of about a mile and a half. He then went to bed, but sent for no medical man, as he thought there was nothing

serious the matter. In an hour's time he micturated, and, to his astonishment, found that he was passing blood. He, therefore, sent for me immediately. I was out at the time, but he was seen by Mr. Lewis, who found him faint, and complaining of severe pain over the right hypochondrium. His pulse was 62, weak but regular. He was ordered a grain of opium and hot fomentations over the bowels. I saw him myself the same evening, five hours after the accident. He was then pallid from loss of blood, and suffering considerable pain over the right kidney. He had passed more blood, and had been sick; his pulse was 68. I gave him another grain of opium.—On the 24th, he had had a fair night, and expressed himself as feeling comfortable, with the exception of sickness. The pain was not so severe, but returned in the evening after the effects of the opium had passed away. I ordered him a gallic acid mixture, and to take milk and soda-water.—On the 25th, he was better, but still passing a considerable amount of blood; the sickness continued, but the pain over the kidney was very much better.—On July 28th, the vomiting had ceased, and the urine was free from blood, but it reappeared on the 30th, probably owing to his getting out of bed and walking about. I saw him on August 3rd, and he said he felt perfectly well; and, although his urine was of a rather dark colour, it was quite free from albumen. He walked down to see me on August 7th; and, with the exception of a feeling of stiffness in the abdomen, he was perfectly well.

Ash Mount, Sparkbrook, Birmingham. J. WARD, M.R.C.S.

THERAPEUTIC MEMORANDA.

LIQUOR AMMONIÆ ACETATIS IN DYSMENORRŒA.

THIRTY years ago, I came across the assertion that liquor ammoniac acetatis was the specific of dysmenorrhœa, but I soon found out that it often fails. I always, however, give it, in conjunction with chloric ether and antispasmodics, when dysmenorrhœa is caused or increased by cold, nervous shock, or overfatigue, more particularly when the menstrual flow is checked. I thus agree with Mr. Torrance, in thinking it right to greatly restrict the high estimation in which liquor ammoniac acetatis is held by Dr. Drew in the treatment of dysmenorrhœa.

EDWARD J. TILT, M.D., Seymour Street.

OBSTETRIC MEMORANDA.

BLEEDING FROM THE UMBILICUS IN AN INFANT FROM FOUR TO FIVE WEEKS OLD.

WHILE passing the house, I was asked to see the patient, an infant from four to five weeks old. The following is the history as far as it could be gathered. The labour had been a natural one, and the midwife in attendance had tied the cord in the usual way, and apparently quite efficiently. On the fourth day, it dropped off, when both mother and nurse thought nothing was wrong, as, indeed, anyone must have concluded on similar data. Some days afterwards—how many I was unable to ascertain—the navel began to bulge outwards, a small tumour formed on it, and from this, at intervals, an oozing took place which stained the infant's dress. On seeing the child, the umbilicus was found enlarged and protruded, blood was flowing from the root of a small tumour (about the size of a large pea), which was covered by a thin vascular membrane, within which pulsation was perceptible. The situation of the tumour was immediately over the umbilical vessels, at the point from which the cord had dropped, and the membrane appeared to have developed from the inner surface of one of the vessels which had remained pervious. While I was examining it, the attachment partially gave way, when, blood coming in a full stream, it was determined to tie the umbilicus itself. By seizing this with the forefinger and thumb, all further hæmorrhage was prevented; the omentum distending the sac was gently pushed back and a needle run behind the bleeding vessel. A silk ligature was then applied on each side, the needle being used as a fixed point. The ligatures were removed on the third day. The little tumour shrivelled and fell off, the navel assumed the usual form, and the infant has had no recurrence of the bleeding.

As to the source of the hæmorrhage, it seems probable that one of the fetal vessels had remained pervious after the dropping off of the cord. The pressure of blood in this from behind would slowly force forward the substance plugging up its mouth; and it and its connections being gradually distending, it became developed into the membrane forming the sac of the tumour that grew over the vessels in the

situation from which the cord had dropped. The view that the bleeding came from one of the fetal vessels only partially obliterated is further strengthened by a consideration of the volume of blood which showed itself when the membranous sac gave way at its root under the preliminary examination, as well as by the pulsation visible in the sac itself.

ROBERT SMITH, F.R.C.S. Ed.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

GUY'S HOSPITAL.

A CASE OF SEVERE DYSTOCIA FOLLOWED BY RAPID RECOVERY.

(Under the care of Dr. GALABIN.)

THE patient, Mary N., a strong muscular woman, thirty-four years old, was in her fourth pregnancy. The first child, born sixteen years ago, was delivered alive, after a protracted labour, and is still living. The second and third children were extracted with difficulty by forceps, and were still-born.

Labour-pains commenced early on the morning of April 8th, 1877, and the membranes ruptured spontaneously about 7 P.M., the os being then about three-fourths dilated, and the head above the brim. By 10 P.M., no advance had been made in the descent of the head or the dilatation of the os. On examination, there appeared to be fair space in the antero-posterior diameter, but the pelvis was deep and narrow, and the sagittal suture coincided with the conjugate diameter. Pains were strong, but the head did not descend sufficiently into the brim to exert any dilating force upon the os. Since the position of the head showed an abnormal shape of the pelvis, it was decided not to delay interference, although the patient showed no exhaustion, and the pulse was only 80. Chloroform was administered, and forceps were applied by Mr. Finch, the Obstetric Resident. In about forty-five minutes, with due intermissions, traction was exerted by Mr. Finch and by Dr. Galabin alternately, with as much force as could be equably applied, with the aid of the knees supported against the edge of the bed and counterpressure by an assistant upon the patient's buttocks. No advance, however, was gained. The child being alive, and one child having previously been delivered living, it was then decided to try version, although the form of the pelvis was less favourable for this operation than one contracted in the conjugate diameter. The right knee was seized by Dr. Galabin, but there was great difficulty in causing the foetus to rotate. It was eventually effected by bringing down the foot, placing a noose round it, and making alternate traction on the noose and pressure upon the head. By strong traction, the breech was eventually brought down externally, but the arms became extended and would not enter the brim, and the funis ceased to pulsate. After vain attempts to release the arms by crochet or blunt hook, the abdomen and thorax were eviscerated. By combined traction on the legs and the crochet fixed in the neck, the foetus was then brought low enough to allow the arms to be extricated by a blunt hook. The head, however, remained fixed, and the spinal column gave way under traction. The occiput was then perforated, the brain-substance cleared out, and Dr. Barnes's craniotomy-forceps fixed in the aperture. By prolonged traction, the head became greatly elongated, and was extracted. After removal of the placenta, the uterus was washed out with cold water. The patient had been kept fully under chloroform during the whole time of these manipulations, a period of two and a half hours.

It was considered of importance that the vagina should be syringed daily with disinfectants; but the patient and her friends, who were extremely unmanageable, as well as uncleanly, absolutely refused to allow any such proceeding. The patient, however, appeared to suffer but little in consequence. The temperature on the second day was 100.6 deg.; on the third, 100 deg.; but from that time it became normal. Seven days after delivery, she was found, contrary to advice, to be up, and engaged in her household work. Nevertheless, she was none the worse for her imprudence, and convalescence was uninterrupted. The pulse never rose above 98, before or after delivery.

On examining the pelvis after delivery, it was found to be of the masculine type, and very deep. The conjugate diameter of the brim was the greatest, as indicated by the antero-posterior direction of the sagittal suture at an early stage of labour, and measured about $3\frac{3}{4}$ inches. The child was a male, of very large size, and the cranial bones

were extremely hard. The rapid convalescence of the patient, after such severe and protracted operative proceedings, may perhaps be accounted for by the fact that the necessity for interference was recognised at an early period, before the strength had become at all exhausted.

It may be remarked that, in the last eight years, out of more than 18,000 deliveries in the Guy's Hospital Lying-in Charity, version has only once been successful in delivering a living child after the failure of forceps in arrest of the head at or above the brim. In one other instance, a still-born child was delivered by version; but in all the rest that operation had to be followed up by craniotomy. In all of these cases labour had come on spontaneously, and in most of them the children were at full term. It has been the custom, during this period of eight years, when the head is arrested at or above the brim from disproportion, to apply forceps in the first instance, and exercise no sparing degree of traction; but, if forceps fail, always to make trial of version afterwards, if practicable, before resorting to craniotomy. In the six years preceding the last eight, during which a pair of forceps somewhat less powerful and more yielding in the blades was in use, version was relatively much more successful, or rather the application of forceps was less successful, in cases of disproportion at the pelvic brim. During that time, delivery was effected by version in thirteen cases, in five of which forceps had first been tried in vain. The children were living in ten out of the thirteen cases, and in three out of the five in which forceps had failed.

BIRMINGHAM GENERAL HOSPITAL.

A CASE OF GENERAL HYPERTROPHY OF THE LYMPHATIC SYSTEM, WITH ENLARGEMENT OF THE SPLEEN: RECORD OF HIGH TEMPERATURE.

(Under the care of Dr. RUSSELL.)

A VERY interesting sketch of the growth of opinion, in this country at least, respecting the pathology of lymphadenoma, might be made from a perusal of the successive volumes of the *Transactions* of the Pathological Society; from the fourth of the series, in which the disease was referred to fibrinous deposits due to slow inflammatory changes in the spleen and lymphatic glands, to the twenty-first volume, in which is contained a very full account of the nature and character of the organic changes by Dr. Murchison and Dr. Burdon Sanderson. In the first-mentioned volume, attention was chiefly attracted by the increase in the interstitial stroma of the lymphatic glands, which occurs in lymphadenoma, and occasioned the remark of Dr. Sanderson, that the structure of the new growth resembles that of a lymphatic gland, "not when in its natural state, but when in the condition I have elsewhere described as that of fibroid induration". In the last volume, the corpuscular element of the growth assumes its proper position in the account, and the composition of the disease is referred to the adenoid tissue of His. It may be noticed, in passing, that Dr. Hodgkin, whose early notice of the disease is generally referred to in connection with the subject, himself ascribes the change in the glands to hypertrophy of the normal glandular tissue, rather "the consequences of a general increase of every part of the gland, than of a new structure developed within it and pushing the original structure aside". (*Med.-Chir. Trans.*, xvii, 86.) It is in consistency with this representation of the nature of the disease, that the period of life during which it occurs, appears to coincide with the period of activity of the lymphatic system; at least, I find that out of thirty-five cases, although the cases are scattered freely through all ages up to thirty years, there were only seven cases beyond the age of thirty and one only beyond that of fifty. The participation of the spleen in the morbid process has constituted a prominent feature in the descriptions given; thus Dr. Wilks observes that "the most remarkable feature in the history of the disease is its intimacy with that peculiar affection of the spleen which slowly and inevitably leads to a fatal end, the symptoms being anæmia, prostration and final exhaustion". I refer to this remark of Dr. Wilks's especially, because the case I have to report justifies the importance he attaches to the splenic change. In various cases, the enlarged lymphatic glands attain a truly enormous size; but in my case, though the lymphatic enlargement was very general, it had not attained much magnitude in any single gland, whilst the spleen was greatly increased in size. In my patient, the anæmia, which is described in a large proportion of the instances in strong terms, was not so prominent a symptom as usual, though undoubtedly existing; but the asthenia was most decided, and was the ultimate cause of death. I must, however, observe that the altered portions of the enlarged spleen, in my present case, did not present the appearance usual in lymphadenoma, recalling Dr. Wilks's simile of lumps of suet. I believe, however, that Dr. Saundby's report of the microscopic appearances which the altered portions

presented, retains the essential elements—viz., hypertrophy of the splenic pulp with increased growth of the reticulum.

I would dwell for a moment on one element in the clinical history of my case, viz., the raised temperature which presented itself in a series of waves of depression and elevation throughout the period during which the patient was under observation. Although an "irregular and high temperature" forms an element in the clinical characteristics of the disease given by Dr. Greenfield, and is justified by his cases (*Pathological Transactions*, vol. xxvii, page 275, and *BRITISH MEDICAL JOURNAL*, vol. ii for 1876, page 716), a raised temperature does not form a feature in the history of many of the cases, though it does in some, chiefly in those recorded recently. The most interesting example is one by Dr. Murchison (*Pathological Transactions*, vol. xxi, page 372), in which the lymphatic hypertrophy was remarkably general throughout various organs of the body, and the periods of growth of the glandular enlargements were marked by almost periodic febrile paroxysms, continuing through a period longer than two years, each paroxysm being of ten days' duration and recurring about every four weeks; in the single paroxysm observed, the evening temperature attained 104 deg. Dr. Murchison also notices briefly a similar occurrence in what was probably a like case, though he had not the opportunity or tracing the case to its termination. In another case, by the same writer, (*Ibid.*, vol. xx, p. 198), a temperature is recorded varying between 101 deg. and 104 deg. through fourteen days. Again, in a patient of Dr. Bennett's (*Ibid.*, vol. xxii, p. 70), the usual temperature varied from 100 deg. to 102 deg., but 104 deg. was once registered, the range of temperature maintaining a relation with the bronchial irritation and dyspnoea. In Dr. Taylor's case (*Ibid.*, vol. xxv, p. 246), the temperature through twenty-three days varied between 100 deg. and 102 deg. In one of Dr. Greenfield's cases (*Ibid.*, vol. xxvii, p. 275), during the second month, through which the patient was under observation, the temperature varied from 100 deg. so 102.6 deg., with no constancy as to the greater elevation in the morning or evening; and in a case by Mr. Haward (*Clinical Soc. Trans.*, December 10th, 1875), the evening temperature during the latter part of the case was usually 102 deg., and subsequently 103 deg.; in the morning, 98 deg. In my own case the record of temperature extended over sixty-six days.

E. T., aged 40, presented nothing noteworthy in her previous history; her family history was imperfect. The glandular enlargement first appeared in the right armpit, five months before admission; it was attended with some pain. In about a month afterwards, she noticed her abdomen to be enlarged. The extension of the lymphatic enlargement was attended with pain, but the chief pain was in the region of the enlarged spleen. Emaciation commenced with the outward manifestation of the disease, and advanced slowly; menstruation also became scanty. When admitted, enlarged glands presented themselves, as will be described in the *post mortem* examination, in the cervical region, beneath the jaw, in the axillæ and upper arms, on the front of the chest, and in each groin. The spleen extended an inch below the level of the anterior iliac spine. Though the patient had a troublesome cough, no physical signs of disease within the chest were revealed. She was anæmic, but not extremely so, with dark hair and eyes. The blood, examined on admission and again shortly before death, presented fewer red corpuscles than usual, but no increase of white cells. Though the breasts had quite fallen away, emaciation was not advanced. She had lost almost all pain; had very little appetite; her tongue was clean; her urine was free from albumen. She was under observation from March 20th to May 16th, when she died of asthenia, somewhat suddenly. Some increase in the number of the enlarged glands occurred, whilst she was under observation, in the cervical and inguinal regions; and suppuration, with considerable surrounding inflammation, took place around the glands beneath the left angle of the jaw. A week before death, it was noticed with surprise that the enlarged glands had undergone general and decided diminution in size, so that some of them would not have been noticed but for the distinctness preserved by their neighbours. I may observe that Dr. Greenfield records a similar occurrence in one of his cases, taking place also towards the close of life. When she was admitted on March 20th, the evening temperature was 102 deg., and through the next ten days there was on the whole a steady, though not quite a regular rise up to 105 deg. on the last two evenings; the morning temperature being generally, but not quite uniformly, from 1 deg. to 1.5 deg. lower, and twice the morning was higher than the evening temperature. Then in thirty-six hours a fall of 7 deg. took place (to 98 deg.) probably in part, though as it was afterwards rendered probable only in part, through the agency of salicylic acid; thence commenced at once a similar rise for seven days up to 104 deg. on the last two evenings, the evening temperature uniformly prevailing over

the morning. From this point, an evening temperature of 103 deg. or 103.5 deg. was maintained for three days, despite the administration of salicylic acid, when a fall to 100 deg. was effected in a single night, to be followed in two days by return to the same degree of 103 deg. Four days were then occupied by a gradual descent to 99 deg., which temperature was maintained no longer than the morning of the last day, for a fourth wave of elevation set in, and was completed on the evening of the eighth day, after which a fall to 100 deg. was effected in four days (April 27th). From this period to the date of death, no regular gradation of temperature was observed; the degree fluctuated between 100 deg. and 103 deg. The pulse was generally about 100, often 108 or 112, in the morning; emaciation advanced steadily; there was profuse perspiration, encouraged, probably, by the salicylic acid. The urine became albuminous at the period of the administration of the salicylic acid, but afterwards the albumen declined and finally disappeared. There were no casts. The urine was loaded with urates, specific gravity 1018 to 1025; the quantity was about twenty to twenty-five ounces.

Thoracic symptoms were prominent through a great part of the case, after the first week of residence, in the shape of very troublesome almost incessant cough, with half-a-pint per day of glairy nearly transparent non-albuminous mucus, not frothy. There were no physical signs other than of catarrh; and the cough and expectoration subsided before death, after excision of the uvula, which was found to be rather long.

Secitio Cadaveris.—There was no œdema; some clear fluid in the abdomen and in the left side of the chest. Chains of enlarged lymphatic glands lay beneath and behind each sterno-mastoid muscle, beneath each ramus of the lower jaw, leaving the salivary glands intact, in each axillary space and under each lesser pectoral muscle, descending thence over the surface of the ribs. A collection of innumerable small glands, the greatest not above twice the size of a pea, lay around the trachea running to the roots of the lungs, where the bronchial glands were also involved, and thence a chain descended to the diaphragm on the right side of the spine. Another large collection surrounded the left extremity of the pancreas, connecting it with the spleen, but leaving the gland itself healthy, and in large numbers coated along the upper edge of the pancreas, forming an irregular mass of considerable magnitude, which reached the small curvature of the stomach and sent an offshoot along that viscus. A few very small glands lay beneath the peritoneum on the anterior wall of the stomach. The lumbar glands were similarly enlarged, running along the iliac vessels to join another chain in each groin. The glands on each side of the biceps in each upper arm were felt through the integuments. The general size of the glands in the outer parts varied from that of a pea to double the size of a horse-bean; but in the axillæ, thorax, and abdomen they were more enlarged, and some attained the size of a large walnut. On section, they presented the ordinary appearance of gland-tissue, without any opaque matter or creamy juice. Peyer's patches in the small intestine were natural. Some ulcers of small size, removing the mucous membrane only, and without induration, existed in the anterior wall of the stomach, and a line of small eminences ran along its small curvature beneath the peritoneum. Liver 4 lbs. 10 oz., pale. Kidneys 14½ oz.; their capsule was somewhat adherent. Spleen 2½ lbs.; capsule normal. The general tissue was that of simple hypertrophy; but at the lower extremity and at the edge were several tracts of very irregular shape, averaging about three-quarters of an inch in diameter, strongly defined, in which the tissue was denser and more pale than in other parts. In the middle of one or two of these patches was a small portion of equally irregular shape and pure white colour. Heart 9½ oz. Lungs anæmic. Various portions were very dense, and sank in water, firm, and of a purple tinge, looking just like a portion of collapsed lung; in the middle of some of these portions, and also in places existing alone in the ordinary pulmonary tissue, were small portions, irregular in outline, of a pure white, sharply defined. The bronchial tubes were carefully followed, but did not present anything of note.

I am indebted to our pathologist Dr. Saundby for sections of the various tissues I have described, and for his report of the appearances under the microscope. The enlarged glands presented the appearances pointed out by Dr. Sanderson as belonging to those organs when in a state of irritative hypertrophy; their stroma was broad and distinct, and in many places showed large nucleated and branching fibre-cells; the gland-cells, which usually measured about 1-3500th of an inch, had large round nuclei, colouring readily by carmine, and a delicate highly refracting protoplasm. The white portions in the spleen showed, in the peripheral parts, normal spleen-pulp, with increase in the reticulum; in the central part of the area, the cells of the pulp were indistinctly defined, granular, and unstained by carmine. In the lungs, the condensed portions were mostly composed of pulmonary tissue, and much resembling the appearance presented in chronic phthisis. The alveoli

and bronchi were in places filled with matter containing a few cells and coloured by carmine, others with epithelium undergoing degeneration; around the bronchi and alveoli the fibrous tissue of the lung was increased, and there were many nucleated fibre-cells and collections of round-cells.

FORTY-FIFTH ANNUAL MEETING OF THE BRITISH MEDICAL ASSOCIATION.

Held in MANCHESTER, August 7th, 8th, 9th, and 10th, 1877.

PROCEEDINGS OF SECTIONS.

SUBJOINED are abstracts of most of the papers presented to the several Sections of the Association at the Annual Meeting. The papers themselves will, as opportunities occur, be published in full in the JOURNAL.

SECTION B.—SURGERY.

Thursday, August 9th.

THE President of the Section, EDWARD LUND, Esq., took the Chair.

DISCUSSION ON INTERNAL URETHROTOMY.

Stricture of the Urethra, with special reference to Urethrotomy. By E. ATKINSON, M.R.C.S. Eng. (Leeds).—Mr. Atkinson, in referring to a statement which had been made last year by a London hospital surgeon, that the *boutonnaire* operation, or perineal section for stricture of the urethra, was performed frequently and systematically in Leeds—indeed, more often in one year than in all the London hospitals put together—said that, in confirmation of it, thirty-nine cases had been operated on during the last three years in the Leeds Infirmary alone. These included several desperate cases, and the mortality, out of the total of thirty-nine, was seven, or about 18 per cent. Mr. Atkinson recapitulated the steps of the operation as performed at Leeds (see BRITISH MEDICAL JOURNAL for 1876, p. 779), and said that, notwithstanding the great variety of circumstances in the cases, when the operation was deemed desirable, it had for some years been customary at Leeds to pursue that form of operation, or but slightly modified, in all cases. Of his own cases, he said, two were desperate; one, where extravasation of urine had taken place, and the other, where large abscesses existed both in the scrotum and perinæum; both these died. Of the remaining seven, all did well, the result being the cure of the stricture as observed after an interval of several months. One case was undertaken for a purely spasmodic stricture of long standing in an irritable subject, with the view of giving the urethra complete rest for a week or two. Mr. Atkinson related one case in which, though the stricture (a tight one at the junction of the spongy and spasmodic portions) was cured, the patient, on subsequently marrying, found he had lost the ejaculatory power *in coitu*. The probable cause of this he supposed to be, not the notching of the accelerator muscle, which, he said, Kiuss of Strasburg had shown not to be the real agent of ejaculation, but the division of the nerves of the membranous portion; though why this result did not more frequently occur after this operation, was not apparent.

Internal Urethrotomy. By W. F. TEEVAN, F.R.C.S. (London).—Mr. Teevan considered that most strictures were best treated by gradual dilatation by soft bougies, and that an operation was only called for in certain exceptional cases. Operations on the urethra might be divided into two kinds:—1. Those which cut through a stricture; 2. Those which tore it open, as in the operation of so-called "immediate dilatation". The object of the operation was to insert a new piece of tissue, "the cicatricial splice", into the constricted urethra. The cicatrix which followed a laceration possessed the maximum amount of contraction, whereas that which formed after a clean cut had only the minimum degree. Hence a cutting operation was indicated rather than a tearing one. There were four kinds of cutting operations:—1. Scarification; 2. Subcutaneous; 3. External; 4. Internal. Scarification consisted in notching the stricture with a four-bladed instrument. It had fallen into disuse because it was insufficient. A stricture must be cut completely through, and not merely notched. External urethrotomy was very rarely required, and then only when stricture was complicated with abscesses or fistule. Subcutaneous urethrotomy was eligible for single strictures, but internal urethrotomy could deal with any number of contractions, and hence became the stock operation for stricture. He then gave an account of the urethrotome as modified and improved by himself, pointing out how it demonstrated

its position in the bladder before operation, by urine being withdrawn through it. The sheath, as altered by him, not only protected the healthy urethra from all injury, but showed where the stricture began, and informed the surgeon to what extent he must cut. He was the first surgeon in this country neither to retain a catheter in the bladder after the operation, nor to draw off the urine. He had performed the operation thirty-three times without a single death. Mr. Teevan concluded by narrating the statistics of six surgeons who had done the operation one thousand one hundred and ninety-two times with but ten deaths, thus showing a rate of mortality considerably less than one per cent. No other operation for stricture could be said to produce such favourable statistics.

On Internal Urethrotomy by a new Urethrotome. By ARTHUR DURHAM, F.R.C.S. (London).—The author had until lately hesitated to perform internal urethrotomy, because it appeared to him that in many of the successful recorded cases simpler and less hazardous methods of treatment might have been equally efficacious, and especially because the various instruments were either wanting in precision and accuracy of application, or cut a fresh way into the urethra beyond the stricture rather than through the strictured part. It seemed to him that what was wanting was some method by which the natural passage might be restored, and the strictured substance got rid of by absorption or otherwise. For this purpose he had devised the instrument exhibited, the essential part of which was a tube having a hollow cylindrical handle at the proximate end, and at the distal end an elongated, slightly tapering, dove-bulb, with four slits. Sliding within this tube was a second, somewhat longer, and having at its distal end four sharp-edged blades. The bulb having been passed down to the stricture, the blades were made to project through the slits and divide the strictured portion. The advantages of the instrument were—1, the facility and safety with which it might be used; 2, the exactly limited depth to which the incisions extended; 3, four incisions of slight depth were made, instead of one of comparatively great depth; 4, the healing or cicatrising process was facilitated. Mr. Durham had used the instrument in twelve cases; and in all the results had been so far very satisfactory.

The PRESIDENT remarked that the majority of cases of stricture can be treated only by dilatation, but dilatation must be repeated. The cases suitable for urethrotomy are the same as those which would otherwise, or in other hands, be submitted to Syme's operation. The question, therefore, resolved itself into internal *versus* external urethrotomy. If a guide can be passed, internal urethrotomy contrasts favourably with external urethrotomy. The next question was whether it is better to cut from behind forwards, or from before backwards. In cutting from before backwards, it is possible to deal with finer instruments than in cutting from behind forwards. The instruments in the former case are such as Durham's and Teevan's. With respect to Durham's, he questioned whether the blades would go far enough into the tissues beneath the cicatrix; moreover, as the cicatricial tissue does not extend all around the urethra, the instrument cuts wider than need be. The operation of cutting from behind forwards requires the introduction of larger instruments. He thought it well, before performing any operation, to proceed gradually from fine to larger instruments before cutting at all. It was better not to keep the catheter in the bladder; urethritis and other bad consequences were apt to follow, and, therefore, Mr. Teevan's recommendation to do without the retention of a catheter was of great value. Splitting a stricture was not so good as urethrotomy; internal urethrotomy was better than perineal section, and to cut only in one place was better than in four, as, after healing has taken place, there remained only a single cicatricial splice.

Mr. BERKELEY HILL (London) congratulated the meeting on the advantage they enjoyed in having the difficulties and merits of internal urethrotomy so clearly set forth by the President of the Section. He also expressed his general agreement with the remarks in the papers of Mr. Teevan and Mr. Durham. Among the points of agreement he included his thorough conviction that internal urethrotomy should only be employed in the comparatively small number of cases where experience showed that gradual dilatation failed to obtain lasting or satisfactory widening of the strictured part. He would separate strictures into penile, or those situated in the pendulous portion of the penis; and subpubic, or those mainly situated in the bulb and reaching to the membranous portion of the urethra. Penile strictures were most commonly resilient; they dilated easily, but almost as readily shrank back if treatment were intermitted. Division of such strictures had a more lasting effect, and saved the patient from the trouble and irritation attending the constant passage of a bougie, though he was not saved by incision, any more than by any other plan of treatment, the necessity for occasionally passing a full-sized sound or bougie to pre-

vent slow recontraction. Again, incision of the penile urethra by a sharp edge was very rarely followed by any injurious consequence. It was in that locality emphatically a safe procedure. Subpubic strictures, on the other hand, when but moderately developed, most slowly contracted after gradual dilatation, and were generally maintained of full patency by the occasional passage of the bougie once a month or quarter, or twice a year. Severe strictures in this region depended generally on a large production of fibrous and elastic tissue. Such narrowings were very slow to dilate; and, in doing this, great local irritation and general distress were often caused. Incision was most suitable in such cases; to be done internally, when possible; and cases where the external operation by button-hole incision was needed, he could not believe to be otherwise than rare. Internal incision of subpubic stricture, caused by a copious fibrous thickening of the wall of the urethra, was deprived of much danger by the thickening itself. The cutting edge might be carried through such tissue safely without fear of its reaching to the vascular parts beyond. Thus strictures that might be properly cut were the resilient or rapidly recontracting strictures and the narrow tortuous ones, where a large amount of fibrous tissue existed. Mr. Hill next criticised the instruments of Mr. Teevan and Mr. Durham. Mr. Teevan's instrument was that long known as Maisonneuve's, with an important improvement. A main defect of Maisonneuve's instrument was that, if the cutting edge were made large enough to cut the stricture, and not merely stretch it sufficiently to let the knife go through, it cut the healthy urethra as well, as Mr. Hill had convinced himself fifteen years ago by experiment on the dead body, when he found that the knife scored the urethra from end to end. To remedy this defect, Mr. Teevan had added a blunt shield for the knife, under which the cutting edge travelled down the urethra till wanted to divide a stricture. Still, a radical fault remained, one belonging to most urethrotomes; viz., that of not fixing the tissue that had to be cut. Strictures could be pushed backwards and drawn forwards in the penis and perinæum, especially those which had been much treated by sounds or bougies. They became mobile, and thus, partly by their mobility, partly by their elasticity, let the knife slip through without being fairly divided. In a very short time, if not immediately, the sound used to ascertain the proper wideness of the canal was arrested by the stricture, which had been half-stretched and only half cut through. To obtain sufficient division, Maisonneuve, and Mr. Teevan after him, had increased the width of the knife until it became dangerously wide, and might cut beyond the fibrous region of a moderately developed stricture, or only stretch and squeeze its way through an elastic yielding one. Mr. Durham's instrument was, in Mr. Hill's opinion, constructed with the same defect of not fixing the part to be cut; though, to guard against the evil of too deep an incision, Mr. Durham had constructed his instrument to cut four shallow nicks instead of one deep gash. Mr. Hill thought multiplicity of incisions an evil without corresponding benefit; and Mr. Durham's instrument was open to the same reproach, that it would stretch or tear rather than cut cleanly the narrowed part which it had to widen. The advantage of tightening the tissue before dividing it was obvious. Mr. Hill next described his own urethrotome or "wedge-cutter", which he had been using for the past two years and more with great success in a large number of cases. The instrument consisted of a split sound having the calibre of a No. 2 silver catheter, or six-sixteenths of an inch in circumference. Between the halves of the split sound a wedge-shaped bullet at the end of a slender stem could be slipped along. Each half of the split sound was made to run in a dovetailed groove on the wedge, to prevent the wedge from travelling away from its guide, the split sound, when passing along the urethra. Thus constructed, Mr. Hill had used the wedge-dilatator for splitting or bursting through strictures after the manner of Mr. Holt's well known plan. But he had abandoned that method, because further experience showed him that the scars of these burst-through strictures contracted as fast as or faster than the original stricture, and were more difficult to deal with. About three years ago, Mr. Coxeter had added a sharp knife, concealed in the widest part of the wedge, which, when needed, could be pushed forwards against the resisting tissue, between the blades of the split sound; the slight projection of the knife above the level of the sound prevented its making a cut more than a few lines in depth. When the resisting tissue was cut across, the knife retreated within its shield. The mode of using it was as follows. The fine split sound was passed down the urethra to the bladder, and there safely landed before any attempt to divide the stricture was undertaken. Next the wedge was inserted between the halves of the split sound and pushed on, separating them from each other. In doing this, the urethra was traversed without force until a stricture was approached. The halves of the sound separated from each other for some distance in front of the part actually occu-

ped by the wedge, and thus tightened the urethra in a direction across its long axis without in the least pushing the stricture towards the bladder. The stricture thus held tight on the split sound was then attacked by the knife, and its tense fibres cut across by a shallow incision. This done, the knife retreated within the wedge, which then proceeded along the urethra. If the wedge were held on reaching the stricture, the knife was protruded again and its previous incision sufficiently deepened till no cling or hitch remained. When more than one stricture was met with, it was dealt with in the same way. The extent of the enlargement Mr. Hill made through a stricture, he determined before cutting by ascertaining the size of the unstricted part of the urethra when the patient was etherised. A bullet-sound or Otis's urethrometer, that filled the urethra without tightness, gave the dimensions of the incision with sufficient exactness. The restoration of the customary calibre of the urethra was ascertained after the performance of the operation, by passing a plain sound slightly larger than the bullet-sound into the bladder, the size generally found available being about No. 30 of the French scale. To render the urethrotome capable of dealing with the narrowest strictures, Mr. Hill used in such cases a filiform flexible guide mounted with a screw-head, to which the beak of the split sound could be screwed when the flexible guide had been introduced into the bladder. The circumference of the guide was two-sixteenths of an inch; that of No. 1 English silver catheter being five-sixteenths of an inch. The material Mr. Hill preferred for these guides was silkworm-gut. It had great strength; was more smooth and less stiff, without being too supple, than whalebone, and did not strip or fray like that article. In conclusion, Mr. Hill expressed his cordial agreement with Mr. Lund and Mr. Teevan in their opinion that there was no real "cure" of stricture. However treated, strictures would contract if not occasionally sounded. As proof of this, he narrated the case of a patient who had come from South Africa to be relieved of the torment of an extremely narrow stricture caused by a blow from the pommel of a saddle. The patient had never had gonorrhœa, consequently the anterior part of his urethra had undergone no contraction after inflammation, and retained its natural size, which, in his case, was unusually great. Before the operation, a sound of thirty-eight millimètres in circumference (one inch and a half) passed easily to the stricture, and after the stricture was cut by external urethrotomy, easily to the bladder. (The exhibition of this monstrous sound caused a laugh among the audience.) The patient left England passing a bougie of thirty-two millimètres (one inch and a quarter) with ease, and from time to time had written to Mr. Hill, informing him of his good health and complete recovery. This operation took place three years ago. Lately, however, Mr. Hill had received a letter from his patient, saying that he was coming to England for further treatment, as he feared his stricture was contracting again, and might become as bad as ever.

Mr. PRIDGIN TEALE (Leeds) had no personal experience of internal urethrotomy; but he was glad to hear of such strong evidence in its favour. With reference to the introduction of a guide, it was said that a No. 2 or 3 must be passed; but, when this was done, it was surely possible to carry on the treatment with a set of instruments such as Professor Lister used with quick and good success. By means of these instruments (which Mr. Teale briefly and clearly described), a certain set of cases were removed from the domain of internal urethrotomy. The principle of the instruments was, that they increased rapidly in size from tip to handle. Having passed Lister's smallest size, he immediately succeeded in passing an English 12. External urethrotomy would, he thought, claim another set. He also referred to external urethrotomy as practised at Leeds, stating that, in properly selected cases, the operation was practically free from danger. In the course of performing this operation, Mr. Teale had been forcibly impressed with the occasional warty nature of the strictures, which gave rise to considerable difficulty in passing instruments, owing to their points becoming embarrassed in the interstices of the growth. Dr. Cruise of Dublin had, he said, described a granular condition of strictures, the accuracy of which he could attest.—Mr. RUSHTON PARKER (Liverpool) thought the simplest operation the best, and, on this ground, preferred Maisonneuve's instrument. He thought internal urethrotomy specially called for in tight strictures, because patients in this condition were prone to death from nephritis, and, therefore, the stricture should be treated as quickly as possible. Having passed Maisonneuve's guide, he slipped on a cutting knife (*caché*), the cutting edge being in front; he had experienced no hæmorrhage or other difficulty.—M. LIPPET (Nice) thought, if gradual dilatation were practised with more patience, it would be less necessary to resort to internal urethrotomy; and suggested the introduction of French bougies, which increased in size very gradually. Referring to urethrotomy, he gave the preference to Maisonneuve's instrument, but would only use it as a *dernier ressort*.

He looked upon rigors as indicative of purulent infection, and, therefore, prescribed quinine and salicylate of soda. In after-treatment, he advocated the occasional injection of nitrate of silver.—Mr. WEST (Birmingham) thought internal urethrotomy most applicable in cases of single tight stricture, and approved of Teevan's instrument and method of operating.—Mr. TEEVAN, in reply, said that Maisonneuve's urethrotome cut healthy mucous membrane along with the strictured portion, sometimes from one end to another. Out of seventy-three cases he (Maisonneuve) had thirteen deaths; and Mr. Teevan considered the modifications made by Gouley and Guyon highly important. Referring to external urethrotomy, he said that two totally distinct operations were confounded, and preferred the term "*boutonnière sur le conducteur*" and "*boutonnière sans un conducteur*".—Mr. A. DURHAM congratulated the President upon his results, and hoped, if he found they were not permanent, that he would try four incisions instead of one.

Case of Large Prostatic Calculus, with Natural Perforation for the Urine: removed by Recto-Urethral Lithotomy. By RUSHTON PARKER, B.S., F.R.C.S. (Liverpool).—The patient, a native of Scotland, had suffered, off and on during the last five years, from difficulty of micturition, and was admitted into the Stanley Hospital for the removal of a penile urethral calculus. The urethra terminated forwards at the frænum, the part in the glans having been lost by ulceration (a chancre contracted in India years ago). There was, moreover, a fistulous opening in the floor of the urethra, about an inch from the prepuce. On July 6th, 1877, under ether, with a pair of forceps about the thickness of a little finger, a stone about the size of half a hazelnut was removed from the middle of the penis, where it lay in a wide sinus into which the urethra opened. Both the terminal orifice of the urethra and the sinus were wide enough to admit the forefinger, with which an exploration was made. A sound was then passed down, but stopped at the prostatic region, where another stone was felt. Through the rectum, the prostate felt stony hard and not much enlarged, but the stone was close above the mucous membrane of the roof. As no proper staff could be introduced upon which to cut in perineal lithotomy, and as the stone was clearly within easy reach of the rectum, a speculum was passed and the stone cut down upon in the middle line, the hole enlarged with a probe-pointed bistoury, and the stone eventually dislodged, with some difficulty, with a scoop and the fingers. The stone was almost of the exact shape of a moderately enlarged prostate, and had, like the prostate, a sort of urethral canal through it. It measured $1\frac{1}{8} \times 1\frac{1}{2} \times 1\frac{1}{4}$ inches, and weighed a little over $1\frac{1}{4}$ ounces. The patient had now little or no prostate left, except the capsule in which the stone lay. A chasm was left, communicating with the bladder by a narrow opening behind, and with the rectum by a wide opening below; through these apertures a sound was passed into the bladder, and the absence of other stone established. The fistulous opening in the urethra was closed on a subsequent day. The patient was doing well at the time of the report.

The Direct Method of Artificial Respiration. By BENJAMIN HOWARD, A.M., M.D., M.R.C.S. (New York).—As in threatened death from apnea, whether from chloroform-narcosis or other cause, all agreed upon artificial respiration as the one remedy, it was not unimportant that the method of accomplishing it should be as simple and perfect as it could be made. The points sought in all methods alike were to obtain: 1. A clear passage from the lips to the lungs; 2. The greatest possible expansion of the thorax; 3. The greatest practicable diminution of the thorax; the two latter occurring with regular alternation and rhythm. During his demonstrations, he pointed out that, in the method of Marshall Hall, the prone position intended for the extrusion of the tongue, in order that the air might enter the lungs, being also the "position of expiration" was simply a contradiction. Immediately on attempting the motion towards the "position for inspiration", the flaccid tongue slid back again towards the throat; and, the extrusion occurring precisely at the wrong time, it was a failure. In compression of the thorax, the shoulder being raised upon a cushion, the weight of the patient's body in rotation was received by the shoulder and hip, like a bridge on its piers, and the most compressible part of the chest, being the highest part of the arch, escaped the pressure desired. For the removal of accumulated fluids from the chest and stomach, both in this method and in Silvester's, the mouth was made relatively the highest, the stomach the lowest point; thus reversing the ordinary rule for drainage, and rather promoting than otherwise the entrance of regurgitating foreign bodies into the trachea. In Silvester's method, the cushion was where it should not be. There was a tendency to flexion of the neck at the line of the epiglottis. The thorax formed an angle with the abdomen, and the weight of the head and shoulders helped still further to cause the lower ribs to be pressed upon each other from above downwards; the abdominal

viscera pressed from below upwards; both crowding towards and embarrassing the intervening diaphragm. The cushion also supplied counterextension; this was not wanted. For these reasons in part, the thoracic expansion was not as great as it might be. In the movement for expiration, beneath the parts pressed there was no means of resistance or counterpressure supplied. Standing behind the patient's head, the part to be pressed could not with comfort be reached; the force exerted upon the part was necessarily small. This was still further weakened and minimised by the intervention of the patient's elbows between the hands and the part to be pressed. The direction of the force, instead of being inwards and upwards towards the diaphragm, was downwards, or downwards and inwards away from the diaphragm. Therefore, the compression of the thorax was less than could be desired. In the "Direct Method" of the author, in order to dispose of accumulations in the stomach or chest, the patient being turned face downwards, a firm bolster beneath the epigastrium made that the highest, the mouth the lowest point. Pressure being made on the back, the object was accomplished by both ejection and drainage. The patient, stripped to his waist, being quickly turned upon his back, the bolster was placed beneath it, making again the epigastrium and anterior margins of the costal cartilages the highest points of the body, the hips, shoulders, and occiput barely resting on the ground. The patient's wrists were seized, and the utmost possible extension being secured with them crossed behind his head, they were pinned to the ground with the left hand, so as to maintain it. With the right thumb and forefinger armed with the corner of a dry pocket-handkerchief, the tip of the tongue was withdrawn and held out of the extreme right corner of the mouth. (If a boy were at hand, both wrists and tongue might be confided to his care.) In this position, two-thirds of the entrance to the mouth were free. The epiglottis, by this backward curvature of the neck, was precluded from the pressure often caused by undue flexion. The head, as Nélaton urged, was dependent; the free margins of the costal cartilages were as prominent as they could be made. By crossing the wrists, the latissimi dorsi were brought further into play than usual, and there was a fixed thoracic expansion, which Dr. Howard believed unattainable in any other manner. The epigastrium being the highest point, the diaphragm was neither embarrassed from pressure above nor from below. To produce respiration, the operator knelt astride the patient's hips, and rested the ball of each thumb upon the corresponding costo-xiphoid ligaments, the fingers falling naturally into the lower intercostal spaces. Resting his elbows against his sides, and using his knees as a pivot, the operator threw the whole weight of his body slowly and steadily forward until his mouth nearly touched the mouth of the patient, and while one might slowly count one, two, three; then suddenly, by a final push, he sprang back to his first position on his knees; remain there while one might slowly count one, two; then repeat, and so on about eight or ten times a minute. The resiliency of the ribs ensured an instant rebound to the point of departure. The operation was not fatiguing, the force employed being the weight of the operator, who remained in an easy position, with alternations of complete rest. It could be practised by anybody anywhere, before or after division of the funis; in a bath, bed, or boat; and friction, electricity, insufflation, or tracheotomy could be practised simultaneously without inconvenience.

Restoration of the Ulna after Necrosis of the Shaft. By A. W. STOCKS, M.R.C.S. (Salford).—Mr. Stocks showed a case where there was perfect restoration of the whole of the shaft of the ulna after necrosis, and complete exfoliation of a sequestrum, involving the entire thickness of the bone, of six inches and a half in length, the other ulna measuring nine inches. The movements of the elbow, pronation, and supination were fairly restored.

Misplaced Testis with Hernia. By A. W. STOCKS, M.R.C.S. (Salford).—Mr. Stocks showed a young man, the father of a family, whose left testis occupied the whole of the scrotum, the raphe being its middle line. The right testis, which was only partially developed, was placed in a pouch or second scrotum, situated between the scrotum proper and the right thigh, and resting upon the descending ramus of the right pubis; the spermatic cord emerged from the abdomen through the external ring, and was traced to the abortive gland. He was the subject of a hernia which followed the course of the cord.

Sympathetic Ophthalmia. By G. E. WALKER, F.R.C.S. (Liverpool).—Mr. Walker related a case of sympathetic ophthalmia after an attempt at iridectomy. The case was brought to Mr. Walker when the sympathetic ophthalmia was in full force, and he at once took out the offending eye. About five days afterwards, he prescribed mercury by inunction, and the patient recovered. He reported a case also of complete sympathetic ophthalmia, in which he removed the remains of the lens and restored useful sight by mercury.—Mr. JONATHAN HUTCHINSON, Dr. JONES, Dr. EMRYS-JONES, and Mr. HUDSON con-

sidered that Mr. Walker's statement that sympathetic ophthalmia is not curable, but is always followed by loss of the eye, was not correct. Various plans of treatment had been known to succeed.

Hypopyon-Keratitis. By A. EMRYS-JONES, M.D. (Manchester).—In this affection, there is always an ulcer on some part of the cornea, with more or less pus in the anterior chamber. It is often of traumatic origin, and exhibits very destructive tendencies. After discussing the older methods of treatment and the efficacy of dilating the pupil with a strong solution of atropine (four or six grains to the ounce), of applying warm belladonna fomentations to the affected eye, and the administration of morphia subcutaneously in many cases, the author said that there were others which demanded operative interference, and these were discussed: first, paracentesis corneae; second, iridectomy; third, limited section of the cornea (Sämisch); fourth, bold section of the cornea; and the superiority was claimed for the latter, for the following reasons. 1. It gives instant relief to pain. 2. It provides effectual relief to the pus. 3. It proves an immediate check to the ulcerative process. 4. It is the means of restoring useful vision in apparently hopeless cases. 5. It is followed by no ill consequences, and gives rise to little or no deformity. 6. Iridectomy can be performed with greater advantage afterwards, if required from resulting opacities. Cases were read, illustrating the value of the treatment. The paper was the result of an analysis of about forty cases treated according to this method.

Illustrative Cases of the Value of Galvano-cautery in Diseases of the Throat, Nose, and Ear; with Description of a convenient Form of Battery. By LENNOX BROWNE, F.R.C.S. Ed. (London). The author commenced by stating that this method of treatment, although possessing many advantages over all other forms of procedure for eradicating certain kinds of new growth and for arresting the progress of destructive ulceration, especially of the parts under consideration, has not received in this country the attention it appeared to deserve. The subject had, however, attracted much attention on the Continent, and especially in Germany, and a recent monograph by Dr. Carl Michel of Cologne has very exhaustively considered the subject so far as diseases of the nasal passages are concerned. Twenty-five cases were related; viz., twelve cases of diseases of the mouth, fauces, and tongue, one case of cancer of the epiglottis, seven cases of diseases of the nose, and five cases of diseases of the ear. The following deductions were made:—that, in tertiary syphilitic ulceration of the palate, fauces, and tongue, and especially in cases of a congenital or hereditary nature, and in those also in which there is a combined scrofulous diathesis, galvano-cautery is more rapid and permanent, and less painful than the mineral forms of caustic; that, in diseases of the larynx, except when occurring in the epiglottis, the cautery appears inadmissible, since there is the greatest risk of doing serious injury to healthy tissues, nor is it recommended for opening the windpipe; that nasal polypi, even of the smallest dimensions, if first secured at their base by a self-holding hook, can be most completely eradicated with but very slight pain or hæmorrhage, and without any danger to surrounding healthy parts; and that scrofulous ulceration, diseased bone, and obstructive thickening can be treated with equal success; that aurial polypi cannot be removed except under chloroform, since the cautery, while almost painless to mucous membrane, is most painful when touching the skin; it is better, therefore, to remove such growths with suitable forceps, and then to apply the cautery to the base through a speculum, by which means the chances of recurrence are greatly diminished; that, for perforation of the membrane, the cautery is the only method by which a permanently patulous opening is ensured. The battery employed was a bichromate of potash one with two cells, each having four zinc and carbon plates; its size was only nine inches square by twelve inches high; contact was made by the foot of the operator. The author also exhibited various hook-forceps for securing nasal polypi and cautery instruments.—A discussion followed, in which the PRESIDENT and Dr. JONES took part. It bore chiefly on the value of puncture of the tympanum: a proceeding in which the author recommended the use of the galvano-cautery. In acute cases, the author said the treatment was the means of saving life. He had never seen any harm from the treatment, but he hesitated to express a definite opinion of its utility in chronic cases.

Clinical Remarks on Tumours of the Orbit; with Cases. By C. HIGGINS, F.R.C.S. (London).—Notes of seven cases were given: three were instances of tumour of the orbit alone, two of the eyeball and orbit, one of the eyeball alone, and one affected principally the lower eyelid. The first case was thought to be a simple serous cyst, which followed an injury, and was probably developed from a blood-clot which had formed in the orbit. The second was a case of cysticercus in the orbit. Stress was laid upon the difficulty in diagnosis of such a tumour; it was looked upon as inflammatory; it was, however, successfully removed, and subsequent examination clearly demonstrated its

nature. The third and fourth were cases of melanotic sarcoma affecting the eyeball and orbit; both tumours were removed, but without permanent benefit. The fifth case was one of sarcoma of the choroid, which had destroyed the eye as an organ of vision, and commenced to invade the orbit. The diagnosis of tumour was not made until after removal of the globe, which was hard and painful. An attempt was made, by reference to Cases III, IV, and V, to show that sarcomata do not, as is often supposed, attack old lost eyes, but, on the contrary, cause the loss of the eye long before their presence is suspected. The sixth case was a good example of "ivory exostosis" of the orbit, and showed the difficulty attendant upon removal of such a growth, as well as the success which might follow an operation on an extremely unpromising case. The seventh case was an instance of "follicular sarcoma"; it was introduced on account of its resemblance in external characters to "epithelioma", and also from the fact that such tumours are said to grow occasionally from the lacrymal sac. In the case reported, the tumour affected principally the lower eyelid, and had a deep attachment in the position of the lacrymal sac.

Friday, August 10th.

The Value of Antiseptic Treatment in Herniotomy. By JAMES F. WEST, F.R.C.S. (Birmingham).—Mr. West had employed the antiseptic method in the last five cases of herniotomy performed by him in the Queen's Hospital, Birmingham. The operations were done under the carbolic spray (1 in 40); and in all the cases drainage-tubes were used, being generally removed entirely on the third or fourth day. Protective and carbolised gauze were used for dressing the wound. By the seventh or eighth day, all discharge had ceased, and the wounds had healed; and the patients were enabled to leave the hospital within a fortnight after admission. There was no suppuration, nor any elevation of pulse or temperature.

The Antiseptic Treatment of Wounds. By DR. ROUSSEL (Geneva).—Dr. Roussel described a transparent box for healing wounds of the limbs, without dressing, in a warm and antiseptic atmosphere. The apparatus consisted of a box with a glass lid, a double bottom for hot-water, a front with well closed passages for a pulverisator, an injector, a thermometer, and a closed collector of the discharges from the wound. After operation, the wounded part, or the stump, was laid in a hammock on the box, which was closed, and hot-water was poured into the double bottom. The pulverisator and irrigator were used once a day, and the collector of the fluids was removed. No other dressing was required.

Anhydrous Dressing of Wounds. By R. HAMILTON, F.R.C.S. (Liverpool).—Mr. Hamilton had used in hospital practice a mixture of equal parts of fiars' balsam and methylated spirit, applied as a spray, in six cases of burns, four of lacerated wound, and two of compound fracture. All the cases recovered; cicatrisation in the burns and compound fractures being more rapid than usual; while in the lacerated wounds, which were attended with much destruction of tissue, it seemed to be slower than usual. He had also used, in the treatment of burns and scalds, a powder of oxide of zinc, carbonate of magnesia, and powdered starch, as used by Dr. Smart in his treatment of the sufferers from the explosion on board the *Thunderer* (BRITISH MEDICAL JOURNAL, September 23rd, 1876, page 391); and had obtained generally satisfactory results.

Terebene and Scab-Dressing. By H. E. WADDY, M.R.C.S. (Gloucester).—Mr. Waddy called attention to the great advantage which results from the wound being covered by a scab. The scab gives an equable pressure, preventing rapid growth; excludes air (with its motes and animate matter) from the surface; prevents friction; prevents exposure of nerve-fibrillæ; and prevents spasm of muscular tissue. The means at our disposal for favouring the formation of scabs might be briefly classified as follows: 1. Agents to arrest bleeding; 2. Agents to exclude atmospheric air and its animate and inanimate contents; 3. Agents to arrest excessive exudation of lymph; 4. Agents to counteract spasm of muscle, and to prevent irritation of nerve-fibrils; 5. Agents to secure the limiting of the size of the wound by adaptation of its edges. For the second class, Mr. Waddy lately directed the attention of the profession to the value of terebene as an antiseptic surgical dressing. (BRITISH MEDICAL JOURNAL, June 2nd.) One of the most remarkable properties is the rapidity with which it spreads over a surface when dropped upon it. He believed that the surface of wounds may be completely sealed from the air and practically placed *in vacuo* by a film of terebene. Terebene evaporates very slowly, and the "sealing" process is thus much prolonged. For the third class of agents, the various means of applying pressure are available, and are best applied so as to act in harmony with the agents for preventing spasm of muscle. With regard to the fifth class of agents, he had acquired a strong conviction that the use of the suture is highly to be

depreciated. Sutures are either useless, the flaps not being at all retracted; or, if useful, when retraction is taking place they drag and irritate the flap or cut their way through it. In most cases, careful adaptation of the edges of the wound, judicious use of strapping and bandages, the assistance to be derived from elastic bands, and the firm support afforded by plaster of Paris application, should render the use of the suture unnecessary. These observations must not be extended to the use of sutures in plastic operations. The process of granulation and healing under scabs is somewhat obscure: that slowness of growth and soundness of resulting tissue are in the position of cause and effect, may be probably a correct explanation. The amount of pus formed in his cases had been usually very small. It might be inferred that the granulations formed were more perfect in nature and less prone to disintegrate into pus than is the case when wounds are treated after the ordinary method. It must be remembered that the ordinary India-rubber, of which drainage-tubes, water-beds, and Mackintosh sheeting are made, is destroyed by the chemical action of terebene. Dr. Bond, however, had suggested the use of paraffine paper to protect water-beds and sheeting.—The PRESIDENT (Mr. LUND) thought that what surgeons required was a substance which would stop putrefaction, without corroding the tissues like chloride of zinc. Carbolic acid would not stop existing putrefaction. Mr. West had made an advance in applying Lister's dressing to hernia operations. Mr. Lund had not applied it to them, because of his impression that the cold produced by the spray might cause peritonitis. In hernia, he had used sponges wrung out of hot water, then glycerine and carbolic acid (1 to 10), applied a carbolised pad to the wound; outside the gauze, he used elastic webbing bandage to keep the dressings in contact.—Dr. HUDSON (Redruth) asked Mr. Waddy whether terebene would soak through cotton-wool like water or run off like oil.—Mr. TEALE (Leeds) asked Mr. Waddy if he did not provide for drainage of serum, or whether drainage was unnecessary.—Mr. RIVINGTON (London) asked if there were much constitutional disturbance. He thought delayed dressing would lead to accumulation of serum. Would it not be better to redress after twenty-four hours, and then leave the dressings undisturbed for a time? With reference to the length of time of dressing, the terebene dressing compared unfavourably with Lister's. Granulation under the latter was slow, but primary union was much more frequent. The pain produced by terebene was a disadvantage, and, in his experience, had required morphia injection.—Mr. RICE had endeavoured to carry out the antiseptic method in all its details. He described a case of amputation above the knee, and then higher up, owing to disease of the femur, which he ultimately scraped out as high as the head. The patient had phthisis. There was not the slightest elevation of temperature. He had had no case of erysipelas in any instance with Lister's dressing, although idiopathic erysipelas was present in the same ward.—Mr. JONES described a case of double congenital inguinal hernia; it became strangulated on one side, and he operated antiseptically. The wound cicatrised in ten days. A subsequent operation on the other side was healing well.—Dr. BARNETT suggested, in reference to Mr. Lund's remarks, a saturated solution of boracic and salicylic acids in sulphite of sodium. Such a mixed solution contained three powerful antiseptics. He knew nothing of its effect upon wounds.—Mr. CRESSWELL and Mr. MEACHAM spoke in favour of Lister's treatment.—Mr. WEST had found no ill result from cold spray. He thought terebene a good application.—Mr. WADDY said that terebene soaked cotton-wool immediately; this was one of its great advantages. As to drainage of serum, he had tried no method of securing it; and on examining the bandages, there had been very little matter of any sort. He thought that perhaps drainage-tubes, or an early change of dressing, as Mr. Rivington suggested, would be good. The temperature in some cases has gone up to 102 deg.; but there was no other constitutional evil. Healing was very slow, but there was no suffering therefrom; perhaps healing would be quicker if the wound were undressed once early.

Removal of the Spleen. By A. MARTIN, M.D. (Berlin).—Dr. Martin described a case of removal of the spleen. The viscus was not large and not diseased, but very movable, painful, and covered with peritonitic effusions or coatings.

On Fat Embolism, following Injuries of Bones and other Parts. By D. J. HAMILTON, F.R.S. Ed. (Edinburgh).

Why Dental Caries is so General, and How to Prevent it. By ALEXANDER STEWART, F.R.C.S. Ed.—In this paper, the view now generally advocated by dental authors, that dental caries is due to chemical action—the destruction of the calcareous enamel by acidity—was maintained. The chief sources of acidity in the mouth were enumerated, and their action on the teeth illustrated by cases from practice. Food remaining on and between the teeth was stated to be by far the most common source of acidity, and the one to which must be ascribed the general prevalence of dental caries; acid being formed wherever there

the enjoyment of food long before morning, when only it is the custom to clean the teeth. Assuming acidity to be the only proximate cause of dental caries, and its neutralisation the only preventive, the profession were urged to inculcate the habit of cleaning the teeth at night, and rinsing the mouth afterwards with a solution of carbonate of soda in water, made agreeable by the addition of camphor, recommended because so inexpensive that it may be regularly used by all classes. The author expressed his firm conviction that, were these simple means in general use, dental caries would be as rare as it is now common.

Leçons sur l'Anatomie et la Physiologie de l'Œil. By J. ROUSSEL, M.D. (Geneva).

Excision of the Cervix in Prolapsus of the Uterus. By W. WHITEHEAD, F.R.C.S. Ed. (Manchester).

Incision of the Capsule in Hip-joint Disease. By J. HARDIE, M.D. (Manchester).

Internal Syphilitic Ophthalmia. By CHAS. B. TAYLOR, M.D. (Nottingham).—The author would limit the term "internal syphilitic ophthalmia" to those deep-seated lesions discoverable only by the ophthalmoscope. This excludes cases of iritis and keratitis, which, nevertheless, frequently accompany or precede the more serious disease. Considering the frequent occurrence of syphilitic iritis, and the intimate connection of the iris with the choroid, it is singular that choroiditis is not more common in these cases. There is no doubt, however, that slighter degrees of this affection are often overlooked. Patients suffering from choroiditis complain of failing vision, dark floating spots, and general mistiness: the ophthalmoscope reveals objective mæsa and more or less opacity of the vitreous humour, through which the optic disc is seen like the sun in a fog. Sometimes it is impossible to illuminate the fundus, and the patient is quite blind. When the vitreous body clears under treatment, exudations on the choroid come into view. There are periods of improvement alternating with exacerbations, and the disease in many respects resembles a case of subacute inflammatory glaucoma. Details of cases under the author's care showed that the disease is very insidious, destroys vision slowly, and is apt to be overlooked or mistaken. Retinitis of syphilitic origin frequently follows, or accompanies, choroiditis. Portions of the retina are the seat of exudations and extravasated blood; hence vision is limited, so that the patient will sometimes see only half of an object. If the yellow spot be affected, central vision is of course destroyed. Coloured vision and flashes of light are occasionally complained of. In syphilitic neuritis, the outline of the optic disc is blurred and indistinct: it is often a mere smudge. As it clears up under treatment, dots of fatty degeneration may be occasionally observed in the neighbourhood of its periphery. In a case at present under the author's care, this exactly resembled the degeneration which was formerly considered typical of albuminuric retinitis. As to diagnosis—the history of the case, the number of the lesions, iritis, choroiditis, retinitis, neuritis, all point to a constitutional origin, which, by a process of exclusion, is easily determined to be syphilitic. The treatment is to bleed from the temple, mercurialise rapidly by inunction, and give large doses of iodide of potassium. The prognosis is favourable if the treatment be early, energetic, and persisted in for a sufficient length of time.

Cases of Intestinal Obstruction, with Remarks upon Diagnosis and Treatment. By SIDNEY COUPLAND, M.D., and HENRY MORRIS, M.A., M.B. (London).—The authors of this paper had been led to investigate the question of intestinal obstruction, more particularly in those cases which are due to stricture of the bowel, from having of late years had several such cases under their observation at the Middlesex Hospital. In their inquiry, they did not hope to add anything new in respect to the nature or situation of such strictures, the subject having already been so exhaustively treated by various authors, especially by Drs. Brinton and Hilton Fagge. Their results, however, were of interest as affording strong confirmation of the truth of the statements of these writers. Statistics were given, based upon the *post mortem* records of the Middlesex Hospital since the year 1844 and the *Transactions of the Pathological Society* since its foundation, the period embraced being thus over thirty years. From the large number of cases thus collected, the sigmoid flexure and the rectum had been found to be by far the most frequent seats of stricture, mostly of malignant nature; whilst in only a very limited number of cases was the small intestine the seat of stricture, and in these the lower part of the ileum was the region involved. The authors referred, however, to a case which came under observation this year, in which the jejunum was invaded by cancer secondarily to the uterus, to the extent of nearly complete occlusion of its canal. As a matter of fact, however, the small intestine must be regarded as being very rarely the seat of such strictures. Regarding the nature of the strictures, the vast majority are cancerous, mostly epitheliomatous in type, and assuming the character of so-called "annular ulcers". The authors then passed on to consider

the effect of stricture of the large intestine upon the bowel above its seat—in other words, the effect of faecal accumulation. They adverted to the well-known fact of simple accumulation of feces producing inflammation and even fatal ulceration of the intestinal mucous membrane, and showed that, in the cases referred to, a considerable proportion exhibited evidences of ulceration, not merely in the segment of the gut immediately above the stricture, but also in the cæcum. The fact of cæcal ulceration in cases of obstruction of the large intestine other than those of the rectum within reach of physical diagnosis (unless long neglected), has been long known, and it is one of the most common causes of death in such cases. They quoted a few cases in which this result took place, and refer to one mentioned by Dr. Hilton Fagge as occurring in the practice of Dr. Wilks, in which fatal perforation of the cæcum occurred in a case of incomplete stricture of the rectum. The authors suggested, as an explanation of this fact, the peculiar situation and structure of the cæcum, which allow it to serve as a sort of reservoir for the reception of the contents of the ileum and those regurgitated back from the seat of stricture. Keeping this important fact in view, they considered that the treatment of such cases should be based upon it; and that, as soon as the fact of stricture is established, the operation of right colotomy should be performed, and relief thereby at once afforded to the overstrained and probably damaged cæcum. They went further, and advised that if, after such operation, the colon be found empty, the disease being situated at the cæcum or above its valve, the wound should be closed up and enterotomy performed, although it may be only in the hope of affording relief for a few hours before death. They considered that in all such cases, where the distension of the intestines is a source of suffering, the operation of enterotomy is as imperatively called for as that of puncture of the bladder in cases of overdistension of that viscus from impermeable stricture, and notwithstanding fatal disease of the kidney. Enterotomy is at once a safer and a far more effectual means of affording relief to the distended bowels than acupuncture; and cases are quoted in which the latter operation was not only ineffectual, but even harmful. The paper concluded with a brief review of the methods in vogue for arriving at a diagnosis of the seat of stricture; and the practical conclusion was arrived at that, in most cases of disease above the reach of manual examination, it is necessary to fall back upon the facts gleaned from statistics. As, however, the stricture is mostly in the large intestine, and the procedure they recommended is unaffected by a knowledge of its precise seat, an error in the diagnosis of the latter will not embarrass the line of treatment pursued.

Cases of Blindness, supposed to be Incurable, in which Sight was Restored by Treatment. By C. B. TAYLOR, M.D. (Nottingham).—One of these cases, a patient suffering from pannus, who was introduced to the members of the Midland Branch at Leicester, had resisted every method of treatment, including the operation of peritomy, until the author inoculated both eyes with virulent gonorrhœal matter, and thus restored excellent sight. Another case was that of a lady, who had been blind for ten years from amaurosis, or wasting of the optic nerve, and who had been treated, without benefit, by the most eminent ophthalmic surgeons both in this country and abroad, was restored to sight by the application of a powerful continuous galvanic current, the injection of strychnine, and the operation of iridectomy. The captain of a merchant vessel, who was similarly afflicted, and consequently obliged to abandon his vocation, was also enabled to resume his position by the same treatment. Details of cases in which blindness had existed for ten, fifteen, twenty, and forty years respectively, and in which sight had been restored by operation, were also given. In conclusion, the author stated his conviction that there are a number of persons in our blind asylums and elsewhere supposed to be incurable, who might be benefited or restored to sight by treatment.

Removal of Cervix Tenuosa Removed from the Vagina of the Anus of a Girl aged 13. By S. O'SULLIVAN, M.D.

Rhinoplasty. By JAMES HARDIE, M.D. (Manchester).—Dr. Hardie remarked on the advantages to be derived from the transplantation of bone in operations of this class, as introduced by him two years ago. He narrated the further history of the case referred to at the Edinburgh meeting. In September 1875, he covered the previously transplanted digital phalanx with a flap of skin from over the biceps of the arm, severing its connection with the arm in twenty-five days. A photograph of the case, as completed, was shown. Two other cases, in which there had only been partial loss of the nose, were then introduced to the Section. In one, a girl of 19, a considerable portion of the cartilages, including the alæ and columella, had been destroyed by lupus. The distal phalanx of the left forefinger was attached to the stump of the nose on February 9th of the present year. Seven weeks afterwards, it was amputated at the joint, union having taken place satisfactorily. A small exfoliation took place from the proximal end of the bone. The

nail and its matrix were carefully dissected off at the time the amputation was effected. On June 9th, a flap from the arm was laid over the transplanted phalanx, as in the previous case. It was detached from the arm three weeks afterwards, and a column being shaped out of it at the same time. The portion intended for the columna lost its vitality, and another operation was had recourse to on July 27th to supply this defect. This consisted in turning up a portion of the upper lip. The case was still in progress. The second case which was shown was a young woman aged 22, who had also lost a portion of the nasal cartilages from lupus. In this instance, the loss had been less extensive, and it was thought advisable to try to remedy the defect simply by transposing the skin-flap from the arm, without previous insertion of a bony support. This was done on July 3rd. On July 21st, it was separated, union having taken place by adhesion throughout. The alæ and columna were at the same time shaped from the flap and adhered satisfactorily. Attention was directed to the different appearance of the two latter cases. In the former, there had been a greater loss of tissue than in the latter; but the condition of the latter, after operation, was not so satisfactory, there being less prominence and less firmness of the new portion of the organ than in the former. Dr. Hardie therefore thought that, even in cases where the loss of tissue had been small, it would be well to insert, as a preliminary step, an osseous basis of support for the cutaneous covering.

[Mr. Lund desires to state, in reference to the report on Mr. Chiene's case of Retropharyngeal Abscess, which appeared in the JOURNAL of August 25th, that he did not intend to say he had never known such an abscess to be opened by "art or nature"; but that this was the first case he had ever heard of in which a deep abscess connected with disease of the cervical vertebra had been treated upon antiseptic principles.]

SECTION D.—PUBLIC MEDICINE.

Wednesday, August 8th.

THE Section met in the History Lecture Room at two o'clock, under the presidency of Surgeon-Major F. S. B. De CHAUMONT, M.D.

DISCUSSION ON INFECTION.

Epidemic Cycles. By ARTHUR RANSOME, M.D. (Manchester).—Dr. Ransome exhibited several charts, which graphically represented the very remarkable regularity with which epidemics of small-pox, measles, and scarlatina have occurred in the sparsely populated country of Sweden and the densely populated country of England. The period of recurrence of measles appears to have been five or six years. A small wave of scarlatina has appeared about every five years, and a great wave every fifteen or twenty years. In small-pox, the cyclical period was six or seven years up to the time that vaccination was made compulsory, and then the waves were interfered with and checked to an extent which can leave no doubt about the efficacy of vaccination. Charts were also shown of the appearance of sun-spots, but there did not seem to be any relation between them and the epidemic cycles.

The Chemical Theory of Contagium compared with the Corpuscular Theory, with Special Reference to the Action of Disinfectants. By J. LANE NOTTER, M.D. (Netley).—After defining the terms contagium, infection, and disinfectants, Dr. Notter gave a *résumé* of the views held on the spore theory of disease by Drs. Beale, Hallier, Cohn, Pasteur, Chauveau, Burdon Sanderson, Braidwood and Vacher, Richardson, Baxter, Tyndall, Bastian, Creighton, and Klein. He was of opinion that, in discussing the germ or spore theory of disease, we have to deal with one of two things: A, the organisms themselves; or B, the morbid products of their nutritive processes; and that putrefactive odour is not always due to decomposition of animal or vegetable matter, but may arise from the active development of bacteria or other organisms; and that agents, capable of arresting the reproductive power of A, may not affect B, and *vice versa*. In a beef-infusion, chloralum would destroy bacteria, but would not affect the odour; Condry's fluid would destroy the odour, but would not affect the bacteria; while chloride of lime was capable of destroying both bacteria and putrefactive odour. Dr. Notter thought that too much was attributed to microscopic organisms, and that chemical poisons were too much ignored. He recommended that we should endeavour to rid the atmosphere of the latter as well as the former, firstly, by nature's great means—diffusion, dilution, and oxidation; and, secondly, by aerial disinfectants.

Contributions to Life-History of Contagium. By F. VACHER, L.R.C.P. Ed. (Birkenhead).—The author gave a concise *résumé* of the results of the research to which he and Dr. Braidwood had, for the past three years, devoted much time and labour, and which had been lately interrupted by the working of the Vivisection Act. He took vac-

cine lymph as a typical *contagium-liquid*, and gave an account of the experiments which he and Dr. Braidwood had made, in order to test the soundness of the evidence on which M. Chauveau based the proposition that it is the particles, and not the soluble constituents, of vaccine on which its activity depends. The experiments showed the negative results of inoculation with the soluble constituents of vaccine; but he took exception to the proposition that lymph loses its specific properties in proportion as microzymes multiply; although the loss of activity in lymph, after dilution and exposure, was in proportion to the length of time the exposure was maintained. The next series of experiments were for the purpose of determining the lowest increased temperature at which lymph is rendered inactive, and how long the lymph required to be maintained at this temperature to secure the total destruction of activity, which was found to be 149.5 degrees Fahrenheit. Lymph could not with safety be exposed above 139 degrees, but did not lose all its specific properties at 146 degrees. Exposure for a few minutes had the same effect as exposure for two hours. These results are of the greatest practical importance in their bearing on preventive medicine. The object of the next experiment was to ascertain if the subjection of lymph to intense cold destroyed or impaired it. The frigorific mixture used was one compounded of solid carbonic acid and ether, by which a temperature of 166 deg. Fahr. below the freezing point of water is produced. Exposure for an hour and a quarter to this intense cold did not in the slightest impair the activity of the vaccine lymph. Numerous experiments had been performed with various germicides, antiseptics, disinfectants, antizymotics, with a view to deciding whether the agent employed destroyed or impaired the action of lymph, *i. e.*, whether it was a *contagicide* perfect or imperfect. Lymph was rendered sterile at once by solutions of carbolic acid, by carbolate of glycerine, by sulphurous acid, by ozone, by chlorine, and by quinine; but, in the case of quinine and carbolic acid, the agent required to be some time in contact with lymph to render it inert. *The efficacy of the lymph was not destroyed by salicylic acid, boracic acid, or chloralum.* Permanganate of potash (Condry's fluid) appeared to destroy the activity of the lymph in freshly prepared mixtures; but, when the mixture was kept, the lymph regained its power. Dr. Bond's preparations—cupralum, ferralum, and terebene—all appeared to destroy the efficacy of vaccine. Lymph kept in sealed capillary tubes remained sound for twelve weeks; but, after twenty weeks, it became so impaired that three out of eight subjects vaccinated with it failed. Mr. Vacher spoke of the value of animal vaccination for multiplying lymph, but only heifers can be depended upon. In conclusion, Mr. Vacher mentioned that four series of histological preparations, bearing on the subject, could be seen in the Museum; drawings of several of them, with the Report to the Scientific Grants Committee of which Mr. Vacher's communication was an abstract, have been published in the JOURNAL.

The Etiology of Typhoid Fever, with Special Reference to the Discussion introduced by Dr. Gueneau de Mussy at the French Academy of Medicine. By T. M. DOLAN, L.R.C.P. Ed. (Halifax).—The author said that, as Sir William Jenner confessed that the question of the *de novo* origin of typhoid fever is still *sub judice*, he considered that a meeting of the British Medical Association was most favourable for the elucidation of part of the question, and particularly for eliciting reports and opinions from the general practitioners of England on single, isolated, solitary cases of typhoid fever, occurring under circumstances favourable for excluding fallacies. It was still more opportune, in view of the discussion at the Academy of Medicine in Paris, and also in view of the provisional conclusions set forth by Dr. Bouchard on this subject, in the programme of the International Congress of Medical Science, to be held at Geneva from 9th to 15th September, 1877; for thus alone, by comparison of facts, circumstances, and observations, could the circle of combined efforts be completed and the problem solved. He passed in review the opinions of English medical authorities, as Sir W. Jenner, Murchison, Budd, Latham, Stokes, Ballard, etc., and the evidence in favour of the essentially contagious nature of the disease, and the negative evidence in support of its autochthonous origin; contrasting the views of, and circumstances narrated by, our French *confères*, to see how far the evidence adduced on both sides of the question assisted in arriving at some definite conclusions. He held the following opinions. 1. The weight of evidence leans to the views of Budd, Murchison, etc., in so far as it affects the contagious nature of typhoid fever, and its transmissibility by various channels, as alimentation, air, sewers, etc. 2. There is strong negative evidence in favour of the special views of Murchison on its pythogenic origin, ably supported by the opinions of Jaccoud, and by his classification into a spontaneous, an extrinsic, and a contagious mode of origin. He also believed that many general practitioners, and even medical officers of health, are inclined to admit the development of typhoid fever without an antecedent specific poison.

The Incubation and Duration of Infection. By JOHN HADDON, M.D. (Eccles).—Dr. Haddon, the Secretary for the Committee appointed by the Lancashire and Cheshire Branch to inquire into the subject, presented a short summary of the information he had received, and hoped that medical officers of health would send him all the cases bearing on the subject that were reliable. The period of incubation in *measles*, in ten cases, was ten days at least or fourteen days at most; the period of infection commenced two days before the eruption appeared in two cases, and one day before the eruption in three cases; whilst an infected child, three days before the eruption, failed to communicate the disease to seven children who had not had measles. In *scarlatina*, the period of incubation, in nine cases, varied from a few hours to ten days; the period at which the infection was communicated was, in three cases, twelve to twenty-four hours before the rash appeared, and in two others six weeks from the beginning of the illness, and one of these cases was disinfected at a large fever hospital. *Mumps* took eighteen days in one case and twenty-three in another to incubate; and in one case the infection was communicated before the illness began. In *small-pox*, the period of incubation was eleven days in one case and thirteen in another. *Whooping-cough* was shown, by one case recorded, to be infectious before the whole was developed. In *typhus fever*, the period of incubation, in two cases, was about ten days, but neither is reliable. From four returns of *typhoid fever*, the period of incubation may be shorter than fourteen days and as long as twenty-four days.

The Infective Constituents of Vaccine-Lymph. By BUSHELL ANNINGSON, M.D. (Cambridge).—The first portion of this paper was devoted to a résumé of the results of the several authors who had studied the subject, more especially those of Chauveau, Sanderson, and Hiller. It was pointed out that the experiments of the two previous authors were not quite conclusive as to the share of the leucocytes in infection, and that undue importance had been given to the "microzymes", bodies which were not invariably present in active lymph. It was further pointed out that the diffusion method of experiment adopted by those observers did not of necessity exclude the presence of some "unformed ferment". Dr. Anningson's own investigation consisted in—1. The search for any non-diffusible "unformed ferment"; 2. The separation of solid particles from the fluid; 3. The separation of particles of different dimensions from each other. Nothing of the nature of a ferment was discovered, though several methods for obtaining such were tried. The plan of separation of the floating particles adopted was in part a modified diffusion-method by means of capillary tubes, in part actual filtration of lymph—not, it would seem, hitherto employed by any observer—through previously wasted tubes plugged with porous materials of varying degrees of density. In the first series of experiments, all particles visible with a Hartnack's No. 9 immersion were excluded, the filtrate being in all cases submitted to examination within the capillary tube. In the second series, the larger particles alone were stopped, while the smaller were allowed to pass. It was observed that, in many cases, the number of small particles was much increased in the filtrate. They would appear to have been the direct resultants of the rending of the leucocytes or albuminous masses and setting free of their contained granules. If this were so, the fact would account for the greater number of the so-called organisms in the older samples of lymph by degeneration and disintegration or maceration of the leucocytes. Specimens of the filtered and unfiltered lymph were used for vaccination, in order to test their several activities. The conclusions drawn were, that the active agents were, as Sanderson and Chauveau held, "particulate", but that, notwithstanding this, the infective value of the microzymes or micrococci was a matter of much doubt, and that the infective quality lay rather in the leucocytes and masses of altered protoplasm. Lastly, it was urged that much confusion had arisen from comparing the processes of infectious disease to those of septicæmia. They were entirely distinct.

The Dutch Laws for Compulsory Registration and Stamping Out of Infectious Diseases. By ADAM SCOTT, Esq. (London).—The author said that, in Holland, these laws had been carried out in a very stringent manner. In 1865, it was made compulsory upon every medical man to give notice to the Government Medical Inspector of his province, and also to the mayor and alderman of the town, within three days after he became aware that his patient was suffering from a disease that was dangerous to the public health; but, as the diseases were not specified, the law was in practice only a permissive one. In 1873, the law was amended; a list of diseases was added, including cholera, typhus, typhoid, scarlatina, diphtheria, measles, and subsequently dysentery; and the householder as well as the medical man is required to give notice to the mayor and alderman within twenty-four hours after the nature of the disease is known. On receipt of the information, the mayor is bound to cause the house to be marked with a placard on which are the words "Contagious Disease" and the

name of the disease in large letters. The mayor must also provide for the stamping out of the disease by disinfection, or, if necessary, destruction of infected articles, in which case he must allow compensation. The infected person is prohibited from going to another place, and children from the house are not permitted to attend school until eight days after the disease has ceased to exist, and the house has been disinfected to the satisfaction of the medical inspector of the province or of a qualified medical man. When a disease is epidemic, the numbers of fresh cases and deaths are published by the mayor every week. Mr. Scott thought that there could be no doubt that these laws have been highly beneficial. Dr. L. J. Egeling of The Hague, the Senior Inspector of Holland, thinks that the working of the law is satisfactory, and that Holland has gained much by it. In Amsterdam and other towns, pollution of air, soil, and water is prevented by the adoption of the Liernur pneumatic system, which Mr. Scott advocated as vastly superior to our water-flushing system of excrement removal.

On Influences affecting the Propagation of Diphtheria. By W. ARMISTEAD, M.B. (Cambridge).—The paper was explanatory of two maps which the author had prepared, showing the distribution of diphtheria in England and Wales:—1. With reference to geological formation; 2. The proportion per thousand of population in each union during the twenty years 1851-71. He thought that the conclusion arrived at by Dr. Burdon Sanderson, that geological formation has no influence whatever on the distribution of diphtheria, is not quite correct. On some strata, diphtheria has certainly been very much more prevalent than it has been on other strata. For instance, very few outbreaks have occurred in the limestone districts of Northumberland, Cumberland, North Yorkshire, and Derbyshire; whilst epidemics have been of very frequent occurrence all over the districts situated on the tertiary beds and boulder clay. This, Dr. Armistead thought, may be owing to the general impurity of the water-supply in those districts where it is derived from gravel-beds overlying the clays. Diphtheria has also a very marked preference for healthy rural districts and places where the death-rate from other causes is low. Dr. Armistead believed that diphtheria never arises *de novo*, and can only be propagated by the introduction of its own specific zyme or ferment under favourable circumstances into a locality suitable for its growth; and that it is developed by a process similar to fermentation. The circumstances which favour the spread of diphtheria in a district are chiefly impurity of water-supply and facility of intercourse of children between the ages of three and twelve, upon whom the incidence of the disease is found to be greatest. Unless the locality be suitable for the growth of the contagium-particle, the disease spreads very slowly, if at all; and frequent instances are on record of the disease being imported into localities, without showing any tendency to become epidemic.

After the papers, there was a discussion on the whole subject of infection.—Dr. BRITTON (Halifax) mentioned an outbreak of typhoid fever caused by motions getting into a stream, and occurring seven days after the poison was received. The village was supplied by two streams, and only the half which was supplied by the stream affected had any cases of typhoid fever.—Dr. PAGET (Cambridge) asked Mr. Vacher whether, in examining into the infective powers of different ingredients of vaccine-lymph, he had obtained any result as to the relative infective powers of the leucocytes and the more minute bodies 1-20,000th of an inch in diameter.—Mr. VACHER (Birkenhead) replied that he considered that it was impossible to separate leucocytes from the minute bodies referred to, *i.e.*, to wash leucocytes completely; that he believed that leucocytes acted as receptacles for contagium-particles; and that he had never seen leucocytes unaccompanied by contagium-particles. To those who maintain that leucocytes convey contagium, he would answer that they are not certain if it be the leucocytes or the particles within or adherent to them.—Dr. CARTER (Liverpool) asked whether Mr. Scott recommended the Dutch laws for this country. He thought that, if houses were to be placarded in the way he described, persons would not call in medical men, and there would be a strong antagonism between the curative and preventive branches of the medical profession, and the medical men would be losers without the public being in any way gainers. He thought the Dutch laws were expensive and ineffectual, and, on many grounds, very objectionable.—Dr. WHITTLE (Liverpool) thought that all that was necessary in the Dutch laws was carried out in England already, and that to shut up a place of business whenever a case of small-pox or other infectious disease occurred could never be tolerated in large mercantile centres like Manchester and Liverpool.—Dr. BOND (Gloucester) urged the importance of first fixing upon sanitary

authorities their responsibility, before registration of disease was made compulsory. He found no difficulty in obtaining information as to the existence, but he did experience great difficulty in the want of means of dealing with and the means of isolating cases of infectious disease, and so preventing the spread. In the instance of a tradesman who had a case of small-pox in his house, compulsion on him to publish the existence of the disease in his house would inflict upon him a serious loss; whereas, if he could only go to the sanitary authority or their officers and say "I have a case of infectious disease in my house; I want you to isolate it for me", the whole of the mischief would be stopped at once. While sanitary authorities ignored their duties, the registration of disease would only result in injury to the individual. The whole subject was a wide one, and could not be dealt with piecemeal. What was wanted was a Government inquiry into the whole matter.—Dr. BRITTON (Halifax) said that, as a medical officer of health, he could get full information as to the existence of infectious diseases. There was a difficulty in dealing with the matter, owing to the fact that some diseases, such as measles and scarlatina, were infectious before the rash appeared, and these would probably escape registration; and, if registration were made compulsory, things would be worse than they were at present.—Dr. BOOTHROYD (Hanley) said that it was very difficult to overcome the love of mothers for their children, and their great objection to part with a child suffering from scarlatina, in order to have it removed to a hospital. Even if removal of infectious cases to a hospital were made compulsory, there would still be a large number of mild cases of which we had no information, and never even suspected, who would be able to wander about the streets and disseminate the disease. Further than this, we should require a separate hospital for each separate disease. If isolation were to be carried out at all, he thought it should be done in the house in which the infectious case occurred, except in small-pox, which, owing to vaccination, could be more easily dealt with in hospitals for infectious diseases.—Dr. NOTTER (Netley) said he had never experienced in the army the difficulties which the last speaker had thought so great with reference to the isolation of infectious cases in hospitals. Mothers were very easily induced to let their infected children go to the hospital and comply with the regulations.—Dr. A. P. STEWART (London) agreed with Dr. Bond that it was not wise to press the matter of registration until proper places are provided for isolating cases of infectious disease, and sanitary authorities show themselves more willing to fulfil their duties than they do at present. It is not the poor who are the most difficult to deal with; it is the class just above them. The public mind requires to be educated in these matters, and sanitary authorities must first be taught their duties. It would do much good if the admirable Philadelphia report referred to by Dr. Buchan in his address entitled "Citizenship in Sanitary Work", were widely circulated.—Mr. MANBY (Wolverhampton) said that he had found that much good had resulted from the formation of classes or societies where these subjects could be discussed by the working classes.—Mr. ALFRED ASPLAND (Dukinfield) bore testimony to the superiority of chlorine over carbolic acid. In Cheshire, where carbolic acid was used during the cattle-plague, the rate was threepence in the pound, and would continue for years; whereas, in Lancashire, where chlorine was used, the rate was only twopence in the pound for one year. The effect was wonderful. Chlorine was not nearly so dangerous as people thought. It was not injurious to life even when very strong; it had but little effect on paint, even when used to a very large extent. Perfect disinfection was produced by using chlorine freely, and damping the articles and furniture before commencing the process.

Thursday, August 9th.

The President, Surgeon-Major F. S. B. DE CHAUMONT, M.D., delivered an address, which was published at page 183 of the JOURNAL for August 11th.

Preventive Medicine in Ordinary Medical Practice.—A discussion took place on Dr. Ransome's Address on State Medicine, published at page 219 of the JOURNAL for August 18th.—Dr. WILLIAM OGLE (Derby), said that it was principally to the concluding paragraph of Dr. Ransome's address that he wished to call attention, and, indeed, to propose an amendment. Dr. Ransome asked for supplementary aid from "Voluntary Sanitary Associations". Against this Dr. Ogle urged a twofold objection; first, that the profession was already overwhelmed with this kind of "voluntary or gratuitous" work; and, secondly, that an agency is required much more thorough and comprehensive than any yet devised even in Manchester, and one that is capable of doing work which it were visionary and wrong to desire done by unpaid agents. In remarking upon the hope expressed by Dr. Ransome, that the legislature will adopt a more enlightened sanitary policy, and that it will not wholly ignore the suggestions of medical men in framing

new laws that relate to the prevention of disease, Dr. Ogle said that legislation cannot safely be very far in advance of public opinion. Obedience to law must be willing and intelligent if it is to be effective, and men cannot carry out laws which they do not comprehend. Public opinion on medical questions is very much what the medical profession in a past generation has made it, and consequently the faults in medical legislation complained of by Dr. Ransome must, at least indirectly, be chargeable on the profession itself. We ignore preventive medicine in ordinary medical practice; therefore, the public ignores us when it frames its preventive laws; and even in the cure of disease the same sequence may be observed. Whilst a vestige remains of that practice, payment "per bottle", even when masked under the "For medicine and attendance: particulars if required", it is to little purpose that Dr. Johnson is bold enough to teach that typhoid fever is best treated by *adjuvantia*. Dr. Ogle recommended that medical men should be paid a certain sum *per annum* for all ordinary work, including the prevention as well as the cure of disease, and that they should have supplementary fees for extraordinary visits, which he defined. In conclusion, he pointed out how by co-operation effective sanitary associations might be formed in every locality, but specially in large towns.

Poor-law Medical Relief in certain of the North-Western and Midland Counties; its Anomalies and Deficiencies. By JOSEPH ROGERS, M.D. (London).—The object of the paper was to show what has been done in certain of the unions towards the establishment of an efficient system of medical relief, and what has been omitted to be done in adjacent unions, whereby the administration of such medical relief has been allowed to remain in an unsatisfactory state. He advised the provision of all medicines and appliances by the Boards of Guardians, and the appointment of dispensers in all populous places where sufficient work can be found for them to do. He said that the future of this question rests with the profession and the public. To the first, he would say that, if we are to succeed in bringing about reform, it will be necessary that there should be a diminution of the inordinate desire on the part of the younger members of it to take these peculiarly worthless appointments; and on the part of those engaged in out-patient hospital work, not to exhibit such great zeal and anxiety to undertake their thankless labour for nothing. And to the public, he would say that, if they desire to see the administration of the Poor-laws carried out on humane, Christian, and economic principles, it will be necessary for them to insist on modifications in our medical relief system on the lines indicated, seeing that sickness among the poor is the greatest factor in the production of the curse of pauperism.

Hospital Out-Patient Reform; its Helpers, its Hinderers, and its Passers-by. By H. NELSON HARDY, F.R.C.S. Edin. (London).—The author spoke very strongly against the present abuse of the out-patient department at hospitals. In pointing out what was meant and what was not meant by the demand for out-patient reform, he said it was not meant or desired to deprive one single necessitous person in England of the benefits of gratuitous medical attendance in time of sickness, but only to restrict the use of the out-patient departments to the really poor. It was not meant to cast blame upon medical brethren engaged in treating out-patients for doing only what is possible under the circumstances in which they are placed, but to denounce and seek to reform a system which renders it possible for any physician or surgeon to be required to see sixty or eighty patients per hour; whilst, where the abuse had become so great that crowds of sick and suffering persons were kept waiting for hours in stifling out-patient rooms, and were after all dismissed without even the hasty glance of any qualified medical man, carrying with them a bottle of medicine ordered by some second or third year's student, an urgent demand for the reform of such a system could hardly be wondered at. He urged that the whole weight and influence of the British Medical Association should be thrown into the scale in favour of the movement for reform, which has underlying it those principles of justice and truth that must insure its ultimate success.

Home Hospitals; their Scope, Object, and Management. By HENRY C. BURDETT, Esq.—This paper was published at page 243 of the JOURNAL for August 25th.

Provident Dispensaries: Eleven Years' Study and Experience of them. By D. HENRY MONCKTON, M.D. (Rugeley).—The author was of opinion that provident dispensaries are a necessity of the age, and will, therefore, become general. They should, however, be strictly limited to the wage-earning class. He approved of the draft rules suggested by the Medical Subcommittee, and published by the Charity Organisation Society; they appeared to afford an efficient safeguard against the admission of improper persons as members, and other abuses complained of by the opponents of provident dispensaries.—Dr. DRYSDALE (London) said there was nothing more destructive to the working

classes than to be dependent on promiscuous charity. The system in London was enough to pauperise the whole city. The profession should in every way endeavour to help Dr. Rogers, Mr. Nelson Hardy, and Dr. Stewart.—Mr. GEORGE JACKSON (Plymouth) thought it would be difficult to make people see that any reduction of cost in Ireland was really due to the cause which Dr. Rogers had stated.—Dr. ROGERS (London) compared the system of the administration of medical relief in Ireland with the system in operation in England, and urged the adoption of the Irish system in this city. He moved: "That it be a recommendation to the general meeting that a committee be appointed with full authority to use the influence of the Association to procure such changes in the administration of the out-patient department of hospitals as shall place them on a level with the metropolitan poor-law dispensaries, as regards efficient treatment, inquiry into the circumstances of patients, and payment of medical officers."—Dr. DRYSDALE seconded the motion.—Dr. FITZPATRICK (Liverpool) urged, as a necessary alteration, with regard to the administration of poor-law medical relief, that the medical officer should have the full power of ordering anything the patient might need without there being any chance of his action being countermanded or overruled by the relieving officer.—Dr. PAGET (Cambridge) referred to Dr. Rogers's table of "Poor-law Medical Relief in England and Ireland", and said that Dr. Rogers's statement that when the cost of medical relief was high, the gross cost was small, was true with regard to Manchester *versus* Cork, but not as to Chorlton *versus* South Dublin, or Salford *versus* Belfast, where the population at the time referred to was nearly the same, but the cost of gross relief was highest in the Irish towns.—Dr. STEWART (London) said he quite agreed in the importance of having the preventive element made more appreciable in the dealings of the medical profession with their private patients. If they could get the idea introduced to their private patients that preventive medicine was really something much more valuable than curative, they would have done a great work for society.—Dr. BRIERLEY (Manchester) said the provident dispensary system in Manchester had failed because of the medical fees being too low, for on the present scheme it was impossible that they could pay.—After some further discussion, in which Dr. Rogers was urged to modify his resolution, he consented to alter it so as to read: "That it be a recommendation to the general meeting that a committee be appointed, with full authority to use the influence of the Association, to procure such changes in the administration of the out-patient department of hospitals as shall secure for them a system based on the principles enunciated in the Metropolitan Poor-law Act of 1867, which necessitates efficient treatment of patients by the medical officers or their legally qualified substitutes, inquiry into the circumstances of patients, and payment of medical officers."—Dr. DRYSDALE seconded the motion in its amended form.—Dr. FALCONER (Bath) moved, as an amendment: "That the Association be recommended to appoint a committee to use its influence in impressing upon the governing bodies of public medical institutions the necessity of providing efficient means of checking the admission of patients who are not proper recipients of charity; and so, by diminishing the pressure of work on medical officers, afford them the opportunity of devoting their time to the cases under their care."—Dr. STEWART seconded the amendment, which, on being put, was carried by nineteen votes to ten. Many members did not vote.—The amendment then became the substantive motion; and Dr. BRIERLEY moved as an amendment upon it the following: "That it be recommended to the general meeting that a committee be appointed with full power to use the influence of the Association to procure such changes in the administration of out-patient relief of hospitals as they may find necessary, and that the working of the present system of provident dispensaries in Manchester be carefully investigated and reported upon."—The amendment having been seconded, was carried; and on being put as a substantive motion, was carried by sixteen votes to twelve.

A Comparison between the Frankland and an American Process and the Wanklyn, Chapman, and Smith Process of Water-Analysis. By CORNELIUS FOX, M.D. (Chelmsford).—The author, having pointed out that a contrast of the amounts of organic matter yielded is out of the question, instituted a comparison between the opinions formed from a consideration of the figures obtained, in accordance with the rules laid down by the inventors of these two processes for the guidance of their disciples. Dr. Fox had collected the details of 93 analyses of waters performed at or about the same time by the two processes. A study of this mass of comparative results pointed to the following conclusions. 1. In one instance only (No. 42) out of 99 analyses, details of 93 of which were gathered together in a table, was there a distinct conflict of opinion, and in this exceptional case the divergence in the results obtained was easily accounted for. 2. The opinions did not in a great many instances coincide exactly, but the adjectives denoting them were

either almost synonymous or were modified by some qualifying adverb. 3. When the results of analyses made by the two processes at or about the same time did not at all agree, the contradiction was generally due to the neglect on the part of those who practised the Wanklyn, Chapman, and Smith process, to estimate the amount of nitrates and nitrites and to be guided by the evidence thus afforded. 4. The results were not concordant unless the analyses were performed upon the same water at the same time. 5. A really bad water would not be likely to escape detection by either process, if the nitrates and nitrites were always estimated. 6. The danger of the delivery of antagonistic opinions respecting any given sample of water lay chiefly in the fact that Frankland's process gives higher results than Wanklyn's method, so that a water pronounced as just passable by the latter process might be condemned by the former.

On Sea-Scurvy. By Sir WILLIAM SMART, K.C.B., M.D. (Haslar).—This paper afforded a sketch of the known history of scurvy, from the earliest period in the Roman army on the Rhine to that of Lord Anson's disastrous voyage. Although it is now agreed that the so-called land-scurvy and sea-scurvy are the same disease, yet, so long as the latter was deemed producible only by excess of saline particles in the blood, derived from sea-air and the use of salted meats, they were held to be different diseases. It was probably Dr. Kramer, physician-general of the Austrian army in Hungary, in the Turkish war 1730-40, who first advocated their identity of cause and origin. The truths concerning it, as a disease of seamen, were first taught in England by John Woodall, "Master in Chyrurgerie", who made several voyages in the service of the East India Company, in the reign of James I, in 1617. He modestly set forth his knowledge and experience in a small volume styled *The Surgeon's Mate*, in which he gave a good description of the disease, and insisted on the efficacy of the juice of lemons and oranges for its cure and prevention, showing that it was then largely used in our ships trading to the East Indies; which knowledge had been amassed from the earlier experience of the Portuguese and Dutch in navigating the same seas. Subsequently to Woodall's exposition, the professors of medicine on land, holding on by erudite theories as to varieties of scurvy requiring totally different modes of treatment, obscured or ignored the simple doctrines from the personal experiences of seamen; and, in their influence as teachers, the essential cause of scurvy, want of vegetable food, was not sufficiently insisted on by them, so that the authorities, guided by their teachings, failed to carry out the views of Woodall, which would have eradicated the scurvy that desolated regions and frustrated the warlike efforts of armies and fleets up to the end of the eighteenth century. The disasters that happened to Lord Anson aroused the philanthropic sentiments of the nation; while the revival of exploded theories almost annulled the practical teaching from proved facts relating to that expedition, by adopting, as the truly essential and all-efficient causes of the disease, those that were merely predisposing, many of which were assumed to be more potent than the really ever present cause, viz., the want of vegetable food. These predisposing causes were merely the debilitating causes that impair the general system, rendering it more susceptible of the impulses of the exciting causes of many diseases as well as of scurvy. At this point of the history of sea-scurvy, the author concluded; remarking that, if the practical observations of Woodall had been received and acted on when first written, nearly two centuries of disastrous events and disappointments in war would have been modified, if not prevented, and the lives of hecatombs of sailors and soldiers would have been spared.

Friday, August 10th.

The Chair was taken by the President, Dr. DE CHAUMONT.

A Villa-Hospital. By F. VACHER, L.R.C.P. Ed. (Birkenhead).—Mr. Vacher drew attention to the difficulty experienced by many sanitary authorities in providing accommodation for the infectious sick. In urban manufacturing districts, where the population was almost entirely composed of the wage-earning class, the authorities were often unwilling to incur the cost of erecting a permanent building, while probably there was no suitable open site for temporary structures, and so the objectionable practice of using union hospitals for patients not paupers was had recourse to. Was there no other way of providing accommodation for the infectious sick than by building permanent or temporary hospitals, or contracting with the guardians of the poor? Mr. Vacher thought there was a very simple way—viz., converting an existing detached residence into a hospital—and pointed out that, as in Mr. Simon's "Memorandum of Hospital Accommodation to be given by Local Authorities", dated July 1872, it was suggested that, in rural districts, cottages might be adapted for the purposes of hospitals for infectious diseases, the conversion of buildings already in existence to hospital uses was a practice for which there was a sort of official sanction.

Once allow that a cottage may be fitly made to serve as a hospital for zymotic cases, and it follows that a villa or pair of villas may be fitly appropriated to the same uses. It was, therefore, submitted that, when an urban authority was, from considerations of economy, prevented from erecting a permanent infectious diseases hospital, the next best course to adopt was to fix upon some conveniently placed residence in the locality and make a hospital of it. In selecting such a building, as in choosing a hospital cottage, great care would be necessary. It must, of course, be substantially built, thoroughly well drained and dry, and, if possible, without cellars or rooms below the ground-level. It should be not only detached, but on an open airy site, and sufficiently removed from other residences, so that its conversion may not unduly depreciate the value of property in the vicinity. The Birkenhead Sanitary Authority had not till the autumn of 1875 made any provision for its sick from infectious diseases, and, whenever it became requisite to isolate a sporadic case of fever or small-pox occurring in the town or brought into the port, the only place available for the purpose was the workhouse-ward. This state of matters was equally unsatisfactory to the sanitary authority and to the guardians of the poor, and it was at last definitely resolved to put an end to it. The proposition to build a special permanent hospital, which Mr. Vacher, in his capacity of medical officer of health, strongly advocated, was negated partly on the score of its probable cost, and partly owing to a difference of opinion as to the amount of accommodation for which there was occasion; and eventually it was decided to convert an existing building. Fortunately, the Birkenhead local authority was the owner of a pair of semi-detached villas, which several circumstances combined to point out as singularly well adapted for the purposes of a hospital. Placed in a suburban part of the district, and little more than a hundred yards from the park-railings, these villas must have been originally most attractive residences; but the plot of land between them and the park having some time since been purchased for the erection of the borough hospital, the villas ceased to be eligible for the purposes for which they were designed. The only question was, Were they capable of being converted into a good hospital for infectious diseases? and, after a most careful examination of them, Mr. Vacher was able to report that they were. As regards the accessibility of the villas, and their wholesomeness of situation, nothing better could be desired. Though at the outskirts of the town of Birkenhead, the villas were nearly in the centre of the urban sanitary district. The plot of land on which they stood measured $151\frac{1}{2}$ feet by $74\frac{1}{2}$ feet, and there was a good road in front and at the back. On one side was the drying-ground of the borough hospital, and on the other a vacant site, $15\frac{1}{2}$ feet by $82\frac{1}{2}$ feet, belonging to the local authority, and thus available for the extension of the villa-hospital when that may be necessary. The arrangement of the villas was shown in plans produced, and the alterations effected, which included the construction of new bath-rooms, a new wash-house, a disinfecting apparatus, the re-ventilation of the whole premises, etc., were fully described. The work was inspected from time to time, and due care taken that it was all well executed. Finally, the hospital was thoroughly cleaned and the furniture selected and moved in, and the premises were opened on February 13th, 1876. The total cost of the alterations, furnishing, disinfecting apparatus, dispensary fittings and drugs, hospital books, forms, etc., added to the estimated value of the villas at the time the works were commenced, was £1,451 16s. As there were eighteen beds provided, the cost per bed was £80 13s. 1d. With reference to the cost of carrying on such a hospital, Mr. Vacher stated that, as the Birkenhead public accounts are made up from April to April, he was in a position to give the particulars of the disbursements on account of the fever hospital, as the villa-hospital is now called, for one year; viz., for the year ending April 24th, 1877. These included the wages of the care-taker and matron, the nurses, etc., and all other charges, and amounted to a total of £309 16s. 3d. During the year, just a hundred patients were admitted and treated, so the cost per patient was a fraction under £3 2s. The cost per bed provided was £17 4s. 3d. The sum of the maintenance moneys paid by patients or their friends in the course of the year was £154 3s. The disbursements, therefore, exceeded the receipts by £155 13s. 3d.; that is to say, the income was about half the expenditure.

The Prevalence and Severity of Syphilitic Diseases among Merchant Seamen. By FREDERICK W. LOWNDES, M.R.C.S. (Liverpool).

Dr. NEVINS (Liverpool) read an elaborate series of papers, asserting in effect that the protected places have not been protected from syphilis by the operation of the Acts; that, too, in unprotected places there had been a diminution of the disease from causes with which the Acts had nothing to do.—Dr. DRYSDALE (London) supported Mr. Lowndes in his views as to the necessity of Lock hospitals for the large towns, and said that he was as anxious as any one to see the dis-

ease which is the scourge of our race overcome. He agreed with Dr. Nevins that the restrictions carried out in the Acts did not afford protection against the hard chancre; for, as a fact, he said it had been acknowledged that only the soft sores—a matter of no concern—had been diminished, not only in the protected stations in England, but in Paris. The fact was, that they locked up the women with the soft sores, and left the women with the hard sores free range. He was converted from being an advocate of the Acts by going to Paris and studying the effects of restriction; and he appealed to Mr. Berkeley Hill and Mr. Ernest Hart to look at the facts of the case, and they would see the absurdity of trying to prevent the spread of the disease.—Mr. ERNEST HART said the quotations which Dr. Nevins had made from statistics had no meaning in relation to the Acts not having had any effect in diminishing the disease, or any effects upon the health of the general population. Dr. Nevins had sent many statistics to the JOURNAL, and these had been submitted to persons who were experts in the matter of statistics and were absolutely without the slightest bias upon the questions dealt with by Dr. Nevins. Their judgment upon Dr. Nevins's statistics was, that they were very fallacious. Dr. Nevins thought that he (Mr. Hart) was prejudiced in favour of the Acts; but the fact was, that he was quite impartial, and left the whole question of the statistics to statisticians who had no feeling or interest in the questions. Taking the tables of mortality at Somerset House of different periods, it was shown incontestably that there was an absolute decline of 21 per cent. in the death-rate from this disease in the protected places since the protection had been afforded, compared with the time when they were unprotected; and that, at the same time, the death-rate had increased 20 per cent. in the unprotected places.—Dr. NEVINS asked Mr. Hart where the tables he had read were to be found.—Mr. HART said that the tables were prepared from the official documents at Somerset House, and the public tables were open to Dr. Nevins and everyone else.—Dr. WHITTLE (Liverpool) maintained that the Acts had not materially lessened the hard sores, and contended that it was not possible to detect, even by examination, the women who were capable of communicating a hard sore. He also held that seamen were not more liable to these diseases than others, and said his belief was that drunkenness had more to do with the loss of ships than the inefficiency of seamen through venereal disease.—Mr. BERKELEY HILL (London) said that Dr. Nevins had asked him to enter into correspondence upon the subject of these Acts; but he (Mr. Hill) declined. The official tables, if inspected fairly, would show the great and beneficial operation of the Acts. The Army Medical Report, for instance, showed that, in fourteen stations under the Acts, the number of cases of primary sores was thirty-three; while in fourteen stations not under the Acts, where the strength was the same, the number of primary sores was eighty-two. A little common sense ought to be sufficient to show, without an array of statistics, that, if a woman with a contagious disease were separated from the population, she could not propagate the disease; and that, if she were kept until she was well, the disease must be lessened. No statistics were necessary in coming to this conclusion.—In reply to an observation from the Rev. Dr. BELL, Mr. HART again explained that these statistics were prepared from the public documents obtained from the Registrar-General. As to the long letters which Dr. Nevins sent to the JOURNAL, if Dr. Nevins desired to know why they were not published, he could write to the JOURNAL Committee. It was impossible to publish everything sent to the JOURNAL, and selections were obliged to be made.—Dr. B. F. McDOWELL (Dublin) said that there was a lessened number of cases at the Lock Hospital in Dublin.—Dr. FITZPATRICK (Liverpool) suggested that perhaps the people disliked going to the Lock Hospital.—Dr. BORCHARDT (Manchester) contended that the Acts were not the best way of meeting the diseases.—Dr. J. ROGERS (London) vigorously defended the Acts, and condemned the conduct of Mr. Stansfeld in giving support to the hysterical persons who raved against them.—Dr. W. CARTER (Liverpool) said that the Acts did not lessen the disease, for the women told each other where they could go without being interfered with; hence they carried the disease from place to place. All the north of England was against the Acts. Colonel Henderson had said that the Acts could not be enforced in Birmingham without probably causing an insurrection.—Dr. THOMPSON (Leamington) gave from his own experience proofs of the efficiency of regulations such as those under the Acts in lessening venereal disease.—Mr. LOWNDES replied; and, in the conclusion of his remarks, said that, if thorough regulations in this country, or in any country, were properly carried out, syphilis would be stamped out.

A hearty vote of thanks was given to the Chairman for his impartiality and ability in presiding. The Section then adjourned.

For want of time, the following papers were taken as read.

Occupation and Health. By C. R. DRYSDALE, M.D. (London).

The author remarked that it was a somewhat singular fact that, in works on hygiene written by British practitioners of medicine of late years, reference was seldom made to the great law of population discovered in 1798 by the Rev. Mr. Malthus, which was, that there is a constant tendency in population to increase more rapidly than the means of subsistence attainable. In his opinion, it was for this reason that many of the praiseworthy schemes for making our cities more salubrious had been found to prove quite abortive. To instance but one city—London—it would be seen, on referring to the Registrar-General's Reports, that the death-rate, which in 1856 was twenty-two persons annually in one thousand living, was almost exactly at the same figure in 1876. Hence, with all the improvements which had taken place in drainage, etc., there was in reality no improvement at all in twenty years in the death-rate of London. The reason, in his opinion, was this, that just in proportion as improvements took place, so did population increase, which caused greater overcrowding; and this caused increased deaths of children and of weakly persons. To use the expression of Heberden, cited by Malthus, when there was a certain death-rate required by the rapid increase of population, as soon as one disease was lessened by hygienic care, another took its place. Malthus had undeniably proved, as was stated by the two Mills, Fawcett, and recently by the Lord Chief Justice in the case of *Reg. v. Besant and Bradlaugh*, that "overpopulation was no imaginary evil"; and that it is the consequence of the enormous tendency to rapid reproduction, which is seen clearly in the fact that, in new countries like the United States, population has frequently doubled in from twenty to thirty years; whilst in France it is at present all but stationary, and whilst England has never doubled its population in less than fifty-two years. The human female commences to possess the power of reproduction at fifteen, and continues this power until forty-five; so that, on an average, a healthy woman might easily have some ten to twelve children if she married in early life. The large families common among all classes in this old country were productive of much disease. Among the poor, he had found that in some cases, out of one hundred thousand children born, as many as thirty thousand would die in the first year of life; whilst among the richer classes (*vide Ansell's Statistics*) not more than eight thousand would die before the age of one year. Large families among the rich led to many evils. Firstly, emigration was required on an enormous scale; and this depleted this country of its males to such an extent that about three-quarters of a million of surplus women were left, who clearly could not secure one part of healthy female existence—children. This caused an amount of insanity and other diseases, referred to by Sir B. Brodie at Birmingham, where he truly asserted that the evils of celibacy fully equalled those of prostitution. Dr. Drysdale maintained that any system of public or private health was faulty which did not discuss the question of the size of families in old overpeopled states like this. For his part, he believed with Mr. Mill that little advance could be expected in morals or health until the production of a large family was regarded with dislike by all classes, rich or poor; and he highly commended the French for being so moderate in this matter as they were known to be.

On the Highlands of Hastings and St. Leonard's as a Health-Resort; with Notes on the Chalybeate Water of St. Andrew's Spa. By F. H. PARSONS, M.D. (Hastings).—The modern extension of the now united towns of Hastings and St. Leonard's to the adjacent highlands has opened up an entirely new region, possessing climatic conditions of quite a different character to those described some twenty years ago, when Hastings and St. Leonard's were practically confined to the valleys lying under the cliffs. At elevations varying from one hundred to six hundred feet above the sea, invalids may enjoy the benefit of an atmosphere comparatively dry and rich in ozone, an equable temperature, moderately warm in winter, being sheltered from cold winds, but cool in summer, being open to the sea-breezes; suited for cases of anaemia, atonic gout, rheumatism, and various forms of nervous exhaustion as well as for incipient phthisis. Various meteorological observations, made at different altitudes, are given in support of this, and a brief description of the new highland districts, extending from "Clive Vale", on the east, to "The Highlands of St. Leonard's", on the west; also an analysis of the chalybeate water of St. Andrew's Spa in the new park.

On Sewer-Air, House-Drain Ventilation, and Sewage Disposal. By P. HINCKES BIRD, F.R.C.S.Eng. (Lytham).—The author referred to the effects of fresh air on health; the beneficial results of efficient sewerage and drainage; the varied action of sewer-air on the individual exposed to it; the importance of house-drain ventilation and disconnection with sewers; and of the rapid removal of sewage. He endorsed one of the conclusions of the Rivers Pollution Committee, that the retention for any lengthened period of refuse and excreta in the

midst of towns must be utterly condemned; that the adoption of any dry system in large towns should be looked upon as an instance of sanitary retrogression; and that all advocates of conservancy plans are obstructionists to sanitary progress; that nothing can be more satisfactory than a good water-closet apparatus, properly connected with a well-ventilated sewer, as it is cleanly, and at once allows the removal of all objectionable matter to a place where it can be utilised in a wholesome manner. The author was perfectly satisfied that the disposal of sewage could be thoroughly accomplished without the enormous expense to which various communities had been put, and that the economical if not profitable riddance of this universal nuisance could be successfully met. On the subject of ventilation of house-drains and soil pipes, the author protested against the way in which every sanitary appliance was sought to be protected by "Royal Letters Patent", and observed that if heed were given to the threats of patentees sanitary measures throughout the country would be impeded and cramped to a dangerous extent; that what was really wanted was instruction in cheaper and easier methods of sanitation than those recommended by rival inventors, and a little common sense and education on the part of the public. The paper concluded with the remarks on sewer-air and house-drain ventilation which had been circulated in handbill form by the sanitary authorities to which he is medical officer of health.

On the Hygienic and Therapeutic Influence of Habits and Character in Medical Men. By E. T. TIBBITS, M.D. (Bradford).—In introducing this subject, it was taken for granted that anything which, on the one hand, tends to the prevention, diminution, or cure of disease, or, on the other, favours its development or retards restoration to health, comes legitimately within the domain of medicine, and therefore demands the earnest consideration of those engaged in the practice of it. After a few general remarks on the power which one man is capable of exerting over his fellows, the author regarded the special influence of medical men mainly of a two-fold nature—social and professional. He considered their position in the social scale, and their very intimate acquaintance with the lives of so many individuals of all classes, must afford many favourable opportunities for effecting changes in the conduct of others, and thus prevent disease. In their professional capacity, he believed it will be found, on careful examination, that the habits and character of each individual have a tendency to develop a particular style of practice. Having referred to "medical fashions" affecting the profession as a whole, he contrasted, by way of example, the probable method of practice pursued by the energetic and bold practitioner with that employed by the inactive and timid one. The influences of intemperate, immoral, abstemious, and other habits, were then examined, and the last type of character mentioned was that of a "medical woman", which the author regarded as a mental monstrosity, and one calculated to produce immorality, and, therefore, disease. He concluded with the following suggestions. 1. A knowledge of moral philosophy, including ethology, or the science of character, should be cultivated by all engaged in the practice of medicine. 2. All medical men should endeavour to realise the existence of the above-mentioned influence, and make allowance for it in practice. 3. Knowing how powerful their influence is, it is highly desirable that they should lead, as far as possible, lives which will bear imitation.

On the Necessity for the Amendment of Coroners' Jurisdiction, also for the better Certification of Causes of Death. By WILLIAM HOLDER, M.R.C.S. (Leeds).—This paper discussed the necessity for the amendment of coroners' jurisdiction. In it, cases were given showing the want of judgment, want of appeal from, and want of medical knowledge, of coroners. To supply the first want, the author urged that the registrar, on receiving notice of any questionable death, should simultaneously transmit knowledge of the same not only to the coroner, but also to the Registrar-General, who should be supreme to the coroner, and might interfere when he thought the course of justice would not be fulfilled by the decision of that functionary. For the second want, the author suggested that the judges of county courts should be accessible to any person willing to undertake the responsible duty of questioning the coroner's decisions; and, to remedy the third want, he pointed out the necessity of appointing medical assessors to assist coroners in primary or more extended inquiries, with the power and duty of appealing to the Registrar-General to decide any case in dispute. Several suggestions were made, and fully discussed, for the better fulfilment of the law; viz.: 1. The requisites of coroners for the office; 2. The necessity for better educated men on juries; and 3. The need for removing coroners' inquiries from taverns to places more befitting their solemnity. Statistics were given showing the effect coroners' inquests have in decreasing the return of uncertified deaths. The paper concluded by pointing out the present opportunity for uniting with the Social Science Association to move the Government to satisfactorily remedy the present inefficient law.

SECTION E.—PHYSIOLOGY.

Thursday, August 9th.

THE President, ARTHUR GAMGEE, M.D., F.R.S., delivered an address, which was published at page 239 of last week's JOURNAL.

Preliminary Observations with Lombard's Thermo-electric Apparatus on Surface-Temperatures. By J. MACFIE, M.D. (Glasgow).—After remarking on the comparatively slight attention that the subject of surface-temperatures had received in this country, and describing the various parts of Lombard's apparatus—a description rendered shorter and more satisfactory by the kindness of Dr. McKendrick, who, besides lending the instrument for the observations, allowed it to be brought for inspection to the meeting—this paper went on to record the readings of temperature gained in eight series of observations. All the observations were made on the healthy human subject with the two thermopiles in the same circuit after the method first mentioned by Dr. Lombard in his paper describing the apparatus. Corresponding portions of the surface of the skin were selected on each side of the body, and the difference of temperature was tested and noted in each series; if there were no difference, they were marked equal, the apparatus being applicable in getting with accuracy only the relative, but not the absolute, temperature of a part. In the first series, ten corresponding parts were chosen and tested on the chest, side, and arms. In the second, four on the back were tested in addition to those on the chest and arms. In the third, those on the chest, back, arms, and side; while in the fourth series two points were chosen on the side of the head in addition, and in this and the four remaining series the temperature was recorded at these fourteen points of the surface on each side of the body, and also at four points in the mesial line of the back. No portion of the surface was tested below the level of the iliac crests. The results obtained, although not yielding anything of high scientific value, all tended to corroborate what has been previously remarked, that the surface-temperature varies very considerably, even in health, while the internal heat is fairly constant; the temperature in these observations giving a variation in corresponding parts of from .025 of a degree cent. up to 1.75 deg. cent.

The Physiology of the Turkish Bath; an Experimental Inquiry into the Effects of Hot Dry Air upon Man. By WILLIAM JAMES FLEMING, M.B. (Glasgow).—These experiments were performed by the author upon himself, and consisted of observations on the effect of the Turkish bath at temperatures of from 130 deg. Fahr. to 170 deg. Fahr. upon the weight, temperature, pulse, respiration, and secretions. The results showed that immersion of the body in hot dry air produced loss of weight to an extent considerably greater than normal, amounting, on the average, to a rate of above forty ounces an hour. This was accompanied by an increase in the temperature of the body and a rise in the pulse-rate, with at first a fall and then a rise in the rapidity of respiration. The amount of solids secreted by the kidneys was increased and coincidentally the amount of urea. The sweat contained a quantity of solid matter in solution, and among other things a considerable amount of urea. The most important effect of the bath was the stimulation of the emunctory action of the skin. By this means the tissues could, as it were, be washed by passing water through them from within out. The increased temperature and pulse-rate pointed to the necessity of caution in the use of the bath when the circulatory system was diseased.

The Physiological Effects of Hot-Air Baths, Turkish and Lamp. By J. S. CAMERON, M.D. (Huddersfield).—Out of 85 cases from his note-book on the effects of baths, 73 were cases in which dry hot-air played an important part. Of these, 32 were observations in the Turkish, 30 on the lamp, and 11 on the sulphur vapour-bath. The maximum body-heat attained by a person placed in a box heated with dry hot-air, but whose head is not included, averaged in 30 cases 100.81 deg. Fahr. The average time taken to reach this temperature was 21 min. 10 sec. The patient's pulse reached a maximum average of 118 in an average of 16 min. 49 sec. The sulphur vapour-bath differed from the last in this, that when (after an average exposure of 15 min. 45 sec.) the maximum heat of the bath (164 deg.) was reached, a quantity of sulphurated potass was volatilised, and the bath, with the patient in it, allowed to cool. In an average of 4 min. more, the pulse had reached its maximum, and the respirations were 25. In 9 min. more, the bath had gone down from 164 to 144½ deg., but the thermometer in the bather's mouth had risen to 100.32 deg., its average maximum. From that time, both the bather and the bath cooled. Dr. Cameron set aside five of his observations on the body-heat in the Turkish bath owing to his not having been able to verify the accuracy of the thermometer used, and he divided the remaining 27 into two groups. In group A, of five cases exposed to a heat of not more than 150 deg. Fahr. (average 147 deg.), the average maximum temperature

of the patient was 100.76 deg.; in group B, the average heat of the bath was 181 deg., and the average maximum body-heat 101.5 deg. It would thus seem that the body-heat varies directly with the heat of the bath, and the comparison of results in the lamp- and sulphur-baths showed the same, and also that the length of exposure to the heat had also a direct ratio to the body-heat. The maximum body-heat in the 27 cases of the Turkish bath was reached in 35½ min.; the maximum pulse (116) in 37 min. In the lamp-bath, the average maximum number of respirations was 28, reached in an average of 14 min. 45 sec.; the average minimum 20, in 10 min. 20 sec. The rise of the thermometer under the tongue was not due to heat conducted from the air of the bath, for it occurred in the lamp-bath, where the head was not in the heated atmosphere at all. Dr. Cameron handed round a lithographed copy of an observation in the lamp-bath where the bath-heat and body-heat were noted every minute, and the pulse and respiration alternately, 30 seconds afterwards; and also a chart.

Friday, August 10th.

The Turkish Bath. A discussion on the Turkish bath, adjourned from the previous day, was continued.

The Physiological Action of the Chinoline and Pyridiac Compounds. By J. G. MCKENDRICK, M.D. (Glasgow). This paper will be published as one of the reports to the Scientific Grants Committee.

Professor LUDWIG of Leipzig gave an account of certain recent researches in his laboratory on the Absorption of Sugar, Fat, and Albumen, by the Chyle-Vessels.—On the motion of Dr. GAIRDNER, a vote of thanks was awarded to Professor Ludwig.

Professor KRONECKER of Leipzig showed some Physiological Apparatus.

SECTION F.—PSYCHOLOGY.

Wednesday, August 8th.

THE President, JOHN C. BUCKNILL, M.D., F.R.S., delivered an Address, which was published at page 185 of the JOURNAL for August 11th.

Treatment of Habitual Drunkards.—By G. W. MOORE, M.R.C.S. (Cheadle).—Mr. Moore read a paper, on which he advocated the general establishment of retreats where habitual drunkards might be placed under some control for stated periods.

Our Habitual Drunkards: what shall we do with them? By NORMAN KERR, M.D. (London).—The author began by saying that all were agreed on the urgent need for prompt and effectual remedies for our national intemperance. From his own Poor-law experience in both country and town practice, he was convinced that 75 per cent. of pauperism arose directly from drinking, and directly and indirectly 85 per cent. Eighty per cent. of crime, nearly a half of insanity, and at least 100,000 deaths were caused by alcohol every year, at a cost for the mere price of the liquor consumed of nearly £150,000,000. Were they met to consider the remedies for all this evil, he could suggest none of any value short of the general adoption of personal total abstinence, and the compulsory or permissive prohibition of the liquor traffic. But the appropriate treatment of a limited number of the victims of alcohol was immediately before them; and though probably 30,000 would prove the utmost number of habitual drunkards they could hope to affect by compulsory detention, even this little portion of the vast area of evil caused by drinking was important and urgent enough to demand careful and prompt attention. Though, after the wonderful trophies (in the person of reformed drunkards of the most degraded and apparently hopeless type) won by the great total abstinence movement, he would despair of no case, there were yet continually cropping up dipsomaniacs who defied all moral temperance and religious effort; and it was the duty of the community to seclude such, and remove them from their enemy for a time, thus preventing the generation of weak willed, semi-idiotic children, and giving the victims themselves some chance of cure. The argument against this course, from the supposed liberty of the subject, was denounced, and an Act on the lines of Dr. Cameron's Bill, but without some of its objectionable provisions, was recommended. Personal abstinence, however, aided by legislative prohibition, would prove the most efficient remedy in the prevention as well as cure of all drunkenness, and would be as honourable to medical men as it would be worthy of that profession whose highest mission is to help, to save, and to prevent.—Dr. MOORE (Belfast) thought habitual drunkards should be committed to prison for an indefinite period, and not discharged until they were cured.—Mr. PARKER (Liverpool) thought that reformatory institutions should supplement gaols, and that, after serving a period of imprisonment, drunkards should be sent to these institutions until cured. Until such steps were taken, he thought no manifest im-

provement could be effected.—Several other speakers supported this opinion, and urged that such reformatory institutions might be made self-supporting.—Dr. ROGERS (Rainhill) thought there was a great deal of hypocrisy running through the discussion. Was it right for the members of the Association, after enjoying the good things of life, to advocate so coolly sending many poor people to prison? He thought the law as it stood was sufficient to put down drunkenness, if it were fully enforced, and thought it was unjust to punish the drunkards whilst the sellers of the drink were allowed to go free. In opposition to what one gentleman said, he thought the granting of grocers' licenses a very beneficent measure.—Dr. BRADDON (Manchester), Dr. BEALES (Congleton), Dr. HARRINGTON TUKE (London), the PRESIDENT, and other members, took part in the discussion.—Mr. MOULD (Cheadle) proposed, Dr. EASTWOOD (Darlington) seconded, and it was resolved: "That it is the opinion of the Psychological Section of the British Medical Association that legislative action is imperatively necessary for the treatment of habitual drunkards, and that this object would be best effected by the establishment of district institutions for their treatment."—Mr. PARKER (Liverpool) proposed, Dr. MOORE (Belfast) seconded, and it was resolved: "That it is the opinion of this meeting that the establishment of reformatory institutions, for the confinement of drunken offenders during lengthened periods, ought to be urged upon the Government."

A Case of General Paralysis at the Age of Sixteen. By T. S. CLOUSTON, M.D. (Edinburgh).—General paralysis has hitherto been supposed not to occur before the age of twenty, and is seldom met with before twenty-five. J. M. was first seen on March 10th, 1876. He was then nineteen years of age. He was admitted as a patient into the Royal Edinburgh Asylum on Sept. 22nd, 1876. His maternal grandfather had died of softening of the brain at sixty-three; a maternal uncle of the same disease at fifty; a half brother (maternal) is paralytic. He was an illegitimate child, and, during her pregnancy, his mother suffered great emotional disturbance, and was almost barbarously treated by her father, being locked up in a room for months. He was a dull boy. There was no history of sexual excess or masturbation. His walk was first noticed to be slow and peculiar at the age of sixteen. This increased. His speech became affected. He could not do anything that required nicety of movement with his hands. He became forgetful, sluggish in his intellect, and his power of attention was almost lost. When first seen, the speech and walk of general paralysis were very marked. He had unequal pupils, and the mental condition was that of the disease in the second stage. He was very facile, but had no delusions of grandeur, and never had any. All his symptoms, mental and bodily, became gradually worse. He had a congestive attack, with convulsions; after which, he was quite paralysed, speechless, and devoid of mind. He had large sloughing bed-sores before death, in spite of all precautions against them. His sensibility was almost abolished before death. After death, the skull-cap was found condensed, the dura mater adherent and slightly thickened. The convolutions were atrophied. There was much compensatory fluid. The pia mater was thickened, and adhered strongly to the convolutions over the anterior lobes, both over the apex and the base of the brain; the anterior lobes of the two sides adhered to each other. The lining membranes of the ventricles were very much thickened and covered with large granulations. The spinal cord was also found to be atrophied and otherwise abnormal. On a microscopic examination, the coats of the vessels were found thickened with, in many places, blood-colouring matter surrounding them. The whole of the outer layers of the convolutions of the anterior lobe of the cerebrum were filled with proliferated nuclei and masses of granular matter.

Thursday, August 9th.

Supra, a Case of P. minor Nervous Disease, communicated to the British Medical Association at Edinburgh in 1875. By W. T. GAIRDNER, M.D. (Glasgow).—The object of this paper was to communicate the sequel of a case which had been laid before the Association in 1875, and had attracted attention as an almost unique form of "abnormal disposition to sleep, alternated with choreic movements". The author referred to the previous report, and to the difficulties experienced in classifying the symptoms; he also recalled the reasons which appeared to preclude the theory of sheer malingering or systematic and continuous acting, as the explanation of the facts of the case. The absence of all those surroundings which usually form at once a reason and a motive for deception; the apparent freedom from hysterical emotion; and the peculiarly tedious and monotonous character of the movements, and rapid transitions from sleep to waking, and *vice versa*, continued in exactly the same fashion for years, were the principal arguments against the view referred to. Nevertheless, the sequel showed that an element of deception, at some point or other, had

entered into the case; for, about a year after the report of it was read to the Association, the girl was found to have been painting her eyelids with black-lead, so as to imitate a morbid discoloration, and other incidental symptoms arose which were obviously susceptible of a like interpretation. As soon as these facts and their significance were perceived, she was (with her own consent) withdrawn from the care of her more immediate friends and relatives, and placed as a voluntary patient in the Glasgow Royal Asylum, where, under moral means alone, a confession was obtained of the artifices employed in the latter part of the case, and a complete cure of all the peculiar nervous symptoms followed. The author quoted the remark of the experienced asylum physician under whose care she was placed, to the effect that "her attempts at deception did not result from moral obliquity, but were as purely the result of disease as the abnormal sleep and the eccentric movements". It was, however, from such materials as a physical basis, so to speak, that, under the influence of religious, mesmeric, or other theories, immense superstructures of fraud were built up, as exemplified in many well known cases to which reference was made by the author.

The Cagots. By D. HACK TUKE, M.D. (London).—In this paper, Dr. Tuke came to the following conclusions. 1. The Cagots are not the descendants of the Goths; they are not a distinct race, but a caste. 2. They are not more subject to goitre or to cretinism than the people in their vicinity; in short, Cagotism and Cretinism are in no way allied; and the Cretins now to be found in the valleys of the Pyrenees are entirely distinct from the Cagots. 3. The present representatives of the Cagots are now recognised by tradition and hereditary descent, rather than by their features, and are still less distinguished by any mental defect or disorder. 4. There can be little doubt that, although nothing like leprosy or leucoderma has for long affected the Cagots, and no one on the spot thinks of them as leprosy, they were originally either lepers or affected with leucoderma: the form of the leprosy in the one case, and the simple affection of leucoderma in the other case, accounting for their being regarded as, in some respects, different from the ordinary lepers, though nearly as much shunned. 5. Many were no doubt falsely suspected of leprosy, in consequence of some slight skin-affection; others again, in later centuries, were members of families in whom the disease had at last died out.

A Typical Case of One of the Forms of Sensory Idiocy. By E. SEGUIN, M.D. (New York).

Intemperance as a Cause of Idiocy. By G. E. SHUTTLEWORTH, M.D. (Lancaster).—The author said that he purposed considering the connection between intemperance in the parent and idiocy in the offspring. He then proceeded to examine certain American statistics on the subject, on the authority of which it had been stated, in a Parliamentary report, that nearly one-half of the idiots of the United States were the children of intemperate parents. The late Dr. Howe of Boston, U.S., had been frequently cited as having stated (though, in truth, Dr. Jarvis originated the statement) that, out of 300 idiots, 145 had drunken parents; and Dr. James Parrish of Philadelphia had said that a very large proportion of the inmates of American idiot institutions, nearly 50 per cent., were cases attributable to drunkenness. The first statement appeared to be based on the "Report of the Commissioners on Idiocy appointed to inquire into the Condition of Idiots within the Commonwealth of Massachusetts in 1848", and this report was submitted to analysis. In the Edinburgh reprint of this report, a full tabulation of forty-five sample cases was given; and from this it appeared that, in the eleven cases in which intemperate parents were noted, ten were also described as not in a normal state of health, and the offspring in every case were scrofulous as well as idiotic. The Connecticut tables were next reviewed, and the writer contended that here also an array of concurrent causes was noticeable, which should make them chary of assigning drink as the chief cause of idiocy on the strength of American statistics. He (Dr. Shuttleworth) had recently visited all the principal idiot institutions of the States, and felt bound to say that his impression (contrary to that of Dr. Parrish) was that parental drunkenness occupied, in the estimation of the physicians in charge of those institutions, by no means a conspicuous place in the causation of idiocy. Turning to the returns of our own country, he next referred to Earlswood, and said that Dr. Graham stated that, in 800 cases tabulated by him, six only were probably occasioned by drunkenness; in two of these, other hereditary influences being also noted. In his own institution, the Royal Albert Asylum, Lancaster, Dr. Shuttleworth added that 418 cases had been admitted during the last seven years, and a persevering attempt had been made to ascertain if the parents of candidates were temperate or otherwise. From a scrutiny into the details of the history of 200 male and 100 female congenital idiots, he compiled the following statistics. Nine males and seven females had intemperate parents, making sixteen in all, out of

the total 300; of these, however, in nine only was intemperance the only ascertained cause; in two there was also hereditary tendency to insanity or nervous disease; in three adverse physical circumstances afflicted the parents; and in two adverse mental circumstances. *These cases were all congenital, or presumably congenital cases, and non-epileptic.* In the concluding portion of the paper, two questions were discussed: first, is an unusually large portion of the immediate progenitors of idiot children intemperate; and, secondly, is an unusually large proportion of the children of drunkards idiots? In the light of such British statistics as we possessed, and judging from personal observation, the writer would hesitate to answer the first question in the affirmative; and with regard to the second, he thought an affirmative answer would only apply when the subject was considered broadly. Congenital idiocy was not, as a rule, the immediate legacy of the drunkard to his offspring, but physical and mental degeneracy were doubtless the heritage, and scrofulous disease, nervous instability, and even moral obliquity, might oftentimes be amongst the direct bequests. It needed, however, but one step more, the conditions remaining unfavourable, to reach actual idiocy; and thus, in very truth, was visited "the iniquity of the fathers upon the children unto the third and fourth generation".—The PRESIDENT (Dr. J. C. Bucknill) remarked that, although personally he felt a great regard for the late Dr. Howe, he had for some time suspected the absolute scientific accuracy of the conclusions drawn from the Massachusetts tables.—Dr. SEGUIN (New York) confirmed the statement of Dr. Shuttleworth with regard to American observations on the subject, and expressed his approval of the discriminating way in which the figures had been handled in his statistics. He mentioned that recently, as President of the Association of Medical Officers of American Idiot Institutions, he had sent out to all practising physicians in the United States queries with regard to their experience as to the causation of idiocy.—Dr. LANGDON DOWN (London) generally approved the conclusions arrived at by Dr. Shuttleworth, although, from long experience, he knew the immense practical difficulty in arriving at the truth with regard to the existence of vicious habits on the part of parents of idiots admitted to public institutions. He had, however, detected and described one or two remarkable cases in which the idiocy of the offspring seemed to be the direct consequence of parental intemperance.—Dr. HACK TUKE (London) thought that the American statistics, if not entirely accurate, might nevertheless have served an useful purpose, and on that ground were entitled to respect.—Dr. SHUTTLEWORTH, in replying, said (in answer to the last speaker) that their first object as scientific men must be to arrive as closely as possible to the truth, without fear of consequences; but that he might add that one of his objects in placing his conclusions before the Section was a benevolent one, inasmuch as he felt that it was not fair that parents afflicted with idiot children should, without good reason, have also affixed to them the stigma of intemperance. He thanked Drs. Seguin and Down for their kindly criticisms, and mentioned that an examination of the Massachusetts Tables *in extenso*, a copy of which had within the last few days been placed in his hands, quite confirmed the conclusions arrived at in his paper, *viz.*, that, etiologically considered, the cases abounded in mixed causes.

The Histology of the Brain in Apes. By HERBERT C. MAJOR, M.D. (Wakefield).—Dr. Major read a paper on the above subject, with special reference to the brain of the orang and of a Hoolock gibbon, specimens of which had recently come into his possession, and which had enabled him to confirm and extend his observations recorded elsewhere on the brain of a Chaoma baboon, as well as numerous smaller specimens of the ape family. Photographs of the brain of the orang, chimpanzee, and gibbon were shown, illustrative of the convoluntary arrangement of the cerebral hemispheres, with special reference to the bridging or annectant gyri. Passing to the consideration of minute structure, the author showed that in the orang and gibbon the general plan of arrangement of the cortical layers of the brain corresponded closely with that observed in man. In both, the nerve-cells forming the various strata agreed in form and general appearance as well as in relative degree of aggregation. It was further shown from measurements with the micrometer that, in the brain of the orang, as in apes generally, the nerve-cells were smaller than in the human organ; while the intercellular matrix and blood-vessels in apes presented no structural conditions distinct from those in man. Lastly, the relative complexity of the cell-communications in man and in the ape was considered as illustrative of the author's theory of the relation between the number of the intercellular communications and the degree of cerebral and intellectual development. The paper was accompanied by drawings and diagrams of the nervous structure illustrative of the author's researches.

Friday, August 10th.

Pathological Illustration of the Localisation of the Motor Functions of the Brain. By RINGROSE ATKINS, M.D. (Cork).—This paper contained the record of six cases illustrating the occurrence of localised cortical lesions in the non-motor and motor areas of the brain, accompanied with negative and positive symptoms accordingly. The cases *en résumé* were as follows. *Case I.* Glio-sarcomatous tumour growing from the left temporo-sphenoidal lobe; softening of the middle part of the three tiers of convolutions of this lobe; circumscribed hæmorrhage into softened tissue; no motor symptoms.—*Case II.* Localised deposit of lymph attached to the dura mater over a portion of the postero-parietal lobule of the left hemisphere; superficial erosion of cortex; no motor symptoms.—*Case III.* Softening of the gyrus supramarginalis and portion of the occipital convolutions of the right hemisphere; no motor disturbance of the left side; lesions of the left hemisphere, causing motor disturbance at the right side (in motor area).—*Case IV.* Meningeal hæmorrhage; pressure on the left ascending frontal and ascending parietal convolutions, and on the edge of the inferior parietal lobule; right hemiplegia.—*Case V.* Adhesion of membranes to, and softening of the middle third of, the left ascending parietal and portion of the ascending frontal, with edges of gyrus supramarginalis and gyrus angularis; paralysis of the right hand and arm.—*Case VI.* Softening of the lower two-thirds of the left ascending parietal convolution, focus of softening in the centrum ovale of the same hemisphere; right hemiplegia. Brain-charts and specimens were exhibited, showing the exact topography of the lesions in these cases.

Aneurism of the Middle Cerebral Artery. By T. O. WOOD, M.D. (Isle of Man).

The Use of Chloral-Hydrate in Convulsions. By J. MERSON, M.D. (Wakefield).

Morbid Histology of the Spinal Cord in Five Cases of Insanity. By RINGROSE ATKINS, M.D. (Cork).—Dr. Atkins recorded the appearances observed by him in the spinal cords taken from the bodies of five persons dying insane.—*CASE I. General Melancholia following on previous Maniacal Excitement.* Male, aged 29. *Mental Symptoms:* persistent depression and restlessness, delusions of persecution, and suicidal tendency. *Physical Conditions:* gradual and progressive emaciation, general debility; finally, tubercular disease of lungs, and marasmus; death, three years and nine months after first attack. *Summary of Histological Changes in Spinal Cord:* moderate fibrosis of vessels; atrophy and degeneration of grey cornua, especially in upper dorsal regions; partial atrophy, and disappearance of nerve-fibres in external laminae of white columns in all regions; overgrowth and molecular degeneration of connective tissue matrix (sclerotic); and, as a special condition, a central sclerosis displacing laterally the grey cornua confined to the upper dorsal and sacral regions.—*CASE II. Senile Dementia.* Male, aged 76. *Mental Symptoms:* dulness; loss of memory; incoherence; with occasional excitement, and, finally, complete hebetude. *Physical Conditions:* weakness of lower limbs, with a tendency to fall if not watched; loss of power over sphincters; emaciation; general lowering of sensibility; rapid formation of bed-sores; death from marasmus two months after admission. *Summary of Histological Changes:* marked fibrosis of vessels; pigment atrophy of ganglion-cells; atrophy of nerve-fibres in white columns; overgrowth and degeneration of connective tissue; obliteration of central canal by proliferated nuclei; formation of great numbers of amyloid bodies in posterior and portion of postero-lateral columns throughout entire cord.—*CASE III. Secondary Dementia* (third attack of mental derangement). Male, aged 24. *Mental Symptoms:* deeply demented, stupid, dirty, destructive; occasionally irritable, and quite unconscious of his condition. *Physical Conditions:* progressive emaciation; muscular weakness; loss of control over sphincters; dryness and roughness of skin; torpidity of circulation, diminished sensibility, and a tendency to the rapid formation of superficial sores. Death from general decay ten years after initial attack, three years from last admission. *Summary of Histological Changes:* moderate fibrosis of vessels; partial degeneration of ganglion-cells of anterior cornua, and of nervous reticulum of posterior cornua; atrophy of nerve-fibres; overgrowth and molecular degeneration of external lamina of connective tissue; obliteration of central canal by proliferated nuclei; dilatation and erosion (especially in cervical region) of perivascular spaces (?) in vicinity of latter.—*CASE IV. Paralytic Dementia.* Male, aged 38. *Mental Symptoms:* loss of memory, stupidity, partial incoherence, vivid visual hallucinations; progressive dementia, and, finally, complete mental fatuity. *Physical Conditions:* unsteadiness and uncertainty of speech; trembling of facial muscles; difficulty in protruding tongue, with spasmodic movements and atrophy of organ; uncertainty and irregularity of gait; twitchings of muscles; irregularity of pupils; progressive paresis; finally, loss of motive

power. Congestive attack; paralysis of right arm; bed-sores; diminution of sensation; death six months after admission, fourteen months after initial symptoms. *Summary of Histological Changes:* fibrosis of vessels, with vast nuclear proliferation on and in their walls; pigment atrophy of ganglion-cells of hypoglossal, and, to a less extent, of vagi glosso-pharyngeal, nuclei; similar condition of cells in anterior cornua, the dorsal region being especially affected; atrophy of nerve-fibres; coarseness and molecular degeneration of connective tissue, with nuclear proliferation throughout. Obliteration of central canal by similar proliferation; wide dilatation, and erosion of perivascular spaces in vicinity of latter, and, as a special condition, "pools" of yellow exudation in both grey and white structures throughout the entire cord, encroaching on and involving the ganglion-cells, together with spots of miliary sclerosis.—CASE V. *Paretic Dementia.* Male, aged 38. *Mental Symptoms:* dulness, loss of memory, incoherence, and delusions; progressive mental enfeeblement, with temporary partial improvement. Congestive attack; dementia gradually deepening; finally, almost complete fatuity. *Physical Conditions:* unsteadiness and irregularity of gait; muscular tremors and weakness; slowness and indistinctness of speech; loss of tone of voice; great difficulty in protruding tongue; marked jerkiness and spasmodic movements of this organ; loss of control over sphincters; diminution of sensibility. Othematoma (left); formation of bed-sores; complete loss of motive power; death from general decay four months after admission. *Summary of Histological Changes:* fibrosis and dilatation of, with nuclear proliferation on, vessels, especially in medulla oblongata; pigment atrophy of nuclei of hypoglossal, vagi, and glosso-pharyngeal nerves, and of cells of anterior cornua in cervical and dorsal regions (lumbar, sacral, and coccygeal regions grossly softened); atrophy of nerve-fibres in white columns; molecular degeneration of connective tissue; completely degenerated patch at bottom of posterior fissure of medulla oblongata, at centre part of decussation of anterior pyramids, with copious formation of amyloid bodies in that situation; scattered obliteration of central canal; dilatation of perivascular spaces in its vicinity. Two spots of central sclerosis (lower cervical region) in posterior white columns, just behind the grey commissure, pressing on and displacing the left posterior cornu. Dr. Atkins remarked that these appearances seemed to indicate primary vascularisation with subsequent growth of connective tissue, followed by sequential atrophy, and degeneration of the nerve elements. It was a point of interest to determine whether—if such appearances are pathological at all—the degenerative lesions were of that secondary nature described by Türck, Charcot, and Bouchard, as following on primary cerebral disease, or whether they were either the result of an extension of the morbid process from the brain by continuity of tissue, or a simultaneous implication of the vascular system in both centres followed, *pari passu*, with sequential changes in the two together. The absence in several of the cases of gross disease in the brain (the microscope in all revealing conditions somewhat similar to those in the spinal cord), and of any muscular contractions such as are believed by Bouchard to depend on secondary degenerations, favour the latter view. The loss of the volitional and perceptive powers of the mind in connection with degenerative changes in the cord, suggest the possibility of the possession by that centre of such functions as has been recently advanced by Hammond. There are also grounds for connecting the progressive emaciation, the muscular weakness, the loss of control over the sphincters, and the general marasmus, with the conditions of the cord described. The occurrence of speech-defects in the paretic cases, with lesions of the bulbar nuclei, is also a point of interest. Very many more observations, however, must be made before the absolute significance (if any) of such changes in the spinal cord can be correctly determined, and these few cases are recorded as a slight contribution to the subject. The paper was illustrated with microscopical sections, specimens, and drawings.

Hysteria and Insanity. By G. H. SAVAGE, M.D. (London).—The conditions implied in hysteria plus insanity are closely related, but difficult of separation, and of the early diagnosis of such items as render them more amenable to treatment in asylums than in general practice. I. E. F., aged 17, was admitted into Bethlem Hospital from a general hospital, where she had been under treatment for amenorrhœa and hysterical paraplegia following a disappointment in "an affair of the heart". The paralysis soon passed off; but new and formidable symptoms, in the shape of catalepsy, obscenity of action and expression, suicidal, homicidal, and general destructive tendencies, supervened and rendered the patient actively maniacal for four months, at the expiration of which she became for a considerable period fairly intelligent and rational. Two paroxysms of maniacal excitement, however, soon followed, and as soon ceased. She has remained well for the last three years, but may at any time yield under physical or psychical causes, though the family history seems sufficiently free from

ancestral taint. 2. A married woman, the mother of several children and the subject of several miscarriages, had been in hospital for hysterical paraplegia associated with delusions and perverted sensations. On admission to the asylum, her delusions were found to be of an emotional and suspicious kind, and her mental condition generally such as rendered her voluntarily helpless, unhappy, insanely religious, and highly exaggerative of her anomalous feelings and blunted sensibilities. Her belief in her own incapacity she could falsify at pleasure. When alone, she could walk and perform such other physical acts as she believed herself incapable of when attentively watched. Her health was fairly good; but her weak and perverted will stamped her, in conjunction with her delusions and behaviour, as a hystero-maniacal patient. Hystero-epilepsy seems common enough in asylums; but it is a matter of doubt whether or not patients with a highly developed faculty for deceit and imitation can perfect themselves in this distinct disease, of which the following cases are illustrative examples. 1. H. E., single, aged 27, a governess, with no known family failures, but having neuralgia, amenorrhœa, and hysteria, had various delusions, was depressed, religious, self-inflative, and given to exaggeration and deceit. She ate and slept well, but remained unchanged until seven months after admission, when she had an attack of convulsions, which relaxed her sphincters, raised her temperature, and diminished her reflex sensibility. This was followed by marked depression and another fit, in which it was noticed that the patient kept admirable time in her spasms with a patient who played the piano. Treatment failed to do her any good, and at the end of a year she was discharged "not improved". 2. E. F., aged 25, a dressmaker, was admitted with a history of catalepsy, noisy behaviour, and destructive demeanour. On admission, she was sleepless, restless, excitable, irascible, and liable to paroxysms of maniacal fury. She had controllable convulsions, during which she could grasp objects, inflict injury on attendants, and destroy whatever came in her way. After the convulsions, she became cataleptic and maintained a statue-like attitude for hours together. She went on gradually improving, however, until some bad news upset her and rendered her again for a short time slightly cataleptic. She is now doing well, and gives fair hopes of a permanent recovery. 3. G. G., aged 13, phthisically predisposed and with a history of chorea and neuralgia, attempted to strangle herself, and became noisy and insubordinate. Although suicidal, she was in terror of death, and feared that people would drown her or bury her alive. On the near approach of a man, she assumed a cataleptic condition, ground her teeth for some time, and then quietly resumed her occupation. Her fits were neither marked by pallor nor lividity. She had a habit of reading a book upside down, and, if corrected, would go into a fit. She was eminently hysterical; but, under judicious care and moral influence, she improved rapidly, and was discharged "recovered". Hysterical insanity is sufficiently rare among men to entitle the following case to be added. William A., married, aged 34, well educated, sober and industrious, four weeks before his admission had been frightened, and thereby rendered sleepless, restless, and melancholy. He was predisposed to insanity, and in his younger days he suffered from scrofulous lesions. On admission, he was suspicious, fidgety, and nervous. In a short time, he became excited and gave himself up to immoderate laughter and absurd demeanour. All this passed off in a short time, and he made a rapid recovery. After his discharge, he remained well for two months, and gave satisfaction to his employers. He, however, soon relapsed, and again became suspicious, jealous, delusional, and incoherent. He had hallucinations of sight and sound, slept badly, and refused his food. He was fed artificially, and during the process behaved in a passive and heedless manner. Soon afterwards, he had a "rash", which was followed by a severe attack of erysipelas, from which in a short time he emerged in full possession of his mental faculties. His memory was perfect, and he could give a *résumé* of all that was done to him in his illness. This "lucid interval" did not last long; he again relapsed into his former apathy and became more *distrait* than ever. If irritated, he laughed immoderately and behaved grotesquely. He could be roused at intervals to a consciousness of his condition, and to converse rationally with his wife. He remained still under treatment.

A BAD case of small-pox was reported last week to have been observed on H.M.S. *Cromar*, lying at the Tail of the Bank. The patient, a boatswain, was immediately removed to the Greenock Infirmary, and the sanitary authorities were apprised of the case. In consequence of the outbreak of the disease, instructions have been received from the Registrar-General of the Royal Naval Reserve that all Reserve men from Greenock and the west of Scotland have to be sent to Leith to complete their term of training. The *Cromar* has been put on quarantine for the usual period.

MEMBERS PRESENT AT THE ANNUAL MEETING.

The following list includes most of the names of the members and visitors attending the meeting, which were entered in the book provided for the purpose in the reception room. Several of the students of Owens College, and other gentlemen, were also admitted to the meeting.

Adams, William, Esq., London; Addy, Broughton, M.D., Pendleton, Manchester; Aitken, Lauchlan, M.D., Rome; Albany, W. J., Esq., Higher Broughton, Manchester; Aldred, Henry, Esq., Manchester; Aldred, Henry A., M.D., London; Alexander, Wm., M.D., Halifax; Alford, Stephen S., Esq., London; Allan, D., M.D., Bonar; Allbutt, T. Clifford, M.D., Leeds; Allen, Matthew S., Esq., Dudley; Allen, Rd., Esq., Didsbury; Amyot, Thomas E., Esq., Diss; Anderson, Elizabeth G., M.D., London; Anderson, John, M.D., Ulverston; Anderson, T. McCull, M.D., Glasgow; Andrew, Edwin, M.D., Shrewsbury; Anningson, Bushell, M.B., Cambridge; Anningson, J. W., Esq., Burnley; Anstie, Thomas B., Esq., Devizes; Ar buckle, Hugh W., M.D., Thorne; Arminson, W. B., M.D., Preston; Armstrong, William, M.D., Cambridge; Armstrong, John, Esq., Manchester; Armstrong, Wm., Esq., Manchester; Arras, William, Esq., Wetheral, Carlisle; Ashby, Henry, M.B., Liverpool; Ashe, Isaac, M.D., Dublin; Ashworth, Handel, Esq., Bury; Aspland, Alfred, Esq., Dukinfield; Atkins, Kingrose, M.D., Cork; Atkinson, Edward, Esq., Leeds; Atkinson, E. J., Esq., Richmond, Yorkshire; Atkinson, G. P., Esq., Pontefract; Athill, Lombe, M.D., Dublin; Atwell, G. Haines, Esq., Altrincham; Ayre, John J., Esq., Colne.

Bacon, G. M., M.D., Fulbourn, Cambridge; Bagshawe, Fred., M.D., St. Leonard's-on-Sea; Baker, Alfred, Esq., Birmingham; Baker, Benson, M.D., Southampton; Baker, J. Wright, Esq., Derby; Balding, D. B., Esq., Royston; Ball, Alfred, Esq., York; Ball, D., Esq., Newcastle-under-Lyme; Ball, John A., M.B., Heaton Norris; Balauntyne, Alex., M.D., Dalkeith; Banham, H. French, M.B., Sheffield; George G., M.D., London; Barfoot, G. H., M.D., Shrewsbury; Barlow, John, M.B., Glasgow; Barlow, Thomas, M.D., London; Barlow, W. H., M.D., Manchester; Barnes, Henry, M.D., Carlisle; Barnes, Robert, M.D., London; Barnish, W. C., Esq., Wigan; Barr, James, M.B., Liverpool; Barr, W. H., Esq., Bury; Barron, Geo. B., M.D., Southampton; Bartlett, T. H., M.B., Birmingham; Bartolomé, M. Martin De, M.D., Sheffield; Batt, Augustine, M.D., Witney; Beales, Robert, M.D., Congleton; Beaman, E. H., Esq., Billing, Wigan; Bean, Dex, Esq., Manchester; Beecroft, S., M.D., Hyde; Begley, W. C., M.D., Hammersmith; Bell, Rev. D., M.D., Gooles; Bell, John Henry, M.D., Bradford; Bennett, Henry, M.D., Weybridge; Bennett, Ed. A., Esq., Nelson-in-Marsden; Bennett, Hugh, Esq., Builth, Brecon; Bennett, Lucas M., Esq., Winterton; Benson, John, Esq., Sheffield; Berdoe, Edward, Esq., London; Bernard, A., M.B., Liverpool; Bernard, Walter, L.K.Q.C.P., Londonderry; Berry, William, Esq., Wigan; Bevan, Thomas K., M.D., Peckham; Bianchi, Leonardo, M.D., Naples; Birch, Edward A., Esq., Manchester; Birch, R. C., Esq., Manchester; Bird, George, M.D., London; Bird, J. D., M.B., Stockport; Bird, Peter H., Esq., London; Birkett, John, Esq., London; Bishop, Edward S., Esq., Manchester; Blache, Dr. Paris; Blackburn, William, Esq., Uppermill, Saddleworth; Blackley, John G., M.B., London; Blackmore, Edward, Esq., Manchester; Bland, Henry, Esq., Rochdale; Boddy, H. W., Esq., Manchester; Bond, F. T., M.D., Gloucester; Booth, P. L., Esq., Barrow; Boothroyd, Benjamin, Esq., Hanley; Borchardt, Louis, M.D., Manchester; Bott, H. S., Esq., Bury; Boutflower, Andrew, Esq., Strangeways, Manchester; Bowen, Essex, M.D., Birkenhead; Bowes, Richard, Esq., Richmond, Yorkshire; Bowman, George, Esq., Old Trafford, Manchester; Bowling, George, Esq., Manchester; Box, W. H., Esq., Chirk; Brabazon, W. P., M.D., Lymm; Bradbury, J. B., M.D., Cambridge; Braddon, C. H., M.D., Manchester; Bradley, Richard B., Esq., Stockport; Bradley, S. M., Esq., Manchester; Bradshaw, J. D., Esq., Bowdon; Braid, James, T. W., M.B., Congleton; Braidwood, P. M., M.D., Birkenhead; Bride, John, Esq., Wilmslow; Brierley, James B., M.D., Manchester; Briggs, Henry, M.D., Burnley; Bringle, Capel, Esq., Westhoughton; Britton, Thomas, M.D., Halifax; Broadbent, John, Esq., Manchester; Broadbent, Lewis G., M.D., Bamburgh; Broadbent, Samuel Winn, Esq., Durham; Broadbent, W. H., M.D., London; Brodie, David, M.D., Didsbury; Bromley, F., Esq., Oldham; Brown, C. F., Esq., Leamington; Brown, Henry, Esq., Northallerton; Brown, R. C., M.B., Preston; Browne, E. A., Esq., Liverpool; Browne, Henry, M.D., Manchester; Browne, Lennox, Esq., London; Bruce, William, M.D., Dingwall; Buckley, James, Esq., Manchester; Buckley, Samuel, Esq., Manchester; Burgess, Robert E., M.D., Frampton-on-Severn; Burke, John R., M.D., Harwich; Burnett, W. E. S., Esq., Mottram; Burnie, William, M.D., Bradford; Burrows, J., Esq., Liverpool; Burton, J. E., Esq., Liverpool; Burton, John M., Esq., Lee Park, Blackheath.

Cadge, William, Esq., Norwich; Calderwood, George, M.D., Egremont; Cameron, J. S., M.D., Huddersfield; Cameron, Nathaniel, M.B., Macclesfield; Campbell, W. Macfie, M.D., Liverpool; Campion, Henry, Esq., Manchester; Carnegie, John, M.D., Chesterfield; Carrington, B., M.D., Eccles; Carruthers, W. Hodgson, M.D., Halton; Carson, Thomas, Esq., Liverpool; Carson, William, M.D., Cashel; Carter, Charles Henry, Esq., Pewsey; Carter, William, M.B., Liverpool; Cartmel, Henry, Esq., Manchester; Cartwright, John Pelpee, Esq., Lymm; Cassells, James P., M.D., Glasgow; Cassidy, David McK., M.D., Lancaster; Cassels, James P., Liverpool; Cawley, Thomas, Esq., Australia; Chadwick, Charles, M.D., Tunbridge Wells; Chambers, Thomas, M.R.C.P.Ed., London; Charcot, Professor, Paris; Charles, Jno. J., M.D., Cork; Cheate, Thos. H., Esq., Burford; Chiene, Jno., Esq., Edinburgh; Christie, D., Esq., Carrigart, Donegal; Christison, James, M.D., Preston; Clapperton, J., Esq., Broughton; Clark, A., M.D., London; Clarke, A. C., Esq., Salford; Clayton, Richard, Esq., Accrington; Clegg, Wm., Esq., M.D., Eacup; Clouston, T. S., M.D., Edinburgh; Clubbe, W. W., Esq., Lowestoft; Clunn, T. R. H., Esq., Prestwich; Coats, Joseph, M.D., Glasgow; Cockroft, D. M., Esq., Todmorden; Collier, W. H., Esq., Sheffield; Cooke, Thomas, Esq., Ashton-under-Lyme; Coombe, George A., Esq., Southport; Cooper, Sir Henry, M.D., Hull; Copeman, Rev. Arthur C., M.B., Norwich; Copeman, E., M.D., Norwich; Corbin, M. A. Bazille, Esq., Guernsey; Corfield, W. H., M.D., London; Cormack, John Claud, L.K.Q.C.P., Liverpool; Corner, Francis Mead, Esq., London; Cornwall, James, Esq., Fairford; Cosgrave, Alexander, Esq., Bradshaw, Bolton-le-Moors; Cossar, Thomas, M.D., Edinburgh; Coultate, W. M., Esq., Burnley; Counsellor, W. P., L.K.Q.C.P., Whalley; Court, W., Esq., Bolton; Coultis, James, Esq., Waterfoot; Covey, J. H., Esq., Prestwich; Crabbe, James, Esq., Archenblae, Fording; Cran, James, M.B., Salford; Craven, Robert M., Esq., Southport; Crawford, James, M.D., Manchester; Cresswell, Pearson R., Esq., Dowdals; Crickmay, Esq., Laxfield; Crighton, R. W., M.D., Tavistock; Crocker, H. R., M.D., London; Crompton, Samuel, M.D., Manchester; Crowe, George W., M.D., Worcester; Crowther, T.,

M.D., Luddenden; Crutchley, Henry, Esq., Alsager; Cullingworth, Charles J., Esq., Manchester.

Daly, Shelton, L.K.Q.C.P., Manchester; Daniel, James, L.K.Q.C.P., Harpurhey; Daniel, R. S., Esq., Birkenhead; Darby, Thomas, L.K.Q.C.P., Bray, Ireland; Davidson, Alexander, M.D., Liverpool; Davies, Andrew, M.D., Swansea; Davies, David, Esq., St. Leonard's-on-Sea; Davies, F. T., Esq., Pendleton; Davies, H. N., Esq., Cymer, Pontypridd; Davies, John, M.D., Ebbw Vale; Davies, Joseph, Esq., Swansea; Davies, J. S., Esq., Oswestry; Davies, R. A., M.D., Lichfield; Davies, Thomas Clifford, F.R.C.P.Ed., Bury; Davies-Colley, Thomas, M.D., Chester; Davison, F., Esq., Elton, Bury; Day, W. H., M.D., London; Dean, Octavius, Esq., Manchester; Dean, T. N., Esq., Manchester; Deas, P. Maury, M.B., Macclesfield; De Chaumont, F. S. B., M.D., Southampton; Denton, Edward R., Esq., Leicester; De Ville, Titus, M.D., Harrogate; Dewes, Edwin, M.D., Coventry; Diamond, Hugh, M.D., Twickenham; Dickinson, J. B., M.D., Stalybridge; Dickson, F. K., F.R.C.P.Ed., Buxton; Didama, Henry D., M.D., Syracuse; Diggle, C. F., Esq., Manchester; Dix, John, Esq., Hull; Doidge, J. G., Esq., Lifton, Devon; Dolan, Thomas M., Esq., Halifax; Dolman, A. H., Esq., Derby; Donovan, William, Esq., Whitwich; Down, Langdon, M.D., London; Downs, George, M.D., Stockport; Dowse, Joseph G., Esq., Manchester; Dowse, Thomas S., M.D., London; Dreschfeld, J., M.D., Manchester; Drysdale, C. R., M.D., London; Drysdale, T. M., M.D., Philadelphia; Duffey, George F., M.D., Dublin; Duncan, J., M.B., Ashton-under-Lyne; Duncan, J. Matthews, M.D., Edinburgh; Dunn, Robt., Esq., London; Durham, A. E., M.D., London; Dyson, Wm., M.D., Sheffield; Dyte, D. H., Esq., London.

Eames, Thomas B., Esq., Farnworth; Earle, J., Esq., Manchester; Eastwood, J. W., M.D., Dinsdale Park, Darlington; Eddie, W. H., Esq., Barton-on-Humber; Eddison, John E., M.D., Leeds; Eddowes, Alfred, M.D., Market Drayton; Eddowes, William, Esq., Shrewsbury; Eden, Thomas, Esq., Oxton, Birkenhead; Edge, A. M., M.D., Manchester; Edge, J., Dallas, M.D., Surgeon-Major, Manchester; E., A. A., M.B., Rawtenstall; Edwards, J. H., Esq., Manchester; Elliot, J., Esq., Kingsbridge; Elliot, Robert, M.D., Carlisle; Elliott, William, M.D., Halifax; Emmett, William H., Esq., Horwich; Emrys-Jones, A., M.B., Manchester; Evans, D. T., Esq., Salford; Evans, John, Esq., Swansea; Evans, S. H., Esq., Normanton, Derby; Evans, Thomas, Esq., Manchester; Ewart, John H., Esq., Manchester.

Fairbank, F. Royston, M.D., Doncaster; Falconer, R. Wilbraham, M.D., Bath; Farquharson, R., M.D., London; Farrer, Robert, Esq., Brighouse, Halifax; Faulkner, John T., Esq., Manchester; Favell, William, Esq., Sheffield; Fawcitt, Thomas, Esq., Oldham; Fay, T. W. W., Esq., Liverpool; Fegan, Richard, M.D., Charlton; Felce, Stamford, M.R.C.P.Ed., London; Fenntem, Thomas, Esq., Stove; Fergus, A. M.D., Glasgow; Ferguson, John, Esq., Fernie, Edward, M.D., Egan; Fernie, H. M., Esq., Macclesfield; Field, George, M.D., New York; Field, George P., Esq., London; Finlayson, James, M.D., Glasgow; Fisher, Thomas, Esq., Wigan; FitzPatrick, W. Honner, M.D., Liverpool; Fleming, Alexander, M.D., Glasgow; Fleming, William James, M.B., Glasgow; Fletcher, Adam, M.D., Bury; Fletcher, J. Shepherd, M.D., Manchester; Fletcher, Joseph Lyon, Esq., Manchester; Folkes, F. H., Esq., Manchester; Foote, Harry D'Oyley, M.D., Rotherham; Forster, J. Cooper, Esq., London; Foss, W. R., M.D., Stockton-on-Tees; Foster, B., M.D., Birmingham; Fothergill, J. Milner, M.D., London; Fox, E. A., Esq., Warrington; Fox, Ed. Long, M.D., Bristol; Fox, Richard Dacre, Esq., Manchester; Frank, Philip, M.D., Cannes; Franklin, George Cooper, Esq., Leicester; Fraser, Thomas R., M.D., Knutsford; Freeman, A. J., M.D., San Remo; Freer, Frederick A., Esq., Govan; French, Francis Nalder, Esq., Manchester; French, John G., Esq., London; Frost, William A., Esq., Stoke-on-Trent; Furber, George H., Esq., Maidstone.

Gairdner, William T., M.D., Glasgow; Gallimore, Thomas A., Esq., Denton; Galt, John, Esq., Ashton-under-Lyne; Gamage, Arthur, M.D., F.R.S., Manchester; Gardiner, John, M.D., Huddersfield; Garner, J., Esq., Birmingham; Garstang, Walter, M.D., Blackburn; Garthside, James, Esq., Liverpool; Gaylor, Edward, M.R.C.P.Ed., Belper; Gellatly, Andrew, M.D., Manchester; George, Henry, Esq., North Thoresby, Louth; Gibb, Charles J., M.D., Newcastle-on-Lyne; Gibson, John H., M.D., Hull; Glascoft, Charles E., M.D., Manchester; Glynn, Thomas R., M.B., Liverpool; Godson, Alfred, M.D., B., Cheadle; Goldie, R. W., Esq., London; Goodall, R., Esq., Silverdale; Goodchuld, Arthur, Esq., Little Waltham; Goodchild, John, Esq., Ealing; Goodhart, James F., M.D., London; Goodman, C. R., M.D., Manchester; Gornall, John H., Esq., Warrington; Gosling, S. F., Esq., Biddulph; Gould, John, Esq., Hatherleigh; Gowers, W. R., M.D., London; Goyder, D., M.D., Bradford; Graham, M. C., M.D., Madeira; Graham, A. F., M.D., Liverpool; Graham, W. M.D., Middleton; Graydon, S. J., M.D., Withington; Green, J., Esq., Portsmouth; Greenwood, W. S., M.D., London; Greenhalgh, T., L.K.Q.C.P., Heaton Norris; Greenwood, J. W., Esq., Ossett; Gregory, George, M.D., Bolton; Gregory, John, Esq., Rusholme; Griffiths, F., M.D., Sheffield; Griffiths, T. D., M.D., Swansea; Grigg, W. C., M.D., London; Grime, John, M.D., Blackburn; Groschold, Frederick H. V., L.K.Q.C.P., Manchester; Gueneau de Musy, H., M.D., Paris; Guest, Ellis S., Esq., Manchester; Gueterbock, Paul, M.D., Berlin; Gumpert, Ed., M.D., Manchester; Gunn, Christopher, M.D., Dublin; Gwynn, S. Tayleur, M.D., Whitchurch; Gwynne, C. N., M.B., Sheffield.

Hadden, David H., Esq., Bandon; Haddon, John, M.D., Eccles; Haigh, Thomas A., Esq., Meltham; Hall, Frederick, Esq., Leeds; Hall, James, M.B., Bolton; Hall, J. G., Esq., Swansea; Hall, Richard S., Esq., Ince, Wigan; Hall, William, Esq., Salford; Hall, William, Esq., Lancaster; Hall, William, jun., Esq., Lancaster; Halliday, John, L.K.Q.C.P., Leeds; Hamilton, Alexander, Esq., Ashton-under-Lyne; Hamilton, David J., Esq., Edinburgh; Handcock, George, Esq., Leeds; Hardie, James, M.D., Manchester; Hardy, H. Nelson, Esq., London; Hargreaves, Edmund, M.B., Sheffield; Harker, John, M.D., Lancaster; Harris, Henry, M.D., Redruth; Harris, James A., M.D., Chorley; Harrison, C., M.D., Lincoln; Harrison, James Bower, M.D., Manchester; Harrison, R., Esq., Liverpool; Hart, Ernest, Esq., London; Hartham, Isaac, Esq., Hulme; Hartley, Robert, Esq., Pemberton, Wigan; Harvey, George, Esq., Wirksworth; Harvey, Henry, M.B., Wavertree, Liverpool; Haughton, Rev. Samuel, M.D., F.R.S., Dublin; Heath, Frederick Ashton, Esq., Manchester; Heath, William R., Esq., Southport; Heathcote, Godfrey, Esq., Manchester; Heathcote, Ralph, Esq., Manchester; Heaton, J. D., M.D., Leeds; Heckscher, M., M.D., Manchester; Heffernan, William K., L.K.Q.C.P., Killenale; Henderson, Thomas B., M.D., Glasgow; Henry, Alexander, M.D., London; Hensley, Henry, M.D., Bath; Henson, Sydney, Esq., Manchester; Herpworth, F., Esq., Eccles; Herbertson, R. G., Esq., Cumnock, Ayrshire; Heslop, Robert, Esq., Manchester; Hewitt, Graily, M.D., London; Hewson, J. Dale, M.D., Coton Hill; Hey, Samuel, Esq., Leeds; Heywood, H. J., Esq., Pendleton; Hicks, J. Braxton, M.D., F.R.S., London; Higginson, Alfred, Esq., Liverpool; Hill Berkeley, Esq., London; Hindle, George, Esq., Over Darwen; Hingston, J. Tregelles, Esq., York; Hobart, N. J., M.D., Cork; Hodgkinson, Alexander, M.B.,

T. M.D., Pa. Carl, T. Esq., John, M.D., Warwick; Tiffin, Robert, M.D., Wigan; T. M.D., Heston; T. Esq., Manchester; T. M.D., London; T. Esq., Salisbury; T. Esq., J. S. M.D., Heywood; Trail, A. F., M.B., Tyldesley; Tuke, D. Hack, M.D., London; Tuke, Harrington, M.D., London; Tulloch, D., M.B., Helmsdale; Turnbull, Jas., M.D., Liverpool; Turner, F. Charlewood, M.D., London; Turner, George, M.D., Stockport; Tytler, Peter, M.D., Manchester.

U. Esq., J. L., Esq., Wigan.

Vacher, Francis, Esq., Birkenhead; Vance, Wm. J., Esq., Woolwich; Vaughan, W. E. W., Esq., Crewke; Veale, Richard S., M.D., Hamphwaite, Leeds; Vickery, George, M.D., Arlandston, Cork; Vose, James, M.D., Liverpool.

Wade, Richard C., Esq., Manchester; Wade, W. F., M.B., Birmingham; Wahl-tuch, Adolphe, M.D., Manchester; Walker, Alfred, M.D., Hertford; Walker, George, M.D., Birkenhead; Walker, George C., M.D., Bootle, Liverpool; Walker, G. E., Esq., Liverpool; Walker, J. Burnley, M.D., Golcar; Walker, J. Swift, M.D., Hanley; Walker, Robert, M.D., Budleigh Salterton; Walker, T. S., Esq., Liverpool; Wall, A. B., Esq., London; Walls, Wm., Esq., Manchester; Walsh, John, L.K.Q.C.P., Stonyhurst; Ward, John D., M.D., Manchester; Warren, F. W., L.K.Q.C.P., Dublin; Warrington, F. W., M.D., Congleton; Wartenberg, Victor A., Esq., Manchester; Waters, A. H. T., M.D., Liverpool; Waters, Edward, M.D., Chester; Waterhouse, Charles H., M.B., Aigburth, Liverpool; Watkins, John W., M.D., Newton-le-Willows; Watkins, R. W., Esq., Towcester; Watson, Arthur, M.B., Manchester; Watson, John, M.D., Manchester; Watson, Wm., Esq., Lancaster; Weaver, F. P., M.D., Frodsham; Webb, Wm., M.D., Wirksworth; Webster, Benjamin, M.D., Alderley; Webster, H. W., M.D., Plumstead; Webster, Thomas, Esq., Bristol; Webster, Thos. J., Esq., Merthyr Tydfil; Wells, T. Spencer, Esq., London; Welsh, Alex., M.D., Whitworth; Welsh, F. F., Esq., Saffron Walden; West, E. L., Esq., Launceston; West, James F., Esq., Birmingham; Westmorland, Joseph, Esq., Manchester; Wheeler, Daniel, Esq., Chelmsford; Wheeler, Thomas, Esq., Bexley; Wheelhouse, C. G., Esq., Leeds; White, Charles, Esq., Warrington; White, F., Esq., Liverpool; White, James, Esq., Wigan; White, J. C., Esq., Manchester; White, T. Charters, Esq., London; White, Wm., M.B., Ashton-under-Lyne; Whitehead, James, M.D., Manchester; Whitehead, Walter, Esq., Manchester; Whitelegge, B. A., Esq., Manchester; Whitmarsh, John L., Esq., London; Whittington, Thomas, Esq., Prestwich; Whittle, Ewing, M.D., Liverpool; Wild, Thomas, Esq., Manchester; Wilkinson, M. A. Eason, M.D., Manchester; Wilkinson, T. M., Esq., Lincoln; Wilkinson, Wm., Esq., Sharrow, Sheffield; Willacy, Charles, Esq., Cheadle; Williams, David M., M.D., Liverpool; Williams, Edward, M.D., Wrexham; Williams, John, M.D., Pontypool; Williams, John, M.D., Swinton; Williams, J., Esq., Carnarvon; Williams, J. T., Esq., Barrow-in-Furness; Williams, Neville, Esq., Gyffylling, Ruthin; Williams, Richard, Esq., Liverpool; Williams, Robert Hankinson, Esq., Eccleston; Williams, T. Watkin, Esq., Birmingham; Williamson, G., Esq., Newcastle-under-Lyme; Williamson, Henry M., Esq., Manchester; Willmore, F. W. Esq., Walsall; Wilme, Richard, M.D., London; Wilson, Henry Esq., Marske-by-the-Sea; Wilson, Jonathan, Esq., Whittington; Wilson, J. Mitchell, M.B., Rochdale; Wilson, Robert A., M.B., Hornby; Wilson, Thomas, Esq., Wallend-on-Tyne; Winterbottom, Arthur T., Esq., Manchester; Winterbottom, Henry, Esq., Manchester; Wise, R. S., M.D., Banbury; Withers, R. W. O., Esq., Shrewsbury; Woakes, Edward, M.D., London; Wood, Robert H., Esq., Liverpool; Wood, Thomas A., M.D., Woolton, Liverpool; Wood, T. Outterson, M.R.C.P.Ed., Isle of Man; Wood, Wm., M.D., London; Woodcock, Alex., Esq., Anstruther; Woodcock, Samuel, Esq., Manchester; Woods, G., Esq., Southport; Woods, George Arthur, Esq., Southport; Woods, Oscar T., M.D., Killarney; Worms, M. Jules, Paris; Worswick, F. H. L.K.Q.C.P., Manchester; Wraith, John H., Esq., Over Darwen; Wrench, E. M., Esq., Baslow; Wright, Chas., Esq., Leeds; Wright, F. J., M.D., London; Wylie, A. Howie, M.D., Oldham.

Yates, James, M.D., Oldham; Yeats, Wm., M.D., Manchester; Yeo, J. Burney, M.D., London; Young, Alfred, M.B., Manchester.

We have also tried, with very beneficial results, the emulsion of oil and quinine, which was given to a patient extremely anæmic after confinement; and that of quinine and phosphorus, which was given to a young woman in the incipient stage of phthisis. We have also employed the emulsion of oil and lactophosphate of lime as an adjunct in the rearing of a delicate child which has been brought up on the bottle. We have also administered the emulsion of hypophosphate of lime in a case of spasmodic croup with much advantage, as the child rapidly improved and the severe spasmodic attacks disappeared entirely under its use. In the use of these preparations, we noticed less subsequent annoyance from eructation than is customary, showing how readily assimilable these emulsions are. We can, therefore, confidently recommend Messrs. Gale's emulsions to the notice of the profession as excellent brain-and-nerve food, admirably suited in the treatment of phthisis, hysteria, and generally in those affections connected with deficiency of power, or the emaciation following exhausting ailments or vice of constitution. Not the least noticeable feature is this, that in appearance these emulsions resemble custard; and, being flavoured with almonds, are readily taken, especially by children.

EFFERVESCENT SALINE WITH CAFFEINE.

UNDER this heading, Messrs. Gale and Co. introduce to the notice of the profession a very pleasant combination of effervescing saline and caffeine. We have tried this preparation in nervous headache and in the depression following public dinners, etc., with marked benefit; indeed, as an agreeable "pick-me-up", this saline will be found extremely useful.

COFFEE-EXTRACT.

OF the results of the many attempts that have been brought under our notice of late years to produce an extract of coffee which, under various circumstances, shall show an advantage over the ground bean, that of Mr. W. P. Branson, of 155, Fenchurch Street, is the most satisfactory. This coffee-extract is pure, and free from any admixture of chicory. As it contains a maximum amount of the active principle of coffee—three grains of caffeine to the ounce—it becomes a valuable nerve stimulant, and contains a larger amount of nitrogenous product than has hitherto been attainable in ordinary extracts of coffee, by reason that the albumen of the coffee has not been coagulated in the process of extraction. The convenience and advantage in the use of this extract are obviously very great. A good cup of coffee can be prepared by the mere addition of boiling water; and in this Mr. Branson may be said to have supplied a great want.

CONDY'S DISINFECTANT CASCADE.

AN ingenious and useful little apparatus has been invented by the manufacturer of Condy's disinfecting fluid. It consists of a saucer with an upright stem supporting a small basin; a metal ring pierced with numerous holes rests in this upper vessel, and from it a large number of cotton threads fall down to a similar ring in the lower saucer, where they are held in position by another perforated ring. The fluid to be used as a disinfectant is placed in the upper vessel, and, being drawn downwards by the capillary action of the threads, exposes a large surface to the air; the surplus fluid is received in the saucer. The arrangement is simple, and appears likely to prove useful as an aerial disinfectant. It is manufactured in two sizes: the smaller is eleven inches in height; the larger stands two feet six inches high.

SURGEON-GENERAL JOHN HENRY KER INNES, C.B., principal medical officer of the Bengal army, has been appointed to fill the vacancy in the post of Honorary Surgeon to Her Majesty, caused by the death of Dr. Charles Scott, C.B. Mr. Innes entered the Army Medical Department as an assistant-surgeon in April 1842, and served as a volunteer on the medical staff in the Crimea in 1855, including the assault on the Redan on the 18th June. As surgeon to the 1st Battalion 60th Rifles, he served throughout the Indian Mutiny campaign of 1857-58, including the action on the Hindun, where he was wounded and his horse was shot, battle of Budlecke Serai, storming of the heights before Delhi, siege, assault, and capture of the city. He was afterwards chief medical officer with Sir John Jones's forces throughout all the subsequent operations in Rohilkund, and with Brigadier Troup's force in Oude during the winter of 1858-59. During the Franco-German war of 1870-71, Mr. Innes was attached as British Medical Commissioner to the head-quarters of the Crown Prince of Prussia, and received the German War Medal and the Iron Cross from the Emperor. He was created a C.B. for his services in the Indian Mutiny, and is now Senior Surgeon-General of the Army Medical Department.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

ALMONDISED COD-LIVER OIL.

UNDER this heading, Messrs. Leslie and Co., of Bond Court House, Walbrook, E.C., have forwarded us samples of cod-liver oil which has been treated by a process of almond-flavouring, which is most successful in removing the unpleasant smell and taste, and causing it to be more readily digestible. We have administered this preparation to some strumous children, and are pleased to record that, whilst securing the beneficial results justly traceable to cod-liver oil as a valuable tonic and dietetic, we have found no difficulty in inducing our little patients to take it. It is best administered in milk.

NEW MEDICINAL PREPARATIONS.

MESSRS. GALE and Company, of 15, Bouverie Street, have submitted to us the following preparations: Emulsion of cod-liver oil; and emulsions of cod-liver oil with lactophosphate of lime, with hypophosphate of lime, with phosphorus, with quinine, and with quinine and phosphorus; also a sample of cod-liver oil from which these emulsions are prepared. This oil is of a very pale colour and remarkably devoid of smell, showing that it is of excellent quality and well prepared. We have administered this preparation on sponge-cake to a valuable parrot which was suffering severely during moulting, with decided benefit; the bird taking the oil thus administered very readily.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 1ST, 1877.

RELATIONS OF TUBERCULOSIS AND CASEOUS
PNEUMONIA.

THE recent studies and demonstrations of M. Charcot at the Manchester meeting (of which we shall present a report from the pen of Dr. Dreschfeld) included the development of his views on the relation of tuberculosis to caseous pneumonia. On this subject, there is a great want of agreement among pathologists. M. Charcot has studied it very thoroughly in his lectures this year at the Faculty of Medicine, and lately gave a summary of his conclusions at the Société de Biologie.

Clinically, under the name of caseous pneumonia, pulmonary phthisis, is designated a subacute inflammation of the lung, which has often the characters of a fluxion: it commences then with a pain in the side, fever, etc.; presents stethoscopic signs which need not be described here; and in two or three months an enormous destruction of the lung is produced. By some, these characters and the acute course of this affection are made to distinguish it from tuberculosis properly so called.

According to the doctrine of Laennec, tuberculosis in the lung is manifested sometimes under the form of grey miliary granulations, sometimes in more or less voluminous yellow masses. That learned clinician thus attributed to the same process the miliary granulations and the caseous masses. In 1850, Reinhardt and Virchow substituted for the doctrine of the French physician the following formula. After pneumonia, bronchopneumonia, etc., when resolution does not occur, the exudation accumulated in the bronchi and the alveoli degenerates, undergoes caseous transformation, and constitutes more or less voluminous masses. These play then the part of a foreign body determining a peripheral inflammation: then their centre breaks down and is eliminated, and a cavern is formed. In this case, tubercle does not exist: it is only accessory. Caseous pneumonia is, in a word, for Virchow, only a degenerated pneumonia: it is not a tuberculous pneumonia.

By the kindness of his hospital colleagues, M. Charcot has been able to study the process in the lung from a great number of cases of caseous pneumonia. According as death is more or less rapid, the processes more or less generalised, there are found disseminated caseous *foci* of the size of a pea, of a small nut, or of a filbert, or confluent masses; sometimes even a lobe or an entire lung forms only a mass resembling a piece of Roquefort cheese. With the aid of his pathological assistants, he has successively studied all these varieties. In particular, in one case, which ran a very rapid course, he made a very minute examination of the mode of formation of the little disseminated caseous *foci*. The patient had succumbed in fourteen days under a stroke of intercurrent diphtheria. It was thus possible to seize the pneumonic phthisis at the commencement of its evolution, which is rare; that is to say, before it had undergone its phases, and the masses had become confluent. In all these cases, he finds and can demonstrate, he believes, as the fundamental and exclusive *processus*, tubercle with all its characteristic attributes.

What is, in fact, tubercle according to Virchow and the most critical persons? The common tubercle, the grey macroscopic granulation, is

only an agglomeration of many follicles or elementary tubercles. To understand the constitution of this pathological corpuscle, it must first be studied in the organs in which it shows itself in the most simple state, as in the fungosities of "white swelling", or in the tongue. In these fungosities are found little whitish masses smaller than a millet-seed.

Under the microscope, are observed: 1. In the centre one or more large cells, called giant-cells (these are constituted by a protoplasmic mass relatively voluminous, having scattered nuclei in its periphery); 2. Peripherally, an agglomeration of embryonic cells, which are strongly coloured by reagents. When degeneration occurs, the large cells are the first to undergo the caseous transformation: the centre of the elementary granulation is no longer coloured by the carmine solution. In the tongue, it is agglomerated tubercles which are observed. One sees first many follicles or elementary tubercles, such as those which have just been described, develop separately in the little muscular bundles: they are placed in the little muscles, in the very centre of the myolemma, in the fibrous sheath, of which they gradually crowd back the contents. Then the follicles of neighbouring fascicules join, and together they form a veritable aggregation. They have then a common life: they are surrounded by a common zone—the embryonic fibrous zone.

Caseous degeneration occurs first in the most central follicles. In the lung, almost always, the follicles or elementary tubercles are agglomerated. The grey granulations—those which are met, for example, in the lungs of children who have died of generalised tubercle—are already very complex masses. With the naked eye, or with the pocket-lens, it is easy to observe that the grey granulation is installed in the network of the lung; the alveolar walls are blended with it. It seems to be a sort of invasion of the tissue. From the microscopic point of view, the grey granulation is formed of numerous elementary tubercles or follicles, like those which M. Charcot describes in the fungosities of white swelling or in the tongue; that is to say, a centre formed of giant-cells and an embryonic periphery. When caseation occurs, these follicles are the first to undergo it. If one of these grey granulations be treated with caustic soda, the elastic framework of the lung reappears, and it thus may be recognised that the neoplasm occupies at once the alveoli and their walls. The framework of the lung is incorporated with it, and the elastic fibres remain.

Such is tubercle, the classic tubercular granulation. Thus far, the description agrees with that of Virchow. M. Charcot proceeds to show that caseous pneumonia is an exclusively tuberculous pneumonia; that is to say, that the caseous masses are enormous tuberculous conglomerations. He points out here that he has been preceded by distinguished histologists (who have recognised this nicety in phthisis) in France and in England. (He cites Grancher, Thaon, Renaud, and Wilson Fox.) He considers, however, that his predecessors have been too timid in their statements. He completes their thought and synthesises their description, by saying that tubercle is not recognised in caseous pneumonia because it is of such great size. It is formed of a multitude of associated elementary tubercles.

This he demonstrates as follows. Evidently it is not in a lung of which one lobe is completely caseous that we must seek for tubercle; it is in that stage of caseous pneumonia when it is still constituted of small disseminated masses. Subsequently, all the intermediate stages may be followed, from nodules of the size of a pea to total degeneration.

By the aid of a schema, which Professor Charcot gives in his *Lectures on the Histological Characters of the Lung*, it is always easy to find one's way over a preparation. With a very slight magnifying power, the intralobular bronchi are rapidly and easily recognised, in that they are joined to an arteriole. That is more easy than guiding oneself by delicate particulars of their structure. In the case of pneumonic phthisis which he was able to examine on the fourteenth day, and which has been already mentioned, it was easy by this mode of examination to recognise that the lobular bronchus and arteriole were

here and there surrounded in caseous islets; otherwise, under this slight enlargement, the lung appeared relatively sound.

Professor Charcot proceeds to study successively, by higher magnifying powers, the constitution of the "islets" and the changes of the part of the lung which surrounds them, and which he compares—to continue the image—to the intermediate sea. The islets present in the centre an arteriole and a bronchus more or less completely obliterated, and whose walls are more or less altered. They are surrounded by a yellow uniform mass, which does not become coloured by carmine. In this mass, soda reveals elastic fibres which outline the alveoli. The zone which surrounds the yellow mass, and which might be called "the riparian zone", becomes rose-coloured with carmine-solution; it is composed of embryonic cells. It is at the most external part of this riparian zone of the islets that the giant-cells may be observed here and there, disposed like detached forts on the coast, circulating and forming the advance-guard. There, each one of them is surrounded by a little special embryonic zonule. These giant-cells seem to be a centre of formation of elementary follicles, as a centre of crystallisation would be in mineralogy. In a word, each of these islets is only an agglomeration of elementary tubercles; its growth takes place at the periphery by the formation and adjunction of elementary follicles, each with their central giant-cells. There is, therefore, the greatest analogy between these caseous masses and the grey tuberculous granulation. They are simply grey granulations united in mass. Now, the largest caseous masses, whether they have the size of a nut or occupy the whole of a lobe, are always constituted in the same manner. There are always to be found at their periphery the riparian zone of embryonic follicles and the giant-cells.

What has interfered with the conception and demonstration of the analysis of pulmonary tuberculosis and caseous pneumonia? According to Professor Charcot, it is the exclusive adoption of the idea of Virchow, that tubercle is a special neoplasm. The caseous masses, however, it has been already stated, have absolutely the same constitution as the grey granulation. The only difference lies in the size.

The attentive examination of what M. Charcot calls the intermediate sea—that is to say, of the pulmonary parenchyma around the islets—establishes yet more clearly the error of Virchow in alleging that caseous pneumonia is only a degenerated pneumonia. Indeed, in neighbouring alveoli, the most various lesions are found; epithelial catarrh, fibrinous exudations, purulent mucus. Now, these pathological products never undergo real caseous transformation. The epithelial cells, as everywhere else, become granulo-fatty, form granular bodies, etc.; crystals of fatty matter, etc., are found. Thus, it is not exact that these elements form a magma, as Virchow had alleged. Histologists have, in the view of M. Charcot, put too blind a confidence in the words of the great pathologist, and have admitted, without serious examination, what was rather a conception of his mind than a complete anatomical description. We must, therefore, in this view, return to the theory of Laennec—caseous pneumonia or pneumonic phthisis is of a tubercular nature; it is constituted by conglomerations of tubercles often very voluminous, or, if one prefer it, by gigantic tubercles.

M. Malassez partakes of the general views of M. Charcot on the analogy of caseous pneumonia and tuberculous pneumonia. But he thinks M. Charcot's elementary tubercle still too complicated. The giant-cells are an extraneous attribute of tubercle; they are not found in the tubercles of the great omentum. These are constituted solely by rounded or fusiform foci of embryonic cellules surrounding these connective bundles. In the second place, these giant-cells are not special to tubercle; they are also found in certain tumours, fibro-sarcomata, etc. They have intimate relations with the vascularisation. M. Charcot recognised the fact, indeed, that the giant-cells are not essentially characteristic of tubercle; the researches of M. Malassez indicate that they are in direct communication with the vessels. They are angio-plastic prolongations which become hypertrophied. This is also the opinion of Bradowski.

CHRIST'S HOSPITAL.

WE lately had occasion to criticise the educational and general management of Christ's Hospital, and now propose to review the more purely sanitary and medical arrangements of the school. As we previously said, an inspection of the school premises at once shows that the building is overcrowded and too confined to be consistent with the good health and comfort of seven hundred boys. The want of space is particularly seen in the situation of the studies of the Grecians. These little boxes are in many instances suspended by iron supports at the corner of the ward, a bed occupying the space beneath. Such an arrangement must be anything but conducive to the health and effective study of a senior boy reading for an exhibition. The average cubic space in the wards is over six hundred cubic feet per head, but the windows and ventilators are not well adapted for a sleeping ward. The lavatories, though well supplied with hot and cold water and other arrangements for personal cleanliness, have bare concrete floors. The buildings containing the wards are of various ages, and were constructed at a time when sanitary conditions were less studied than at present. Turning to the bath-house, which has been fitted up within more modern times, we find a state of things more commendable. A swimming-bath, sixty feet by twenty-five, is used by all the boys twice a week during the warm weather; and twenty-eight baths are used to give every boy a turn once a week during the remainder of the year. A bath-man superintends this department.

The water-supply of the establishment is derived partly from the New River Company and partly from a deep well in the courtyard. The latter is chiefly used by the boys. To ascertain the condition of this well, an analysis was made three years ago by Mr. Wanklyn and three other analytical chemists. The water was pronounced good and fit for drinking. By a standing order, an analysis is now made twice a year to ascertain its continued purity.

In the early part of this year, four cases of typhoid fever occurred among the boys; and, in consequence, extensive alterations have recently been made in the system of drainage. All drain-pipes are carefully and effectually ventilated, and all waste water is carried off by a system separate from the soil-pipes. The water-closets, etc., are daily cleaned out and disinfected.

The dietary is, without doubt, defective; and this is of the more importance, as it is well known that many of the boys, when admitted, are strumous and delicate. In this matter, the authorities of the school are inexcusable, as the defects have been brought prominently under their notice by Dr. Alder Smith, the resident medical officer. We fear that a false economy has been allowed to predominate over more weighty considerations.

The Grecians are allowed a full and unlimited diet at a table separate from those of the younger boys. The monitors and boys working over the usual hours—*i. e.*, after eight o'clock in the evening—have an extra diet. The dietary of boys under thirteen consists of breakfast, dinner, and supper, and contains, for the day, bread (unlimited); milk, three-quarters of a pint; butter; meat, four ounces; potatoes and other vegetables; beer, half a pint; Yorkshire pudding twice a week. Cheese is allowed at supper to boys over fifteen years of age. According to a standard diet, boys at thirteen years of age should get as follows: albumen, 4.3 ounces; fat, 2.9 ounces; carbohydrates, 16.0 ounces; whereas the dietary supplied to these boys contains only albumen 2.94, fat 2.32, carbohydrates 11.32 ounces. The deficiency here represented is very manifest. Extra diet can, however, be ordered for delicate boys by the medical officer, in the form of meat for breakfast, eggs, extra beer or wine, etc.; and, as an average, one hundred and fifty boys are usually on extras. This, however, only shows that the average amount of food allowed is insufficient.

The infirmary contains ninety beds, with separate wards for infectious cases. A matron and nurse are always resident there, and additional nurses are engaged when required.

The general freedom from serious illness during the last seven years

is shown by the medical officer's books. Thirteen cases of scarlet fever and eleven of measles have occurred during this period, and in no instance has the disease spread. An admirable disinfecting apparatus is attached to the infirmary.

As regards recreation, every boy is allowed one day's holiday a month, in which he can be absent during the afternoon if his friends wish it. It appears, however, that in many instances the boys have no friends to visit, but amuse themselves out-of-doors as they please. Within bounds, the boys take exercise in the courtyard and in the gymnasium. The school possesses a cricket-ground at Dulwich, and this is used daily by such boys as can afford a railway-ticket at the price of threepence. About sixty boys usually go there in the afternoon.

We have had occasion to point out many defects in the arrangements and condition of Christ's Hospital which ought to be rectified. Pure air, free exercise, and a liberal diet, as well as a careful and intelligent supervision, are essential to the physical and mental development of the young; and it appears impossible to obtain these benefits for seven hundred boys in the present premises. We hope that the recommendation already made for the removal of the school to a new building in the country will be carried into effect.

In conclusion, we wish to acknowledge the courtesy of the authorities of the school and of Dr. Alder Smith in showing us all parts of the premises, and in supplying us with information on all points.

POOR-LAW MEDICAL APPOINTMENTS IN IRELAND.

THE principles which guide Irish Poor-law guardians in the selection of their officers are steadily becoming so great a public scandal that, if the Irish Local Government Board do not interfere (and we believe it has not the power to do so), some remedy must be found by the legislature. It has been long known that it is the custom in many districts in Ireland to make regular political or religious contests of the elections of medical officers, either for the unions or dispensaries, and this custom is increasing. Our attention has been specially directed to this scandal by the proceedings at the recent election for a physician to the North Dublin Union Workhouse.

We may remind our readers that in Dublin there are two Poor-law unions—the North and South Dublin—each including about half the city, and also the whole of the suburban and a considerable portion of the rural district, situated respectively on the north and south sides of the city. A vacancy occurred about a month ago in the office of Physician to the North Union Workhouse. As the workhouse contains a considerable hospital, the appointments to the institution are eagerly sought after by well qualified candidates, who have been unable to obtain appointments at the general hospitals of Dublin. In fact, the office is looked upon as only secondary to that of a hospital physician. As might have been anticipated, a large number of candidates presented themselves, among whose names we notice some of the most rising of the young physicians of Dublin, several being lecturers in Dublin medical schools; some of the candidates were, of course, quite unknown. We, having considered carefully the qualifications of the candidates, consider ourselves more capable of judging of their relative merits than any of the guardians of the North Dublin Union. From the first, the contest has been made a political one. Meetings were held of the "parties on each side; a "Liberal" and a "Conservative" candidate were selected before even the applications for the office had been considered by the Board of Guardians. Two gentlemen were selected to be "run" for the post in the "Conservative" and "Liberal" interests respectively. Thus, a large number of the electors were pledged to vote for particular candidates before they were even acquainted with the names and qualifications of the candidates. We do not wish to mention the names of any of the candidates, nor in any way to deny the professional fitness of either of the gentlemen who

headed the poll; but we do know, and state most positively, that the guardians were either so ignorant of the qualifications of the candidates, or so wilfully prejudiced by party feelings, that, at a board of forty-nine members, two of the candidates whom we know—and we give our opinions professionally and advisedly—to be the best, received but *five* and *three* votes respectively; and that another gentleman, highly thought of in his profession, and of known ability, received but twelve votes. The candidate who won the contest is, we regret to say, almost unknown to us. On the contrary, the candidate put forward by the opposing faction is well and favourably known as a medical teacher and able scholar.

We regret to find a Dublin morning paper supporting this scandal, and remarking, "On the whole, although the absence of some Liberals and defection of others is to be noted and regretted, the Liberals as a body made a good fight and carried their man, against difficulties which their adversaries calculated to be insurmountable".

Thus the "Liberals made a good fight", and "carried their man". Not a word has been said as to whether the sick poor of the North Dublin Union have obtained the best medical adviser the Board of Guardians could have secured. The qualifications of the candidates were completely ignored. So far for *North* Dublin Union Liberals; but South Dublin Union Conservatives are in an exactly similar condition. On a recent occasion, the "Conservative party" selected a retired pawnbroker for the office of Clerk to the Union. This person was a member of the Board of Guardians, and, of course, of "the party". A meeting of "the party" was held, the candidate chosen, and "run in". This person is now Clerk and "Executive Sanitary Officer" of the South Dublin Rural Sanitary District. We observe, in evidence before a Select Committee of the House of Commons, that this person was specially used as an example of the personal unfitness of the individuals who compose the sanitary authorities in Dublin. The latter job seems the more glaring, as the candidate was one of the Guardians, a member of the Dublin Corporation, and also of the North Dublin Union Board. We think we have said enough—although we could give many more examples—to prove that Poor-law elections can be, and are, carried out in a disgraceful manner in Ireland. We regret to say that the men seeking medical appointments, under the Poor-law in Ireland, are not of as high a class as they were some years ago; and, we are afraid, they are steadily deteriorating in quality. Something must be done for the sake of the sick poor, and, we might also say, for the sick rich, for the Poor-law medical officers of Ireland do nine-tenths of the practice of the country in rural districts. In most of these districts, there is not room for two medical practitioners; therefore, all—rich and poor alike—have to rely upon the dispensary medical officer. If these officers fall from the high and honourable position which they have held, the people of Ireland will indeed be badly off for medical advice everywhere, except in the larger towns. It cannot be expected that highly educated gentlemen will submit themselves to be dealt with as they were the other day by the North Dublin Union Guardians.

DR. VINCENT AMBLER, physician to the Persian embassy, has been appointed to the medical charge of the Japanese legation.

A LADY who died last month at Tours has bequeathed her fortune, a sum of about £1,500, to found a scholarship to be given to the most deserving student of the School of Medicine.

A LARGE English barque arrived in the south West India Docks from Mauritius last week, with several severe cases of scurvy on board, which were at once sent to hospital.

THE revenue derived from the stamp on Patent Medicines during the financial year, ending March 25th, amounted to £112,978 : 17 : 5, after an allowance of £5,242 : 15 : 2½ in discounts, etc.

PROFESSOR HELMHOLTZ has been appointed Rector, and Professor Du Bois-Reymond Dean of the Medical Faculty, of the University of Berlin.

THE British Association, at the conclusion of its meeting at Plymouth, voted the sum of £1,081 for original scientific researches. The next meeting will be held in Dublin.

ACCORDING to recent experiments of M. Laborde (Société de Biologie, June 9th), free hydrochloric acid does not exist in the gastric juice in the physiological state.

LAST year, Guy's Hospital followed the example of St. Bartholomew's in departing from the extremely formal and tiresome custom of opening the session with an introductory address; and this year the London Hospital adds itself to the silent minority.

THE report in the *Times* that Mdlle. Tietjens is about to undergo another operation is so far correct, that it may be necessary again to remove some fluid from the peritoneal cavity. She is still at Worthing; but is expected to return to London soon after the tapping.

THE first stone of a new Convalescent Home has been laid at Hunstanton by the Countess of Leicester. The building, which is a memorial of the recovery of the Prince of Wales from his dangerous illness, will cost £3,000, of which the Earl of Leicester is a contributor of £1,000. In May 1879, the Princess of Wales will open the Home.

A GREAT school of pharmacy is being constructed in a portion of the grounds attached to the Luxembourg at Paris, which will occupy in all the immense space of 17,000 square yards, and of which the laboratories will accommodate six hundred working students. The school will be open in 1880.

A CURIOUS and dangerous accident lately happened to Professor Linhart of Würzburg. While making a *post mortem* examination, he wounded his tongue with the instrument which he was using. He has had a severe illness; but, under the care of Professors Bamberger of Vienna, Biermer of Breslau, and Gerhardt of Würzburg, was last week in a fair way to recovery.

M. LÉPINE administers vapour-baths an hour before the probable commencement of the shivering fit in intermitting fevers, while the patient is still feeling quite well, and finds that they keep off the fit, although the urine, by its special modifications, indicates that the fever has followed its course. The baths he recommends as an aid to the treatment by quinine.

In his report on the Pathological Institute of the Charité Hospital in Berlin, Professor Virchow states that 1,736 *post mortem* examinations were made there in 1875. In consequence of the establishment and increasing use of the town hospitals, there has been for some years a decrease in the necropsies at the Charité: the numbers being in 1872, 2,353; in 1873, 2,130; in 1874, 2,161; in 1875, 2,136.

Dr. GÖPPERT, who has been attached to the University of Breslau for fifty years as teacher and professor of materia medica and botany, was publicly presented on July 30th with an elaborately decorated album, containing five hundred and fifty-four photographic portraits of his pupils, colleagues, and friends.

A GERMAN GYNÆOLOGICAL SOCIETY.

A LARGE number of German obstetricians and gynæcologists have resolved to form a gynæcological society. The first meeting will be held in Munich on September 15th and 16th. Papers are promised by Drs. Amann of Munich; Credé, Furst, and Leopold, of Leipzig; Hegar and Kaltenbach of Freiburg; Spiegelberg of Breslau; Veit of Berlin; Wernich of Jeddo; and Winckel of Dresden.

DEATH FROM HYDROPHOBIA.

AN inquest was held last week at the London Hospital on the body of a boy aged 13, who died of hydrophobia. About five months ago, the boy was bitten on the hand by a dog; the wound was cauterised, and he seemed to recover. The symptoms of the disease commenced on August 13th, and he died on the sixth day of his illness. We understand that this is the fifth case of hydrophobia that has come under observation at the London Hospital this year. As the series of these cases will be published, we refrain from entering into details of the case.

INFANTICIDE.

CONSIDERABLE sensation has been caused in Macclesfield by a statement made by Mr. Allwood, surgeon, at an inquest upon the body of a child whose death occurred through starvation. He said that scores and scores of children died yearly in Macclesfield by being purposely and habitually neglected. Medical men had plenty of moral, but no legal, proof of child-murder, and they had to pass cases in which they knew the parents were as guilty as if they had cut their children's throats. The Coroner said his experience showed him there was much indifference to life and immorality among women of the lower class in Macclesfield. The Town Council have taken the matter up, and have appointed a special committee to confer with the Coroner and medical men. The inquest stands adjourned, but evidence has already been given as to the high rate of infanticide mortality in the borough.

SANITARY INSTITUTE OF GREAT BRITAIN.

THE autumn congress of the Sanitary Institute will be held at Leamington from October 3rd to 6th, under the presidency of Dr. B. W. Richardson. In connection with the congress, an exhibition of sanitary apparatus, appliances, and articles of domestic use will be opened in the Drill Hall on October 3rd, and remain open until the 18th. Papers will be read during the meeting by Surgeon-Major De Chaumont, Mr. Baldwin Latham, Archdeacon Denison, Mr. T. J. Dyke, Mr. Eassie, Mr. Burdett, Dr. James Stevenson, Dr. H. C. Bartlett, Dr. James Russell (Edinburgh), Mr. Haviland, Dr. T. Moffat, Rev. J. Wyatt-Edgell, and other gentlemen.

THESES DE PARIS.

A PARIS correspondent writes: Some of the theses presented this year by the ladies who have graduated as Doctors of Medicine of the University of France have attracted attention by their unusual scientific and practical importance. In an extremely well written thesis by Mme. Ribard, a method of treatment is studied which is as yet little known, and which promises to give good results in a class of cases hitherto little amenable to treatment. It is the treatment of detached retina and other deep-seated disease of the eye by "drainage", that is, by the introduction of a fine gold or silver thread, which evacuates the collection of fluid, and, while *in situ*, relieves the intra-ocular pressure. The cases are very scientifically observed and accurately stated, and some of the results are of a very encouraging nature. The *brochure* has been much read and quoted, and has been very favourably reviewed. A thesis presented by Mlle. Ocounkoff, on graduating as Doctor of Medicine, has discussed the physiological function of sulphuric ether, and its employment in subcutaneous injection as an excitant and stimulant. The physiological effects are very carefully investigated in relation to the blood, circulation, and temperature, the secretions of the intestine, stomach, liver, kidneys, bronchi, etc. In certain doses, sulphuric ether has the effect of (1) elevating the temperature, (2) increasing arterial pressure, (3) increasing the secretions, (4) increasing the pulmonary combustion, (5) producing agitation, (6) causing hyperæsthesia of the senses and of the skin, dilating the pupil. Mlle. Ocounkoff recommends the injection of from one to four *grammes* (the maximum dose), the most convenient place being the middle of the internal surface of the thigh. These injections are especially recommended in cases of extreme hæmorrhage from wounds or injuries, or after surgical operation, and on the field of battle. The practice is not

without its successes: it has been adopted in more than one of the hospitals of Paris and of the provinces; and, when it is remembered that transfusions of blood in very small quantity have succeeded apparently through their stimulant action, as well as injections of warm milk, warm water, etc., there is reason to expect that the surgical practice of the ether-injections which Mlle. Ocounkoff has studied, and of which M. Verneuil thinks highly, may be an useful surgical resource. Another thesis, by a lady graduate of this year, which is highly spoken of, is a study by Miss Anna Dahms, M.D., of the histology of the thyroid gland. It is the result of a research carried out in the laboratory of M. Robin; it contains careful original work, is well illustrated, and is an honest contribution to our still very imperfect knowledge of the structure and development of the bloodless glands. The general excellence of the examinations passed by the ladies, who are graduating here on precisely the same terms and at the same examinations as the men, affords an interesting commentary on some theoretical observations in the opposite sense which I observe in the address of Dr. Barnes, which you publish in your last number. The seriousness and excellence of their studies is much remarked, and their results at examinations are much above the average, in some cases showing a high order of capacity and great industry.

OUTBREAK OF TYPHOID FEVER.

TYPHOID fever has broken out at Bedale, Yorkshire, and is spreading rapidly. There have already been a large number of deaths, and people are dying daily. The market is now held at Crakehall, some distance out of the town. It was held there yesterday, and was a failure, people being afraid to attend from other towns. In consequence of the prevalence of the disease, the Council of the Richmond Agricultural Association have decided to postpone their annual show. A meeting of the Council has been convened to arrange what steps shall be taken.

AN AFRICAN UNIVERSITY.

THE Queen has been graciously pleased to direct Letters Patent to be passed under the Great Seal granting and declaring that the degrees of Bachelor and Master of Arts and Bachelor and Doctor of Laws and of Medicine, hereafter to be granted or conferred by the University of the Cape of Good Hope, shall be recognised as academic distinctions and rewards of merit, and be entitled to rank, precedence, and consideration in the United Kingdom and in the Colonies and Possessions of the Crown throughout the world as fully as if the said degrees had been granted by any University of the said United Kingdom. It is interesting to notice that, although such degrees are declared by Royal Letters Patent to be of equal "rank, precedence, and consideration" with British degrees, they confer no right to practise medicine in this country according to the provisions of the Act of 1858, nor even to act as medical officer on a ship going from this country to the colonies.

DEATH UNDER THE USE OF ANÆSTHETICS.

WITH regard to the case of death under the use of anæsthetics at the Moorfields Ophthalmic Hospital of which we gave some particulars last week, we have been requested to state the following facts. 1. The patient had from the first breathed ether, a little chloroform (about forty drops) being added to prevent the choking sensation. The apparatus used was a modified form of Clover's inhaler. 2. She had only breathed the mixture for one minute when the face became livid, and could therefore hardly have been under the influence of the anæsthetic. 3. The pulse and respiration continued fully four minutes after all anæsthetics had been discontinued.

THE HOUSING OF THE HOP-PICKERS.

AN association was formed two years ago with the object of supervising the social and sanitary condition of the hop-pickers, and providing them, as far as possible, with accommodation for themselves and their families in the houses of the resident villagers. Already a marked improvement is apparent in the class of persons who now go down to the

hop-gardens of Kent and Surrey. For months past, the association and the large hop-growers have been engaged in preparing accommodation for the hands on their arrival. The honorary agents of the association meet the hop-pickers' trains prepared with gratuitous information relative to lodgings, places where labour is most needed, and all the necessary instruction; whilst committees of ladies will endeavour to gather the single girls together under their care and protection. In many instances, large barns attached to the homesteads have, by means of rick-cloths, been partitioned off for families.

FATAL POISONING BY IRISH YEW.

AN inquest was concluded at Hampton Wick on August 24th, in the case of Emma Lane, who died from the effects of an infusion of twigs and leaves of Irish yew administered by her husband. The woman believed herself to be pregnant, and frequently asked her husband to get "something to ease her". He gathered some twigs of Irish yew from a neighbouring cemetery, and gave them to her. The woman then made a decoction of them and took a dose of the decoction in the evening, with her husband's knowledge. The next day she took another dose in the afternoon, and in the evening, after supper, she took a third dose of the decoction, together with some of the unboiled twigs. In the night, she retched, and complained to her husband that she felt very ill; he then noticed that she was breathing hard. She died during the night. Dr. Günther made a *post mortem* examination, and found in the stomach five or six tablespoonfuls of half-digested food and a quantity of the chopped leaves of the Irish yew. There were also several red patches on the mucous membrane, but it appeared that these might have been due to early decomposition. There was also organic disease of the heart. Only *primæ facie* evidence was taken at the inquest; and the man Lane was committed on the charge of wilful murder.

HOSPITAL SUNDAY AT PORTSMOUTH.

LAST Sunday, collections were made in the majority of the churches and chapels of Portsmouth for the Hospital Fund. The sum realised is somewhat over £400. The Hospital is urgently in need of funds, as, at the present time, one of the wards is closed for want of support.

MODERN RETROGRESSION.

SOME French surgeons are very far from regarding the thermo-cautery with the same cautious contempt as do British surgeons, but are disposed to burn through tissues in many of the cases in which no English surgeon would think of using anything but the knife. The performance of tracheotomy by the thermo-cautery is a very customary feat now. The height of this retrogressive fashion has possibly been attained by M. Th. Auger, who has performed perinæal section for a prostatic calculus by the thermo-cautery. This almost rivals the performances of the late M. Chassaignac with the *écraseur*.

JAPANESE PATIENTS.

DR. VIDAL, physician at Jocoska, Japan, writes that, according to the formulæ of speech, a treasure would not suffice to pay the advice of so great a sage as the educated physician, wherefore the Japanese content themselves with not paying him for his services, but only allotting a few pence for medicine and expenses of the visit: a sum so insignificant that more often the European physician would feel insulted by its being offered, and therefore contents himself with the profuse compliments of his clients. On the whole, he does not consider a Japanese *clientèle* profitable; and, if cultivated at all, it could only be accepted as a supplement to a practice among the resident Europeans.

PASTEUR ON SEPTICÆMIA.

M. PASTEUR has read to the Académie de Médecine an important memoir on septicæmia and malignant pustule (*charbon*). He explains his method of investigation, and lays down the principle that *charbon* is the disease of bacteria, as trichinosis is the disease of the trichina, and the itch is the disease of the acarus. M. Pasteur formulates the following propositions. 1. The blood of an animal in complete health

does not contain microscopic organisms or their germs. It is impure in contact with pure air, because putrefaction is always due to microscopic organisms of the genus *vibrio*; and, spontaneous generation being out of the question, vibriones cannot appear of themselves.

2. The blood of an animal affected with *charbon* contains no other organisms than the bacteria. But the bacteria is an exclusively *aerobic* organism; that is to say, living in the air and by the air, and taking no part in putrefaction. The blood of animals so diseased is of itself impure. It is not the same in the dead body; this blood then enters quickly into putrefaction, because every human body lodges vibriones coming from without, as by the intestinal canal, which is always full of vibriones of all sorts. These, as soon as the normal life of the tissues does not stop them, give rise to prompt disorganisation.

CARBOLIC ACID POISONING.

ANOTHER mistake occurred at the Prescott Workhouse on August 14th, by which an inmate in the small-pox ward named William Sharkey lost his life. The doctor had ordered him the usual course of medicine; and, on the above date, one of the paupers brought a bottle of carbolic acid, out of which a dose was mixed and administered by the nurse, instead of out of the correct medicine-bottle. Sharkey at once became insensible and died in half an hour. An inquest was held before Mr. Driffield at the union workhouse, and the jury returned the following verdict: "The deceased died from a dose of carbolic acid, given in mistake by the nurse in his medicine"; and said that they considered "that there was great neglect in the case in not having every bottle labelled, and thereby avoiding such sad mishaps".

WATER-SUPPLY.

THE Act 40 and 41, cap. 31, just issued, contains some important provisions as to the supply of water. It is to give further facilities to landowners of limited interest in England and Wales and Ireland to charge their estates with the expenses of constructing reservoirs for the storage of water and other similar purposes. After referring to the charges on estates for the supply of water for agricultural purposes, the Act recites that in many places it would greatly conduce to the affording of a plentiful supply of pure water to the inhabitants of villages and towns, and to the industrial requirements of the locality, if facilities were given to landowners of limited interests to charge their estates, subject to the approval of the Enclosure Commissioners, with sums expended by them in constructing reservoirs and other works for the supply of water of a character permanently to increase the value of such estates for other than agricultural purposes, or to be otherwise permanently productive of profit to the owners of the estates, and if such landowners were also enabled to charge their estates with sums subscribed by them for the construction of waterworks on the same terms and conditions as those on which they are now enabled to charge their estates with subscriptions for the construction of railways and canals. In nine sections, the mode of carrying out the statute with the Enclosure Commissioners is set forth; and, if adopted, would be of great public benefit, as stated, in securing "a plentiful supply of pure water to the inhabitants of villages and towns".

BOYLSTON MEDICAL PRIZE.

THE Boylston Medical Committee, appointed by the President and Fellows of Harvard University, consists of the following physicians: J. B. S. Jackson, M.D.; D. H. Storer, M.D.; Morrill Wyman, M.D.; Henry J. Bigelow, M.D.; Richard M. Hodges, M.D.; Calvin Ellis, M.D.; Samuel Cabot, M.D. At the annual meeting, held June 4th, 1877, it was voted that no dissertation worthy of a prize had been offered on either of the subjects proposed for 1877. The following are the questions proposed for 1878: 1. Antiseptic Treatment: What are its essential details? How are they best carried out in practical form? 2. Diphtheria: its causes, diagnosis, and treatment. The author of a dissertation considered worthy of a prize, on either of the subjects proposed for 1878, will be entitled to a premium of seventy-five dollars. Dissertations on the above subjects must be transmitted, post-paid, to

J. B. S. Jackson, M.D., Boston, on or before the first Wednesday in April 1878. The following are the questions proposed for 1879: 1. The relation of animal contact to the disease known as hydrophobia; 2. Evidence showing that so-called "filth diseases" are not dependent upon "filth". The author of a dissertation considered worthy of a prize, on either of the subjects proposed for 1879, will be entitled to a premium of two hundred dollars. Dissertations on these subjects must be transmitted, as above, on or before the first Wednesday in April 1879.

SUFFOLK COUNTY MEDICAL CLUB.

A PUBLIC meeting was held on August 14th, at Ipswich, under the presidency of Sir E. C. Kerrison, Bart., to receive the report of the Provisional Committee appointed to organise a Medical Club for the county of Suffolk. The meeting was attended by a large number of medical men and other gentlemen interested in the welfare of the county. As the first county medical club that has been founded in England, its organisation has presented some difficulties; but the following rules have received the sanction of the Registrar of Friendly Societies. The club is to consist of honorary members who contribute £5 in one donation, or 2s. 6d. a year, to the honorary fund. Benefit members are to be those whose weekly earnings do not exceed 20s., or who, if domestic servants, do not receive more than £8 a year. A benefit member is entitled to select any medical man who has attached himself to the club, subject to the approval of the medical man, as shown by his signature to the form of application. The ratio for membership to be as follows: for a man or single woman, 5s. *per annum*, or 1s. 3d. *per quarter*; man and wife, 9s. *per annum*, or 2s. 3d. *per quarter*; each child under sixteen, 1s. *per annum*. Not more than five children in one family are to be paid for. Any benefit member, who has been a member of the club for six months, will be entitled to medical attendance for his wife during her confinement for 10s. Any man, who is a member of a benefit society which provides him with medical attendance, will be allowed a reduction of 4s. *per annum*. The medical men attached to the club will be remunerated to the full extent of the fees paid by the patients, as stated; but for confinements a fee of 15s. would be paid for any distance under one mile, and £1 for distances beyond a mile. The expenses of management will be paid out of the "honorary fund". It is hoped that, with a little assistance from honorary members, the club will be self-supporting. Among other objects aimed at is the lessening of pauperism by preventing the first step towards it, *viz.*, application for medical relief. It is proposed to appoint gentlemen as stewards in the various parishes of the county, who may act as local centres, and organise branches of the club within their districts. At the same meeting, a strong opinion was expressed that provident dispensaries ought to be established in all towns, and their success in Northampton, Birmingham, Manchester, and other towns, was quoted as an encouragement and example. Another public meeting in support of the club will be held shortly at Bury St. Edmunds.

SCOTLAND.

THE mortality returns for the burgh of Falkirk from August 1st to August 21st show a death-rate equivalent to an annual rate of only 8 per 1,000.

THE Glasgow University authorities have now received the donation of £5,000 voted by the town council three months since towards the completion of the Gilmore Hill buildings.

IN a recent case of prosecution under the Adulteration Act at Dundee, the public analyst stated that the butter had been examined by him and found to contain 70 per cent. of fat other than butter fat, and that it had a bad smell and a greenish tinge. A fine of three guineas, or sixty days' imprisonment in default, was inflicted.

UNWHOLESOME meat, to the value, if it had been good, of about £80, has been seized and destroyed at Partick, Glasgow, as being putrid and unfit for human food. The meat consisted principally of tongues, hams, and pickled herrings.

THE deaths registered in Edinburgh last week were 62, being equal to an annual death-rate of 15 per thousand. In the corresponding week of last year, the number of deaths and the rate were exactly the same; but this year there were only two deaths from zymotic diseases, one from diphtheria in the New Town and one from whooping-cough in the Old Town; last year, the zymotic deaths were three. This death-rate is much below the average of past years, and is highly satisfactory. The number of births was 131, of which five were illegitimate. In Leith, the death-rate for the same week was 13 per thousand.

AT a recent meeting of the Newton-Stewart Police Commission, a long discussion was held as to the sanitary state of the town and the present supply of water. It appears that at present typhoid fever is very prevalent in one of the streets of the town, caused, it is said, by the impure nature of the water. So far as sanitary matters are concerned, the Commission came to the conclusion that a special survey of the town should be undertaken by the Sanitary Committee, with such medical or other assistance as they may deem necessary. On the water question, it was ultimately remitted to the Water Committee to inspect and have any defects existing remedied as speedily as possible, to allay public feeling.

DEATH IN A GLASGOW POLICE-CELL.

A MAN who gave the name of Philip Park, and said he was thirty-five years of age, died in a cell at the Central Police Office, Glasgow, on Friday morning. About midnight, he had been found lying drunk in the street, and suffering from several contusions on the head, evidently caused by falls. His wounds having been dressed, he was placed in a cell, no serious consequences being apprehended; but he expired about five o'clock in the morning. His body was removed to the mortuary for identification.

A GLASGOW SCANDAL.

DURING last week, several of the officials of the Glasgow Maternity Hospital have been examined before the sheriff in connection with a scandal which has recently caused much talk in the city. The facts are stated to be as follows. Two months ago, Flora McLean, a woman who had given birth to an illegitimate child in the institution, informed the police that her baby had been starved to death by the officials, and that the dead body had been dissected contrary to her wishes. The Procurator-Fiscal, to whom the matter was reported, made a searching investigation. On the result of this inquiry being submitted to the Crown Counsel in Edinburgh, the examination of the matron and two of the nurses was thought desirable; and, this having been done, they were committed for trial on a charge of culpable homicide, but were admitted to bail. On the following day, the 22nd ultimo, the acting house-surgeon, Mr. James Stevenson, was apprehended and underwent likewise the customary examination before the sheriff. It is stated that, in addition to the charge of culpable homicide or culpable neglect of duty which is laid against him, as also against the matron and nurses committed for trial the previous day, he is accused of a breach of the Anatomy Act in proceeding with dissection without the necessary certificate. On the conclusion of the examination, the sheriff, who had perused the evidence taken by the Procurator-Fiscal and submitted to the Crown Counsel, Edinburgh, ordered his committal for trial, but he was subsequently liberated on a heavy bail.

IRELAND.

SMALL-POX has almost disappeared from Dublin, but one death from that disease having taken place during the past seven weeks.

CRIPPLES' HOME, BRAY.

A SALE of work was held this week in the spacious wing which has lately been added to this institution. The object for which the sale was specially held was for the purpose of raising a fund for the furnishing of the new building, which will accommodate twenty additional inmates. We trust that so deserving a charity may obtain the requisite funds for a purpose so desirable.

THE SANITARY STAFF OF DUBLIN.

A MATTER of vital importance to the citizens of Dublin was brought before the Corporation of Dublin last Monday. A notice of motion was submitted for consideration, to the effect that the present sanitary staff should be discontinued and replaced by pensioners, with a saving of some £500 a year. The present staff, it appears, consists of two inspectors of police, four sergeants, four acting sergeants, and five constables, with a total cost of £1,461 yearly. This sum, considering the duties required in a city like Dublin, notorious for its unhealthy dwellings, seems extremely moderate; and we are gratified to find that the motion was negated by a majority of twenty votes. To remove the present sanitary staff, men trained in the duties devolving upon them, for inexperienced men, would be indefensible. The arduous and important duties connected with the inspection of tenement-houses, slaughter-houses, bakeries, the reporting of cases of infection, detection of diseased food, removal of fever patients, the examination of dairy yards, manure depôts, etc., are so evident, and have been so well conducted heretofore, that it would have been a grave mistake to adopt the suggested change for the sake of a slight saving in the expenditure.

NORTH DUBLIN UNION: APPOINTMENT OF A MEDICAL OFFICER.

THE election for the vacancy in this union caused by the resignation of Mr. Kirkpatrick took place on the 22nd ult. There were a large number of candidates; but the contest, which was a remarkably close one, virtually lay between Mr. Kenny and Mr. Stoker, the latter being defeated by a single vote. It is stated that the legality of the election will be contested by Mr. Stoker, who, it is rumoured, intends to appeal against the appointment of Mr. Kenny, on the ground that one of the guardians who voted for the latter gentleman was not qualified, and, therefore, the vote being illegal, a tie necessarily occurred, requiring a fresh election. The emoluments of the post amount to £150 *per annum*.

MALLOW SPA.

A REPORT by Messrs. Plunkett and Studdert on this spa has been lately published in the *Proceedings* of the Royal Irish Academy, an institution which possesses an annual public grant to promote scientific research. These gentlemen, it may be remembered, made an analysis of the Lisdoonvarna spas in 1874, with a result of detecting lithia in the principal sulphur-well of that place. The temperature of the Mallow water is about twelve degrees of Fahrenheit over that of the surrounding air. It contains a large quantity of carbonic acid gas, the solid constituents comprising proportions of iron, soda, magnesia, and lime. These waters had a very high reputation some years ago, but have for some time been neglected. There is much better accommodation than formerly as regards hotels and lodgings, and, in all probability, the celebrated warm wells of the county Cork will again regain the favour of the profession and the public.

BELFAST GENERAL HOSPITAL.

THE usual quarterly meeting of the General Committee of this hospital was held last Monday, the 27th ult. During the quarter ending July 31st, 456 cases were treated as intern patients, 272 being surgical and 184 medical, and 69 operations were performed. In the extern department, 2,459 cases were attended to, occasioning 873 minor operations. In accordance with the rule regulating the term of office of the medical staff, a vacancy took place for a surgeon and also for a physician to the institution. Dr. Cuming was re-elected as physician,

and Mr. James Moore, not offering himself to be re-elected as surgeon, was replaced by Mr. Fagan. Mr. Moore, who had attended the hospital for the past twenty-six years, was appointed a consulting-surgeon, and a resolution was unanimously adopted, thanking him for his long and valuable services. The Convalescent Home in connection with the hospital has been completed; but funds to the amount of £1,000 are required to furnish it, so that patients from the hospital may obtain the benefit of pure air, so greatly needed for their perfect restoration to health. Of this sum, half has been promised by Lady Johnson, and it is probable that, in a very short time, the remaining portion will be obtained.

THE WAR AMBULANCES AND THE TURKISH SICK AND WOUNDED.

A CORRESPONDENT of the *Times* writes:—I notice that Mr. Gibson Bowles, in the *Times* of the 8th of July, states that Ahmed Vefyk Pasha has reported to him that ambulances have been purchased with money sent by the Stafford House Committee and despatched to Asia Minor. I can assure the members of that body, who have so liberally sacrificed time and money in the good cause of relieving the sufferings of the sick and wounded of the Turkish army, that up to this day not one single ambulance or one single bale of medical comforts has reached Mukhtar Pasha's head-quarters. I have this moment returned from the hospital, where I have conversed with the only two qualified doctors in this camp, and they have not even heard of such help having been despatched from Constantinople. It is true that two English doctors, Messrs. Casson and Featherstonhaugh, are at Erzeroum, where, aided by our Consul, Mr. Zohrab, his son, a boy of sixteen, and the American missionaries, they are working nobly among the wounded, who have been neglected in the most cruel manner. The British public should know the treatment that these English doctors received in Constantinople, where Ahmed Vefyk Pasha refused them any assistance or money, and where the English residents had to make a subscription in order that these gentlemen should have funds in hand to enable them to commence their labours on arrival at Erzeroum. I have learnt from the highest authority that the most urgent representations were made to the Stafford House Committee by gentlemen whose position and past careers place them beyond suspicion, as well as firm friends of the Turks, begging that in no case might distributions of money be left to any Ottoman officials. These representations have been steadily disregarded; and the result now is that on this 3rd day of August there is an army of thirty-five thousand men without a litter, without one single ambulance wagon, without one case of surgical instruments, and, neither here nor at Kars, nor at Erzeroum, has a shilling of the money so nobly subscribed by the English public been received. Would that I had the pen of Dr. Russell to describe the harrowing scenes I have witnessed, and the still more terrible stories I have heard of wounded men left in hospital for their wounds to mortify, rather than Turkish bigotry and Turkish fanaticism should so far relent as to permit amputation; men with undressed wounds left to find their way to the nearest hospital, forty miles from the scene of battle; maimed soldiers, unable to walk, crawling on hands and knees to the nearest well to slake their burning thirst and then to die. The only gleam of sunshine to relieve this ghastly picture is the patient endurance, the uncomplaining fortitude, the noble heroism with which the poor sufferers have borne their terrible agonies. It was heartrending to pass by group after group of wounded, and to feel how utterly powerless I was to help. I have written and telegraphed strongly on this subject, and have not hesitated to blame the administration, who are alone at fault; and for this reason my letters have been detained and my telegrams suppressed. Is it to be wondered at that a man, with one drop of human kindness in his breast, could pass through the scenes I have feebly attempted to describe, and not boil over with indignation at the conduct of a Government which treats its soldiers worse than it does its dumb cattle—fails to clothe them, fails to pay them, and then, when sick and wounded, leaves them utterly uncared for?

THE HERTFORD BRITISH HOSPITAL IN PARIS.

WE have received from our Paris correspondent the following account of the laying the foundation-stone, by Sir R. Wallace, of the new British Hospital in Paris.

I have more than once referred to the benevolent acts of Sir Richard Wallace in Paris, and the mention of the drinking-fountains alone with which his name is connected, and which now abound in this city, would

be sufficient to immortalise his memory. But these drinking-fountains constitute only a tithe of his benevolence. Who is there among us who does not remember the services rendered by him to the besieged residents of this city, without distinction of nationality, during the late Franco-Prussian war and the terrible reign of the Commune which soon followed? Then, as a crowning act of his unlimited charities, Sir Richard Wallace founded the Hertford British Hospital to meet a growing want on behalf of the British sick poor of Paris. The present hospital is a private house which was hired for the occasion; but it does not quite meet the requirements of an institution of the kind; and Sir Richard Wallace, to give, as it were, the seal of permanence to his benevolent intentions, has just laid the foundation-stone of a more costly building which is being erected in the Rue de Villiers, just outside the fortifications. The ceremony took place on Friday, August 24th; but it was of a most private character, in compliment to the memory of the late Marquis of Hertford, of whose death the day was the anniversary. After an impressive extemporary prayer by the Rev. Mr. Spaight, assistant-minister of the English Church in the Rue Marboeuf, Sir Richard deposited within the prepared receptacle in the stone an inscribed brass plate and a series of English and French coins of the current year. He next laid the mortar, suitably used the trowel and mallet, and then handed them to Lady Wallace, who similarly used the tools. Sir Richard then invited Lady Cormack, and afterwards the members of the hospital staff, to apply the mallet to the stone as a token of participation in the ceremony.

Sir Richard Wallace, in a few impressive sentences, then addressed the assembly, and, in referring to the origin of the hospital, said:—"My idea of creating the Hertford British Hospital has been to give to the British sick poor of this city a comfortable home to which they can come to have their maladies cured or alleviated under the care of physicians and nurses of their own country, and where provision is made for affording to all the consolations of religion, each patient having the free exercise of his own faith, with access to his own minister." As there has evidently been some abuse of the benevolent intentions of the founder of the hospital, Sir Richard took occasion to add:—"We do not offer an asylum to those who are permanently infirm from age or other causes; and, except under very special circumstances, we do not receive persons affected with incurable chronic diseases. Were we to do so, all our beds would very soon be permanently occupied, to the exclusion of the class of patients for whom our hospital is intended." Sir Richard then concluded by expressing his indebtedness to Sir John Rose Cormack and the Honourable Alan Herbert, the physicians to the hospital, Miss Smith, the lady superintendent, and the entire staff, for the cordial assistance he had received from them in carrying out his views and wishes in respect to this institution. The ceremony was then concluded by a very appropriate response from Sir John Rose Cormack, who did not omit, in his turn, to state how ably he was seconded in carrying out the duties of his office by his colleague Dr. Herbert, by the resident clinical assistant, Dr. Greenway, and by Miss Smith, the lady superintendent. The proceedings terminated by Sir Richard handing a sum of money to the architect for distribution among the workmen. As intended, the ceremony, in consideration of the solemnity of the anniversary it marked, was conducted with the least possible demonstration; but, nevertheless, the display of the English and French flags on the rising walls drew a crowd outside the enclosure where the invited company were assembled.

HOSPITAL AND DISPENSARY MANAGEMENT.

PROVIDENT DISPENSARIES.

THE following resolution was adopted at a meeting of the delegates of the Hospital Saturday Fund, held at the Royal Free Hospital on August 25th. "That the attention of Committees of Provident Dispensaries, and those who are interested in their maintenance and the establishment of additional ones, be called to the suggestion which is made in last year's 'Hospital Saturday Distribution Report', viz.: 'That the Metropolitan Provident Dispensaries shall become affiliated, so that members of Provident Dispensaries removing from one district to another shall be able to immediately avail themselves of all the advantages afforded by the Provident Dispensaries of their new district, without fine or entrance fee, and that this boon, and the extension of the Provident Dispensary System, will be best promoted by the formation of a Central Board, to consist of representatives from each Provident Dispensary, whose functions would be to frame from time to time such code of rules as may be deemed necessary, and to maintain such a general supervision as would insure uniformity of action on the part of each Provident Dispensary.'

ASSOCIATION INTELLIGENCE.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting of this Branch will be held at Stockton, on Tuesday, September 25th.

Gentlemen desirous of reading papers or making other communications, are requested to give notice to the Secretary.

G. H. PHILIPSON, M.D., *Honorary Secretary*,
Newcastle-upon-Tyne, August 20th, 1877.

REPORTS OF SOCIETIES.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, JUNE 6TH, 1877.

H. D. LITTLEJOHN, M.D., Vice-President, in the Chair.

Wound of the Axilla.—Mr. BELL showed the lad whose case he had formerly related to the Society (BRITISH MEDICAL JOURNAL, June 23rd, 1877), where a large piece of paling, nine inches long, had been driven into the armpit. It was interesting to note how much the cicatrix had diminished in size. The result was a very good instance of what might be done by careful drainage, to which even more than to antiseptics the good results might be attributed. The risky part in treating the case was pulling out the piece of paling, as he did not know how the subclavian vessels might be implicated. There was no interference with the movements of the arm. The shoulder, however, was a little cocked up.

Sphygmographic Tracings in Chlorosis.—Dr. G. W. BALFOUR showed three sphygmographic tracings taken from the radial, left auricle, and right external jugular of a chlorotic patient. Anæmic murmurs, according to Hughes, were generated in the pulmonary area; while Parrot placed them in the tricuspid area, and Naunyn to the left of the pulmonary area. This indicated slight dilatation of the heart generally; but Gowers had disputed this in his last work. The interest of the tracings was, that the pulsation to the left of the pulmonary area was shown to be not arterial, but auricular; and their importance lay in the mode in which they connected the simple and curable malady, chlorosis, with the serious one of mitral regurgitation. It was to the ingenuity and perseverance of his resident physician, Dr. G. A. Gibson, that he was indebted for the tracings; and he hoped that there would soon be a means by which they could be taken simultaneously.

Fatty Embolon of the Pulmonary Artery.—Mr. D. J. HAMILTON showed three microscopical specimens of fatty embolon of the pulmonary artery occurring in a lad aged 14. It was a condition which sometimes occurred in simple fractures of bone where the medullary cavity was opened, and thus oil-globules carried into the circulation. The patient had rupture of the liver, which was very fatty, and died with comatose symptoms four or five hours after the accident. On examining the lungs, he found the pulmonary artery plugged with oil. Cases with the brain and lung-vessels similarly plugged had also been recorded by Wagner, Zenker, Czerny, and Busch, such an occurrence accounting most probably for deaths hitherto set down as due to shock. The sections shown had been stained with perosmic acid, which darkened the oil blocking the pulmonary branches.

Pulmonary Tubercle.—Mr. D. J. HAMILTON read a paper on tubercle in the human lung. From the time of Laennec till a few years ago, there had been great confusion about tubercle. As much of this confusion had arisen from an inaccurate use of terms, recent observers had tried to define what a "tubercle" was. It would be his object to show that a tubercle really had a definite structure. There was no naked-eye characteristic of tubercle, and, therefore, no distinction could be made between tubercular and tuberculoid structure by the naked eye. In this country, tubercle was known as a lymphoid or lymphadenoid structure. If so, it was inflammatory. The first really good definition of tubercle was by Wagner. To the naked eye, true tubercles were about the size of a pin's head, elevated, rounded, not confluent, with no definite distribution and seldom any caseation, as they were supplied with blood-vessels. Each tubercle, on section, was found to be made up of several giant-cell systems. The structure of a giant-cell system was as follows. A large giant-cell was a rounded piece of protoplasm with from ten to one hundred nuclei, a vacuole, and many anastomosing processes, with cells in their meshes, of an epithelial nature, or leucocytes. Surrounding this there

was a delicate band of fibrous tissue with leucocytes. In children, the tubercle was developed near the branches of the pulmonary artery, which might give it small twigs. Mr. Hamilton stated that miliary tubercle was, he believed, as common in the adult as in children. As no distinction could be made in the early stages between catarrhal pneumonia and tubercle, the term miliary tubercle was accordingly only a naked-eye one. In their development, catarrhal pneumonia and tubercle were alike. In both, there was a development of the epithelioid cells lining the alveolus. Thus far they were identical. The cells, however, in tubercle organised, while those of catarrhal pneumonia caseated. In the former case, one or more of the epithelial cells developed into a giant-cell with processes entangling the other ones. Then the concentric band of fibrous tissue appeared, and in this way a "tubercle" was formed. Thus, just as epithelial cells were now admitted to be the source of cancers, so epithelioid cells would probably soon be regarded as the source of "tubercle". Tubercle might be secondary, and was, therefore, found in chronic catarrhal pneumonia, in fibroid phthisis, around dilated bronchi, in pleurisy, around cavities, and so on. These secondary tubercles were developed from the lymphatics of the interstitial tissue by the irritation of caseous material. The same views held for other organs. Phthisis of the kidney and testis were catarrhal.—Dr. WYLLIE said that Mr. Hamilton had alluded to the many changes in the use of the term tubercle. Long ago, any form of disease, if nodular, was considered tubercular. Laennec then limited it to those forms which were small, as in an ordinary phthisis. Virchow and his followers examined these, and, finding many of them inflammatory, limited the term to those not so. The next step was the investigation of tubercle artificially produced. Villemin, Wilson Fox, Burdon Sanderson, Cohnheim, and others, showed that the lymphatics were the parts involved. This accordingly seemed to settle the lymphadenomatous nature of tubercle. The last series of observations was by Wagner, Schuppel, Buhl, Klein, etc., showing that tubercle was identical with catarrhal pneumonia. Mr. Hamilton had said that the cells in tubercle were larger and more actively proliferating than in tubercle. This, however, was difficult to settle, and, therefore, the question came to be, Is tubercle a catarrhal pneumonia? Probably true tubercle was at first a mere catarrhal pneumonia in the vesicles of the lung, forming giant-cells and caseating. Mr. Hamilton had said that tubercle of the lung did not undergo caseation. He had had no opportunities during the last year or two of investigating the subject; but he thought that Mr. Hamilton might be correct in saying that it did not occur in the lung. In a recent paper in Virchow's *Archiv*, it had been shown that, in the testis, true tubercle did caseate. He himself believed that tubercles were really due to catarrhal pneumonia; and indeed, in children, Mr. Hamilton had said that the so-called miliary tubercles were really catarrhal pneumonia. From what had been said, it would be seen that he did not take the same view as Mr. Hamilton; but he thought that a great step had been made in the recognition of giant-cells in tubercle. He congratulated Mr. Hamilton on his able paper.—Dr. W. T. GAIRDNER agreed with the previous speakers as to the ability of Mr. Hamilton's paper. All of them, in their remarks, had gone back to Virchow. The time, however, at which he would begin was that of Lebeouf, when nothing was tubercular that did not contain tubercle-corporcules. Thus all of them for many a year went in pursuit of these little angular bodies. Since that time, there had been many revolutions, and now they were getting definite views. Nothing hitherto had been so satisfactory as the views of Mr. Hamilton and Dr. Wyllie, and they probably ought to be regarded as complementary. But how to reconcile the new views with the old history of a disease so destructive in its tendencies; how to connect the history as given by Louis with the modern views, was a much more difficult task, which he would not attempt. The views advanced horrified him when they showed that cases apparently of tuberculosis were not that at all. All, however, reaped great advantage from free opinion in such cases; and he hoped that all would come right in the end.—Mr. HAMILTON replied that, in regard to Dr. Wyllie's remarks, he had, in his paper, said that the corporcules formed at first by proliferation were the same as those in catarrhal pneumonia. He knew, however, that it was very difficult, indeed impossible, in the first stage, to separate tubercle from catarrhal pneumonia. Very soon, however, the differentiation took place, because in catarrhal pneumonia there was caseation, but in tubercle organisation, and a distinct tubercular structure in many or all cases. The appearances were so remarkable that students could see the difference. In the third stage, there might be caseation in tubercle of the lung, but it was rare, limited, and after the tubercle had been produced. It should be kept in mind that tubercle was by no means a non-vascular structure.

Mercury in Syphilis.—Dr. JOHN DUNCAN read a paper on the use

of mercury in syphilis. Many practitioners had great faith in mercury as beneficial in syphilis. Some used it in faith; others framed hypotheses on which they based its use. It should be remembered that the usual duration of syphilis was two years. It might, however, last a lifetime; and cures as well as relapses might occur under any treatment. It was still undecided whether mercury shortened the duration of syphilis. He believed it did not shorten the secondary symptoms. Thus far his remarks had been negative. It might, therefore, be asked why it held ground as a remedy. The answer was, that it did so because it caused the syphilitic manifestations to disappear. The popular idea in the profession was, that mercury should be given in secondary symptoms, iodide of potassium in tertiary. Such an idea was based on fact and theory. He held that syphilis became a form of depraved nutrition; that mercury was more potent than iodide of potassium in some tertiary skin-diseases, and was our main resource in secondary symptoms. In some cases, *e.g.*, gummata, progress was slower under mercury than under mercury and iodide of potassium. In administering mercury, the following points should be kept in mind:—1. The character of the poison; 2. The subject of the disease, *e.g.*, if gouty, strumous, etc.; 3. External circumstances. Mercury should, therefore, be combined with gouty remedies, if needed, and so on. Then, when local circumstances alone kept up the disease, only local remedies should be used. Mercury might do harm even when cautiously given; it did not shorten the duration of syphilis nor prevent relapses; it should be discontinued if doing no good, and no case should be spared of unless mercury had been given.

Case of Venereal Infection with two different Sores.—Dr. A. G. MILLER read the case of A. B., who consulted him with a venereal sore on the dorsum of the penis. It had appeared three days after infection, and, as it was spreading, nitric acid was applied. On the fourth week after his connection, an indurated sore appeared at the frænum. There had been only one connection; two sores had resulted on different parts of the penis, varying in character. Thus the second was indurated and caused gland-induration; was painless and local. The first had no induration, caused no gland-induration, and was painful. Such a case, he believed, bore out the dual theory.—Dr. LITTLEJOHN asked if there had been no second infection.—Dr. A. G. MILLER said that he had only the patient's word for that, that there had been only one connection.—Mr. BELL was sorry that Dr. Duncan's paper had been read before Dr. Miller's, because in the former they had something definite to criticise, whereas in Dr. Miller's they entered on a vast sea. One point in which he was interested was the state of the blood, whether there was anæmia or not. Dr. Duncan was probably aware of the interesting researches of Keyes, Von Buren's assistant, by means of Malassez's apparatus. Keyes had proved that, in secondary syphilis with anæmia, mercury, in small tonic doses, had a good effect, as it increased the number of red blood-corpuscles in relation to the white ones. And in such cases the patient improved. As to his own practice, he began with an aversion to mercury. He now, however, used it for symptoms, and found it good in anæmic cases. He could corroborate Dr. Duncan's remark that, in tertiary syphilis, iodide of potassium often did no good until combined with mercury, and generous diet with careful watching added. One curious factor in syphilitic infection was the nature of the poison in the woman. He could give many curious instances showing that the same woman might give, under similar circumstances, a more virulent attack of syphilis to a foreigner than to one of her own race. Thus naval officers knew that they got worse syphilis in Lisbon than in London or Glasgow.—Dr. CADELL said that Dr. Duncan's average of two years was, he believed, a correct estimate. As to the treatment of syphilis by mercury, he had no experience. He had never yet administered it at all, as he was quite satisfied with a non-mercurial treatment. One weak point in the administration of mercury was, that it was not given where the eruption was of a low pustular type. It would be expected that, in the worst cases, mercury would do most good. The severity of the disease he believed to depend on the state of the constitution; *i.e.*, in a low constitution, there was a bad attack.—Dr. DUNCAN, in reply, referred to Dr. Cadell's remarks on the influence of mercury on pustular syphilides. In his paper, he said that, at one time, it was deemed inadvisable to give mercury in such. In no case, however, did mercury give better results than when combined with tonics and iodide of potassium occasionally.

DONATIONS.—The sum of £265:2:2 has been handed to the Treasurer of the Southern Hospital, Manchester, as the result of a cricket match played by the United South of England Eleven with a local club.—The Belfast Royal Hospital has recently received £52:10 from Mr. Gilbert Vance, £50 from Mr. Edward Hughes, £57:10 from Mr. William McCormick, and £57:10 from Mr. Samuel Weir.

SPECIAL CORRESPONDENCE.

TREBIZONDE.

[FROM OUR OWN CORRESPONDENT.]

THE English Hospital is now (August 1st) gradually assuming an aspect of something approaching cleanliness and comfort. Many of the slighter cases have been discharged cured; and such is the satisfaction expressed by the patients, that the authorities are beginning to see that they must do a little better than hitherto they have done in the other hospitals. An inspector of hospitals, rather more intelligent than any other Turkish medical officer I have met with, paid a visit to our establishment to-day, and said that, at the larger hospital, there were still so many grave cases that he begged our attendance there, as soon as matters can be arranged, to consult with the officials there as to whether something more cannot be done for the poor wretches than has been done. An Austrian physician returned from Kars yesterday, and reported himself to the British Consul here, telling him that he had come away utterly disgusted with the whole Turkish system. He had received no pay for many months, and could hardly get rations enough to keep body and soul together. He says that there have been many most severe cases treated in the Kars hospitals; and that, contrary to the usual custom, amputations have been performed in considerable numbers; but that, owing to the utter absence of medicines and medical comforts, the cases all turn out badly. The use of carbolic acid has been positively forbidden by the principal medical officer both at Kars and here, the holder of that responsible position at the former place remarking that they had to do without it before, and they must do without it now. I have here a good supply belonging to the Stafford House Committee; but I cannot get them to use it, in spite of the very satisfactory results from its employment in our little hospital; results so satisfactory that I must confess it will take much to persuade me to employ any other dressing to the great majority of the cases which may come under my care. I drew the attention of Ismail Bey to the altered condition of the wounds under its employment; but all I could get out of him was a polite bow, and the remark that it required surgeons such as ourselves in addition to carbolic acid to produce results such as he observed. Their usual dressing to the wounds indiscriminately is a lump of "charpie" (which my present experience tells me is the filthiest and most unsatisfactory dressing ever invented) without oiled silk or gutta-percha, or other impermeable material, to keep the wound soft and moist: a condition which here, at any rate, is absolutely essential. Occasionally this charpie is just wetted with a lotion composed of decoction of cinchona and camphor-water; but the cinchona seems generally absent when ordered, and so camphor-water alone is used. I have utterly failed to discover any good results from the employment of this lotion either in a complete or incomplete form. Many of the poor fellows who at first indignantly refused their consent to the amputation of their limbs now earnestly beg for it; but, in too many cases, it would be hopeless to look forward to subsequent recovery, and, therefore, rather than bring discredit on operative interference, we are obliged to say "Too late".

I have just received a telegram that additional English surgeons are being sent out to join me here by the same generous nobleman to whom our mission is due. There will be soon work enough for all here, as we hear to-day that a very severe engagement took place at Kars yesterday, which had not terminated when the message was dispatched. This will soon fill our wards with wounded, and, in addition to this, another Russian army is reported to be at Olti, about fifty miles from here. As soon as these valuable reinforcements arrive I hope to be able to organise some sort of an ambulance expedition to the front. Sir Arnold Kemball writes to me that they are utterly without any ambulance machinery at head-quarters. What our friends of the "Red Crescent" are about at Constantinople I know not; I have not yet heard one word of their promised ambulance.

BEQUESTS.—The Bristol Royal Infirmary and the Bristol General Hospital will receive, under the will of the late Mr. James Powell of the Hotwells, bequests which will probably amount to from £12,000 to £15,000 each.—The late Mr. George Davies, Little Naston, Cheshire, has left to the Liverpool Royal Infirmary £100; to the Liverpool Southern Hospital, £200.

CORRESPONDENCE.

MEDICAL CORONERS.

SIR,—My attention was called yesterday to an article in the BRITISH MEDICAL JOURNAL of the 18th instant—"Medical Coroners acting as Medical Witnesses". In it, you refer to some parts of what is reported to have been said by the judge at the late assizes here, during the trial of a prisoner on a charge of murder. The case altogether was of an unprecedented kind, involving many questions of the line of duty. Your readers may, perhaps, be willing to receive this short explanation from me.

As there had not been any investigation by a justice of the peace, nor any prosecution by the police, it appeared to be necessary—late on Saturday evening—that the solicitors acting on behalf of the family of the deceased should prepare a bill of indictment to be laid before the grand jury early on Monday morning. If there had been more time for the solicitors to collect full evidence of the crime charged, and to summon a sufficiency of witnesses, it would not have been thought necessary that I, who had acted as the coroner upon the preliminary inquiry, should be called as a witness. It can hardly be necessary for me to add that it was not by my own wish, nor with any good will of my own, that I was thus called forward in court as a witness.

While I was under examination, the judge, Mr. Baron Huddleston, without asking for any explanation, began his address to me by telling me that I could have called in one of the other coroners to hold the inquest. With due submission, I said I was not aware of it. The clerk of the peace for the county then informed the court that the coroner for the city could not do so. The judge then said that I could have appointed a deputy to hold the inquest. I said I did not know that a deputy could act, except in case of my illness or unavoidable absence. Afterwards the judge referred to a book handed to him by the clerk of the peace; and he then said that there was ground for the doubt I had of the power of a deputy to act in the case, and that I was entitled to the benefit of the doubt. There was no need for me to add that I had also a doubt whether I could appoint a deputy before I had done any act of acceptance of office; the inquest in question being the first act of such acceptance, testifying that I had undertaken the office to which I had been lately nominated.

The state of things which became public may be due to the defective state of the law regulating—or neglecting—the office of coroner. Whether it is creditable, is a question in which a coroner has no concern.

One lesson may be learned, and I commend it to those of our professional brethren who hold the office of coroner. It is: in a case where the inquest finds a verdict involving a criminal charge, not to commit the accused to prison for trial at the assizes, but to order his apprehension for the purpose of being taken before a justice of the peace, and to report the case at once to the Secretary of State, as is done in cases of accidents on railways.—I am, sir, your obedient servant,

E. L. HUSSEY.

Oxford, August 28th, 1877.

REDUCTION OF PARAPHIMOSIS.

SIR,—It was with regret that I read in the JOURNAL for August 18th, p. 233, the account of the death of a patient in the London Hospital from chloroform while he was undergoing an operation for the reduction of paraphimosis. The report says that "the ordinary modes of manipulation" were tried without success before he was admitted an in-patient. My experience of the ordinary modes of manipulation is, that they are unnecessarily painful and clumsy, and should be given up. I have reduced many bad cases of paraphimosis, some of which had been brought to the Salop Infirmary by surgeons for the purpose of having chloroform administered, because they had baffled the ordinary plan adopted. I published my method of reduction in the BRITISH MEDICAL JOURNAL for June 3rd, 1876. If that plan were always followed, I do not think chloroform would ever be required in such cases as the unhappy one before me. The plan is very simple. A piece of wet lint is made to envelope the glans penis and oedematous prepuce; you then wind elastic round it from before backwards, as the street-boy does his peg-top with string, as far as the constriction, but no farther. Wait a little, while the elastic is doing its work; then quickly draw it off and remove the lint—when, if the elastic have been evenly and tightly enough put on, the glans will be small enough for the foreskin to be drawn forward. If that be not so, reapply the

elastic as before. In bad cases, I prefer to apply the elastic lightly at first, to avoid unnecessary pain. After wrapping it more firmly the second time, if a second application have been necessary, the glans has then been so diminished in size as to allow the prepuce to be drawn forward without the least difficulty.—Yours faithfully,

ALFRED EDDOWES, M.D.

Market Drayton, August 21st, 1877.

THE CONTAGIOUS DISEASES ACTS.

SIR,—I beg you will afford space for the following correspondence between Dr. Birkbeck Nevins and myself. Dr. Nevins's letter of August 18th is added at his request; being anxious to see what he had stated at page 70 of his "Address" before transmitting this correspondence, some delay has arisen in my obtaining it from my London residence, to which it had been directed. In the "Address", Dr. Nevins has failed to convey the weight of the argument in favour of the reduction of secondary syphilis in the army since the introduction of the Contagious Diseases Acts; and your readers may judge for themselves whether his remarks then, or in his letters of 10th or 18th August, form a satisfactory reply to my complaints.

ROBERT LAWSON, Inspector-General of Hospitals.

Aberdeen, August 27th, 1877.

"20, Lansdowne Road, Notting Hill, W., August 7th, 1877.

"Dear Sir,—Mr. Fred. W. Lowndes of Liverpool has placed in my hands a copy of your remarks 'On the Government Statement as to the Influence of the Contagious Diseases Acts upon Venereal Diseases (Parliamentary Paper, No. 266, June 1875)', etc., dated November 1st, 1875. This paper, which Mr. Lowndes has informed me was sent to him by you, has written on it: 'With the author's compliments. Corrected by Inspector-General Lawson previous to publication.' As I have never corrected any article of yours, whether for publication or otherwise, I beg you will explain how my name came to be associated with the paper in question.—Yours truly,

"Dr. Birkbeck Nevins."

"ROBERT LAWSON.

"3, Abercromby Square, Liverpool, August 10th, 1877.

"Inspector-General Lawson—Dear Sir,—Absence from home at the Manchester meeting has delayed my reply to your letter of 7th. I do not remember the inscription to which you allude, but, if it is in my handwriting, I am responsible for it, and the circumstances of its being sent were the following, as far as I can remember. At a meeting of the Liverpool Medical Institution, on the subject of the Contagious Diseases Acts, Dr. Steele informed the meeting, on the authority of Mr. F. A. Lowndes, that all Dr. Nevins's most important statements had been completely refuted lately. I wrote to Mr. Lowndes to ask where this refutation could be seen, and by whom it had been made. His answer is now lying before me: 'I do not feel at liberty to answer your questions, nor to give you the information you ask.' I had mentioned my correspondence with you (June 14th, 1875, and October 15th, 1875) on the subject of my statistics; and, in sending him the paper you allude to, it is very likely that I might indicate that that was the subject I had been speaking of, by such a comment as you mention. Unguardedly general it appears to have been, but not unnaturally so, in writing to a man with whom I had been on friendly terms; and who never imagined, I am certain, any more than I did, that you were responsible for the paper. The manner in which I have spoken in public of your connection with my figures is at page viii, Post-script to the third edition of my 'Statement', which was published and has been in your possession some years, and at page 70 of the 'Address', of which I now forward you a copy and beg your acceptance.

"Yours truly, "J. BIRKBECK NEVINS."

"Aberdeen, Scotland, August 13th, 1877.

"Dear Sir,—Having left London on the 9th instant, your letter of 10th reached me in the country, in this neighbourhood, this morning only. I cannot agree with you that the statement complained of in my letter of 7th instant was merely 'unguardedly general'; on the contrary, it expressed, specifically, that I had corrected the paper previous to publication; and the obvious inference from it was that the conclusions in that paper were approved of by me, though you were aware I had strongly opposed them. Since writing you on the 7th, I have seen the *Medical Inquirer* of 16th July last, at page 91 of which you state, in your reply to Dr. De Chaumont: 'I have submitted all my statements relating to the army to Inspector-General Lawson's criticisms'; but, as nothing is said as to the nature of any remarks I have offered, readers generally would conclude these were in favour of your views, whereas they have been altogether opposed to the conclusion you have laboured so assiduously to promulgate, that the Contagious Diseases Act was a failure. To correct any such misapprehension of

my opinions, and set myself right with the profession at large, I deem it necessary to publish this correspondence.—Yours truly,

“Dr. Birkbeck Nevins, Liverpool.” “ROBERT LAWSON.

“3, Abercromby Square, Liverpool, August 18th, 1877.

“Inspector-General Lawson—Dear Sir,—I am sorry to find from your letter, received this morning, that my reply to your question was not satisfactory, and am sorry that you should think I have misrepresented your opinions to the profession by anything I have said. If you still think it necessary, for your own justification, to publish the correspondence, I must request that you will publish this letter along with it. In consequence of your criticisms at the Royal Medical and Chirurgical Society, I carefully revised all my figures relating to syphilis in the army, and altered them in accordance with the change of nomenclature which you then pointed out. In your subsequent letter, June 14th, 1875, you criticised my figures freely, and sent two tables of your own figures to show the difference between us. As the result of that correspondence, our figures agreed within a decimal. In your still later letter of October 15th, 1875, acknowledging a proof of my criticisms on Parliamentary Paper 266, now under discussion, you say: ‘In reply to your request to point out any statement that may appear to me erroneous, I beg to say that the Parliamentary Paper refers to the army alone, and does not include the navy, and in nowise justifies the inference,’ etc., which I had drawn relating to the navy. You then criticised my division of the period embraced in the Parliamentary Paper into four equal periods of three years each, instead of adopting the War Office division into three unequal periods; and, after other criticisms which did not call in question the accuracy of my figures, you concluded your letter by saying: ‘You are aware that we view the figures in the Army Report from different stand-points, and that our respective methods of treating them lead to very different conclusions,’ an observation which I have made very prominently in page 70 of the ‘Address,’ of which I forwarded you a copy, which has been published since my reply to Dr. De Chaumont. I have stated that I have submitted my statistics to the War Office, the Admiralty, and to Inspector-General Lawson for criticism. In consequence of your criticism, I have made corrections; but I have nowhere inferred that you, any more than the Admiralty, were responsible for the conclusions I have drawn from the statistics. On the contrary, I have stated that we differ *totò cœlo* in our interpretations of figures, upon which figures we are, nevertheless, agreed.—I remain, dear sir, yours truly,

“J. BIRKBECK NEVINS.”

CONTAGIUM VIVUM.

SIR,—I did not wish, in my previous letter, to occupy your valuable space with more than the one thought which Dr. Roberts’s interesting address suggested; but Dr. Downes’s letter, in reply, in to-day’s JOURNAL, necessitates a fuller exposition of my view as to the origin of pus.

I have frequently examined healthy pus under the microscope and found no bacteria. Pus, which the old writers used to call laudable—thick, creamy, yellow pus, devoid of smell—has no bacteria in it. Furthermore, there is no reason why such pus may not be kept quite pure in the same way as Tyndall keeps his animal and vegetable infusions pure. But this does not disprove the statement that pus is the product of particles, which have found their way into the system, acting upon all formative material—that is, lymph—as soon as it has lost its vitality from other causes, and transposing its constituents, uniting with some, and so converting it into pus.

Chemical affinities afford illustrations of similar action. To separate two elements of a compound and make one of them unite with a third, for which it has an affinity, it is sometimes necessary to introduce a fourth element, when immediately the required chemical action takes place, though the fourth factor itself undergoes no change. It is some such action as this which occurs in the human organism. Here, the withdrawal of vitality is the fourth factor, which sets free the constituents of lymph and lets one or other of them enter into new combinations with the third factor previously introduced, but hitherto inert, and thus pus is produced. The third factor is some of those particles of matter with which the air we breathe teems, and which are minute enough to be carried by the blood to every part of the system, and which we assume, therefore, to be always present in abundance, though too minute to be seen by the microscope. It is not necessary that the pus here spoken of show living forms to prove the truth of the doctrine, because the transposition which has been so far effected is only a first stage, and in the majority of cases the change goes no farther. Laudable pus and the pus which bathes the surface of a healing wound are of this character.

But there is another form of pus, such as we find in pyæmia, where the spore or germ is particulate and specific; and whilst here it is necessary also for the particle for which we have no name to first transpose the lymph-elements and convert them into pus; yet, immediately it has done so, this germ, if present, rapidly bursts into activity, and, living upon the pus, converts it into a teeming mass of bacteria.

There are two conditions necessary for the growth of low forms of life; first, that the animal or vegetable tissue must have lost its vitality as a whole, or the portion of tissue involved must have had its share of vitality previously withdrawn from it; secondly, that an external agent of some sort must be introduced into or impinge upon the organism before an independent existence will develop there. All recent scientific research tends to establish the truth of these two propositions.

I feel I have not entered sufficiently into the subject to do justice to it, or even perhaps to make myself clear, but regard for your space forbids me to say more.—Yours faithfully,

Liverpool, August 25th, 1877. ROBERT HAMILTON, F.R.C.S.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

REDDITCH.—Mr. Page begins his report by saying that, although he fully reported on the sewerage, drainage, and water-supply of the town a year ago, yet nothing had been done beyond frequent discussions; so that full middens, water in the cellars, damp subsoil, retention of slop-drainage about the houses, remain as before. The population was estimated at 8,149 in 1876. The births were 362 and the deaths 148 in number, so that the birth-rate was equal to 44.4, and the death-rate to 18.1, per 1,000 population. There were 47 deaths of infants under one year old, which were equal to 12.9 deaths in each 100 births. The deaths from zymotic diseases amounted to 3.0, from convulsions, etc., 2.1, and from phthisis 2.3, per 1,000 population. When discussing the death-rate, Mr. Page says that “the present death-rate of the district must be looked upon as unopposed in any adequate measure by what has been done”. Some very bad cases of indecent overcrowding are mentioned in the report; indeed, the evils arising from the want of proper accommodation for the poorer classes are most pressing, and should meet with immediate attention. The slaughter-houses are also continued in the town, so that altogether, we regret to say, the report is by no means complimentary to the Town Council of Redditch. The sanitary works appear to have been fairly carried out.

WATFORD URBAN SANITARY DISTRICT.—Population in 1871, 7,461; births 339, and deaths 163, in 1876; but in the whole parish there were 175 deaths. In the parish, the death-rate was 16.8; and in the district, after adding 1,800 for increase of the population, it was only 14.3 per 1,000 inhabitants. There were only five deaths from zymotic diseases, including four from scarlet fever. The water is stated to be one of the purest in England; but, being derived from the chalk, it is somewhat hard, and the supply is almost constant. The medical officer, Dr. Brett, says that he has paid one hundred and forty sanitary visits during the year, and has attended twice before the magistrates. The rainfall during the year was 29.81 inches, which is about 3½ inches more than the average of fourteen years.

LIVERPOOL.—The health of Liverpool is said by Dr. Taylor to have been satisfactory during 1876, “though much sanitary work has yet to be carried out”. The births were 20,426, being at the rate of 39.2 per 1,000; and the deaths 14,327, which afford a rate of 27.5; and the deaths of children under five years were 47.6 per cent. of the whole. The deaths from diarrhoea were less than in 1875, which Dr. Taylor considers satisfactory. There were 386 deaths from small-pox, and 398 from fever. The death-rate of the parish was, as usual, very much higher than that of the out-townships, having been 32.4 against 22.8 per 1,000. This enormous death-rate for the parish shows the necessity for putting into force the provisions of the Artisans’ Dwellings Act, but of which there is not a hint in the present report; indeed, the matter seems to have been dropped. There were 1,046 lodging-houses on the register; but those of the better class are not frequently visited, especially those provided only with single beds for each person; but frequent day-visits were paid to lodging-houses which are not registered. In addition to the registered lodging-houses, there

were 10,942 of sublet houses, making over 12,000 houses let to more than one family; and, as might have been expected, there were as many as 652 rooms in these houses that were indecently occupied. There is an interesting daily report of the mortality from diarrhoea, in conjunction with the meteorology, for the months of June to October inclusive. The sanitary work was actively carried out, as 3,461 houses and 55,178 articles of clothing were disinfected by the officers of the borough; 665 persons suffering from fever or small-pox were removed to the hospital; more than 2,000 visits paid to the bakehouses; an enormous quantity of unwholesome meat and fish seized; about 65,000 nuisances inspected, and nearly the whole abated; 106,281 houses examined without complaint, in which there were 28,256 cellar-dwellings, of which 11,032 were found empty, and 209 illegally occupied; and a large number of other nuisances abated.

ROCHDALE.—The estimated population in 1876 was 68,659; the number of births registered 2,432, and of deaths 1,527; so that the birth-rate was 35.4 and the death-rate 22.4 per 1,000 inhabitants. The mortality of infants under one year to total births was 16.6 per cent., which is high. Measles, scarlet fever, and diarrhoea were very prevalent, the latter causing very many of the infantile deaths. Small-pox also broke out in one of the courts, and could not be confined to the house in which it first appeared, as there is not any hospital for the reception of cases of infectious disease. The deaths from the chief zymotic diseases were 3.7, and from pneumonia and bronchitis 4.6, per 1,000 population. Dr. Wilson reported unfavourably on the condition of the dairy-farms and slaughter-houses, but favourably as regards the common lodging-houses.

SHEFFIELD.—The population in the middle of 1876 was estimated at 274,914. The number of births registered was 11,287, and of deaths 6,666; so that the birth-rate was 41.1 and the death-rate 24.2 per 1,000 inhabitants, the latter being 2.2 below the average. Dr. Griffiths hopes that this improvement will be permanent, as the proportion of deaths under one year to 1,000 births was 185 in 1872, against 176 in 1875 and 169 in 1876; and the death-rate from seven zymotic diseases was reduced from 7.0 to 4.8 per 1,000 living. The normal death-rate at all ages was 21.6, so that the mortality was considerably in excess, especially under five years of age, when it was 79.2 instead of 65.7 per 1,000 living. The deaths from scarlet fever and diarrhoea were very large in number. Dr. Griffiths points out the injury to health arising from living in newly built houses, and proposes that the certificate of an inspector of nuisances and medical officer of health should be requisite before they are occupied. The rainfall amounted to 38.66 inches, which was 8.13 above the average; and the mean temperature was 48.9 deg. Fahr., or 0.6 deg. in excess. The sanitary works were actively carried out.

SHREWSBURY.—Dr. Thursfield observes at the commencement of his report for 1876, that he has not hitherto confined his remarks to details of deaths, but has always pointed out the general and special conditions of the town that are likely to affect the public health. The population is estimated at 24,086; the density of population 4.8 to each house. The normal death-rate, calculated by the English Life-Table, is 22.1. The actual death-rate was only 20.9 in 1876; the average death-rate of the three preceding years being 20, and the birth-rate 29.1, per 1,000 inhabitants. Dr. Thursfield remarks that the death-rate cannot be expected to be much reduced below what it is at present, except by a reduction in the deaths of infants, which are above the average, as there were 164 deaths per 1,000 births during the first year of life. He discusses at some length the measures necessary for the prevention of epidemic diseases, referring especially to the frequency with which they are spread through schools, to the necessity for disinfection and isolation. The best methods of providing sewerage and a water-supply for towns are also noticed, as well as the injury to health accruing from the use of pump-water, not only in the production of fever, but also of calculous diseases.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

WALKER, H., L.F.P.S.G., appointed Medical Officer of Health for the Baildon Urban Sanitary District, *vice* T. Murgatroyd, M.R.C.S.Eng., whose appointment has expired.

POOR-LAW MEDICAL APPOINTMENTS.

HANNAH, Nathan, L.R.C.P.Ed., appointed Medical Officer and Public Vaccinator for the Ashton-in-Makerfield District, Wigan Union, *vice* Thomas Mathew, M.R.C.S.Eng., resigned.

MILITARY AND NAVAL MEDICAL SERVICES.

INDIAN MEDICAL SERVICE.—List of the candidates for Her Majesty's Indian Medical Service who were successful at the competitive examination, held at Burlington House, on August 13th, 1877. For nineteen appointments, twenty-eight candidates competed: twenty-six were reported qualified, and two retired from the examination.

Marks.		Marks.	
1. Thom, Alexander	2795	11. Bennett, Charles Henry	1720
2. Thomson, Samuel John	2268	12. Davidson, David Charles	1717
3. Brander, Edward Salisbury	2267	13. Jervis, Henry Bruce	1714
4. Manser, Robert	2160	14. Peacocke, H. C. Harding	1711
5. Campbell, Robert Neil	2035	15. Koyaji, Beranji Nassarvanji	1707
6. Emerson, George Augustus	2033	16. Thornhill, Wm. Henry	1706
7. Adey, Henry	2030	17. Sargent, Arthur Francis	1705
8. Chatterjee, Fakir Chundra	2020	18. Reporter, Maneckjee E.	1725
9. Tully, Edmund	1980	19. Robinson, Robert Henry	1711
10. Street, Alfred Wm. Fred.	1960		

OBITUARY.

JOHN NESS, F.R.C.S.

As mentioned in the *JOURNAL* of August 25th, Mr. Ness died suddenly of heart-disease, on August 18th, while on a visit at Plymouth to attend the meeting of the British Association. He had been engaged in active practice for more than fifty years. Mr. Ness's name was known throughout the whole of the north of Yorkshire. The universal esteem in which he was held was the result of a long life spent in the unwearied discharge of his professional duties.

His medical studies were prosecuted at St. Bartholomew's Hospital. He held the office of coroner for the North Riding for a period of thirty-five years. He was, until recently, surgeon to the second North Yorkshire Rifle Volunteers. He was an operative surgeon of considerable ability. A correspondent writing of him says, "He was, indeed, a fine honest character, full of warm and generous emotions. His great energy and quickness, mellowed by experience, made him a most valuable member of society. In the combat against disease and suffering, his conduct was marked by great intelligence, benevolence and devotion, which shone brightly through a natural brusqueness of manner."

The death of Mr. Ness leaves a gap in the ranks of the veterans of our profession. His funeral was attended by all the neighbouring gentry, including the Earl of Feversham, to whose household Mr. Ness had acted as surgeon for some years. The coffin was preceded by a firing party of the volunteers who, at the conclusion of the burial service, fired the usual three volleys over the grave of their deceased officer. Mr. Ness was seventy-three years of age; he leaves a widow but no family.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following are lists of the candidates who passed the recent First B.Sc. and Preliminary Scientific (M.B.) Examinations, conjointly. Examinations for Honours.—Chemistry.

First Class.

Cross, Charles Frederick, First B.Sc. (Exhibition), King's and Owens Colleges.
Thomas, William Henry, First B.Sc. (disqualified by age for the Exhibition), Royal College of Chemistry } equal

Second Class.

Lewers, Arthur Hamilton N., Prel. Sci., University College
Barron, Alexander, Prel. Sci., Owens College

Third Class.

Cassal, Charles Edward, Prel. Sci., University College
Bell, Herbert Irving, First B.Sc., private study
Marriott, Hyde, First B.Sc. and Prel. Sci., Owens College } equal
Pearce, Herbert, First B.Sc., University College
Stoddart, Frederick Wallis, First B.Sc. and Prel. Sci., University College, Bristol

Experimental Physics.

First Class.

Larmor, Joseph, First B.Sc. (Arnott Exhibition and Medal), St. John's College, Cambridge
Jackson, Moses John, First B.Sc. (Arnott Medal), University College

Second Class.

Harrison, Hugh Erat, First B.Sc., University College } equal
Pearce, Herbert, First B.Sc., University College

Third Class.

Adeney, Edwin Leonard, Prel. Sci., Guy's Hospital
Currie, Oswald James, Prel. Sci., Guy's Hospital

Botany.

First Class
Bose, Pramatha Nath, First B.Sc. and Prel. Sci., University College

Second Class.
Horrocks, William Henry, Prel. Sci., Owens College
Edmonds, Henry, First B.Sc., private study
Jones, Robert, Prel. Sci., St. Bartholomew's Hospital
Hoole, Henry, Prel. Sci., Charing Cross Hospital
Pearson, George Henry Spencer, First B.Sc., private study } equa

Third Class
Hill, William Havelock, First B.Sc. and Prel. Sci., University College
Rygate, David John, Prel. Sci., London Hospital

Zoology.

First Class
Hickson, Sydney John, First B.Sc. and Prel. Sci. (Exhibition), University College
Martin, Sidney Harris Cox, First B.Sc. and Prel. Sci., University College

Second Class.
Day, Donald Douglas, Prel. Sci., St. Bartholomew's Hospital

Third Class.
Bose, Pramatha Nath, First B.Sc. and Prel. Sci., University College
Edmonds, Henry, First B.Sc., private study
Salmon, Arthur Guy, Prel. Sci., St. Bartholomew's Hospital
Pearson, George Henry Spencer, First B.Sc., private study

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 23rd, 1877.

Bothamley, Richard Broughton, Dorrington, Spalding
Gimblette, George Hart Desmond, Southsea
Le Fevre, George, Melbourne, Australia
Plumbe, Samuel Thomson, Maidenhead
Seth, Owen, 7, Powis Square, W.
Woods, John Francis, 11, Dunhill Row, E.C.

The following gentlemen also on the same day passed their primary professional examination.

Havens, Edward John, London Hospital
Higgs, Alfred, London Hospital
Lucas, Charles, Middlesex Hospital
Mellor, Thomas, Manchester Hospital
Roper, George Arthur, St. Thomas's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

- ALCESTER UNION—Medical Officer and Public Vaccinator for the Inkberrow District. Salary, £60 per annum, and fees. Applications on or before September 1st.
- AMERSHAM UNION—Medical Officer. Salary, £50 per annum, and fees. Applications on or before September 27th.
- BEDFORD GENERAL INFIRMARY—Resident Surgeon. Salary, £100 per annum, with board and lodging. Applications on or before September 27th.
- BIRMINGHAM AND MIDLAND FREE HOSPITAL FOR SICK CHILDREN—Resident Medical Officer. Salary, £80 per annum, with apartments, board, washing, and attendance. Applications on or before September 7th.
- CARLISLE DISPENSARY—Junior House-Surgeon. Salary, £90 per annum, with apartments, coals, gas, and attendance.
- CHORLTON UNION—Assistant to the Workhouse Medical Officer. Salary, £120 per annum, with residence and attendance. Applications on or before September 4th.
- DENTAL HOSPITAL OF LONDON—Medical Tutor and Demonstrator of Dental Operations. Salary, £100 per annum to each of the offices. Applications to be made on or before September 15th.
- HOLBEACH UNION—Medical Officer for the Sutton and Tydd Districts, and Public Vaccinator for the Sutton District. Applications on or before September 4th.
- HOSPITAL FOR SICK CHILDREN, Great Ormond Street—Junior House-Surgeon. Salary, £50 per annum, with board and residence. Applications on or before September 15th.
- LIVERPOOL DISPENSARIES—Two Assistant House-Surgeons. Salary, £108 per annum, with furnished apartments, coals, gas, and attendance. Applications on or before September 1st.
- NANTWICH UNION—Medical Officer. Salary, £36 per annum and fees. Applications on or before September 12th.
- NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road—Physician. Applications on or before September 14th.
- ST. MARY'S HOSPITAL MEDICAL SCHOOL—Pathologist and Medical Tutor. Salary, £100 per annum. Applications on or before September 24th.
- ST. MATTHEW, Bethnal Green—Resident Medical Officer. Salary, £200 per annum, with board and residence. Applications on or before September 27th.
- WESTERN GENERAL DISPENSARY—Hon. Physician and Hon. Surgeon. Applications on or before September 18th.

BIRTHS, MARRIAGES, AND DEATHS.

The classes for inserting announcements of Births, Marriages, and Deaths, in this column, which should be forwarded in stamps with the announcement.

MARRIAGE.

BUCK—WALKER.—On August 27th, at the Parish Church, Birstall, by the Rev. F. H. Richardson, *W. Elgar Buck, M.A., M.D.(Cantab.), Leicester, to Marian, elder daughter of W. H. Walker, Birstall Holt, Leicester.

DEATH.

NASON, Charles A., M.R.C.S. Eng., at Ashford, Kent, aged 35, on August 13th.

OPERATION DAYS AT THE HOSPITALS.

- MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
- TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
- WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
- THURSDAY... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
- FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
- SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS NOT ANSWERED, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

ANTIQUARIAN INQUIRIES.

Diacordium.—Mr. W. C. Hunt (Exeter) writes: "Diacordium comes from *διὰ*, by, or by means of, and *σκόρδιον*, water-germander. It was the old name for the electuarium *s. scordio*."—C. M. J. (Clifton) states that *Diacordium Hieronymi Fracastorii* is to be found at page 267 of the *Pharmacopœia Augustana* (Dordrecht, 1672); also an account of its virtues as a sudorific in syphilis in Van Swieten's *Commentary* (edition 1773, vol. xvii, p. 345).

Dysodonium.—Mr. Hunt says that the word comes from *δυσ*, badly, and *ὄσων*, I smell or stink. Hippocrates means by this word a fetid disease of the intestines. Galen meant by it a malagma or poultice, also an *aceton*, or ointment. It has been applied to stinking exhalations from the body, as bad breath, stinking feet. Sauvages forms a genus of diseases, which he names *Dysodia*.

Maiestatis Plumbi.—C. M. J. sends the following quotation from Salmon's *Sephasium* (probable date about 1685): "Take ceruse or other calx of lead, put upon it spirit of vinegar, and make a red mixture". . . . "precipitate with oleum tartari per deliquium, so will the magistry precipitate white." . . . "Or thus: dissolve plates of lead in aqua fortis, made with nitre alume, and precipitate with salt water filtered; wash, dulcify", etc.

NITRATE OF FURFURINE: ITS PREPARATION AND USE.

SIR,—In reply to "Inquirer," I will briefly state the various processes by which nitrate of furfurine is obtained from bran, flour, sawdust, and similar substances. One part of bran is distilled with two parts of a mixture of oil of vitriol and water in equal quantities. The acid distillate is saturated with caustic potash, and one-fourth of the liquid is to be distilled off. Oily drops of furfural, $C_5H_4O_2$, are thus obtained floating on the aqueous distillate. These drops are separated, and to one part five volumes of ammonia solution are added. After the lapse of a few days, the oil will be found to be converted into a crystalline mass of furfuramide, $C_{15}H_{12}N_4O_8$. The crystals are boiled with a solution of potash, and, on cooling, crude furfurine, $C_{15}H_{12}N_4O_8$, isomeric with furfuramide, separates in the form of soft silky needles. These may be purified by treatment with oxalic acid, animal charcoal and ammonia; and the pure furfurine thus obtained combines readily with dilute nitric acid, forming nitrate of furfurine, $C_{15}H_{12}N_4O_8$, NHO_3 , a substance readily crystallisable from alcohol.—Yours faithfully, August 1877.

PUBLIC ANALYST.

SIR,—In answer to "Inquirer" in your last issue, I copy from Duglison's *Dictionary of Medical Science* the following.

"*Furfurine, Furfurine*.—By the action of dilute sulphuric acid on corn, meal, or bran, an oil is obtained—furfural, or furfurol. By the action of ammonia on this, furfuramide or furfural amide results; and by action of dilute potassa on this, the alkaloid furfurin is obtained. This was found by Professor Simpson of Edinburgh to possess tonic, if not antiperiodic, properties."—I am, yours truly, August 1877. J. L. P.

MILITIA SURGEONS.

SIR,—Could any of your readers be good enough to give me any information relative to a Warrant, existing prior to 1875, granting a pension of six shillings a day to militia surgeons after thirty years' service? Yours truly, August 29th, 1877. A MEMBER.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

VACCINATION.

SIR, In reply to Dr. Hardwicke's letter respecting vaccination, I believe that observations made at the various small-pox hospitals have shown that a larger number of vaccine marks up to a certain extent are surer safeguards against variola, and that less than three or four marks give very little protection. The public inspectors of vaccination have consequently directed all public vaccinators that there should be at least half a square inch of pitting left to ensure protection. This extent may be produced by one or more vesicles on one arm or both, so that altogether the surface marked should be equal to half a square inch. It has been ascertained that more than this is not necessary; therefore, to speak of covering the leg with pock-marks is not reasonable argument. I have been public vaccinator for several years to a large district, and I always made half-a-dozen punctures more or less near enough together to produce the required extent; nor have I found such unpleasant results, except in very rare instances. In some children, whether few or many punctures are made, very serious inflammation will follow.—I am, etc.,

August 1877.

J. E. S., late Public Vaccinator.

P.S.—The best method is to scratch the surface with the scarificator to the required extent.

SIR,—I agree entirely with your correspondent in to-day's issue in condemning the practice of vaccinating the infant in four places as a severe and altogether unnecessary proceeding. The usual practice here is, I believe, to vaccinate in two places—not that two are absolutely necessary, but desirable in case of the failure of one, as occasionally happens. It has done so twice in my last three hundred vaccinations; but in these instances, one vesicle having taken well, I was perfectly satisfied, and another operation was avoided, as might not have been the case had I only vaccinated in one place. It appears to me utterly incomprehensible why four vesicles should be fixed upon as the proper number. It has been maintained by some that such a practice insures a greater protection against small-pox than any lesser number; but I have never seen anything to countenance such an idea, and it appears to me alike contrary to reason and to common sense. We might as well assume that a mild attack of small-pox confers a less amount of protection than a severe one; and if such be the case, it must necessarily hold good in regard to scarlet fever, measles, etc. It would then become of great moment to know, not merely whether an individual had laboured under any of these fevers, but what was the nature of the attack as to severity.—I am, sir, yours truly,

Edinburgh, August 25th, 1877.

R. BRUCE.

SIR,—I beg to offer a few remarks in answer to a letter from Dr. Hardwicke in your last week's issue.

I have vaccinated about eight thousand children in seven years. I find that the size of the vesicle and its consequent cicatrix, also the areola and inflammation, vary with the constitution of the infant. A vesicle in a delicate constitution will be as large as two in a vigorous one. You may vaccinate six or seven from one vaccinator, and no two of them may be alike as to size of vesicle, areola, and consequent cicatrix, though the operation may have been the same. Dr. Hardwicke must also bear in mind the fact that a great number of mothers are careless in the protection of the vesicles from friction by the wearing apparel. I have seen many cases carelessly treated during the process of cicatrisation, the scabs being entirely rubbed off, leaving sores. I caution each parent to be careful with the after process, as it greatly depends on that whether the vesicles run through their proper course. Public vaccinators have a better chance of successful vaccination than private practitioners, who have to store lymph in tubes or glasses for some time, as arm to arm vaccination is desirable. One of my children was carefully vaccinated by three vesicles; but they did not go through the usual course because the child was of a very delicate constitution.

I must state that the constitution of a patient determines, to some extent, in small-pox, what form it may take. A debilitated patient will suffer from small-pox in a severe form, while another would take it more or less modified. Dr. Hardwicke must not take one case. We always shall have different constitutions to deal with. In my experience, which is large, I am satisfied with my results of vaccination.—I am, Sir, yours truly,

A PUBLIC VACCINATOR.

A PRESCRIPTION OF THE LAST CENTURY.

SIR,—Many years ago, a friend gave me a manuscript, on the outside of which is legibly written "Physical directions for my Lord D—d and his family"; and, although there is nothing in what I now send particularly old as respects the present medical age or views, yet, having been written one hundred and twenty years ago, and one of the documents having in all probability been indited by Dr. Monro, *primus*, to whom the medical school of Edinburgh will ever stand indebted, they may interest some of my *confidés*, and, if not deemed unworthy by you of insertion in our JOURNAL, will be happy to repeat the dose next week, or after you have given us the much more important doings at Manchester.—Yours truly,

Navin, N.B., August 7th, 1877.

JOHN GRIGOR, M.D., etc.

1. The first is titled "Directions for the Right Hon. Lord D—d, by Dr. Clarke; May 3rd, 1756".

1. I approve very much of my lord's intended journey, as the most probable means to relieve him of his present complaints, and restore him to his wonted health. Therefore it is my opinion that no particular distance or time ought to be set to the journey, but that it should be continued, till there is a sensible change on his health, resting as seldom as possible.

2. Tho' it is to be presumed that his lordship will not need much medicine before he returns home, yet it will be necessary to continue the medicines he has been taking till he comes to his natural rest. Particularly he should take every night at bedtime a dose of the febrile pills, giving up the use of laudanum, which, though it gives a kind of confused rest, has many bad effects, as blunting the appetite, binding the belly, and really protracting the disease. A few days' journey will make it always less necessary. The vitriol drops may be taken twice a day, when the stomach is empty. The steel drops may be taken sometimes in place of them, having much the same effect, but more heating: ten drops in a glass of water is a sufficient dose. To these, I have only added castor drops, of which a teaspoonful may be taken any time of the day, especially when low and faintish. They are of the same nature with the fetid pills. Valerian tea may be taken at least once a day.

3. It may be necessary to take a dose of the laxative aloetick pills twice a week; they may be taken at bedtime, in place of the fetid pills, or, much rather, taken along with them. But when the stomach is much out of order, nothing will relieve it so much as a mustard vomit; and I should think it reasonable for his lordship to take one once a week while his complaints continue.

4. In the point of diet, his lordship should abstain from high-seasoned dishes, fat sauces, baked meats, roots and greens, and barley broth. He may eat any kind of solid meat, plain dressed, with some glasses of any kind of wine that is agreeable to him, not exceeding half a mutchkin at each meal, with toast and water for ordinary drink. Of all malt liquor, porter is most allowable, but seldom. Chewing tobacco certainly does harm, and therefore should be used very sparingly, if not totally abstained from.

N.B. The fetid pills, vitriol drops, steel drops, castor drops, and aloetick pills are those of the latest edition of the Edinburgh Dispensatory.

ii. Advice for the Right Hon. the Lord D—d, by Doctor Monro; June 9th, 1756.—A strict observance of proper diet, exercise and management of the other non-naturals, is absolutely necessary, as the cure principally depends on them, but they may be considerably by medicines. The diet ought to be of mild nourishing food: what is salt, high-seasoned, as likewise broths, greens, roots, fruits, are to be abstained from. Water with a little wine is the most proper drink at dinner and supper; after the former, two or three glasses of wine, and after the latter three or four may be taken. Tea or any other watery liquor is hurtful, and ought never to be drunk. A new-laid egg or two, with some bread and butter, washed down with a cup of cold infusion of valerian, or a glass of Pyrmont or Peterhead water, would be a good breakfast. Exercise of all kinds, especially tiding on horseback, is absolutely necessary, and ought to be used regularly every day. The chaise is only to be employed in bad rainy weather. If amusement can be joined to exercise, the effects will be still better; and therefore hunting, fowling, bowles, golf, shuttle-cock, farming, inclosing grounds, and such like, should be the principal if not the only business. In long evenings, dancing, billiards, cards, will be necessary. Sleep of seven or eight hours is a proper medium. The cold bath has already done service, and ought to be continued. The chalybeate water of Pyrmont, or, in place of it, Peterhead water, or common water, with every gill of which five or six drops of steel drops are mixed, ought to be drunk every morning, to the quantity at first of half a mutchkin, and gradually increasing it to a bottle: a wineglass to be drunk every quarter of an hour. The gummos fetid pills are to be taken between eleven and twelve in the forenoon and between five and six in the afternoon, washing down each dose with two teaspoonfuls of the decoction of the bark, the quantity of which may be increased to half a gill. When the stomach is windy, with a sense of weight, the soured drops mixed with water will be necessary. If the weight or uneasiness of the stomach continues for a day or two, a vomit will be necessary. If there is no stool for two days, an aloetick pill or two should be taken in the evening of the second day. The regimen of a summer day: Rise at six, plunge over head in cold water, be immediately rubbed dry and dressed to ride out for two or three hours, during which the steel water is to be drunk. Breakfast of eggs, etc., as above at nine; walking, directing gardeners, ditchers, etc., till dinner, but taking near noon the pills and decoction. Dine at two; at five, repeat the pills and decoction, ride till seven or eight, then sup, chat, or play at cards till eleven, when, being well rubbed with a warm coarse cloth or flesh-brush, go to bed.

DEFICIENCY OF LACTEAL SECRETION.

SIR,—Would "Sceptic" try *Jaborandi* in moderate doses three times a day as a milk-producer for his patient, should this drug not be one of the many he has tried? But if there be a fresh baby "always on the stocks", to use a shipbuilding term, it is not likely that the supply of milk will continue copious.—Yours, etc.,

July 21st, 1877.

JABORANDI.

SIR,—Will any of your readers kindly furnish information relative to the putting in commission a steam clipper-ship, with competent medical superintendance, and with all available appliances for invalids, to cruise within the tropics during the winter months? whether such a project is already, or is about to be, set on foot for the ensuing season? and whether the design has been carried out on any previous occasion, and with what success?—Yours truly,

Cambridge, August 28th, 1877.

WM. PROWSE, M.R.C.S.E.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Macleod, Glasgow; Mr. S. W. Sibley, London; Dr. Shepherd, London; Dr. Wm. Fairlie Clarke, Southborough; Dr. J. Matthews Duncan, Edinburgh; Dr. George Johnson, London; Dr. Wm. Roberts, Manchester; Dr. J. Milner Fothergill, London; The Secretaries of the Medical Defence Association; Mr. R. Hamilton, Liverpool; Dr. R. Bruce, Edinburgh; Mr. C. M. Jessop, Clifton; J. E. S.; Lux; Dr. R. B. Low, Helmsley; Dr. Bradbury, Cambridge; Mr. H. Walker, Baildon; A Young Member; L.; Public Analyst; Dr. Shuttleworth, Lancaster; The Secretary of Apothecaries' Hall; Dr. Orange, Broadmore; The Registrar-General of England; Mr. Gornall, Warrington; The Registrar-General of Ireland; Dr. J. W. Moore, Dublin; Dr. Brabazon, Bath; Dr. Edis, London; E. W. W.; Dr. Clouston, Edinburgh; Dr. Claye Shaw, Banstead; Mr. Eastes, London; Dr. Joseph Bell, Edinburgh; Public Vaccinator; Inspector-General Lawson, Aberdeen; Dr. Joseph Rogers, London; Our Paris Correspondent; An Associate; Mr. Prowse, Cambridge; Dr. Tripe, Hackney; Dr. Hardie, Manchester; A Member; Mr. N. A. Humphreys, London; Dr. Denne, Birmingham; Dr. W. A. Thomson, Ledbury; M.; Mr. A. W. Mackenzie, London; Mr. E. L. Hussey, Oxford; Dr. Sansom, Aberdeen; X.; Our Dublin Correspondent; Dr. Francis Warner, London; Dr. Rayne, Eccles; Mr. J. V. Solomon, Birmingham; Dr. Robert Sandby, Birmingham; Dr. Grimshaw, Dublin; Our Edinburgh Correspondent; Dr. Lloyd, London; Dr. Wahltuch, Manchester; Dr. James Ross, Manchester; Dr. John Fagan, Belfast; Dr. McKendrick, Glasgow; etc.

REGULATIONS

OF

THE GENERAL MEDICAL COUNCIL AND
MEDICAL LICENSING BODIES.

SESSION 1877-78.

RECOMMENDATIONS OF THE GENERAL MEDICAL
COUNCIL ON EDUCATION AND EXAMINATION.

PRELIMINARY EXAMINATION.—I. No person is allowed to be registered as a medical student unless he shall have previously passed a preliminary examination in the subjects of general education as hereinafter provided.—2. The Executive Committee is to prepare annually and lay before the Council for recognition a list of examining bodies, whose examinations fulfil the conditions of the Medical Council as regards general education.—3. For the present, testimonials of proficiency granted by educational bodies, according to the subjoined list, are accepted; the Council reserving the right to add to or take from the list. (A Degree in Arts of any University of the United Kingdom, or of the Colonies, or of such other Universities as may be specially recognised from time to time by the Medical Council, is considered a sufficient testimonial of proficiency.) I. *Universities of the United Kingdom.* *Oxford:* Responsions; Moderations.—*Cambridge:* Previous Examination.—*Durham:* Examination for Students in their second and first years; Registration Examination for Medical Students.—*Oxford, Cambridge, and Durham:* Examination for Degrees in Arts; Local Examinations (Senior); Certificate to include Latin and Mathematics; Local Examinations (Junior); Certificate to include Latin and Mathematics, and also one of the following optional subjects: viz., Greek, French, German, Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.—*Oxford and Cambridge Schools' Examination Board:* Certificate to include Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Geometry, First two books of Euclid; Latin, including Translation and Grammar. And one of the following optional subjects—Greek, French, German.—*London:* Examination for a Degree in Arts or Science; Matriculation Examination.—*Aberdeen, Edinburgh, Glasgow, and St. Andrew's:* Examination for a Degree in Arts; Preliminary Examination for Graduation in Medicine or Surgery.—*Edinburgh:* Examination of (Senior) Candidates for Honorary Certificates under the Local Examinations of the University of Edinburgh.—*Dublin:* Examination for a Degree in Arts; Public Entrance Examination.—*Queen's University (Ireland):* Examination for a Degree in Arts; Entrance Examination; Examination for the Diploma of Licentiate in Arts; Previous Examination for B.A. Degree. II. *Other bodies named in Schedule (A) to the Medical Act.*—*Royal College of Surgeons of England:* Examination conducted under the superintendence of the College of Surgeons, by the Board of Examiners of the Royal College of Preceptors.—*Society of Apothecaries in London:* Examination in Arts.—*Royal College of Physicians, Edinburgh; and Royal College of Surgeons, Edinburgh:* Preliminary Examination in General Education, conducted by a Board appointed by these two Colleges combined.—*Faculty of Physicians and Surgeons of Glasgow; and Apothecaries' Hall of Ireland:* Preliminary Examination in General Education.—*Royal College of Surgeons in Ireland:* Preliminary Examination; Certificate to include Mathematics. III. *Examining Bodies, in the United Kingdom, not included in Schedule (A) to the Medical Act.*—*Royal College of Preceptors:* Examination for a First Class Certificate.—*The Examiners for Commissions and appointments in Her Majesty's Service, Military, Naval, and Civil:* Certificate to include all the subjects required by the General Medical Council. IV. *Indian, Colonial, and Foreign Universities and Colleges.*—*Universities of Calcutta, Madras, and Bombay:* Entrance Examination; Certificate to include Latin.—*Universities of McGill College, Montreal; Toronto; Trinity College, Toronto; Queen's College, Kingston; Victoria College, Upper Canada; Fredericton; Sydney; and the Cape of Good Hope:* Matriculation Examination.—*King's College, Nova Scotia:* Matriculation Examination; Responsions.—*Medical College, Halifax, Nova Scotia:* Matriculation Examination.—*University of Melbourne:* Matriculation Examination, Certificate to include all the subjects required by the General Medical Council.—*Codrington College, Barbadoes:* English Certificate for Students of two years' standing, specifying the subjects of Examination; Latin Certificate, or "Testamur".—*Tasmanian Council of Education:*

Examination for the Degree of Associate of Arts, Certificate to include Latin and Mathematics.—*Christ's College, Canterbury, New Zealand:* Voluntary Examinations, Certificate to include all the subjects required by the General Medical Council.—*South Australia, South Australian Institute, Adelaide:* Preliminary General Examination; First Class Certificate.—4. It is recommended to the licensing boards not to accept the certificate of proficiency in general (preliminary) education from any of the bodies, the names of which are contained in the list annually circulated, unless such certificate testify that the student to whom it has been granted has been examined in the following subjects: 1. English Language—including Grammar and Composition.* 2. Arithmetic—including Vulgar and Decimal Fractions; Algebra—including Simple Equations. 3. Geometry—first two books of Euclid, or the subjects thereof. 4. Latin—including Translation and Grammar. 5. And in one of the following optional subjects—Greek; French; German; Elementary Mechanics of Solids and Fluids, meaning thereby Mechanics, Hydrostatics, Pneumatics, and Hydraulics.—5. It is desirable that the examination in general education be left to the Universities and such other bodies engaged in general education and examination as may from time to time be approved by this Council; and that it be delegated to the Executive Committee to communicate with the licensing bodies on the subject.—6. It is recommended to the various licensing bodies to instruct their examiners in professional subjects to report to them any cases in which decided ignorance in the subjects of general education has been displayed by the candidates, with the name of the board or boards before which the preliminary examinations have been passed; and the licensing bodies are requested to transmit such reports to the Registrar of the General Medical Council.

REGISTRATION OF MEDICAL STUDENTS.—7. Every medical student shall be registered in the manner hereinafter prescribed by the General Medical Council.—8. No medical student shall be registered until he has passed a preliminary examination, as required by the General Medical Council, and has produced evidence that he has commenced medical study.—9. The commencement of the course of professional study recognised by any of the qualifying bodies, shall not be reckoned as dating earlier than fifteen days before the date of registration.—10. The registration of medical students shall be placed under the charge of the Branch Registrars.—11. Each of the Branch Registrars shall keep a register of medical students.—12. Every person desirous of being registered as a medical student, shall apply to the Branch Registrar of the division of the United Kingdom in which he is residing, according to a form, which may be had on application to the several qualifying bodies, medical schools, and hospitals; and shall produce or forward to the Branch Registrar a certificate of his having passed a preliminary examination, as required by the General Medical Council, and evidence that he has commenced medical study.†—13. The Branch Registrar shall enter the applicant's name and other particulars in the students' Register, and shall give him a certificate of such registration.—14. Each of the Branch Registrars shall supply to the several qualifying bodies, medical schools, and hospitals, in that part of the United Kingdom of which he is registrar, a sufficient number of blank forms of application for the registration of medical students.—15. The several Branch Councils shall have power to admit special exceptions to the foregoing regulations as to registration for reasons which shall appear to them

* The General Medical Council will not consider any examination in English sufficient that does not fully test the ability of the candidate—1. To write a few sentences in correct English on a given theme, attention being paid to spelling and punctuation as well as to composition; 2. To write a portion of an English author to dictation; 3. To explain the grammatical construction of one or two sentences; 4. To point out the grammatical errors in a sentence ungrammatically composed, and to explain their nature; 5. To give the derivation and definition of a few English words in common use. Provided always that an examination may be accepted as satisfactory that secures, on the part of the candidate passing it, a sufficient grammatical knowledge of English.

† Form of Application for Registration as Medical Student.—I hereby apply to be registered as a Student in Medicine, in conformity with the Regulations of the General Council of Medical Education and Registration of the United Kingdom, for which purpose I submit the following particulars. (Name of applicant (to be written in words at length); Surname; Christian name; Preliminary examination; Date of preliminary examination; Place of medical study; Applicant's signature; Address; and Date of Application.

Certificate of Commencement of Medical Study.—I hereby certify that Mr. has commenced the study of medicine in (insert name of School, or Hospital, or place of apprenticeship, as the case may be); Signature of Master, Teacher, or Officer in a Medical School or Hospital; Place and Date. To the Registrar of the Branch Council for —

N.B.—The word "Master" or "Teacher" will be held to include an unregistered practitioner whose pupil the applicant may be at the time. The certificate of examination must testify that the student has been examined in the subjects mentioned in the regulations.

The above form of Application, duly and legibly filled up, must be forwarded to the Registrar, post free, and be accompanied by a Certificate of the applicant showing the result of a Preliminary Examination, as required by the General Medical Council.

* This part of the Recommendations is somewhat condensed, to avoid repetition.

satisfactory.—16. A copy of the *Register* of medical students, prepared by each of the Branch Registrars, shall be transmitted, on or before the 31st of December in each year, to the Registrar of the General Council, who shall, as soon as possible thereafter, prepare and print, under the direction of the Executive Committee, an alphabetical list of all students registered in the preceding year, and supply copies of such authorised lists to each of the bodies enumerated in Schedule (A) to the Medical Acts, and through the Branch Registrars to the several medical schools and hospitals.—17. The several qualifying bodies are recommended not to admit to the final examination for a qualification under the Medical Acts, any candidate (not exempted from registration) whose name has not been entered in the medical students' register at least forty-five months previously. In the case of candidates from other than schools of the United Kingdom, the Branch Councils shall have power to admit exceptions to this recommendation.—18. The Branch Councils are desired to take means to make these regulations known at the various medical schools.

AGE FOR LICENCE TO PRACTISE, ETC.—19. The age of twenty-one shall be the earliest age at which a candidate shall obtain a licence to practise, and that the age shall, in all instances, be duly certified.—20. No licence shall be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the candidate as a medical student.

PROFESSIONAL EDUCATION.—21. The course of professional study required for a licence shall occupy at least four years, of which at least three winter and two summer sessions shall be passed at any school recognised by any of the licensing bodies mentioned in Schedule (A) of the Medical Act.—22. The following are the subjects, without a knowledge of which no candidate should be allowed to obtain a qualification entitling him to be registered: 1. Chemistry, including a knowledge of the principles of Chemistry, and of those details of the science which bear on the study of Medicine, and Chemical Physics, meaning thereby Heat, Light, and Electricity; 2. Anatomy; 3. Physiology; 4. Materia Medica and Pharmacy; 5. Pathology, including Morbid Anatomy; 6. Medicine, including Medical Anatomy, Clinical Medicine, and Therapeutics; 7. Surgery, including Surgical Anatomy and Clinical Surgery; 8. Midwifery; 9. Forensic Medicine.—23. The Council will view with approbation any encouragement held out by the licensing bodies to students to prosecute the study of the natural sciences before they engage in studies of a strictly professional character.—24. A certificate shall be required, by each licensing body, from every candidate for its degree, diploma, or licence to practise medicine or surgery, that he has studied vaccination under a competent and recognised teacher; that he has himself performed the operation successfully under the teacher's inspection; that he is familiar with the different stages of the vaccine vesicle, and with the methods of preserving lymph, and that he is thoroughly informed in every necessary part of the subject.—25. Such a certificate should be received by any licensing body only from an institution where the appointed teacher of vaccination is recognised by the Local Government Board.

PROFESSIONAL EXAMINATION.—26. It is desirable that the different licensing bodies, whether singly or in combination, should frame their examinations so as to secure that the knowledge of every practitioner whose name appears on the *Register* shall have been tested in all the subjects of professional education which the Council has determined to be essential, viz.: (as in Chapter IV, Recommendation 22).—27. There shall be in future three professional examinations.—28. The professional examinations shall be arranged in two divisions; the first division to embrace the more elementary subjects. The first division may be completed at or before the close of the second year of professional study, but the second division not till the expiration of two years after the passing of the first division, nor before the completion of the fourth year of study. The examinations, and the subjects included in each, shall be such, and in such order, as may insure, so far as possible, a due continuity and sequence of study.—29. The first division of the examinations shall include the following subjects: 1. Chemistry and Chemical Physics; 2. Anatomy; 3. Physiology; 4. Materia Medica and Pharmacy. That the second division shall include the following subjects: 1. Pathology, including Morbid Anatomy; 2. Medicine, including Medical Anatomy, Clinical Medicine, and Therapeutics; 3. Surgery, including Surgical Anatomy and Clinical Surgery; 4. Midwifery; 5. Forensic Medicine.—30. It is desirable that an examination in the earlier subjects of professional study should take place before the end of the first year of professional study.—31. The professional examinations shall be conducted both in writing and orally; and they shall be practical in all branches in which they admit of being so.—32. Not less than two examiners shall take part in every oral and clinical examination.—33. The questions to be answered in writing should be submitted to the whole body of examiners for consideration and re-

vision, if desirable, before being proposed to the candidates.—34. The written answers should be submitted to more than one of the examiners.—35. Excellence in one or more subjects should not be allowed to compensate for failure in others.—36. The professional examinations shall be held by the several licensing bodies, except in special cases, at stated periods, to be publicly notified.—37. Returns from the licensing bodies in Schedule (A) shall be made annually, on the 1st of January, to the General Medical Council, stating the number of the candidates who have passed their first as well as their second and third examinations, and the number of those who have been rejected at the first and second and third examinations respectively; and the registrar shall forward a sufficient number of forms, with a notice for their being returned in due time.—38. It is not desirable that any University of the United Kingdom should confer any degree in medicine or surgery, whether that of bachelor, doctor, or master, upon candidates who have not graduated in Arts, or passed all the examinations required for the Bachelorship in Arts, or passed, after due course of education, examinations, such as are, *bond fide*, academically equivalent to those required for a degree in Arts.—39. It would be desirable, as a general rule, that none of the higher degrees or qualifications in medicine or surgery should be conferred on persons who have not shown evidence of higher professional attainments.—40. It is desirable that in the examinations on several of the subjects of the curriculum, such, for example, as chemistry, including chemical physics, physiology, and materia medica, the licensing bodies should limit and define by schedule the extent of examination.—41. It is recommended that in no case should the examination of a candidate by any of the licensing bodies in any subject be conducted wholly by the lecturer or teacher in that subject in the school in which the candidate has been educated.—42. It is desirable that observation with the microscope should form part of the examinations of candidates for a licence.—43. It is recommended that candidates for the final professional examinations be required to give evidence that they have had opportunities of practical study, with care of patients, as pupil, assistant, clinical clerk, or dresser, in hospital, dispensary, or elsewhere.—44. It is desirable that, in examinations in anatomy, candidates should understand that they may be called upon to perform actual dissections, and that candidates in examinations in surgery should understand that they may be called upon to perform one or more operations on the dead subject.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

MEMBERS.

ANY person who shall have satisfied the College touching his acquirements in general Science and Literature, and his knowledge of Medicine, Surgery, and Midwifery, and who shall comply with the By-Laws and Regulations of the College, may be proposed to the College to be admitted a Member. (For synopsis of Regulations, see pages 332-33.) The attendance at lectures on Clinical Medicine and Clinical Surgery must not commence earlier than the second winter session.

Every candidate who has prosecuted his studies abroad, whether in part or to the full extent required (except such as shall be exempted), shall nevertheless bring proof of his having attended, during at least twelve months, the medical practice of a hospital in the United Kingdom containing at least 100 beds.

Every candidate for the Membership of the College (except such as shall be exempted) will be required to pass the following examinations.

First Examination; Monday: 7 to 10 P.M., written questions on Anatomy and Physiology. Tuesday: 7 P.M., *visû voce*, on Dissections and Preparations.

Second Examination; Monday: 1 to 4 P.M., written questions on Materia Medica and on Chemistry in its application to Pathology, Pharmacy, and Toxicology. Tuesday: 1 to 4 P.M., the same subjects; the examination being partly *visû voce* and partly practical: 7 to 10 P.M., written questions on Midwifery and the Diseases peculiar to Women. Wednesday: 7 to 10 P.M., written questions on Surgical Anatomy and on the Principles and Practice of Surgery. Thursday: *Morning*, Practical Examination either at the College or in the Wards of a Hospital; 7 P.M., Principles and Practice of Surgery and Midwifery, *visû voce*.

Third or Pass Examination; Thursday: 2 to 6 P.M., written questions on Medical Anatomy and on the Principles of Medicine. Friday: 2 to 6 P.M., written questions on the Practice of Medicine, including the Principles of Public Health, and on Psychological Medicine. Saturday or Monday: Practical examination at the College or in the medical wards of a Hospital. Tuesday and Wednesday: Examination *visû voce*.

Every candidate must give fourteen days' notice in writing to the Registrar of the College of his intention to present himself for examination, at the same time transmitting the following certificates. *For the Primary Examination:* Evidence of having passed an Arts Examination; and, in the case of those who shall have commenced professional studies after 1861, evidence of having previously obtained a Degree of Arts from some University of the United Kingdom, or of the Colonies, or from some other University specially recognised by the Medical Council, or that he has passed examinations equivalent to those required for a Degree in Arts; of having been duly registered as a medical student; and of having completed the second winter session of professional study at a recognised Medical School. *For the Second Examination:* Evidence of having completed four years of professional study; of having attained the age of 21 years; of instruction and proficiency in vaccination; of having attended not less than twenty labours; and of having discharged the duties of clinical clerk and of dresser for periods of not less than three months. *For the Pass Examination:* Proof of having attained the age of 25 years; a testimonial from a Fellow or Member of the College; evidence of having completed the required course of professional study. Blank forms of the required certificates of attendance on hospital practice and on lectures may be obtained on application at the College.

Third or pass examinations for the membership will be held on Thursday, October 18th, 1877, January 24th, April 18th, July 18th, and October 24th, 1878. The first and second examinations are generally held at the commencement of the same months.

LICENTIATES.

For synopsis of Regulations, see pages 332-33.

Of the four years, one winter and two summer sessions may be passed in either of the following ways: 1. Attending the practice of a hospital or other institution recognised by the College; 2. Receiving instruction as the pupil of a legally qualified practitioner holding any public appointment which affords opportunities, satisfactory to the examiners, of imparting a practical knowledge of Medicine, Surgery, or Midwifery; 3. Attending lectures on any of the required subjects of professional study at a recognised place of instruction.

Professional studies commenced before the candidates shall have passed an examination in the subject of general education will not be recognised by the College. The course of Lectures on Botany may be attended prior to the commencement of professional studies; and any candidate producing satisfactory evidence that Botany formed one of the subjects of his preliminary examination will be exempt from attendance on this course. The Principles of Public Health must be comprised in the course of Lectures on Medicine, or in that on Forensic Medicine. The attendance on Lectures on Medicine and Surgery must not commence earlier than the second winter session; and the attendance on Lectures on Clinical Medicine and Clinical Surgery must not commence until after the first winter session.

Every candidate for the Licence, before he is admitted to examination, must sign a declaration, stating whether he has or has not been rejected within three months by any of the Examining Boards included in Schedule (A) of the Medical Act.

Candidates must pass the following examinations.

First Examination, on Anatomy and Physiology. First day, 7 to 10 P.M., written questions. Second day, 7 P.M., *visà voce*, on Dissections and Preparations. Second or Pass Examination. First day, 1 to 4 P.M., written questions on Materia Medica, and on Chemistry in its application to Pathology, Pharmacy, and Toxicology; 7 to 10 P.M., written questions on Medical Anatomy, and the Principles and Practice of Medicine, including the Principles of Public Health. Second day: *Morning*, Practical Examination at the College or in the medical wards of a Hospital; 1 to 4 P.M., on Materia Medica, and on Chemistry in its application to Pathology, Pharmacy, and Toxicology. (This examination will be partly *visà voce* and partly practical.) 7 to 10 P.M., written questions on Midwifery and the Diseases peculiar to Women. Third day: 7 to 10 P.M., written questions on Surgical Anatomy, and on the Principles and Practice of Surgery. Fourth day: *Morning*, Practical Examination at the College or in the surgical wards of a Hospital; 7 P.M., *visà voce*, on Medicine, Surgery, and Midwifery.

Every candidate intending to present himself for examination is required to give fourteen days' notice in writing to the Registrar of the College, at the same time transmitting the following certificates. *For the First Examination*—Evidence of having passed an Arts examination; of having been duly registered as a medical student; and of having completed the second winter session of professional study at a recognised Medical School. *For the Second or Pass Examination*—Evidence of having completed four years of professional study; of having attained the age of 21 years; of proficiency in the practice of

vaccination; and of having attended not less than twenty labours. A testimonial of moral character is required of every candidate. Blank forms of the required certificates of attendance on hospital practice and on lectures may be obtained on application at the College.

Licentiates of this College shall not compound or dispense medicines, except for patients under their own care.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DIPLOMA OF MEMBER.

FOR synopsis of Regulations, see pages 332-33.

1. *Preliminary General Education and Examination.*—Candidates who commenced their professional education on or after the 1st of January, 1861, will be required to produce one or other of the following certificates:—1. Of graduation in Arts at an University recognised for this purpose: viz., Oxford; Cambridge; Dublin; London; Durham; Queen's University in Ireland; Edinburgh; Glasgow; Aberdeen; St. Andrew's; Calcutta; Madras; Bombay; McGill College, Montreal; Queen's College, Kingston, Canada; and University of Adelaide, Australia: or of having passed one of the following examinations; 2. Matriculation, or such other examination as shall from time to time be sanctioned by the Council of this College, at an University in the United Kingdom, or at a Colonial or Foreign University recognised by the Council of the College; 3. The Preliminary examination for the Fellowship of this College; or (4) that of the Royal College of Surgeons in Ireland or of Edinburgh, or of the Faculty of Physicians and Surgeons of Glasgow; 5. The examination in Arts of the Society of Apothecaries of London, or of the Apothecaries' Hall of Ireland; 6. The first class examination of the Royal College of Preceptors; 7. Testamur of the Codrington College, Barbadoes; 8. Degree of the Associate of Arts granted by the Tasmanian Council of Education, with a certificate that the student has been examined in Latin and Mathematics; 9. Of having passed the Voluntary examinations of Christ's College, Canterbury, New Zealand; the certificate to include all the subjects required from time to time in the Preliminary Examination of the College. Candidates who can not produce any of the foregoing certificates must pass an examination, conducted by the Board of Examiners of the College of Preceptors, under the direction and supervision of this College.*

II. *Professional Education.*—Professional studies prior to the date at which the candidate shall have passed an examination in general knowledge, are not recognised. The following will be considered as the commencement of professional education:—1. Attendance on the practice of a Hospital, or other public institution recognised by this College. 2. Instruction as the pupil of a legally qualified surgeon, holding the appointment of Surgeon to a Hospital, General Dispensary, or Union Workhouse, or where such opportunities of practical instruction are afforded as shall be satisfactory to the Council. 3. Attendance on lectures on Anatomy, Physiology, or Chemistry, by lecturers recognised by this College. *The commencement of professional study otherwise than by attendance on lectures in recognised Medical Schools, or by attendance on the practice of recognised Hospitals, will not be admitted until a certificate thereof shall be furnished to the Secretary for registration at the College, by the practitioner whose pupil the candidate shall have become, or by the medical superintendent of the Hospital or other institution to the practice of which he shall have entered, and will date only from the reception of such certificate by the Secretary; the certificate*

* The following are the subjects of the examination, viz. Part I. *Compulsory Subjects.* 1. Writing from dictation. 2. English Grammar. 3. Writing a short English composition: such as a description of a place, an account of some useful or natural product, or the like. 4. Arithmetic. No candidate will be passed who does not show a competent knowledge of the first four rules, simple or compound, of Vulgar Fractions, and of Decimals. 5. Geography of Europe, and particularly of the British Isles. 6. Outlines of English History; that is, the succession of the Sovereigns and the leading events of each reign. 8. Mathematics: Euclid, Books I and II; Algebra to Simple Equations inclusive. 9. Translation of a passage from the second book of Cassiodorus' *Commentaries De Belle Geritico*.—Part II. *Optional Subjects.* Papers will be set on the following six subjects; and each candidate will be required to offer himself for examination on one subject at least, at his option; but no candidate will be examined on more than four subjects:—1. Translation of a passage from the first Book of the *Anabasis* of Xenophon. 2. Translation of a passage from X. B. Saintine's *Piccola*. 3. Translation of a passage from Schiller's *Wilhelm Tell*. The candidate will also be required to answer questions on the grammar of each subject, whether compulsory or optional. 4. Mechanics: chiefly elementary. 5. Chemistry: elementary facts. 6. Botany and Zoology: Classification of Plants and Animals. The quality of the handwriting and the spelling will be taken into account. N.B. Each candidate is required to pay a Fee of £2 prior to his admission to examination. Particulars respecting the examination are duly advertised in the Medical Journals; and candidates are required to send in the prescribed forms of application not less than three weeks before each examination. A candidate, in order to qualify for the Fellowship, is required, in addition to the subjects included in Part I, to pass in not less than four, at his option, of the subjects in Part II.

TABLEAR VIEW OF THE REGULATIONS OF THE ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, AND OF THE SOCIETY OF APOTHECARIES IN LONDON.

	ROYAL COLLEGE OF PHYSICIANS OF LONDON	ROYAL COLLEGE OF SURGEONS OF ENGLAND.	APOTHECARIES' SOCIETY
	MEANS	MEANS	MEANS
ARTS DEGREE	Twenty-one. A Degree in Arts of a recognized University, or evidence of having passed examinations equivalent to those for a Degree in Arts.	Twenty-five. Degree in Arts of a recognised University; or evidence of examination in Arts required for Graduation in Medicine at Universities; or examination in English, Classics, and Mathematics.	Twenty-one. Examination in Arts by the Society's examiners; or evidence of having passed an examination in Arts recognised by the Medical Council.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Five years; of which four must have been passed at a school or schools recognised by the College.	Six years; in the case of members of the College, two years in addition to the certificates for the diploma of member.	Three winter and two summer sessions.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Two winter sessions.	Lectures during two winters; dissections three winters. Lectures one winter; and Practical Physiology another session.	First two winter sessions.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Two winter sessions.	One course. Three months.	First winter session.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Three months.	Three months.	First summer session.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Three months.	Three months.	First summer session.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Three months.	Not required.	First summer session.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Six months; including instruction in hospital <i>post mortem</i> room.	Lectures, three months; demonstrations in <i>post mortem</i> room.	Third winter session.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Two winter sessions.	One course. One winter and one summer session.	Last two winter sessions.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Two winter and three summer sessions.	Two winter and two summer sessions.	Third winter session.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Two winter sessions.	One winter session.	Not required.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Two winter and two summer sessions.	Two winter and two summer sessions. Observation and examination of patients for three months.	Not required.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Not required.	Three months; not less than twenty labours.	Not required.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Three months; not less than twenty labours.	Three months; not less than ten labours.	Second summer session; twenty cases of labour.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Six months.	Not stated.	Not stated.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Three months.	Three months.	Second summer session.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Medical practice, three winters, and three summers; surgical, three winters and two summers.	Surgical practice, four winters and four summers; medical practice, one winter and one summer.	Medical practice, beginning with second winter session to end of period of study.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Clinical clerk, six months.	House-surgeon or dresser, six months.	Clinical clerk, six weeks at least.
DEGREE IN ARTS OF A RECOGNISED UNIVERSITY	Instruction and proficiency in Vaccination. Moral character. Registration as a Member. Registration as a Student as directed by Medical Council.	Instruction and proficiency in Vaccination. Comparative Anatomy, one course.	Having been examined at class-exam. Instruction in vaccination. Moral conduct.

NUMBER OF EXAMINATIONS; FIRST EXAMINATION; WHEN IT MAY BE PASSED; SUBJECTS; DATES WHEN EXAMINATIONS ARE HELD.

Three.
After end of second winter session. Subjects: Anatomy and Physiology. (For dates, see p. 331.)

SECOND EXAMINATION; AT WHAT PERIOD IT MAY BE PASSED; SUBJECTS; DATES WHEN EXAMINATIONS ARE HELD.

After four years of professional study in Surgical Anatomy and Surgery; Materia Medica; Chemistry in its application to Pathology, Pharmacy, and Toxicology; Midwifery and Diseases of Women; Examination of Surgical Patients.
Third Examination: After completion of required course of study. Subjects: Medical Anatomy, Medicine, including Public Health and Psychological Medicine; Examination of Medical Patients.

FEEES PAYABLE.

£15 15s.; £5 5s. at first examination, not returned in case of rejection, but candidate admitted to one subsequent first examination without additional fee. After rejection at second examination, fee returned, minus £3 3s.

REJECTED CANDIDATES.

After first examination, not admitted within three months; after second examination, not till end of six months. In each case, evidence of professional study in interval required. After third examination, not re-admitted (except by special permission) within one year.

CANDIDATES EXEMPTED FROM CERTAIN PORTIONS OF THE EXAMINATIONS OR ADMITTED UNDER SPECIAL REGULATIONS.

Candidates who have passed examinations in Anatomy and Physiology of any other licencing body; who have obtained Degrees in Surgery, or have passed examination in Surgery of a College of Surgeons; or who have obtained degrees in Medicine; or who are above forty years of age; provided that the evidence and testimonials are satisfactory.

Two.

After third winter session; in Anatomy and Physiology; May and November, and such other times as Council may appoint.

After six years of professional study; in Pathology, Therapeutics, Surgery, and Medicine (Medicine not required from candidates holding approved diplomas, degrees, or licences, or from those intending to obtain a medical qualification; in the latter case, the diploma of the College is not issued until proof of having passed the medical examination is produced). January, April, and November, and such other times as Council may appoint.

If a member, £5 5s. at each examination, retained in case of rejection. If not a member, £26 5s. (over and above charges for stamps), of which £5 5s. is retained in case of rejection.

After rejection at first examination, candidates not again admitted for six months; after second examination, not till end of one year, unless Court of Examiners shall otherwise determine.

Candidates who have degrees in Arts of a recognised University in the United Kingdom are required to study for five years only. Members of College, after eight years, admitted to second examination, on production of certificate of fitness signed by three Fellows.

Two.

After second winter session; in Anatomy and Physiology; January, April, May, July, November.

After end of fourth year of professional education; in Surgical Anatomy, Surgery, and Medicine (Medicine not required from candidates holding approved diplomas, degrees, or licences, or from those intending to obtain a medical qualification; in the latter case, the diploma of the College is not issued until proof of having passed the medical examination is produced). January, April, May, July, November.

£22; £5 5s. at first examination; after two failures at this examination, candidate must pay an additional £5 5s. before being again admitted. After rejection at Pass Examination, £5 5s. retained; and after two failures, an additional £5 5s.

After rejection at primary examination, candidate must dissect for three months; after second examination, must attend Surgical Hospital Practice and Lectures on Clinical Surgery for six months.

Candidates who have studied in Scotland or in Ireland, or at recognised Foreign or Colonial Universities, members or licentiates of the other Colleges of Surgeons in the United Kingdom, and Graduates in Medicine or Surgery of a recognised University; on production of the necessary certificates or diplomas,

Two.

After second winter session; in the *British Pharmacopœia*, Latin Prescriptions, Anatomy and Physiology, General and Practical Chemistry, Botany, and Materia Medica. Every Wednesday and Thursday.

At end of medical studies, in Medicine, Pathology, Therapeutics, Midwifery and Diseases of Women and Children, Forensic Medicine and Toxicology. Every Wednesday and Thursday.

Certificate of qualification to practise, £6 6s.; half retained in case of rejection and accounted for at subsequent examination. First examination, £3 3s.; retained in case of rejection and accounted for subsequently.

After rejection at first examination, candidate cannot be again admitted till after three months; after examination for license not till after six months.

Graduates in Medicine of British Universities; licentiates and members of Colleges of Physicians & Surgeons in the United Kingdom or of Apothecaries' Hall in Ireland; candidates who have passed the first professional examination of other boards; candidates apprehended before August 1, 1858, or who commenced hospital attendance on or before that date (1861).

to be accompanied by proof of having passed the preliminary examination in general knowledge.

Blank forms of the required certificates may be obtained on application to the Secretary, and all necessary certificates will be retained at the College.

By the Practical Course (General Anatomy and Physiology) it is meant that the learners themselves shall, individually, be engaged in the necessary experiments, manipulations, etc.; but it is not intended that the learners shall perform vivisections.

The Course of Practical Surgery is intended to embrace instruction in which each pupil shall be exercised in practical details, such as in the application of Anatomical facts to Surgery, on the living person, or on the dead body; the methods of proceeding and the manipulations necessary in order to detect the effects of diseases or accidents on the living person, or on the dead body; the performance, where practicable, of the operation of Surgery on the dead body; the use of Surgical Apparatus; the examination of diseased structures, as illustrated in the contents of a museum of Morbid Anatomy and otherwise.

The Course of Lectures on Chemistry is not required in the case of a candidate who shall have passed a satisfactory examination in this subject in his preliminary examination.

III. *Certificates, etc.*—Certificates will not be received from candidates who have studied in London, unless they shall have registered at the College their cards of admission to attendance on lectures and hospital practice within fifteen days from the commencement of the session; nor from candidates who have studied in the provincial schools in England, unless their names shall be duly returned from their respective schools. Exemptions are allowed under certain conditions (see page 333). In each of these cases, the candidate will also be required to produce a certificate of instruction and proficiency in Vaccination, and satisfactory evidence of having been occupied, after having passed the preliminary examination, at least four years, or four winter and four summer sessions, in the acquirement of professional knowledge.

IV. *Professional Examinations.*—The First or Primary Examination is partly written and partly demonstrative. The Second or Pass Examination is partly written, partly oral, and partly on the practical use of surgical apparatus and the practical examination of patients. A candidate, having entered his name for either the primary or the pass examination, who shall fail to attend the meeting of the Court for which he shall have received a card, cannot present himself for examination within three months afterwards.

DIPLOMA OF FELLOW.

For synopsis of Regulations, see pages 332-33.

SOCIETY OF APOTHECARIES, LONDON.

FOR synopsis of Regulations, see pages 332-33.

In consequence of the Registration of Students being now conducted by the General Medical Council, registration at the Apothecaries' Hall is discontinued. Students, however, must produce evidence of such registration on presenting themselves for examination.

Examination in Arts.—Examinations in the subjects of preliminary education will be held at the Hall of the Society on the last Friday and Saturday of January, April, and September. Candidates will be examined in the following branches, and no candidate will be approved unless he show a competent knowledge of each branch:—1. The English Language; 2. The Latin Language; 3. Mathematics; 4. One of the following subjects, at the option of the candidate: (a) Greek; (b) French; (c) German; (d) Natural Philosophy. Candidates applying to be admitted to any examination must pay the fee (One Guinea) at least one week before the examination.* If a candidate fail to pass the examination, the fee will not be returned to him; but he will be admissible to either or both of the two next following examinations in Arts without the payment of an additional fee, upon giving the usual notice. Certificates in Arts granted by any of the bodies whose certificate is recognised by the Medical Council will be accepted as equivalent to having passed the above examination.

Professional Examinations.—The Court meets every Wednesday and Thursday; and candidates are required to attend at 4.30 P.M. each day. Every candidate intending to offer himself for examination must give notice on or before the Monday previous to the day of examination,

* The following form of notice must be copied and written in full by the candidate. I (name in full), residing at (address), intend to present myself for the Preliminary Examination in Arts, at the Apothecaries' Hall, London, on the _____ day of _____, 18____, as my optional subject. Signature _____ The above has been written and signed in my presence, by the above-named candidate, with whom I am personally acquainted. Sign, A. B. Address, X. Date _____

and must at the same time deposit all the required testimonials, with the fee, at the office of the beadle, where attendance is given every day, except Sunday, from 10 to 4 o'clock; Saturdays, 10 to 2.

Modified Examinations.—1. All Graduates in Medicine of British Universities will be admitted to a clinical and practical examination in the practice of Medicine and Midwifery. 2. Licentiates of the Royal College of Physicians of London or of Edinburgh; of the Royal Colleges of Physicians and Surgeons, Edinburgh; of the King and Queen's College of Physicians, Ireland; or of the Faculty of Physicians and Surgeons, Glasgow; and of the Apothecaries' Hall, Dublin, will be admitted to a clinical and practical examination in the Practice of Medicine, Midwifery, Forensic Medicine, and Toxicology. 3. Any candidate who has passed his first examination for the Licence of either of the Colleges of Physicians in the United Kingdom, or of the Colleges of Physicians and Surgeons of Edinburgh jointly, or of the Faculty of Physicians and Surgeons, Glasgow, or of the Apothecaries' Hall of Dublin; the first professional examination for the Degree of M.B., or Master in Surgery in the Universities of Oxford, Cambridge, Durham, or London; or the second part of the professional examination for the Degree of M.D. or Master in Surgery in the Universities of Edinburgh, Aberdeen, St. Andrew's, and Glasgow; or the first examination for medical and surgical degrees in the Irish Universities, will be admitted to a single examination in Anatomy and Materia Medica (to those candidates who have not undergone an examination in those subjects), Practice of Medicine, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Toxicology, part of which examination will be conducted in writing. 4. Members of the Royal College of Surgeons, England; Licentiates of the Royal College of Surgeons, Edinburgh; and Licentiates of the Royal College of Surgeons, Ireland; and all candidates who have passed the first Anatomical examination of the Royal College of Surgeons, London; the Royal College of Surgeons, Edinburgh; the Royal College of Surgeons, Ireland, are exempt from *writing* on Anatomy and Physiology *only* in their first examination. All qualified candidates, unless registered, will be required to produce their diplomas. 5. Candidates who were apprenticed before August 1st, 1858, and those students who commenced their hospital attendance on or before October 1st, 1861, will be admitted to a *viva voce* examination on the following subjects: In translating physicians' prescriptions, in such parts of Chemistry and Materia Medica as bear upon the Practice of Medicine, and on Toxicology, in Forensic Medicine, Visceral Anatomy, the Practice of Medicine, including Diseases of Women and Children, and in Midwifery.

Prizes.—The Society of Apothecaries annually offer two prizes for proficiency in the knowledge of Botany, and two prizes for proficiency in the knowledge of Materia Medica and Pharmaceutical Chemistry. The prizes consist of a gold medal awarded to the candidate who distinguishes himself the most; and of a silver medal and a book to the candidate who does so in the next degree. The examination in Botany will be held at the Hall of the Society on the third Thursday in June, at 10 A.M., and will be conducted by printed papers and *viva voce* questions. The examinations in Materia Medica and Pharmaceutical Chemistry will be held at the Hall of the Society on the third Wednesday in August, at 10 A.M., and will be conducted by printed papers and *viva voce* questions.

The Society's Botanic Garden at Chelsea is open daily (except Sundays) from 10 A.M. to 5 P.M. Tickets of admission may be had on application at the beadle's office at the Hall.

UNIVERSITY OF OXFORD.

DEGREES IN MEDICINE.

EVERY student must reside either in one of the Colleges or Halls, or in a Licensed Lodging-House, for three years. During these three years, he has to pass two examinations in Arts and one in either Mathematics, Natural Science, or Law and Modern History; when, if he obtain a first, second, or third class, he can take his B.A. degree; if he do not gain such honours, he has to pass a third examination in *Literis Humanioribus*. A student deciding to graduate in medicine must, after passing the requisite examination for the degree of B.A., spend eight terms (two years) in study prior to a scientific examination for the degree of Bachelor of Medicine, unless he shall have taken a first or second class in the natural science school, when he may go in at the first opportunity for the first M.B. Examination. Two years after passing this examination, and after four years of professional and scientific study, he may go in for the second or practical examination for the M.B. degree. These four years of medical study may be spent either in or out of Oxford, in an approved medical school. Each examination is conducted partly in writing and partly *viva voce*, and part

of each is practical. The subjects of the first examination are Human Anatomy and Physiology, Comparative Anatomy and Physiology to a certain extent, and those parts of Mechanical Philosophy, Botany, and Chemistry which illustrate Medicine; those of the second examination are the Theory and Practice of Medicine (including Diseases of Women and Children), Materia Medica, Therapeutics, Pathology, the principles of Surgery and Midwifery, Medical Jurisprudence and General Hygiene. Every candidate at the second examination is examined in two of the ancient authors, Hippocrates, Aretæus, Galen, and Celsus; or in one of these and in some modern author approved by the Regius Professor (such as Morgagni, Sydenham, or Boerhaave).

For the Degree of Doctor in Medicine, a dissertation has to be publicly read three years after taking the M.B. Degree.

The medical examinations take place annually in Michaelmas Term. Scholarships of about the value of £75 are obtainable at Christ Church, Magdalen, and other Colleges, by competitive examination in natural science. Each year a Radcliffe Travelling Fellowship is competed for by anyone who, having taken a first-class at any of the Public Examinations of the University, or having obtained some University Prize or Scholarship open to general competition, proposes to graduate in medicine. The Travelling Fellows receive £200 a-year for three years, half this period being spent in study abroad.

UNIVERSITY OF CAMBRIDGE.

BACHELOR OF MEDICINE.

A STUDENT proceeding to this degree must—(1) Reside in the University two-thirds of each of nine terms; (2) Pass the previous examination; (3) Pursue medical study for five years, unless he have obtained honours in the Mathematical, Classical, Moral Sciences, or Natural Sciences Tripos, in which case only four years are required.

There are three examinations for the degree of Bachelor of Medicine, partly in writing, partly oral, and partly practical. They include chemical analysis, practical histology, the recognition and description of specimens (healthy, morbid, and microscopical), dissections, and the examination of patients. They are held twice annually, towards the end of the Michaelmas and Easter Terms respectively.

The subjects of the first examination are—1. Chemistry and other branches of Physics, with Heat and Electricity; 2. Botany. The student may present himself for this examination at any time after passing the previous examination. He must produce certificates of having diligently attended one course of lectures on Chemistry, including manipulation, and one course on Botany. Each candidate pays £3 3s.

The subjects of the second examination are—1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacy. Before presenting himself for this examination, the student must have completed two years of medical study. He must have attended hospital practice during one year, have practised dissection during one season, and must produce certificates of having diligently attended a course of lectures on each of the following subjects: 1. Elements of Comparative Anatomy; 2. Human Anatomy and Physiology; 3. Pharmacy. Each candidate pays £2 2s.

The subjects of the third examination are—1. Pathology and the Practice of Physic; 2. Clinical Medicine; 3. Principles of Surgery; 4. Midwifery; 5. Medical Jurisprudence.—Before presenting himself for this examination, the student must have completed the course of medical study, must have attended hospital practice during three years, and must produce certificates of having attended one course of lectures on each of the following subjects: 1. Pathological Anatomy; 2. Principles and Practice of Physic; 3. Clinical Medicine; 4. Clinical Surgery; 5. Medical Jurisprudence; 6. Midwifery; of having attended ten cases of Midwifery; also of having been clinical clerk for six months at least at a recognised hospital; or of having, subsequently to the completion of his attendance on hospital practice, attended to practical medicine, with special charge of patients in a hospital, dispensary, or parochial union, under superintendence of a qualified practitioner, unless he himself be duly qualified.

After these examinations have been passed, an Act must be kept in the schools. The candidate reads a thesis, composed by himself, on some subject approved by the Regius Professor of Physic; the professor brings forward arguments or objections for the candidate to answer, and examines him *visà voce* as well on questions connected with his thesis as on other subjects in the faculty of a more general nature. The exercise must continue at least one hour.

DOCTOR OF MEDICINE.

This may be taken by a Bachelor of Medicine in the ninth term after his inauguration. He is required to produce certificates of having been

engaged five years in medical study, to keep an Act similar to that for M.B., and write an extempore essay on one (at his choice) of four topics relating to Physiology, Pathology, Practice of Medicine, and State Medicine. He pays Ten Guineas for the Act.—A Master of Arts may proceed to the degree of M.D. in the twelfth term after his inauguration as M.A., without having taken the degree of M.B. He must pass the three examinations for M.B., and keep the Act for the M.D. degree. He must produce certificates of having been engaged five years in medical study, and the same certificates of attendance on lectures and hospital practice are required as of the candidate for the degree of M.B.

MASTER OF SURGERY.

The subjects of the examination for this degree are—1. Surgical Anatomy; 2. Pathology and the Principles and Practice of Surgery; 3. Clinical Surgery.—Before admission to his examination, the candidate must have passed all the examinations for the degree of M.B., and must produce certificates of having attended the surgical practice of a hospital for three years, of having been house-surgeon or dresser for six months, and of having attended—1. A second course of lectures on Human Anatomy; 2. One course of lectures on the Principles and Practice of Surgery; 3. Lectures on Clinical Surgery during one year; 4. Of having practised Dissection during a second season.—The examination takes place at the same time as those for M.B., and in a similar manner. The candidate is required to perform operations on the dead body, and to examine patients in the hospital.

UNIVERSITY OF LONDON.

THE following Examinations will be held in the University of London in 1878.

Preliminary Scientific Examination: Monday, July 16th.

Bachelor of Medicine (M.B.) First Examination: Monday, July 30th.

Bachelor of Medicine (M.B.) Second Examination: Monday, November 5th.

Bachelor of Surgery (B.S.): Tuesday, November 27th.

Master in Surgery (M.S.) and Doctor of Medicine (M.D.): Monday, November 26th.

Subjects relating to Public Health: Monday, December 10th.

The certificates in each case must be transmitted to the Registrar at least fourteen days before the commencement of the examination.

The fee for each examination is Five Pounds.* If a candidate withdraw or fail to pass either of the examinations, the fee is not returned; but he is admitted without further payment to two subsequent preliminary scientific, first M.B., second M.B., or B.S. examinations, or to one subsequent M.S. or M.D. examination, provided that he give notice to the Registrar at least fourteen days before the commencement of the examination.

BACHELOR OF MEDICINE.

Every candidate for the degree of Bachelor of Medicine is required—1. To have passed the Matriculation Examination (unless he has taken a degree in Arts in one of the Universities of Sydney, Melbourne, Calcutta, or Madras, and Latin was one of the subjects in which he passed); 2. To have passed the Preliminary Scientific Examination;† 3. To have been engaged in his professional studies during four years subsequently to matriculation or graduation in Arts, in one or more of the medical institutions or schools recognised by this University; one year, at least, of the four to have been spent in one or more of the recognised institutions or schools in the United Kingdom; 4. To pass two examinations in Medicine.

First M.B. Examination.—The candidate must have passed the Preliminary Scientific Examination at least one year previously, and must produce certificates—1. Of having completed his nineteenth year; 2. Of having been a student during two years at one or more of the medical institutions or schools recognised by this University; and of having attended a course of lectures on each of the three following subjects: Descriptive and Surgical Anatomy, General Anatomy and

* For the degree of Doctor of Medicine, the fee will continue to be Five Pounds to all such as having taken their M.B. degree under the former regulations, and not have paid the fee of Five Pounds at the Preliminary Scientific Examination.

† Candidates for the Degree of M.B. are strongly recommended by the Senate to pass the Preliminary Scientific Examination before commencing their regular medical studies. For the Preliminary Scientific Examination, candidates are examined in Mechanical and Natural Philosophy, Inorganic Chemistry, Practical Vegetable Physiology; Zoology. They must show a competent knowledge in all the subjects, and in Practical Chemistry. Candidates who matriculated previously to January 1861 are not required to pass the Preliminary Scientific Examination in any other subjects than Chemistry and Botany, and they may pass the Preliminary Scientific Examination and the First M.B. Examination in the same year.

Physiology, Comparative Anatomy, Pathological Anatomy, Materia Medica and Pharmacy, General Pathology, General Therapeutics, Forensic Medicine, Hygiene, Obstetric Medicine and Diseases peculiar to Women and Infants, Surgery, Medicine.* 3. Of having dissected during two winter sessions; 4. Of having attended a course of Practical Chemistry; 5. Of having attended to Practical Pharmacy, and having acquired a practical knowledge of the preparation of medicines. Candidates are examined in Anatomy, Physiology,† Materia Medica, and Pharmaceutical Chemistry, Organic Chemistry. Candidates must show a competent knowledge in all the subjects. The examinations are conducted by printed papers and *visû voce* interrogation, by demonstration from preparations and specimens, and by dissections.

Examination for Honours.—Any candidate who has been placed in the first division may be examined for Honours in—1. Anatomy; 2. Physiology, Histology, and Comparative Anatomy; and 3 and 4. Organic Chemistry, Materia Medica, and Pharmaceutical Chemistry. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself most in each of the first two divisions receives an exhibition of £40 *per annum*, and in each of the second two £30 *per annum*, for the next two years, payable in quarterly instalments; provided that, on receiving each instalment, he declare his intention of presenting himself at the second M.B. examination within three years from the time of passing the first M.B. examination. Under the same circumstances, the first and second candidates in subjects one and two, and the first candidate in subjects three and four, receive each a Gold medal of the value of five pounds.

Second M.B. Examination.‡—No candidate is admitted to this examination within two academical years of the time of his passing the first examination, nor without certificates—1. Of having passed the first M.B. examination; 2. Of having subsequently attended a course of lectures on each of two of the subjects for which he had not presented certificates at the first examination; 3. Of having conducted at least twenty labours; § 4 and 5. Of having attended the Surgical and the Medical Practice of a recognised Hospital or Hospitals during two years, with Clinical Instruction and Lectures on Clinical Surgery and Clinical Medicine; 6. Of having, subsequently to the completion of his attendance on surgical and medical hospital practice, attended to Practical Medicine, Surgery, and Midwifery, with special charge of patients, in a Hospital, Infirmary, Dispensary, or Parochial Union, during six months; 7. Of having acquired proficiency in vaccination.¶ The candidate must also produce a certificate of moral character from a teacher in the last school or institution at which he has studied, as far as the teacher's opportunity of knowledge has extended. Candidates are examined in General Pathology, General Therapeutics and Hygiene, Surgery, Medicine, Midwifery, Forensic Medicine. The examinations include questions in Surgical and Medical Anatomy, Pathological Anatomy, and Pathological Chemistry. The examinations are conducted by printed papers and *visû voce* interrogations; by practical examinations in obstetric preparations and apparatus; by examination, and report on cases, of medical patients in the wards of a hospital; demonstrations from specimens and preparations. Candidates are expected to write prescriptions in Latin, without abbreviations.

Bachelors of Medicine of the University of London have no right, as such, to assume the title of Doctor of Medicine.

Examination for Honours.—Any candidate who has been placed in the first division may be examined for Honours in—1. Medicine; 2. Obstetric Medicine; and 3. Forensic Medicine. If, in the opinion of

the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most in Medicine receives £50 *per annum* for the next two years, with the style of University Scholar in Medicine; and the candidates who distinguish themselves the most in Obstetric Medicine and in Forensic Medicine receive each £30 *per annum* for the next two years, with the style of University Scholar in Obstetric Medicine and in Forensic Medicine respectively. The first and second candidates in each of the preceding subjects each receive a Gold medal, value £5.

BACHELOR OF SURGERY.

The candidates must produce certificates—1. Of having taken the degree of Bachelor of Medicine in this University; 2. Of having attended a course of instruction in Operative Surgery, and of having operated on the dead subject. The examinations are conducted by printed papers on surgical anatomy and surgical operations; by examination and report on cases of surgical patients; by performance of operations upon the dead subject; by application of surgical apparatus; and by *visû voce* interrogation.

Examination for Honours.—Any candidate who has been placed in the first division at the examination may be examined for Honours in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most receives £50 *per annum* for the next two years, with the style of University Scholar in Surgery; and the first and second candidates each receive a Gold medal of value of five pounds.

MASTER IN SURGERY.

The candidate must produce certificates—1. Of having taken the degree of Bachelor of Surgery* in this University; 2. Of having attended subsequently—(a) to Clinical or Practical Surgery during two years in a hospital or medical institution recognised by this University; (b) or to Clinical or Practical Surgery during one year in a recognised hospital or medical institution, and of having been engaged during three years in the practice of his profession; (c) or of having been engaged during five years in the practice of his profession, either before or after taking the degree of Bachelor of Surgery in this University.† 3. Of moral character, signed by two persons of respectability. The examination is conducted by means of printed papers and *visû voce* interrogation; and the candidates are examined in Logic and Moral Philosophy,‡ and in Surgery. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most at this examination receives a Gold Medal of the value of twenty pounds.

DOCTOR OF MEDICINE.

The candidate must produce certificates analogous to those required for candidates for the degree of Master in Surgery, but having special relation to Medicine. The examination is conducted by printed papers and *visû voce* interrogations; and candidates are examined in Logic and Moral Philosophy, and in Medicine. If, in the opinion of the examiners, sufficient merit be evinced, the candidate who distinguishes himself the most at this examination receives a Gold Medal of the value of twenty pounds.

UNIVERSITY OF DURHAM.

CANDIDATES for registration as students in medicine must have passed the Medical Registration Examination appointed by the University, or such other examination as the Warden and Senate may deem equivalent thereto.§ Any Arts Examination recognised by the General Medical Council is accepted by the University.

* Candidates who have obtained the degree of Bachelor of Medicine previously to 1866, will be admitted to the examination for the degree of Master in Surgery without having taken the degree of Bachelor of Surgery; and in the case of such candidates, the attendance on surgical practice required by regulation 2, may commence from the date of the M.B. Degree.

† One year of attendance on Clinical or Practical Surgery, or two years of practice, will be dispensed with in the case of those candidates who at the B.S. Examination have been placed in the first division.

‡ Any candidate who has taken the degree either of B.A., B.Sc., or M.D. in this University, is exempted from this part of the examination; and any candidate who has passed the Second M.B. Examination, may at any subsequent M.S. Examination present himself for Logic and Moral Philosophy alone, if he so prefer: thereby gaining exemption, if he should pass, from examination in that subject when he presents himself to be examined for the degree of Master in Surgery.—An analogous exemption is allowed in the case of candidates for the degree of M.D.

§ Registration Examinations will be held at Durham, commencing on September 19th, 1876, and on April 17th and September 18th, 1877. Application must be made at least one month before the day of examination to Arthur Beanlands, Esq., Durham, to whom candidates must, at the same time, send the examination fee, £1, and certificates of age and character, and specify the optional subject in which they wish to be examined. The following are the subjects for the Registration Examinations: Necessary subjects—The History contained in the Acts of the

* If a candidate is unable to attend at the time of the examination, he must be re-admitted after passing the Matriculation Examination in the following year.

† Any candidate is allowed, if he so prefer, to postpone his examination in Physiology from the First M.B. Examination at which he presents himself for examination in the remaining subjects until the First M.B. Examination in the next or any subsequent year; but such candidate is not admitted to compete for honours on either occasion; and he cannot be admitted as a candidate at the Second M.B. Examination until after the lapse of at least twelve months after having passed his examination in Physiology.

‡ Any candidate for the Second M.B. Examination who has passed the First M.B. Examination under the former regulations, is required to have also passed the Examination in Physiology at some previous First M.B. Examination carried on under the present regulations; at which examination he is not allowed to compete for honours.

§ Certificates will be received from any legally qualified practitioner.

¶ The student's attendance on the Surgical and on the Medical Hospital Practice specified in Regulations 4 and 5, may commence at any date after his passing the Preliminary Scientific Examination, and may be comprised either within the same or within different years; provided that in every case his attendance on Hospital Practice be continued for at least eighteen months subsequently to his passing the First M.B. Examination. Attendance during three months in the wards of a Lunatic Asylum recognised by the University, with clinical instruction, may be substituted for a like period of attendance on medical hospital practice.

¶ Certificates on this subject will be received only from the authorised vaccinators appointed by the Privy Council.

Two licences and three medical degrees are conferred by the University of Durham, viz., Licences in Medicine and Surgery, and the Degrees of Bachelor of Medicine, Master in Surgery, and Doctor of Medicine. The examinations are conducted in Newcastle: 1. By printed papers of questions; 2. Practically in Anatomy, Physiology, Chemistry, *Materia Medica*, Pathology, Surgery, Medicine, Midwifery, and Medical Jurisprudence; 3. *Viva voce* on all the subjects. Every candidate wishing to present himself for any of the above examinations, must give at least fourteen days' notice to the Registrar of the College, and must, at the same time, send the fee, £1, and the necessary certificates.

LICENCES IN MEDICINE AND IN SURGERY.

1. The candidate for a Licence in Medicine must produce certificates of registration as a Student in Medicine, of good moral conduct, of having attained the age of twenty-one years, and such certificates of attendance on lectures and hospital practice as the Warden and Senate shall require. 2. He must have been engaged in medical and surgical study for four years after registration. One of the four years must be spent at the University of Durham College of Medicine, Newcastle-on-Tyne; the other three may be spent either at Newcastle-on-Tyne, or at one or more of the schools recognised by the licensing bodies named in Schedule (A) of the Medical Act.

The regulations for the Licence in Surgery are similar to those for the Licence in Medicine; but the second examination is directed more particularly to Surgery, and may be passed at the same time with the final examination for a Licence in Medicine.

Professional Examinations.—The first professional examination for Licences and Degrees in Medicine and Surgery is held at the end of the second winter session. The subjects of the examination are: Anatomy, Physiology, Chemistry and Botany. The next examination will be held in April 1878. The final professional examination for Licences and Degrees in Medicine and Surgery is held at the end of the fourth year of medical study. The subjects of the examination are: *Materia Medica*, Therapeutics, Medical Jurisprudence, Pathological Anatomy, Midwifery, Diseases of Women and Children, Medicine, and Surgery. The next examination will commence on June 11th, 1878.

BACHELOR OF MEDICINE.

1. The candidate must produce certificates of registration as a Student in Medicine, of good moral conduct, of having attained the age of twenty-one years, and such certificates of attendance on lectures and hospital practice as the Warden and Senate shall require. 2. The candidate must have obtained a Degree in Arts of the University of Durham, or must have passed the Arts Examination for Graduation in Medicine of the University, or must produce one or other of the following certificates:—(a) Of Graduation in Arts at any of the following Universities, viz.: Oxford, Cambridge, Durham, London, Queen's University (in Ireland), Edinburgh, Glasgow, St. Andrew's, Aberdeen, Calcutta, Madras, Bombay, McGill College (Montreal), and Queen's College, Kingston; (b) Of having passed the preliminary or extra professional examination for Graduation in Medicine of any of the following Universities, viz.: London, Edinburgh, Glasgow, St. Andrew's, Aberdeen, Queen's University (Ireland); or the Arts Examination qualifying for the Membership of the Royal College of Physicians of London; or for the Fellowship of the Royal College of Surgeons of England. 3. He must have been engaged in medical and surgical study for four years after registration as a Student in Medicine. One of the four years must be spent at the University of Durham College of Medicine, Newcastle-on-Tyne; the other three may be spent either at Newcastle-on-Tyne or at one or more of the recognised schools.

There are two professional examinations. The first is held at the end of the second winter session, the final at the end of the fourth year of medical study. The subjects are the same as for the Licence in Medicine, but the examinations are more stringent.

MASTER IN SURGERY.

The regulations are the same as for the Degree of Bachelor of Medicine, except that the final examination is directed more particularly to Surgery.

Apostles; English Grammar and Composition: Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Euclid, Books I and II; Latin Grammar, with—In September, Virgil, *Æneid*, Lib. I and II. in April, Caesar, *De Bello Gallico*, Lib. I and II. In addition to the above, all candidates are required to satisfy the Examiners in one (at least) of the following optional subjects—Greek Grammar, with Xenophon's *Memorabilia*, Books I and II; French Grammar, with Voltaire's *Charles XII*; German Grammar, with Goethe's *Dichtung und Wahrheit*, Book I; Elementary Questions in Mechanics, Hydrostatics, and Pneumatics.

DOCTOR OF MEDICINE.

1. The candidate must have obtained the Degree of Bachelor of Medicine, must be of the age of twenty-four years, and must have been engaged, subsequently to his having received the Degree of Bachelor of Medicine, for at least two years in attendance on a hospital, or in the military or naval services, or in medical and surgical practice. 2. The candidate must write an essay, based on original research or observation, on some medical subject, selected by himself, and approved of by the Professor of Medicine, and must pass an examination thereon, including the collateral medical sciences involved in the subject of the essay.

EXAMINATION FOR THE DEGREE OF DOCTOR OF MEDICINE, FOR MEDICAL PRACTITIONERS OF FIFTEEN YEARS' STANDING, WITHOUT RESIDENCE.

The Warden and Senate of the University of Durham, with the view of affording to practitioners of fifteen years' standing an opportunity of obtaining the Degree of Doctor of Medicine, have instituted a special examination, under the following regulations.

1. The candidate must have been registered by the General Council of Medical Education and Registration of the United Kingdom. 2. He must have been in the active practice of his profession for fifteen years. 3. He must not be under forty years of age. 4. He must produce a certificate of moral character from three registered members of the medical profession. 5. If he shall not have passed, previously to his professional examination (in virtue of which he has been placed on the *Register*), an examination in Arts, he shall be required to pass an examination in Classics and Mathematics.* 6. If the candidate shall have passed, previously to his professional examination (in virtue of which he has been placed on the *Register*), a preliminary examination, he shall be required to translate into English a passage from some Latin author, such as Virgil, Cæsar, or Celsus, and shall have an opportunity of showing proficiency in Greek, Moral Philosophy, or some modern language. 7. He shall be required to pass an examination in the following subjects:—i. Principles and Practice of Medicine, including Psychological Medicine, and Hygiene; ii. Principles and Practice of Surgery; iii. Midwifery and Diseases peculiar to Women and Children; iv. Pathology—Medical and Surgical; v. Anatomy—Medical and Surgical; vi. Medical Jurisprudence and Toxicology; vii. Therapeutics. 8. The fee shall be Fifty Guineas, to be forwarded to the Registrar of the University of Durham College of Medicine, Newcastle-upon-Tyne, when the candidate enters his name for the examination. 9. If the candidate shall fail to satisfy the Examiners, Twenty Guineas shall be retained; but if he shall again offer himself for the examination, Forty Guineas only shall then be required.

An examination in accordance with the above regulations will be held on June 10th, 11th, 12th, and 13th, 1878. Gentlemen intending to offer themselves as candidates are requested to forward their names to Dr. Luke Armstrong, Registrar of the University of Durham College of Medicine, Newcastle-on-Tyne, on or before May 1st, 1878, together with the fee and the before-mentioned certificates.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

REGULATIONS FOR THE LICENCE.

No one can obtain the Licence of the College under the age of twenty-one years. Every applicant must produce satisfactory evidence of having been engaged in the study of Medicine during at least four years subsequently to registration as a student. This period must include attendance during not less than four winter sessions or three winter and two summer sessions, at a recognised medical school. He must produce certificates of having attended the following courses at an university or medical school: Anatomy, Practical Anatomy, Chemistry, Practice of Medicine, Clinical Medicine, and Principles and Practice of Surgery, each a six months' course; Practical Chemistry, *Materia Medica* and Pharmacy, Physiology or Institutes of Medicine, Clinical Surgery, Midwifery, Medical Jurisprudence, General Pathology or Pathological Anatomy, and Practical Pharmacy, each a three months' course. He

* The subjects for this examination shall be as follow. 1. An English Essay (A short Essay on some subject to be specified at the time of the examination.) 2. Arithmetic. 3. Euclid, Books I and II. 4. Latin, Translation from Virgil, *Æneid*, Lib. I and II, together with Grammatical Questions. 5. One of the following subjects—i. Greek, Translation from Xenophon's *Memorabilia*, Books I and II, with Grammatical Questions. ii. French, Translation from Voltaire's *Charles XII*, with Grammatical Questions. iii. German, Translation from Goethe's *Dichtung und Wahrheit*, Book I, with Grammatical Questions. iv. Elements of Mechanics, Pneumatics, and Hydrostatics. v. Some Treatise on Moral, Political, or Metaphysical Philosophy.

must have attended the practice of a Public Hospital (containing not fewer than eighty beds) during not less than twenty-four months, twelve of which must have been spent in attendance on the medical wards. He must also have attended for six months the practice of a public dispensary, or have acted for six months as clinical clerk or dresser in a hospital; or have been engaged during six months as visiting assistant to a registered practitioner. He must also have attended at least six cases of labour under the superintendence of a qualified medical practitioner, and have studied vaccination under a competent and recognised teacher. He must have passed the Preliminary Examination in Literature and Science,* and had his name inscribed in the General Medical Council's Register of Medical Students, previously to the commencement of his medical studies. Masters and Bachelors of Arts of any British or Foreign University, whose course of study may be approved of by the College, will be exempted from the preliminary examination; also those who have passed the examination of the national educational bodies, or any of the licensing boards recognised by the Medical Act.

The Professional Examination will be divided into two parts: 1. Anatomy, Physiology, Chemistry; 2. *Materia Medica* and Pharmacy, Pathology and Pathological Anatomy, Practice of Medicine, Midwifery, Medical Jurisprudence, Clinical Medicine. No candidate will be admitted to the first examination until the end of his second winter session, or to the second until he has completed four years of professional study. The preliminary examinations will be held on October 16th and 17th, 1877; April 16th and 17th, and July 20th and 22nd, 1878. The first professional examinations on Wednesdays, October 10th, 1877; January 16th, April 24th, July 24th, and October 9th, 1878. The second professional examinations will be held on Thursdays and Fridays following the first professional examination.

Candidates who have passed the first professional examination before a qualifying body (provided it be as extensive as that required by this College) will be at once admitted to the second examination.

No candidate is admissible to examination who has been rejected by any other licensing board within the previous three months.

The Fee for the Licence is £15 15s. Candidates who pass the first professional examination before the 31st of December 1877, pay £10 10s., provided they pass the second examination before the 1st of January 1880. A candidate for the first professional examination pays £6 6s., and for the second or final, £9 9s.; but, if exempted from the first professional examination, he shall, before appearing for the final, pay the whole fee of £15 15s. If a candidate be unsuccessful at the first professional examination, £3 3s.; and at the second or final, £4 4s. will be retained. This regulation will also apply to cases in which the candidate may have been previously rejected.

Candidates may be admitted to special examination on bringing forward satisfactory reasons and paying an extra fee of £5 5s. Should the candidate be unsuccessful, the sum of £11 11s. will be returned to him.

ROYAL COLLEGE OF SURGEONS OF EDINBURGH.

REGULATIONS FOR CANDIDATES FOR THE DIPLOMA.

THE regulations regarding schools of medicine, preliminary examination, and professional study and examination, are similar to those for the double qualification (see below), except that the third course of Medicine and the course of Pathological Anatomy are not required. The first professional examinations will be held on October 23rd, 1877; January 29th, April 2nd and 23rd, and July 23rd, 1878. The second examination takes place immediately after the conclusion of the first.

At the second examination, the student, in furnishing the statement of his professional study, must, if he have been an apprentice, insert the name of his master, the date of his indenture, and the length of time for which he was bound. If he have been apprenticed to a Fellow of the College, he must also produce his discharged indenture.

Recent Dissections, Anatomical Specimens, and articles of the *Materia Medica*, are employed in the examinations; and all candidates are required to write out formulæ of prescriptions, and are subjected to a practical examination in the Surgical Hospital.

No candidate can be admitted to examination who has been rejected by any other Licensing Board within three months preceding his application to be examined.

The Fees are: for the first examination, £6 6s.; for the second, £9 9s. At the first examination, £3 3s., and at the second £5 5s., will be returned to unsuccessful candidates. Candidates who passed the first Professional Examination before December 31st, 1876, will be required to pay, as under the old regulation, a fee of £6 for the second

examination, provided they appear for that examination prior to January 1st, 1879; and, in the event of being unsuccessful, £2 will be retained.

Candidates who have passed the first examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the second Professional Examination on producing certificates of the whole course of study, of having passed their Preliminary and first Professional Examinations, and of having been registered. If any of the three subjects of the first Professional Examination have been omitted, such candidates will have to undergo the first examination on the omitted subjects; and none of the subjects of the second examination will be omitted. The fee will be £15 15s. Unsuccessful candidates under this regulation will receive back £11 11s.

Candidates desirous of special examinations on other days than those fixed must prepare a case to be submitted to the consideration of the authorities of the College, with evidence to show why it was and is impossible for them to avail themselves of the ordinary examinations. They must produce certificates of the whole of the prescribed course of study, and of having passed the preliminary examination, and must state the earliest and the latest days within which they can present themselves. All such candidates, especially those who are at a distance from Edinburgh, should present their applications as long beforehand as possible. The fees, which must be lodged by 10 A.M. of the day preceding the examination-day, are as follows: viz., £20 for first and second examinations, of which £12 will be returned to candidates remitted on the first examination; but no part of the money will be repaid to candidates who, having passed the first, are unsuccessful in the second examination; £17 for second examination. Of this, no part will be returned to candidate if unsuccessful.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS, EDINBURGH.

DOUBLE QUALIFICATION IN MEDICINE AND IN SURGERY.

THE Royal College of Physicians of Edinburgh and the Royal College of Surgeons of Edinburgh, while they still give their Diplomas separately, have made arrangements by which, after one series of examinations, the student may obtain the Diplomas of both Colleges. This joint examination is conducted by a Board, in which each body is represented for examination in the branches common to both Medicine and Surgery; but the College of Physicians takes exclusive charge of the examination in Medicine, and the College of Surgeons of the examination in Surgery. Students passing that examination are enabled to register two qualifications: Licentiate of the Royal College of Physicians of Edinburgh, and Licentiate of the Royal College of Surgeons of Edinburgh.

Every candidate must have followed his course of study in an University, or in an established School of Medicine, or in a Provincial School specially recognised by the College of Physicians and Surgeons of that division of the United Kingdom in which it is situate. Under the title of *Established School of Medicine* are comprehended the medical schools of those cities of Great Britain and Ireland in which Diplomas in Medicine or Surgery are granted, and such Colonial and Foreign Schools as are similarly circumstanced in the countries in which they exist.

Preliminary Examination in General Education.—All candidates for the Diplomas of the Colleges must have passed the examination in General Education,* and have had their names inscribed in the General Medical Council's Register of Medical Students at the commencement of their medical studies. Certificates of having passed the examinations in General Education, conducted by other bodies (viz., those recognised by the General Medical Council), will be accepted as equivalent. Each candidate who intends to undergo the preliminary examination must give in his name to the officer of either College not less than two days before the day of examination. He must pay a fee of Ten Shillings. If unsuccessful, he is allowed to appear once again for examination without paying a fee; but, for any number of times after two, he must pay Five Shillings on each occasion.

* The examination will embrace the following subjects: 1. English Language, including Grammar and Composition. 2. Arithmetic, including Vulgar and Denominal Fractions. Algebra, including Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin: *Horati Carmina*, lib. 1; *Salustii Jugurtha*; also, a passage from an unprinted author. 5. One of the following subjects, at the option of the candidate:—(1) Greek: Herodotus, *History*, Book I; and Homer, *Iliad*, Book II. (2) French: Molière, *L'Avare*. (3) German: Schiller's *Wilhelm Tell*. (4) Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics. In Latin, Greek, French, and German, parsing of words from the passages given to be translated will be required; also, translation of short sentences from English into the respective languages.

* For the subjects, see note to regulations for double qualification.

Professional Education.—1. Candidates must have been engaged during four years after the preliminary examination, in not less than four winter sessions*, or three winter and two summer sessions, attendance at a recognised medical school. 2. The candidate must have attended the following courses of lectures: Anatomy, two courses* of six months each, and Practical Anatomy, twelve months; or Anatomy, one course of six months, and Practical Anatomy, eighteen months; Physiology, not less than fifty lectures; Chemistry, Practice of Medicine, Clinical Medicine,† Medicine (a third course, either Practice or Clinical, at option),‡ Principles and Practice of Surgery, Clinical Surgery,† Surgery (a third course, either Principles and Practice or Clinical Surgery, at option),† each six months; Practical or Analytical Chemistry, Materia Medica, Midwifery, and Diseases of Women and Children, Medical Jurisprudence, and Pathological Anatomy,‡ each three months.§ 3. He must also produce certificates:—*a.* Of having attended at least six cases of labour under the superintendence of a registered medical practitioner. *b.* Of having attended, for three months, instruction in Practical Pharmacy. The teacher signing the certificate must be a Member of the Pharmaceutical Society of Great Britain, or a chemist and druggist recognised by either College on special application, or the superintendent of the laboratory of a public hospital or dispensary, or a registered practitioner who dispenses medicine to his own patients. *c.* Of having attended, for twenty-four months, a public general hospital containing, on an average, at least eighty patients. *d.* Of having attended, for six months, the practice of a public dispensary specially recognised by either College; or of having been engaged for six months as assistant to a registered practitioner. *e.* Of having been instructed in vaccination; the certificate to be signed by the teacher, who must be a registered practitioner.

It is strongly recommended to students to avail themselves of opportunities of attending lectures on Ophthalmic and Mental Diseases, also on Natural History and Comparative Anatomy; and of obtaining practical instruction in the use of the Microscope.

Professional Examination.—1. Candidates for the double qualification are subjected to two professional examinations. 2. Opportunities for both examinations will be presented six times in each year. On each occasion, the candidates write answers to the questions proposed; and are examined orally on the days immediately succeeding. 3. Unsuccessful candidates are remitted to their studies for not less than three months. 4. The first examination embraces Anatomy, Physiology, and Chemistry; and takes place not sooner than the end of the second winter season. 5. Candidates must apply to the Inspector of Certificates on or before the Saturday preceding the day of examination; and must produce certificates of attendance on those courses of lectures which have reference to the subjects of the examination, and evidence of having passed the preliminary examination. 6. The sum of £8 8s. must be paid to the Inspector of Certificates for this examination not later than 10 A.M. of the day preceding it. This sum will be considered as paid to account for the entire fee of £21 payable for the two Diplomas. 7. In the case of a candidate being unsuccessful at this examination, £5 5s. will be returned to him. 8. The second examination embraces Medicine, Surgery, and Surgical Anatomy, Midwifery, Pathological Anatomy, Materia Medica and Pharmacy, and Medical Jurisprudence; and takes place after the termination of the winter session of the last year of study, four years after the examination in general education. 9. Application for examination must be made to the Inspector of Certificates not later than the Tuesday previous to the day of examination. 10. Every candidate must produce—*a.* Satisfactory evidence of having attained the age of twenty-one years; *b.* A certificate of having passed the preliminary examination, unless this certificate have been already seen by the Inspector; *c.* A certificate of registration in the books of the General Medical Council; *d.* A certificate of having passed the first professional examination; *e.* The certificates of his classes, etc.; *f.* A tabular statement (for which a printed form will be furnished), exhibiting the whole of his professional education, and distinguishing the classes, hospitals, dispensaries, and schools attended during each session. 11. The fee for this examination is £12 12s., which must be lodged with the Inspector not later than 10 A.M. of the day preceding the examination-day. 12. On the production of the above documents, and after receiving the fees, the In-

spector gives the candidate a letter authorising the examiners to take him on trial. 13. In case of a candidate being unsuccessful at this examination, £8 8s. will be returned to him. 14. Candidates who have passed the first professional examination before December 31st, 1876, will pay, as before, £10 for the second examination if they appear for that examination before January 1st, 1879. If unsuccessful, £2 will be retained. 15. Candidates who have passed the first professional examination in Anatomy, Physiology, and Chemistry, at any of the Licensing Boards recognised by the Medical Act, will be admissible to the second professional examination on producing certificates of the whole course of study prescribed, of having passed their preliminary and first professional examinations, and of having been registered as students. If any of the three subjects of the first examination have been omitted, the candidate will have to undergo an examination on the omitted subjects; and none of the subjects set down in § 8 will be omitted at the second examination. The fee payable by such candidates is £21, and unsuccessful candidates will receive back £16 16s. 16. In addition to the written and oral examinations, all candidates are subjected to practical Clinical Examinations in Medicine and Surgery. 17. No candidate is admissible to examination who has been rejected by any other Licensing Board within the three preceding months.

Communications from candidates to be addressed to Mr. Joseph Bell, 20, Melville Street, Edinburgh.

The following will be the periods of examinations for the Double Qualification of the Royal College of Physicians and Surgeons of Edinburgh, for the year 1877-78. *Preliminary Examination in General Education*, October 16th and 17th, 1877; April 16th and 17th, and July 20th and 21st, 1878. *First Professional Examinations*.—Tuesdays, October 30th, 1877; February 5th, April 9th and 30th, July 16th and 30th, 1878. *Second Professional Examinations*.—These will take place immediately after the conclusion of the first professional examinations. In no case will they be begun on an earlier day than the Thursday of any period.

FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

REGULATIONS FOR THE DIPLOMA.

THE Regulations respecting the Curriculum of Professional Study, and the Fees, are similar to those of the Royal College of Surgeons of Edinburgh.

Preliminary Examinations in General Literature will be held on October 19th, 1877, and April 19th, July 19th, September 13th, and October 19th, 1878.* The Fee is Ten Shillings. Candidates will be furnished, on application to the Secretary, with a form of application, which they must fill up and transmit to him at least four days before the examination.

The *First Professional Examinations* take place on January 8th, April 9th, July 16th, and October 8th; the *Second Professional Examinations* on January 10th, April 11th, July 18th, and October 10th. Applications for admission to the first examination must be made four days, and to the second examination a week before the respective examinations.

The examinations are conducted partly in writing and partly orally. Recent Dissections, Anatomical Specimens, the Microscope, Chemical Tests, Articles of the Materia Medica, the Microscope, Surgical and Obstetrical Instruments and Apparatus, Pathological Specimens and Toxicological Tests and Specimens, may be employed. Candidates are also subjected, at the second examination, to a Practical Clinical Examination at the Hospital.

Candidates who have passed the examination in Anatomy, Physiology, and Chemistry, before any of the Licensing Bodies enumerated in Schedule (A) of the Medical Act, on complying with the regulations in other respects, are admitted to the second professional examination. Graduates and Licentiates in Medicine of other bodies are exempt from examination in Medicine and Materia Medica.

* The examination will embrace the following subjects:—1. English Language, including Writing to Dictation, Grammar, and Composition. 2. Latin: Translation from Cæsar, *De Bello Gallico*, Books I and III; an Exercise in rendering English correctly into Latin, the Latin words being supplied. 3. Arithmetic, to Vulgar and Decimal Fractions inclusive; Algebra, including Simple Equations. 4. Geometry: First two Books of Euclid (questions will be given on the third Book of Euclid, but the answering of them will be optional). 5. One of the following subjects at the option of the candidate. *a.* Natural Philosophy: Mechanics, Hydrostatics, and Pneumatics. *b.* Greek: Xenophon's *Anabasis*, Book I. *c.* French: Fénelon's *Aventures de Télémaque*. *d.* German: Schiller's *Wallenstein Teil I*. In the English, Latin, Greek, French, and German papers, special stress will be laid on accurate grammatical knowledge. Translations of English into Greek, French, and German, will be required from candidates examined in these languages.

* The two courses must not be attended in the same session.

† Two courses of Clinical Medicine or of Clinical Surgery of three months each, if not simultaneous, will be held equivalent to one course of six months. They must be attended during the attendance at the Hospital where they are delivered.

‡ A certificate of attendance at the *Post Mortem* Examinations at a General Hospital will be accepted in lieu of this course.

§ The six months' courses delivered in Scotland must consist of not fewer than one hundred lectures, with the exception of Clinical Medicine and Clinical Surgery. The three months' courses must consist of not fewer than fifty lectures.

during the same period, on a course of Practical Anatomy; and one year's attendance, to the extent of four of the departments of medical study required, on the lectures of teachers of Medicine in the hospital schools of London, or in the school of the College of Surgeons in Dublin, or of such teachers of Medicine in Edinburgh or elsewhere as shall from time to time be recognised by the Edinburgh University Court, may be reckoned as one of the four years.* All candidates not students of the University of Edinburgh attending the lectures of Extra-Academical Teachers in Edinburgh, must, at the commencement of each year of attendance, enrol their names in a book to be kept by the University for that purpose, paying a fee of the same amount as the Matriculation Fee.

Every candidate must deliver, at such time of the year as may be fixed by the Senatus Academicus—1. A declaration, in his own handwriting, that he is twenty-one years of age, or that he will be so on or before the day of graduation; and that he will not be, on the day of graduation, under articles of apprenticeship. 2. A statement of his studies, general and professional, accompanied with proper certificates.†

In the University of Edinburgh, there are four professional examinations. Candidates are examined in writing and *vivâ voce*—1, on Chemistry, Botany, and Natural History; 2, on Anatomy, Institutes of Medicine, Materia Medica (including Practical Pharmacy), and Pathology; 3, on Surgery, Practice of Medicine, Midwifery, and Medical Jurisprudence; 4, Clinically on Medicine and on Surgery in a hospital. The examinations on Anatomy, Chemistry, Institutes of Medicine, Botany, Natural History, Materia Medica, and Pathology are conducted, as far as possible, by demonstrations of objects. Students may be admitted to examination on the first divisions of these subjects at the end of their second year, and on the second division at the end of their third year. The examination on the third and fourth divisions cannot take place until the candidate has completed his fourth *Annus Medicus*. Candidates may be admitted to examination on the first two of these divisions at the end of their third year, or to the four examinations at the end of the fourth year. If any candidate be found unqualified, he cannot be again admitted to examination unless he has studied during another year two of the prescribed subjects, either in the University or in some other school of medicine.

In the other three Universities, every candidate for the Degree of Bachelor in Medicine or Master in Surgery must undergo three professional examinations, conducted in writing and *vivâ voce*. The first examination (not to be taken before the end of the second year of study) includes Chemistry, Elementary Anatomy, Botany, and Materia Medica.‡ The second examination (not to be taken before the end of the third year) includes advanced Anatomy, Physiology, Zoology with Comparative Anatomy and Surgery.§ The third examination (not to be taken before the end of the fourth year) includes General Pathology, Surgery, Practice of Medicine, Midwifery, Medical Jurisprudence, Clinical Medicine, and Clinical Surgery.¶ The examinations in Anatomy, Chemistry, Physiology, Botany, Zoology, and Materia Medica are conducted, as far as possible, by demonstrations of objects; and those on Medicine and Surgery, in part, by clinical demonstrations. Candidates may be admitted to examination on the first two at the end of the third year, or to the three examinations at the end of the fourth year. If any candidate be found unqualified, he is not again admitted to examination unless he shall have completed another year of medical study, or such portion of another year as may be prescribed by the examiners.

DEGREE OF DOCTOR OF MEDICINE.

The Degree of Doctor of Medicine may be conferred on any candidate who has obtained the Degree of Bachelor of Medicine, and is of the age of twenty-four years, and has been engaged, subsequently to having received the Degree of Bachelor of Medicine, for at least two years in attendance on a Hospital, or in the Military or Naval Medical Service, or in Medical and Surgical Practice. The candidate must be a Graduate in Arts, or must, before or at the time of obtaining his degree of Bachelor of Medicine, or within three years thereafter, have passed a satisfactory examination in Greek and in Logic or Moral Philosophy, and in one at least of the following subjects; viz., French, German,

Higher Mathematics, and Natural Philosophy.* He must submit to the Medical Faculty a Thesis composed by himself, and which shall be approved by the Faculty, on any branch of knowledge comprised in the professional examinations for the Degree of Bachelor of Medicine, which he may have made a subject of study after having received that degree.†

Candidates who commenced their medical studies in Edinburgh before February 4th, 1861, and in Aberdeen before November 1861, are entitled to be examined for the degree of Doctor of Medicine, under the regulations then in force in each University respectively. At Edinburgh, candidates, settled for a period of years in foreign parts, who have complied with all the regulations for the degree of M.D. (under the new statutes), but who cannot appear personally to receive the degree, may, on satisfying the Senatus to that effect, by production of sufficient official testimonials, have the degree conferred on them in absence.

The Degree of Doctor of Medicine may be conferred by the University of St. Andrew's on any Registered Medical Practitioner above the age of forty years, whose professional position and experience are such as, in the estimation of the University, to entitle him to that Degree, and who shall, on examination, satisfy the Medical Examiner of the sufficiency of his professional knowledge, provided always that such degrees shall not be conferred on more than ten in any one year.

The Graduation Fees in each of the Universities are—for the Degree of M.B., three examinations, each £5 5s.—£15 15s.; for the Degree of C.M., £5 5s. additional; for the Degree of M.D., £5 5s. additional to that for M.B., together with Government stamp duty (£10).

The fee for graduating under the old Regulations in Edinburgh is £25; at St. Andrew's, the fee for the Degree of M.D. under the section relative to Registered Medical Practitioners is 50 Guineas. Stamp duty is included in both cases.

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

REGULATIONS RELATIVE TO THE LICENCE OF MEDICINE.

EXAMINATIONS for the Licence are held on the second Tuesday and following day in each month (except August and September).

A candidate who has not previously obtained any medical or surgical qualification recognised by the College must produce certificates—1. Of having been engaged in the study of Medicine for four years. 2. Of having passed the preliminary examination of one of the recognised Licensing Corporations before the termination of the second year of medical study. 3. Of having studied at a school or schools recognised by the College the following subjects: Practical Anatomy; Anatomy and Physiology, or Institutes of Medicine; Botany; Chemistry; Practical Chemistry; Materia Medica; Practice of Medicine and Pathology; Surgery; Midwifery; Medical Jurisprudence. 4. Of having attended a Medico-Chirurgical Hospital in which regular courses of Clinical Lectures are delivered, together with clinical instruction, for twenty-seven months, or such hospital for eighteen months, with other nine months at a medical hospital. 5. Of having attended Practical Midwifery for six months at a recognised Lying-in Hospital, or evidence satisfactory to the College of having attended Practical Midwifery. 6. Of character, from two registered physicians or surgeons. A candidate who has already obtained a recognised medical or surgical qualification must fill up a schedule which will be supplied on application, and produce his diploma or certificate of registration, and the certificate of Practical Midwifery, and testimonials as to character.

The examination is conducted by printed questions and *vivâ voce*, and consists of two parts:—1. Anatomy, Physiology, Botany, Chemistry; 2. Materia Medica, Practice of Medicine, Medical Jurisprudence, Midwifery. Candidates will also be examined at the bedside.

Candidates who have already obtained a qualification from an University or other licensing body, or who have passed the first examination after a complete curriculum, are required to undergo the *second part* of the professional examination only. Physicians or surgeons of five years' standing are exempted from the written portion of the final examinations. Fee for Licence in Medicine, £15 15s., of which £3 3s. are retained if the candidate be unsuccessful.

* The other two years may be constituted by attendance upon courses in the great Hospital Medical Schools of London or Dublin; and, in default of such attendance, one of the four years may be constituted by attendance on any general Hospital containing not less than eighty beds, provided attendance has been given at the same time on a course of Practical Anatomy.—*Glasgow*.

† The Universities of Aberdeen and St. Andrew's require an Inaugural Dissertation to be presented previously to the final examination for M.B. In Edinburgh and Glasgow, no Thesis is required until the candidate seeks the Degree of M.D.

‡ Materia Medica in third examination at Glasgow.

§ Surgery is deferred to the third examination at Glasgow.

¶ Materia Medica and Surgery.—*Glasgow*.

* In Greek and in English Moral Philosophy, and in any one of the theoretical subjects in the examination in General Education.—*Glasgow*. Natural History added in optional subjects.—*Edinburgh* and *St. Andrew's*.

† No thesis will be approved by the Medical Faculty which does not contain either the results of original observations in practical medicine, surgery, midwifery, or some of the sciences embraced in the curriculum for the Bachelor's degree; or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted, so that due verification may be facilitated.—*Edinburgh*.

LICENCE IN MIDWIFERY.

Examinations for a diploma in Midwifery are held monthly, except August and September. A candidate who is already a Licentiate of the College may present himself at any of the examinations, on giving a week's notice. Candidates not Licentiates of the College must have a degree or licence in Medicine or Surgery from any University or College in the United Kingdom, and must have attended Lectures in Midwifery for six months, and also Practical Midwifery. They must also produce certificates of character. The fee is £3 3s., of which £1 is retained in case of rejection.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

LETTERS TESTIMONIAL.

EVERY person requiring to be registered as a pupil on the College books shall, if the Council think fit, be so registered on the payment of five guineas. All registered pupils are admitted to the Preliminary Examination of the College without further fee, and are permitted to study each week day in the Museum, to read in the Library; also to attend the Lectures on Comparative Anatomy, and to obtain a certificate for such attendance, without payment of any fee. No student can be admitted as a candidate to any of the stated examinations, or to the special examinations for the Letters Testimonial, until he has been enrolled as a registered pupil, and also passed a preliminary examination.

Registered pupils may present themselves, without payment of any further fee, for the Preliminary Examination at any period previous to their first professional examination; but are expected to do so before the commencement of professional studies. Students who are not registered pupils are admitted to the Preliminary Examination upon payment of ten shillings.*

Students who have passed any of the Preliminary Examinations recognised by the General Medical Council, in which the Greek language is compulsory, are exempt from any further preliminary examination, and are entitled to become registered pupils.

Candidates for Letters Testimonial may present themselves either at a special or at a stated examination.

Special Examinations.—Every registered pupil shall be admitted, upon payment of a special fee of £5 5s. in addition to the ordinary fee of £21, to a special examination for Letters Testimonial, as producing evidence that he has passed a Preliminary Examination; that he has been engaged in the study of his profession for not less than four years; that he has attended during three years a recognised Hospital where Clinical Instruction is given; that he has attended three courses each of Lectures on Anatomy and Physiology, and on the Theory and Practice of Surgery and of Dissections, accompanied by demonstrations; two courses of Lectures on Chemistry, or one course of Lectures on General and one on Practical Chemistry; one course each of Lectures on *Materia Medica*, Practice of Medicine, Midwifery, Medical Jurisprudence, and Botany.

The subjects for examination are the same as for the Stated Examinations. A rejected candidate will only be entitled to receive back £15 15s.

Stated Examinations are held in April, July, and November. Candidates must be registered pupils, and are divided into two classes—Junior and Senior.

The Junior Class must produce certificates of having passed a Preliminary Examination, and of having attended three courses each of Lectures on Anatomy and Physiology, and on Practical Anatomy with Dissections; two courses of Lectures on Chemistry; one course each of Lectures on *Materia Medica*, Botany, and Forensic Medicine. This class is examined in Anatomy, Histology, Physiology, *Materia Medica*, and Chemistry.

The fee for this examination is £5 5s., in addition to the registration fee; not to be returned in case of rejection, but to be allowed the candidate in case he presents himself a second time for examination.

The Senior Class must produce certificates of having attended three courses of Lectures on the Theory and Practice of Surgery, one course each of Lectures on the Practice of Medicine, and on Midwifery; also of attendance on a recognised Hospital for three Winter and three Summer Sessions. This class is examined in Surgery, Operative Sur-

* The following are the subjects of the Preliminary Examination. The English Language, including Grammar and Composition; Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations; Geometry, first two Books of Euclid; Greek and Latin, including Translation and Grammar. Greek—The Gospel of St. John, or the First Book of Xenophon's *Anabasis*, or the Dialogue of Lucian, entitled *Menippus* or the *Necromancy*. Latin—The First and Second Books of the *Æneid* of Virgil, or the *Jugurthine War* of Sallust, or the Third Book of Livy. These examinations are held on the third Wednesday in January, April, July, and October in each year.

gery and Surgical Appliances, Practice of Medicine, Medical Jurisprudence, and Prescriptions.

The fee for the Senior Class Examination is £15 15s., returnable to the candidate in case of rejection.

The examinations are partly written and partly oral.

In addition to the foregoing fees, a fee of £1 is to be paid to the Registrar. Every candidate rejected at a Stated Examination, on applying for re-examination, must pay £2 2s., in addition to the regular fees.

FELLOWSHIP.

Every registered pupil or licentiate may be admitted to examination for the Fellowship on producing a certificate that he is twenty-five years of age, and that he is a Bachelor of Arts, or has been examined with a view to ascertain that he has obtained a liberal preliminary education; also a certificate, signed by two or more Fellows of the College, of general good conduct. He must have been engaged in the acquisition of professional knowledge not less than six years (five years being required in the case of Bachelor of Arts), during three of which he must have studied in one or more of the schools and hospitals recognised by the Council. The other three years may have been passed in any approved school. He must also have acted as House-Surgeon or Dresser in a recognised hospital; and must have attended the lectures required of candidates for Letters Testimonial, together with one course of lectures on Comparative Anatomy, and one on Natural Philosophy. He must present a thesis on some medical subject, or clinical reports, with observations of six or more medical or surgical cases taken by himself.

Licentiates of the College, who cannot show that they have followed the course of study specified, may, at the expiration of ten years from the date of their diploma, be admitted to the examination for the Fellowship, on producing satisfactory evidence that they have conducted themselves honourably in the practice of their profession.

Each candidate for the Fellowship is examined on two days. The subjects of the first examination are Anatomy and Physiology (Human and Comparative); those of the second—Pathology, Therapeutics, the Theory and Practice of Medicine and Surgery, and such other branch of medical science as the Council may direct. The examinations are both oral and written. The candidates must perform Dissections and Operations on the dead bodies. Rejected candidates cannot present themselves a second time until after one year.

The fee payable is £21 if the candidate be a Licentiate, or £36 15s. if he be a registered pupil; provided in either case he intends to reside beyond ten miles from Dublin. Should the candidate intend to reside in Dublin, or within ten miles thereof, he pays, if a Licentiate, £31 10s.; if a registered pupil, £47 5s. Fellows entering on the country list, who may subsequently settle as practitioners in Dublin, or within ten miles thereof, must pay £10 10s. to the College.

DIPLOMA IN MIDWIFERY.

Midwifery Examination.—Any Fellow or Licentiate of the College is admissible to the examination for a Diploma in Midwifery on producing certificates of having attended a course of Lectures on Midwifery and Diseases of Women and Children, the Practice (for six months) of a Lying-in Hospital, or of a Dispensary for Lying-in Women and Children, and that he has attended at least thirty labours.

Candidates are examined on the Organisation of the Female; the Growth and Peculiarities of the Fœtus; the Practice of Midwifery, and the Diseases of Women and Children; and, if approved of, receive a license or diploma.

A rejected candidate is not again admitted to examination within three months, nor unless he produces satisfactory evidence of having been engaged in the study of Midwifery subsequently to his rejection.

The fee is £1 6s. if the Midwifery Diploma be taken out within one month from the date of the Letters Testimonial; afterwards it is £2 2s.

APOTHECARIES' HALL OF IRELAND.

EVERY candidate for the License to Practise is required to undergo a Preliminary and a Professional Education and Examination.* The

* The following are the subjects of Preliminary Examination:—*Compulsory.* 1. English: Grammar, Composition, and the leading events of English History. 2. Arithmetic and Algebra: Arithmetic, including Vulgar and Decimal Fractions; Algebra, including Simple Equations. 3. Geometry: First Two Books of Euclid. 4. Latin: the First Two Books of Livy, or the First Two Books of the *Æneid* of Virgil and Latin Prose Composition. 5. Greek: the First Book of the *Anabasis* of Xenophon, or the First Book of the *Iliad* of Homer. 6. French: *Charles XII.*, *Histoire de Vie* of Voltaire, or *Voyage en Orient* of Lamartine. 7. German: *Wilhelm Tell* of Schiller.—Candidates will be examined in either French or German, as they may select.—*Optional.* 1. *Natural Philosophy*: Mechanics, Hydrostatics, Pneumatics and Hydraulics. 2. *Natural History*: The Classification, Elementary Structure, and General Physiology of Vegetables and Animals.

Arts Examination will be held at the Hall four times in the year, viz., the third Thursday in the months of January, April, July, and October, at the hour of 12 noon. Unsuccessful candidates will be remitted to their studies for six months.

Professional Education and Examinations.—Every candidate for the Licence to Practise Medicine and Pharmacy must produce certificates: 1. Of having passed an examination in Arts previously to entering on professional study. 2. Of registration as a medical student. 3. Of being at least twenty-one years of age, and of good moral character. 4. Of pupilage to a qualified apothecary, or of having been otherwise engaged at Practical Pharmacy for a period of twelve months subsequently to having passed the examination in Arts. 5. Of having spent four years in professional study. 6. Of having attended the following courses, viz.: Chemistry, Principles and Practice of Medicine and Surgery, each during one winter session; Anatomy and Physiology, Demonstrations and Dissections, each during two winter sessions; Botany and Natural History, and Forensic Medicine, each during one summer session; Practical Chemistry (in a recognised Laboratory) and Materia Medica, each during three months; Midwifery and Diseases of Women and Children, during six months; Practical Midwifery at a recognised Hospital (twenty cases); instruction in Vaccination. 7. Of having attended, at a recognised Hospital or Hospitals, the Practice of Medicine and Clinical Lectures on Medicine, during two winter and two summer sessions; also the Practice of Surgery and Clinical Lectures on Surgery, during one winter and one summer session. 8. Of Practical Study, with care of patients, as apprentice, pupil, assistant, clinical clerk, or dresser in Hospital, Dispensary, or with a registered Practitioner. 9. Of having performed the operation of Vaccination successfully under a recognised Vaccinator.

The examination for the Licence to Practise is divided into two parts. The first part comprehends Chemistry, including Physics, Botany, Anatomy, Physiology, Materia Medica, and Pharmacy. The second—Medicine, Surgery, Pathology, Therapeutics, Midwifery, Forensic Medicine, and Hygiene. The first part may be undergone after the candidate has passed an examination in Arts and attended the requisite courses of Lectures; and the second after the completion of his studies at the termination of the fourth winter session. Candidates may undergo an examination in any of the subjects included in the first part before the end of the first year of professional study, and defer the remaining subjects to a future examination; but all the subjects included in the first part must be passed within the first two years of studentship.

Candidates at the examination on Anatomy are liable to be called on to perform Dissections; and at the examination on Surgery to perform one or more Operations on the dead subject.

The professional examinations will be held on the first and second Mondays in January, April, July, and October. The first two hours of each day will be devoted to writing answers to Papers, and afterwards there will be an oral and practical examination on the same subjects.

Candidates who fail to pass the first part of the professional examination will be remitted to their studies for three months; and at the final examination, for six months.

Doctors of Medicine of any of the Universities of the United Kingdom, and Licentiates of a Royal College of Physicians, or Surgeons of any of the Royal Colleges of Surgeons, whose qualifications as such appear in the *Medical Register*, and who, having first passed an examination in Arts, have also spent twelve months at *practical* Pharmacy, may obtain the Licence of the Hall by undergoing an examination—the former in Pharmacy, and the latter in Medicine and Pharmacy. Licentiates of the London Society of Apothecaries are admitted *ad eundem*, on presenting the certificate of their registration.

Candidates for the Professional Examinations must lodge their testimonials, and the fees, and enrol their names and addresses with Mr. George Wright, the Clerk at the Hall, in Dublin, a clear week prior to the day of examination.

UNIVERSITY OF DUBLIN.

THE degrees in Medicine and Surgery granted by the University are: 1. Bachelor of Medicine; 2. Doctor of Medicine; 3. Bachelor in Surgery; 4. Master in Surgery. It also grants Licences in Medicine and Surgery.

BACHELOR IN MEDICINE.

A candidate for the Degree of Bachelor in Medicine must be a Graduate in Arts, and may obtain the Degree of Bachelor in Medicine at the same commencement as that at which he receives his Degree of B.A., or at any subsequent commencement, provided the requisite

medical education shall have been completed. The medical education is of four years' duration, and comprises attendance on a course of each of the following lectures: *Winter*—Anatomy; Practical Anatomy; Theoretical and Operative Surgery; Chemistry; Practical Course of Institutes of Medicine; Practice of Medicine; Midwifery. *Summer*—Botany; Institutes of Medicine; Comparative Anatomy; Materia Medica and Pharmacy; Medical Jurisprudence. *Term Courses*—Heat (Michaelmas); Electricity and Magnetism (Hilary). Six months' dissection, and three months' laboratory instruction in Chemistry. Three courses of nine months' attendance on the clinical lectures of Sir Patrick Dun's or other metropolitan hospital recognised by the Board.* A certificate of personal attendance on fewer cases, with names and dates of cases. Six months' instruction in Practical Midwifery,† including clinical lectures. Any of the winter or summer courses may be attended at any medical school in Dublin recognised by the Provost and Senior Fellows.‡ Students who shall have diligently attended the Practice of a recognised county infirmary for two years previous to the commencement of their metropolitan medical studies, are allowed to count those two years as equivalent to one year spent in a recognised metropolitan hospital.

Candidates for the Degree of M.B. must pass two examinations; the Previous Medical Examination and the Bachelor of Medicine Examination.

The *Previous Examination* comprises Descriptive Anatomy; Botany; Materia Medica and Pharmacy; Chemistry; and Physics. The Examination in Descriptive Anatomy includes Examination on the dead subject. It is not necessary that the student should pass in all these subjects at the same examination; he may present himself for examination in as many, or as few of them, as he pleases.

There are three Previous Medical Examinations held each year, immediately before each M.B. Examination, together with a Supplemental Examination in Botany, Chemistry, and Materia Medica, at the close of the summer session.

Bachelor of Medicine Examination.—The candidate for the M.B. Examination must have previously passed the Previous Medical Examination in all the subjects; and have lodged with the Medical Registrar, on a certain day to be duly advertised, Certificates of Attendance upon all the courses of study above prescribed.

Candidates must pass a final examination in the following subjects: Physiological Anatomy; Practice of Medicine; Surgery; Midwifery; Medical Jurisprudence; Institutes of Medicine. The fee for the *Licent ad Examinandum* is £5; for the Degree of M.B., £11.

Members of the Royal Colleges of Physicians or Surgeons of Dublin, London, or Edinburgh, who are Graduates in Arts of Oxford, Cambridge, or Dublin, are admissible to the Examination for M.B. They must first take the B.A. Degree *ad eundem*.

DOCTOR IN MEDICINE.

A Doctor in Medicine must be a Bachelor in Medicine of three years' standing, or have been qualified to take the Degree of Bachelor in Medicine for three years. He must also read two Theses publicly before the Regius Professor of Physic, or must undergo an examination before the Regius Professor of Physic, according to Regulations to be approved by the Provost and Senior Fellows. The total amount of Fees for this Degree is £13.

BACHELOR IN SURGERY.

A Bachelor in Surgery must be a Bachelor in Arts, and have spent four years in the study of Surgery and Anatomy. He must also pass a public examination, having previously completed the prescribed Curriculum of study. The Curriculum comprises the following, in addition to the complete Course for the Degree of Bachelor in Medicine: Theoretical and Operative Surgery and Ophthalmic Surgery, each one course; Dissections, two courses. Candidates are required to perform surgical operations on the dead subject. Candidates for the Degree of Bachelor in Surgery, who have already passed the examination for the Degree of Bachelor in Medicine, will be examined in Anatomy and Surgery only. Fee for the *Licent ad Examinandum*, £5; for the Degree of Bachelor in Surgery, £5.

* The following Hospitals are recognised:—1. Sir Patrick Dun's Hospital; 2. Meath Hospital; 3. House of Industry Hospitals; 4. Dr. Steevens' Hospital; 5. Jervis Street Infirmary; 6. City of Dublin Hospital; 7. Mercer's Hospital; 8. St. Vincent's Hospital; 9. Adelaide Hospital; 10. Mater Misericordiae Hospital.

† Certificates of Practical Midwifery are received from 1. The Rotunda Hospital; 2. The Cumber Hospital; 3. Sir P. Dun's Hospital Maternity; 4. Dr. Steevens' Hospital Maternity.

‡ The following schools, in addition to the School of Physic of Trinity College, are recognised:—1. The School of the Royal College of Surgeons in Ireland; 2. The Carmichael School; 3. The School of Dr. Steevens' Hospital; 4. The School of the Catholic University. The recognition is conditional on the students being furnished with *bona fide* certificates of regular attendance equivalent to that required by the University, *viz.*, three-fourths of the entire Lectures in each course.

MASTER IN SURGERY.

A Master in Surgery must be a Bachelor in Surgery of three years' standing, or have been qualified to take the Degree of Bachelor in Surgery for three years; and must read two Theses publicly before the Regius Professor of Surgery, or undergo an examination before the Regius Professor, according to Regulations to be approved by the Provost and Senior Fellows. Fee for the Degree of Master in Surgery, £11.

UNIVERSITY LICENCES.

Candidates for the Licences in Medicine or Surgery must be matriculated in Medicine, and must have completed two years in Arts and four years in Medical Studies.

Licentiate in Medicine.—The Medical Course and Examination necessary for the Licence in Medicine are the same as for the Degree of M.B. A Licentiate in Medicine, on completing his Course in Arts, and proceeding to the Degree of B.A., may become a Bachelor in Medicine, on paying the Degree fees, without further examination in Medicine.

Licentiate in Surgery.—The Surgical Course and Examination necessary for the Licence in Surgery is the same as for the Degree of Bachelor in Surgery.

Fee in each case for the *Licent ad Examinandum*, £5; for the Licence, £5.

QUEEN'S UNIVERSITY IN IRELAND.

DEGREES IN MEDICINE AND SURGERY.

THIS University grants the Degrees of Doctor in Medicine and Master in Surgery, and a Diploma in Midwifery. It includes three Colleges—the Queen's Colleges of Belfast, Cork, and Galway—each of which possesses a Faculty of Medicine. The curriculum of medical study extends over a period of four years, and is divided into two periods of two years each. The first period comprises attendance on Chemistry, Botany, Anatomy and Physiology, Practical Anatomy, *Materia Medica* and Pharmacy. The second period comprises attendance on Anatomy and Physiology, Practical Anatomy, Theory and Practice of Surgery, Midwifery, Theory and Practice of Medicine, Medical Jurisprudence. At least two of the above courses of lectures must be attended in some one of the Queen's Colleges; the remainder may be taken, at the option of the candidate, in any University, College, or School, recognised by the Senate of the Queen's University. Candidates are required, before graduating, to have also attended, in one of the Colleges of the Queen's University, Lectures on Experimental Physics and one Modern Continental Language, and to have passed the Matriculation Examination. They are further required to attend, during the first period, Practical Chemistry in a recognised Laboratory, and the practice during six months of a recognised Medico-Chirurgical Hospital containing at least sixty beds, together with clinical lectures delivered therein; and, during the second period, a recognised Midwifery Hospital, with clinical lectures therein delivered, for three months; or a Midwifery Dispensary for the same period; or ten cases of labour, under the superintendence of the medical officer of any hospital or dispensary where cases of labour are treated; and eighteen months' practice of a recognised Medico-Chirurgical Hospital containing at least sixty beds, with clinical instruction.

Candidates must pass three Examinations—the First University Examination, the Second University Examination, and the Degree Examination.

The First University Examination may be passed either in June or September. It comprises a Modern Language, Experimental Physics, Zoology, and Botany. Students may present themselves for examination at any time after the close of the first Winter Session. Before being admitted to examination, each candidate must produce satisfactory evidence of having completed the prescribed course of study in the subjects of examination.

The Second University Examination may be passed either in June or September. It comprises Anatomy, Physiology, *Materia Medica*, and Chemistry; to which will be added Zoology and Botany in the examination of candidates who have not previously passed the First University Examination. Candidates who are in this position may either undergo their examination in Modern Languages and Experimental Physics as a part of the Second Examination, or may present themselves for examination in these subjects at any time between the Second University Examination and the Degree Examination. Students may present themselves for the Second University Examination at the termination of the first period of the curriculum, or at any subsequent period; but no student can postpone his Second University Examination until he presents himself for his Degree Examination, unless the Senate shall have passed a grace permitting him to do so. Before

being admitted to examination, each candidate must produce satisfactory evidence of having completed the course recommended for study during the first period.

Examinations for the Degree of M.D., M.Ch., and the Diploma in Midwifery, will be held in June and September. The Fee for each Degree is £5, and the Fee for the Diploma in Midwifery is £2. Each Fee must be lodged with the Secretary before the corresponding examination begins.

Degrees in Surgery and Diplomas in Midwifery will only be conferred on candidates who hold the Degree of Doctor in Medicine of the University. The Examination for the Degree of M.D. comprises the subjects recommended for study during the second period of medical education. The Examination for the Degree of M.Ch. comprises an examination in the Theory and Practice of Surgery, including Operative and Clinical Surgery.* The Examination for the Diploma in Midwifery comprises an examination in the Theory and Practice of Midwifery and the use of obstetrical instruments and appliances.†

Candidates who graduated with honours will be arranged in two classes. Candidates who take a First Class will receive a Medal and Prize; candidates who take a Second Class will receive a Prize. Both Honour and Pass Examinations are held in September. The Examination held in June is a Pass Examination.

Two Exhibitions, one consisting of two instalments of £20 each, and the other of two instalments of £15 each, will be awarded annually at the First University Examination in Medicine. The regulations concerning these Exhibitions, and all other information, will be found in the *Queen's University Calendar*, or may be obtained by application to the Secretary, Queen's University, Dublin Castle.

NOTES CONCERNING THE HOSPITALS AND MEDICAL SCHOOLS IN LONDON.

IN addition to the Tables of the Classes, hours of attendance, and fees, given at pages 346-349, we subjoin extracts from the Programmes issued by the several Medical Schools. We have extracted those points of information which are of most interest to the student, in addition to those given in the tables.

ST. BARTHOLOMEW'S HOSPITAL.—*The Clinical Practice of the Hospital* now comprises a service of 710 beds: of these 227 are allotted to the medical cases, 322 to the surgical cases, 26 to diseases of the eye, 20 to the diseases of women, and 81 to syphilitic cases: while 34 are at the Convalescent Hospital at Highgate. Children are admitted into both the medical and surgical wards; those under five years of age being received into the female wards.

Special Department.—In addition to the special courses contained in the table at page 346, Mr. Willett sees cases of orthopædic surgery at 12.30 on Fridays, and Dr. Brunton patients with diseases of the larynx at 11.30 on Wednesdays.

Museums, etc.—The Anatomical Museum, and the Museum of *Materia Medica* and of Botany, are open to students daily from 10 A.M. to 4 P.M. The Reading Room is open every day; during winter from 10 to 5; summer, 9 to 5; vacations, 10 to 2.30.

College.—Students are admitted to residence on the recommendation of a medical officer of the hospital, which may be obtained by adducing satisfactory evidence of good moral character. The entrance-fee is £2 2s.; and a deposit of £3 3s. is required, which will be returned to the student on leaving the College, subject to deduction of whole or part for wilful damage to furniture. Information regarding the College may be obtained on application to the Warden, Dr. Norman Moore.

Examinations.—Students preparing for their examinations are arranged in classes, and examined by the lecturers, demonstrators, and the medical tutor, Dr. N. Moore. An examination of all students of the first year is held at the close of the first winter and first summer sessions.

Appointments.—Four House-Physicians and four House-Surgeons (who must be qualified to practise) are appointed annually. Fee, £26 5s. Each of these officers receives a salary of £25. A resident Midwifery Assistant is appointed every six months. An Ophthalmic House-Surgeon is appointed for six months. An Assistant-Chloro-

* Candidates for the Degree of Master in Surgery, who obtained the Degree of M.D. in this University before the 1st of January, 1865, will be exempted from the examination in Surgery. Candidates for the Degree in Surgery, who graduated in Medicine at a later period, will be required to undergo a paper and oral examination in the Theory and Practice of Surgery, and an examination in Operative and Clinical Surgery.

† Candidates for the Diploma in Midwifery who obtained the Degree of M.D. in the University before the 1st of January, 1872, will be exempted from this further examination.

formist is appointed annually; he has a salary of £25. (The preceding are provided with rooms.) The Clinical Clerks to the medical in-patients, and the Clerks to the Physician-Accoucheurs, are chosen from the most diligent students. Sixteen dressers to the surgical in-patients and the surgical casualty department are selected each year from the students of the second year. Other in-patient dresserships may be obtained by payment of the usual fees. There are also clerks and dressers to the Assistant-Physicians and Assistant-Surgeons in the general and special departments.

Exhibitions, Scholarships, and Prizes.—Two Open Scholarships in Science, value of each £100 for one year, to be competed for on September 27th, by candidates who have not entered to the medical or surgical practice of any metropolitan medical school. For one of the scholarships, the candidates must be under twenty; for the other, under twenty-five years of age. The subjects are Physics, Chemistry (theoretical and practical), Botany, and Zoology. The successful candidate must enter at St. Bartholomew's Hospital in the October succeeding the examination. *First Year.*—Jeaffreson Exhibition: £20 yearly, tenable for two years. Confined to students of less than six months' standing. Examination on October 18th. Subjects, those of Preliminary Education appointed by the General Medical Council. Preliminary Scientific Exhibition, on October 22nd; subjects, Physics, Chemistry (theoretical and practical), Botany, and Zoology; value £50, for one year; confined to students of less than six months' standing. The holder of the Open Scholarship is not eligible. Three Junior Scholarships, of the value of £50, £30, and £20, after the general examination in first year's subjects at the end of the winter and summer sessions. Treasurer's Prize for Practical Anatomy, junior. *Second Year.*—Foster Prize for Practical Anatomy, senior. *Second or Third Year.*—Senior Scholarship, value £50, in Anatomy, Physiology, and Chemistry. Wix Prize: subject, "The Works and Life of Dr. Heberden." Hichens Prize: subject, Bishop Butler's *Analogy*. *Third or Fourth Year.*—Lawrence Scholarship and Gold Medal, value, in 1878, £84: subjects, Anatomy and Physiology, Medicine and Surgery in all their Branches. Two Brackenbury Scholarships in Medicine and Surgery. Candidates for the Lawrence and Brackenbury Scholarships may not compete before the end of the third winter session, nor later than the beginning of the fifth winter session in the hospital. Bentley Prize, for the best report of not less than twelve surgical cases occurring in the wards of the hospital during the previous year. The Kirkes Gold Medal for Clinical Medicine. The conditions under which the exhibitions, scholarships, and prizes are awarded, will be found in the prospectus of the College.

The *Aberneithian Society*, composed of the teachers and students of the hospital, meets in the library on every Thursday evening at 8 P.M. during the winter session.

Communications regarding the Hospital and Medical College must be addressed to the Warden of the College, St. Bartholomew's Hospital.

CHARING CROSS HOSPITAL.—Besides the Clinical Instruction in the Hospital, matriculated students are admitted to the practice of the Royal Westminster Ophthalmic Hospital (50 beds).

Special Courses.—Dr. Irvine will give practical instruction in Auscultation in Health and Disease weekly on Tuesdays, at 1.15, and in February and March a course of six demonstrations on the use of the Laryngoscope. A course of practical instruction in preparing and mounting morbid specimens for microscopical examination will be given by Dr. Cantlie during the summer session.—Dr. Mitchell Bruce will instruct in case-taking.—A course of lectures on Electro-therapeutics will be delivered in the latter half of the winter session.

The *Library* is open daily (Sundays excepted) from 9 A.M. to 4.30 P.M.

Appointments.—A Medical Registrar and a Surgical Registrar, each with a salary of £40 a year, are appointed. Resident Medical, Surgical, and Obstetrical Officers, Assistant Medical and Surgical Officers, Clinical Clerks, Surgeons' Dressers, and a Pathological Assistant, are appointed from among the matriculated students, without additional fee.

Scholarships, Medals, and Prizes.—Two Entrance Scholarships, value £30 and £20, tenable for one year, awarded in October, after examination in English, Latin, French or German, and Mathematics, with (optional) either Chemistry, Mechanics, German, or French. Intending candidates must give notice before September 22nd. The Llewellyn Scholarship of £25, open to all matriculated students who have just completed their second examination summer session, in Descriptive and Surgical Anatomy, Physiology, Materia Medica, Medicine, Surgery, Midwifery. The Golding Scholarship, £15 a year, open to all matriculated students who have just completed their first summer session examination in Descriptive Anatomy, Physiology,

Materia Medica, and Chemistry. The Pereira Prize of £5, to matriculated students who have completed their third year, for the best clinical reports of cases in the hospital (medical and surgical in alternate years). The Governors' Clinical Gold Medal examination on subjects of clinical lectures during the session, and on medical and surgical cases in the hospital. Silver and Bronze Medals and Certificates of Honour in all the classes.

Residence.—Arrangements have been made with several members of the hospital staff to receive resident pupils.

Further information may be had of the Dean, Mr. Francis Hird, or the Sub-Dean, Dr. J. P. Irvine.

ST. GEORGE'S HOSPITAL.—The Aggregate and Perpetual Fees do not include Practical Chemistry.* Gentlemen who have commenced their professional studies at an English University will be admitted as Perpetual Pupils on payment of a reduced fee.

The *Hospital* contains 353 beds, of which 205 are devoted to surgical, and 148 to medical, cases. Wards are especially set apart for the reception of cases of diseases of the eye, and diseases of Women. In the women's wards, cribs are placed for the reception of children.

The *Library and Reading Room* and the *Museum* are open daily.

Clinical Instruction.—The pupils of the hospital are placed under the superintendence of the physicians and surgeons in rotation, and have charge of cases as Clerks and Dressers.

Special Departments.—Orthopædic out-patients are seen by Mr. J. W. Haward every Wednesday at 2.—Dr. Whipple sees patients with Diseases of the Throat on Mondays at 2.—Dr. Ralfe will give a course of demonstrations on Physiological Chemistry on Monday, Wednesday, and Friday at 10 during the winter session.—Mr. Dent will give demonstrations in Osteology daily (except Mondays) at 10.

Hospital Appointments.—House-Physicians, House-Surgeons, an Assistant House-Physician, and an Assistant House-Surgeon, half-yearly, from among the perpetual pupils. The House-Physicians and House-Surgeons hold office for twelve months, and reside and board in the hospital free of expense. They must each deposit 50 guineas with the Treasurer of the hospital, which will be returned to them on the expiration of their term of office, if they have satisfactorily performed their respective duties.—An Obstetric Assistant is appointed annually. He resides and boards in the hospital, and receives a yearly salary of £100.—A Curator of the Pathological Museum, a Medical and a Surgical Registrar, and a Demonstrator of Anatomy, are appointed annually from among the senior pupils, each with a salary of £50. Every student is required to assist the Curator for one month in performing *post mortem* examinations.—Two Assistant Medical Registrars are appointed every six months by competition. This office must be held before competing for that of House-Physician.—An Assistant-Surgical Registrar is also appointed; this office must be held, alternately with that of Ophthalmic Assistant, before competing for the office of Assistant House-Surgeon.

Exhibitions and Prizes.—The William Brown Exhibitions: 1. £100 *per annum* for two years to a perpetual pupil of the hospital under the age of 25, who has become entitled to be registered as a medical practitioner within two years previously; examination in July. 2. £40 *per annum* for three years to perpetual pupils of the third and fourth winter sessions.—Brackenbury Prizes in Medicine and in Surgery, each, interest of £1,000 three per cent. consols, open to all pupils who have not completed the fourth year; examinations in May.—Sir Charles Clarke's Prize, interest of £200 annually, for good conduct; awarded at end of summer session.—The Thompson Silver Medal, and the Treasurer's Prize, at close of winter session, for proficiency in clinical examination of three Medical and three Surgical cases.—Sir Benjamin Brodie's Clinical Prize in Surgery, for the best report (with notes) of not more than twelve surgical cases in the hospital during the preceding twelve months.—Dr. Acland's Clinical Prize in Medicine, for the best record of not more than twelve cases of disease treated in the preceding twelve months. (The Clinical Prizes are open to fourth year's students. Reports must be sent in on or before May 1st.)—The Henry Charles Johnson Memorial Prize, for Practical Anatomy.—General Proficiency Prizes, £10 10s., for students of each year: subjects for first year, Anatomy, Physiology, Chemistry, and Botany; for second year, Anatomy, Physiology, Chemistry, and Materia Medica; for third year, Medicine, Surgery, Pathology, and Midwifery.

[Continued on page 350.]

* Perpetual Pupils are entitled to admission to the practice of the Physicians and Surgeons, to all the Lectures (except Practical Chemistry), to compete for all Prizes and Exhibitions, to hold the appointments of House-Physician, House-Surgeon, and Assistant House-Surgeon, and to become Clinical Clerks for two periods of three months each, and Dressers for two similar periods. This payment must in all cases be made at the time of entry.

GUIDE TO LONDON HOSPITALS AND MEDICAL SCHOOLS: 1877-8.

For further particulars regarding each Hospital and Medical School, see p. 344 et seq.

LECTURES, ETC.	ST. BARTHOLOMEW'S HOSPITAL.	CHARING CROSS HOSPITAL.	ST. GEORGE'S HOSPITAL.	GUY'S HOSPITAL.	KING'S COLLEGE AND HOSPITAL.
WINTER SESSION.					
PHYSIOLOGY	Mr. Baker. .M. Tu. Th., 2.30	Dr. Silver. .M. Tu. W. F., 3	Dr. Cavafy. .Tu. Th., 3; F., 11	Dr. Pye-Smith. .M. W. F., 4.15	Dr. G. F. Yeo. .M. W. Th. F., 1
ANATOMY, DESCRIPTIVE AND SURGICAL	Mr. T. Smith & Mr. Langton. .Tu. W. Th. F., 9	Mr. Bellamy. .M. W. F., 9; Th., 1	Mr. Pick. .M. W. F., 3	Mr. Howse & Mr. Davies-Colley. .Tu. W. Th. F., 9	Dr. Curnow. .Tu. W. Th. F., 9
ANATOMICAL DEMONSTRATIONS	Mr. Cumberbatch, Mr. Walsham, Mr. Keetley, Mr. Shuter. .10.15 to 4	Mr. R. Godlee. daily, 10 to 4; S., 10 to 1	Mr. Dent and Mr. Branson	Mr. Jacobson, Mr. Carrington, & Mr. Symonds. .daily, 9 to 4	Dr. Curnow
CHEMISTRY	Dr. Russell. .M. W. F., 10	Mr. Heaton. .M. W. F., 11	Mr. Wanklyn. .Tu. Th. S., 11.30	Dr. Debus & Dr. Stevenson. .Tu. Th. S., 11	Mr. Bloxam. .M. W. Th., 10.15
MEDICINE	Dr. Black and Dr. Andrew. .M. Tu. Th., 3.30	Dr. Pollock. .M. W. F., 4	Dr. Barclay. .Tu. Th. S., 9	Dr. Wilks and Dr. Pavy. .M. W. F., 3	Dr. Beale. .Tu., 4 P.M.; Th. F., 5
SURGERY	Mr. Savory & Mr. Callender. .W. F., 2.30; S., 9.30	Mr. Canton. .Tu. Th. S., 9	Mr. Holmes and Mr. Rouse. .M. W. F., 9	Mr. Bryant & Mr. Durham. .Tu. Th., 3.30; S.	Mr. H. Smith. .M. Tu. W., 5
HOSPITAL PRACTICE: Physicians	Dr. Black. M. Tu. Th. S., 1.30 Dr. Andrew. .daily, exc. W., 1.30 Dr. Southey. .M. W. Th. S., 1.30 Dr. Church. .daily, 1.30 Dr. Greenhalgh. .M. Th. S., 2	Dr. Pollock. .M. W. F. Dr. Silver. .Tu. Th. F. Dr. Green. .M. W. S.	Dr. Barclay. .M. F., 1 Dr. Wadham. .M. F., 1 Dr. Dickinson. .Tu. S., 1 Dr. Whipham. .Tu. S., 1	Dr. Habershon. .M. Th. S., 1.30 Dr. Wilks. .M. Th. S., 1.30 Dr. Pavy. .M. W. F., 1.30 Dr. Moxon. .M. Th. F., 1.30 Dr. Braxton Hicks. .Tu. F., 1.30	Dr. Johnson. .M. Th., 2 Dr. Beale. .Tu. F., 2 Dr. Duffin. .W. S., 2
Obstetric Physicians	Dr. Gee. .W. S., 11 Dr. Duckworth. .Tu. F., 11 Dr. Hensley. .M. Th., 11 Dr. Branton. .W., 11.30 Dr. Gordon (obst.) W. S., 9	Dr. J.W. Black. .Tu. F.	Dr. Barnes. in-p., Tu. S., 1; out-p., Th., 2 Dr. Cavafy. .M. F., 12 Dr. Watney. .Tu. S., 12	Dr. Fagge. .F., 12 Dr. Eye-Smith Dr. F. Taylor. .M., 12 Dr. Goodhart. .W., 12 Dr. Galabin. (obst.) M. F., 1.30; (out-p.), Th. S., 12 Mr. C. Foster. .M. Th., 1.30 Mr. Bryant. .M. Th., 1.30 Mr. Durham. .M. Th. F., 1.30 Mr. Howse. .W. S., 1.30	Dr. Playfair. .Tu. Th. S., 1.30 Dr. I. B. Yeo. .Tu. F., 1 Dr. Ferrier. .Th., 1 Dr. Baxter. .M. W. S., 1 Dr. Curnow. .W. S., 1 Dr. Hayes. .Tu. Th. S., 12.30 Mr. Wood. .Tu. Th. S., 1.30 Mr. Lister. .M. W. F., 1.30 Mr. H. Smith. .M. W. F., 1.30 Mr. H. R. Bell. .Tu. F., 1
Assistant-Physicians	Dr. Gee. .W. S., 11 Dr. Duckworth. .Tu. F., 11 Dr. Hensley. .M. Th., 11 Dr. Branton. .W., 11.30 Dr. Gordon (obst.) W. S., 9	Dr. Powell. .W. S. Dr. Bruce. .Tu. F. Dr. Irvine. .M. Th.	Mr. Pollock. .M. F., 1 Mr. H. Lee. .M. F., 1 Mr. Holmes. .Tu. S., 1 Mr. Rouse. .Tu. S., 1	Mr. C. Foster. .M. Th., 1.30 Mr. Bryant. .M. Th., 1.30 Mr. Durham. .M. Th. F., 1.30 Mr. Howse. .W. S., 1.30	Mr. Wood. .Tu. Th. S., 1.30 Mr. Lister. .M. W. F., 1.30 Mr. H. Smith. .M. W. F., 1.30 Mr. H. R. Bell. .Tu. F., 1
Surgeons	Mr. Holden. .Tu. F. S., 1.30 Mr. Savory. .M., 1; Tu. W. Th. F. S., 1.30 Mr. Callender. .M. Tu. F., 1.45; W. Th. S., 1.30 Mr. T. Smith. .daily, 1.30	Mr. Canton. .Tu. F. Mr. Hird. .M. Th. Mr. Barwell. .W. S.	Mr. Pollock. .M. F., 1 Mr. H. Lee. .M. F., 1 Mr. Holmes. .Tu. S., 1 Mr. Rouse. .Tu. S., 1	Mr. C. Foster. .M. Th., 1.30 Mr. Bryant. .M. Th., 1.30 Mr. Durham. .M. Th. F., 1.30 Mr. Howse. .W. S., 1.30	Mr. Wood. .Tu. Th. S., 1.30 Mr. Lister. .M. W. F., 1.30 Mr. H. Smith. .M. W. F., 1.30 Mr. H. R. Bell. .Tu. F., 1
Assistant-Surgeons	Mr. Willett. .W. S., 12.30 Mr. Langton. .Tu. F., 12.30 Mr. M. Baker. .M. Th., 12.30 Mr. Marsh	Mr. Bellamy. .M. Th. Mr. Bloxam. .Tu. F. Mr. Godlee. .W. S.	Mr. Pick. .M. F., 12 Mr. Haward. .Tu. S., 12	Mr. Davies-Colley. .W., 12 Mr. R. C. Lucas. .Th., 12 Mr. Golding Bird. .M., 12 Mr. Jacobson. .S., 12	Mr. Rose. .W. S., 1 Dr. G. F. Yeo. .M. Th., 1
CLINICAL MEDICINE	The Physicians. .weekly	The Physicians	Dr. Dickinson and Dr. Whipham (Win). .M., 2; Dr. Wadham (Sum). .M., 2 Mr. Pollock and Mr. Rouse (Win.). .Tu., 2; Mr. H. Lee (Sum.). .Tu., 2 Dr. Barnes. .F., 2	The Physicians (Win.). .S., 1.30; the Assistant-Physicians (Sum.). .W., 1.30 The Surgeons (Win.). .W., 1.30; the Assistant-Surgeons (Sum.). .F., 1.30 Dr. Hicks (Win.). .W., 1.30; Dr. Galabin (Sum.). .Tu., 3	Dr. Johnson. .alt. M., 3 Dr. Beale. .alt. Tu., 3 Dr. Duffin. .alt. Fri., 3 Mr. Wood. .Tu. Th., 3 Mr. Lister. .M. F., 1.30 Dr. Playfair. .alt. Th., 3
CLINICAL SURGERY	The Surgeons. .weekly	The Surgeons	Thursday, 1; Eye, F., 1.15	Tuesday and Friday, 1.30; on Eye, M. F., 1.30	Mr. Wood and Mr. Smith, Sat., 2; Mr. Lister, Wed., 1.30
CLINICAL MIDWIFERY AND DISEASES OF WOMEN ..	Dr. Greenhalgh. .weekly	Dr. J. W. Black. .Twice a week			
OPERATIONS	Wed. and Sat., 1.30; on Eye, Tu., 1.30	Saturday, 2			
SUMMER SESSION.					
MATERIA MEDICA	Dr. Lauder Brunton. .Tu. Th. S., 10; W., 11.30	Dr. Powell. .Tu. Th. S., 9	Dr. Dickinson. .M. W. Th., 3	Dr. Moxon. .Tu. Th. F., 3	Dr. Baxter. .Tu. W. Th. F., S.A.M.
BOTANY	Rev. G. Henslow. .M. W. F., 10	Mr. Saunders. .Tu. Th. S., 4	Dr. Whipham. .Tu., 3; W. F., 9	Mr. Bettany. .Tu. Th. S., 11.30	Mr. Bentley. .M. W. Th., 12.15
MIDWIFERY	Dr. Greenhalgh. .Tu. W. F. S., 8.30 A.M.	Dr. J. W. Black. .M., 4; Tu. W. F., 3	Dr. Barnes. .M. W. F., 9	Dr. Braxton Hicks and Dr. Galabin. .Tu. W. Th. F., 9	Dr. Playfair. .M. Tu. Th. F., 9
FORENSIC MEDICINE	Dr. R. Southey. .Tu. Th. S., 9	Dr. Irvine. .M. W. F., 9	Dr. Wadham. .Tu. Th. S., 9	Dr. A. S. Taylor. .Tu. Th. S., 10	Dr. Ferrier. .Tu. W. Th., F., 4
PRACTICAL CHEMISTRY ..	Dr. Russell. .M. Tu. F., 11	Mr. Heaton. .M. W., 10	Mr. Wanklyn. .M. W. Th. F., 10 to 1	Dr. Debus. .M. W. F., 10	Mr. Bloxam. .M. W. F., 10.15
COMPARATIVE ANATOMY ..	Dr. N. Moore (Winter). .M. Th., 11	Mr. J. F. Blake (Sum.). .M. F., 9	Dr. Brailey (Sum.). .M. F., 4	Mr. Jacobson (Sum.). .M. W., 1.30	Mr. Garrod (Sum.). .Tu. F., 10.15
PRACTICAL PHYSIOLOGY AND HISTOLOGY	Dr. Shuter. (Practical Phys.); Dr. Klein (Hist.). .M., 2.30 (Win.)	Dr. Bruce	Dr. Watney. .Tu. Th. S., 10	Mr. Golding-Bird (Win.). .M. W. F., 1.30	Dr. G. F. Yeo (Sum.). .M. W. Th. F., 4
PATHOLOGY AND MORBID ANATOMY	Dr. Gee (lect.). .W., 9.30; (demons.), Medical, 12; Surgical, 2.30	Dr. T. H. Green (Sum.). .M. Th., 3; W., 4; Mr. Bloxam (Sum.). .W., 10 Dr. L. F. Winslow (Sum.). .W., 11	Dr. Dickinson (Winter). .Th., 3; Dr. R. J. Lee (demons.) W., 12 Dr. Blandford	Er. Fagge & Dr. Goodhart (demon.). .daily, 2.30; (lect.) (Sum.), S., 9 Dr. Savage (Sum.). .Tu. F., 10.30	Dr. Duffin (Sum.). .Tu. Th., 4 Dr. Sheppard (Summer)
PSYCHOLOGICAL MEDICINE	Dr. Claye Shaw (Sum.). .Th., 12	Mr. Heaton, Dr. Irvine, and Mr. Eassie	With Medicine	Dr. F. Taylor (Sum.). .F., 12	Dr. Guy
PUBLIC HEALTH	Dr. Southey (Jan. Feb.). .F., 8.30	Mr. Bellamy (Sum.). .Tu. Th. S., 9; Mr. Godlee. .Th., 4; Mr. Bloxam	Mr. Haward (Sum.). .daily, 3	Mr. R. C. Lucas	
PRACTICAL AND OPERATIVE SURGERY	Mr. Marsh. .M. W. F., 2.30; Mr. Langton and Mr. Marsh	Mr. Fairbank. (vis.) M. W. F., 9.30; lect. in Sum.	Mr. R. B. Carter (vis.). .W. S., 2; (Win.) (lect.) F., 3	Mr. R. C. Lucas	
OPHTHALMIC MEDICINE AND SURGERY	Mr. Power (vis.). .Tu. Th., 1.30; (lect.) Tu. W., 12.45; Mr. Vernon (vis.). .Th. S., 1.30; (dem.). .M., 2	Mr. Fairbank. (vis.) M. W. F., 9.30; lect. in Sum.	Mr. Edgelow (vis.). .Tu. S., 9; Th., 1; (lect.) (Sum.), Tu., 10 Mr. Dalby (vis.). .Tu., 2; (lect.) (Summer), W., 2 Dr. Wadham (vis.). .Th., 1; (lect.) (Sum.), Th., 1	Mr. Bader (vis.). .Tu. S., 1.30; (lect.) (Sum.), Th., 2; Mr. Higgins (out-p.), Tu. F., 12 Mr. Moon	Mr. Soelberg Wells (vis.). .Tu. Th. S., 1; (clin. lect.) (Win.). .alt. M., 3
DENTAL SURGERY	Mr. Coleman (vis.). .F., 9; (lect.) F., 10.30 (Oct.-Dec.)	Mr. Fairbank. (vis.) M. W. F., 9.30; lect. in Sum.	Mr. Edgelow (vis.). .Tu. S., 9; Th., 1; (lect.) (Sum.), Tu., 10 Mr. Dalby (vis.). .Tu., 2; (lect.) (Summer), W., 2 Dr. Wadham (vis.). .Th., 1; (lect.) (Sum.), Th., 1	Mr. Bader (vis.). .Tu. S., 1.30; (lect.) (Sum.), Th., 2; Mr. Higgins (out-p.), Tu. F., 12 Mr. Moon	Mr. Cartwright. .Tu. W. F., 10; (clin.) (Win.). .alt. Tu., 10.30 Dr. U. Pritchard
AURAL SURGERY	Mr. Langton. .M., 2.30	Mr. Bloxam. (vis.) weekly; demon. in Summer	Mr. Edgelow (vis.). .Tu. S., 9; Th., 1; (lect.) (Sum.), Tu., 10 Mr. Dalby (vis.). .Tu., 2; (lect.) (Summer), W., 2 Dr. Wadham (vis.). .Th., 1; (lect.) (Sum.), Th., 1	Mr. Purves. .Tu. F., 12	Dr. U. Pritchard
DISEASES OF SKIN	Mr. M. Baker. .F., 1.30	Dr. Sangster (vis.). .M. Th., 1; (lect.) F., 4, Sum.	Obstetric Assistant, Th., 10	Dr. Pye-Smith. .Tu., 12	Dr. Duffin. .Tu.
VACCINATION .....	...	Mr. R. W. Dunn	Obstetric Assistant, Th., 10	...	Mr. R. W. Dunn
MISCELLANEOUS	(See page 344)	(See page 345)	(See page 345)	(See page 350)	(See page 350.)

Hour of Visit, 1 P.M.

GUIDE TO LONDON HOSPITALS AND MEDICAL SCHOOLS: 1877-8.

For further particulars regarding each Hospital and Medical School, see p. 344 & seq.

LONDON HOSPITAL.	ST MARY'S HOSPITAL.	MIDDLESEX HOSPITAL.	ST. THOMAS'S HOSPITAL.	UNIVERSITY COLLEGE AND HOSPITAL.	WESTMINSTER HOSPITAL.
Mr. McCarthy..Tu.Th.F. S., 10	Dr. Lawson..M.W.S., 12	Mr. Lowne..M.W.F., 9	Dr. J. Harley..M.W.F., 4	Dr. Sanderson and Mr. Schäfer..daily, exc. S., 10	Dr. Maclure..M.W.F., 4
Mr. Rivington..M.Tu.Th. F., 3	Mr. Owen..M.Tu.Th. F., 9	Mr. Morris..M.Tu.Th. F., 4	Mr. Mason & Mr. Wagstaffe ..daily, exc. Sat., 9	Mr. Thane..daily, 12	Mr. Gould..Tu.W.Th.F. S., 9
Dr. Wilson..10 to 4, ex- cepting S. aft.	Mr. Garbutt..daily, 9 to 5, exc. S., 9 to 1	Mr. Hensman and Mr. Thompson..daily, 9 to 4	Mr. Mason, Mr. Wagstaffe, and Mr. Reid..daily, 10 to 4; S., 10 to 2	Mr. Thane, Mr. Godlee, and Mr. Otley	Mr. Gould and Demon- strators..daily, 10.30 to 1
Dr. Tidy..M.Tu.W.Th., 11	Dr. Wright..M.Th., 10; W.S., 9	Mr. Foster..M.W.Th.F., 3	Dr. Bernays..Tu.Th.F., 10	Dr. Williamson..daily, exc. S. 11; exerc. Tu.W.Th.F. 9	Dr. Dupré..W.Th.F., 3
Dr. Sutton..W., 9; Dr. Fenwick..Tu.F., 1	Dr. Chambers and Dr. Broadbent..M.W.Th., 4	Dr. Cayley..Tu.Th., S., 9	Dr. Bristowe and Dr. Ord ..M.Th., 4; W., 5	Dr. Reynolds..Tu.W.Th.F. W., 9	Dr. Fincham and Dr. Sturges..M.W.Th., 3
Mr. Couper..M.Th.S., 9	Mr. J. R. Lane and Mr. Norton..Tu.F., 4; W., 3	Mr. Hulke..M.W.Th., 3	Mr. S. Jones and Mr. Mac Cormac..M. or Tu.Th. F., 5	Mr. Marshall..Tu.W.F., 4	Mr. Cowell and Mr. Davy ..Tu.Th., 4; F., 3
Dr. A. Clark..M.Th., 2	Dr. H. Jones..M.Th., 1.15	Dr. H. Thompson..Tu.Th. S., 1	Dr. Bristowe..Tu.F., 2	Sir W. Jenner, Bart. } Dr. Reynolds } Dr. Wilson Fox } Dr. Ringer } Dr. C. Bastian }	Dr. Fincham..M.Th., 1.30
Dr. Ramskill..W.F., 2	Dr. Sieveking..Tu.F., 1.15	Dr. Greenhow..Tu.Th. S., 1	Dr. Murchison..M.Th., 2	} 1 and 2 daily.	Dr. Sturges..W.S., 1.30
Dr. Down..Tu.F., 2	Dr. Broadbent..W.S., 1.15	Dr. Cayley..M.W.F., 1	Dr. Stone..M.Th., 2		Dr. Allchin..Tu.F., 1.30
Dr. H. Jackson..M.Th., 2			Dr. Ord..Tu.F., 2		
Dr. Sutton..M.Th., 2					
Dr. Fenwick..Tu.F., 1.30					
Dr. Palfrey..M.Th., 1.30					
Dr. S. Mackenzie..W.S. 1.30	Dr. Meadows..Tu.F., 9.30	Dr. H. Davis..Tu.F., 1.30	Dr. Gervis..M.Th., 2; (c.p.) F., 12.30	Dr. Graily Hewitt..Twice weekly	Dr. Potter..Tu.F., 3
Dr. S. Mackenzie..W.S. 1.30	Dr. Cheadle..Tu.F., 1	Dr. R. King..Th., 8.30;	Dr. J. Harley..Tu.F., 12.30	Dr. F. T. Roberts	Dr. Donkin..W.S., 1
Dr. S. Mackenzie..W.S. 1.30	Dr. Lawson..W.S., 1	Dr. R. King..Th., 8.30;	Dr. Payne..W.S., 12.30	Dr. Gowers	Dr. Hall..M.Th., 1
Dr. Turner..M.Th., 1.30	Dr. Shepherd..M.Th., 1	Dr. G.H. Evans..M.W. 8.30	Dr. Greenfield..M.Th., 12.30	Dr. Poore	Dr. A. H. Bennett
Dr. T. Barlow	Dr. Wiltshire (obst.)..Tu. F., 1.30	Dr. Coupland..Tu., 8.30;	Dr. Greenfield..M.Th., 12.30	Dr. J. Williams (obst.)	Dr. Grigg (obst.)..Tu.F., 1
Dr. Herman (obst.)..W.S., 1.30		Dr. Edis (obst.)..W.S., 1.30	Dr. Cory (obst.)..W., 12.30		
Mr. Hutchinson..M.Th., 2	Mr. S. Smith..M.Th., 1.15	Mr. Nunn..Tu.F., 1	Mr. S. Jones..Tu.F., 2	Mr. Marshall } Mr. Berkeley Hill } Mr. C. Heath }	Mr. Cowell..M.Th., 1.30
Mr. Maunder..Tu.F., 2	Mr. Walton..W.S., 1.15	Mr. Hulke..M.Th., 1	Mr. Croft..M.Th., 2	} 1 & 2 daily.	Mr. Davy..Tu.F., 1.30
Mr. Couper..W.S., 1.30	Mr. J. R. Lane..Tu.F., 1.15	Mr. Lawson..M.Th., 1	Mr. MacCormac..M.Th., 2		Mr. F. Mason..Tu.F., 2
Mr. Rivington..M.Th., 1.30			Mr. F. Mason..Tu.F., 2		
Mr. J. Adams..Tu.F., 1.30					
Mr. Tay..M.Th., 1.30					
Mr. McCarthy..M.Th., 1.30					
Mr. Reeves..Tu.S., 1.30					
	Mr. A. T. Norton..M.Th., 1	Mr. Morris..M.F., 1 (can- cer); Th., 1.30	Mr. Wagstaffe..Tu.F., 12.30	Mr. Marcus Beck	Mr. T. Cooke..M.Th., 1
	Mr. E. Owen..Tu.F., 1	Mr. A. Clark..Th.S., 1	Mr. MacKellar..W.S., 12.30	Mr. A. Barker	Mr. Bond..Tu.F., 1
	Mr. H. Page..W.S., 1				Mr. Keene..W.S., 1
The Physicians	Dr. H. Jones..every 3rd Th. Dr. Sieveking..every 3rd F. Dr. Broadbent..every 3rd S. Mr. S. Smith..every 3rd M. Mr. Walton..every 3rd S. Mr. J. R. Lane..evry 3rd Tu. Dr. A. Meadows..alt. Tu.	The Physicians..F., 3	The Physicians, after or during visits; special, Dr. Murchison, Tu., 9	Sir W. Jenner, Dr. Rey- nolds, Dr. Ringer, & Dr. W. Fox (Holme prof.)	Dr. Fincham..1st & 3rd Th. Dr. Sturges..2nd & 4th W. Dr. Allchin..2nd & 4th F. Mr. Cowell..2nd & 4th Th. Mr. Davy..1st & 3rd F. Mr. Macnamara 1st & 3rd W. Dr. Potter..2nd & last F.
The Surgeons		The Surgeons..Tu., 3	The Surgeons, after or during visits	Mr. Richsen (occas.), Mr. Marshall, Mr. B. Hill, & Mr. Heath (Holme prof.)	
Dr. Palfrey (Win)..2nd F. in month; (Sum)..alt. Tu., 2.30		Dr. Hall Davis..Tu., 10	Dr. Gervis..Tu., 4	Dr. G. Hewitt, fortnightly	
Wednesday, 2	Wednesday, 1.30	Wednesday, 1	Wednesday and Saturday, 1.30; S., 9.30; Eye, Th., 3	Wednesday, 2	Tuesday, 2
Dr. Prosser James..Tu. Th.F., 4	Dr. Farquharson..Tu.W. F.S., 12	Dr. Thorowgood..M.W. F., 4	Dr. Stone..M.W.F., 8	Dr. Ringer..M., 9; Tu.W. Th.F., 10	Dr. Phillips..Tu.Th.S., 9
Mr. Baker..M.W.F., 11	Mr. Hanbury..M.Tu.F., 12	Mr. Hensman..M.W.F., 10	Mr. A. W. Bennett..Tu. W.S., 10	Mr. Oliver..daily, exc. S., 8 A.M.	Mr. Benison..M.W.F., 9
Dr. Palfrey..daily, exc. S., 9 A.M.	Dr. A. Meadows and Dr. Wiltshire..Tu.W.Th.F., 9	Dr. Hall Davis..Tu.Th. S., 9	Dr. Gervis..M.Tu.Th. F., 4	Dr. Graily Hewitt..Tu.W. F.S., 9	Dr. Potter..Tu.W.F., 4
Mr. Rodgers and Dr. Tidy ..daily, exc. S., 10	Dr. Randal..M.W.Th., 10	Dr. R. King..M.W.F., 9	Dr. Payne and Dr. Cory.. Tu.Th.S., 9	Dr. Maudsley..Tu.W.Th. F., 10	Dr. Dupré and Mr. Bond ..M.Th.F., 3
Dr. Tidy..Tu.W.Th.F., 8.30 A.M.	Dr. Wright..Inorg. Tu.F. S., 9; Organ. Tu.F., 10	Mr. Foster..M.W.F., 3	Dr. Bernays..M.Th.F., 10	Dr. Williamson and Dr. C. Graham	Dr. Dupré..M.W.F., 10
Dr. E. B. Aveling..M.W., 4	Mr. St. G. Mivart (Sum).. W.Th., 10	Mr. Hensman (Sum)..Tu. Th., 4	Mr. Stewart (Sum)..M. Th., 12	Mr. Lankester..before Chr. Th.F.; aft. Chr. W.Th.F. 1	Dr. Carter Blake (Sum).. W.S., 11
Mr. McCarthy (Win)..M. Th.S., 10; (Sum.) Tu. Th., 11	Dr. Shepherd (Win)..Tu. W.F., 10	Mr. Lowne (Sum)..M. W.Th., 9	Dr. T. C. Charles (Sum) ..Tu.S., 11; W., 12.30	Dr. Sanderson..Oct. Nov. Dec. Jan., daily, 11	Dr. W. H. Allchin (Win) ..W.Th., 1
Dr. Sutton (lect.) (Win).. Tu.F., 9; (Sum.) Th. S.; (dem.) daily, 3.30	Dr. Cheadle (Win)..M. Th., 3	Dr. Coupland (Win)..M. Th., 4; S., 10	Dr. Payne..Tu., 4	Dr. Bastian (Sum.) M.Th., 9; F. & Mr. Barker (Surr. Jan. Feb. Mar. M.Th., 4	Dr. Allchin..M.Th., 4; W., 3; Dr. Allchin and Mr. Cheyne (dem.), 2
	With Forensic Medicine	Dr. H. Rayner (Sum.)	Dr. Greenfield..M., 3 to 5	Dr. Sankey (Sum)..M. Tu.W., 4; (clin.) Tu., 2	Dr. Sutherland (May)
With Forensic Medicine	With Forensic Medicine	Dr. G. H. Evans (Sum).. M.Th., 10	Dr. A. Carpenter (Sum) ..W., 4	Dr. Corfield (Sum)..Tu. Th., 4	With Forensic Medicine
Mr. Reeves and Mr. Maunder (Sum.)	Mr. Page..W.S., 10	Mr. Lawson and Mr. Morris..M.Th., 3	Mr. Croft and Mr. Mac Kellar (Win)..S., 9; (Sum.) Tu.F., 5	Mr. Hill (Oct. Nov. Dec.) M.Th., 4; and in Sum., 3 to 5	The Lecturers on Surgery
Mr. Couper (lect.) (Sum.) Mr. J. Adams and Mr. Tay..W.S., 9	Mr. Walton (vis)..M.Th., 1.30; (lect.) (Sum.) M., 2.45	Mr. Critchett..W.S., 8.30 (o.p.); 9 (i.p.)	Mr. Liebreich (vis).. daily, exc. Sat., 3; (lect.) (Sum.) M., 5	Mr. Beck (Win. and Sum.) Mr. W. Jones & Mr. Streat- feild (vis)..M.W.F., 2; (lect.) (Sum.) Tu., 3	Mr. Cowell (vis)..M.Th., 2.30; (lect.) (Sum.) M., 3
Mr. Barrett (vis)..Tu., 9; (lect.)	Mr. H. Hayward..W.S., 9.30	Mr. Turner..daily, 9	Mr. Elliott & Mr. Ranger ..Tu.F., 10	Mr. Ibbetson (lect.)..M. Th., 4; (vis.) W., 10	Mr. J. Walker (vis)..W. S., 9.15; (lect.) W., 9.30
Mr. A. G. Brown..S., 9	Mr. Field (lect.)..F., 3; (vis.) Tu.F., 2	Mr. A. Clark..Tu., 9	Mr. Clutton..M., 12.30	Mr. Barker..W., 3	Mr. Keene (vis)..W., 1; (lect.) in June
Dr. S. Mackenzie..W., 9	Dr. Cheadle & Dr. Far- quharson..Th., 1.30; Dr. Cheadle (lec.) Th., 3 (Sum.) Mr. Sumner	Dr. Evans..F., 4	Dr. Payne (out-p.)..Th. 12.30	Dr. Tilbury Fox (vis).. Tu., 1.30; S., 9; (clin. lect. aft. weeks)	Mr. Bond (vis)..Th., 1; (lect.) (Feb. Mar.) Th., 2.30
Assist. Obst. Phys. and Resident Accoucheur (See page 351.)	(See page 351.)	Dr. W. Pearse (See page 352.)	Dr. Gervis (See page 352.)	Mr. W. Pearse (See page 352.)	Mr. W. Pearse (See page 351.)

TABLE OF FEES FOR HOSPITAL ATTENDANCE AND LECTURES.

(The letter "s" denotes single course; "p" perpetual or unlimited attendance.)

	ST. BARTHOLOMEW'S.	CHARING CROSS.	ST. GEORGE'S.	GUY'S.	KING'S COLLEGE.	LONDON.	ST. MARY'S.	MIDDLESEX.
AGGREGATE FEE FOR LECTURES AND HOSPITAL PRACTICE REQUIRED BY LICENSING BOARDS	£105; or £36 15s. in first winter, first summer, & second winter	1st yr. £36 15s.; 2nd yr. £33 12s.; 3rd yr. £11 14s.	1st year, £42; 2nd year, £42; each subs. year, £10 10s.	£105; or £52 10s. at begin. of 1st year, £10 10s. on 1st sum. win & 1st sum. or 1st year, £10 2nd, £40; 3rd, £30	£100; or £52 10s. at begin. of 1st year, £10 10s. on 1st sum. win & 1st sum. or 1st year, £10 2nd, £40; 3rd, £30	£100; or £52 10s. at begin. of 1st year, £10 10s. on 1st sum. win & 1st sum. or 1st year, £10 2nd, £40; 3rd, £30	£89 6s. in instalments, or £84 in one sum; lectures alone, £52 10s.	£90; or £35 at beg. of 1st and 2nd winter sessions; £20 at beg. of 3rd; each subsequent year, £19
HOSPITAL PRACTICE	<i>M. Med.</i> 3 mos. £8 8s. 6 mos. £12 12s. 2 yrs. £18 18s. U. in. £26 5s. <i>Surg. Med.</i> 3 mos. £10 10s. 6 mos. £15 15s. 12 mos. £21 U. in. £26 5s.	Total, full period, £31 10s. <i>M. Med. or Surg.</i> 3 mos. £6 6s. 6 mos. £10 10s. 12 mos. £15 15s. Full p. £21 <i>Med. and Surg.</i> 3 mos. £10 10s. 6 mos. £15 15s. 12 mos. £21 Full p. £31 10s.	<i>Medical.</i> 6 mos. £8 8s. 3 yrs. £16 16s. Perp. £25 4s. <i>Surgical.</i> 6 mos. £15 15s. 3 yrs. £21 Perp. £42	<i>M. Med. or Surg.</i> 3 mos. £10 10s. 6 mos. £15 15s. Perp. £26 5s.	<i>Med. or Surg.</i> 1 sum. £5 5s. 1 win. £9 9s. 1 year, £12 12s. 3 years, £21 Perp. £26 5s. <i>Med. and Surg.</i> 1 sum. £8 8s. 1 win. £14 14s. 1 year, £18 18s. 3 years, £31 10s. Perp. £36 15s.	<i>Perp.</i> £52 10s. <i>Medical.</i> 6 mos. £6 6s. Per. req. by Hall, £12 12s. Perp. £21 <i>Surgical.</i> 6 mos. £8 8s. 12 mos. £12 12s. 18 mos. £18 18s. 3 years, £26 5s. Ditto, £31 10s.	Full p. £36 15s. <i>M. Med.</i> 3 mos. £5 5s. 6 mos. £7 7s. 12 mos. £12 12s. 18 mos. £15 15s. Perp. £21 <i>Surgical.</i> 3 mos. £6 6s. 6 mos. £9 9s. 12 mos. £21 Perp. £31 10s.	<i>Med. or Surg.</i> Perp. £15 15s. One yr. £8 8s. 6 mos. £5 5s. <i>Med. and Surg.</i> Perp. £26 5s. 6 mos. £7 7s.
ANATOMY	s. £7 7s. p. £10 10s.	1st yr. £4 4s. 2nd yr. £2 3s.	s. £6 6s. p. £7 7s.	s. £5 5s.	s. £7 7s. p. £10 10s.	s. £5 5s. p. £8 8s.	s. £6 6s. p. £8 8s.	s. £8 8s. p. £12 12s.
DEMONSTRATIONS AND DISSECTIONS	1st c. £3 3s. sess. £5 5s.	1st yr. £3 3s. 2nd yr. £2 2s.	s. £3 3s.	s. £5 5s.	—	s. £5 5s. p. £8 8s.	s. £1 15s.	s. £6 6s. p. £8 8s.
PHYSIOLOGY	s. £7 7s. p. £10 10s.	1st yr. £4 4s. 2nd yr. £2 2s.	s. £6 6s. p. £7 7s.	s. £5 5s.	s. £7 7s. p. £10 10s.	s. £1 1s. p. £6 6s.	s. £3 3s. p. £4 4s.	s. £6 6s. p. £8 8s.
PRACTICAL PHYSIOLOGY	s. £5 5s. p. £7 7s.	—	—	s. £4 4s.	s. £5 5s. p. £8 8s.	s. £3 3s. p. £4 4s.	s. £3 3s. p. £4 4s.	s. £4 4s.
CHEMISTRY	s. £5 5s. p. £7 7s.	s. £5 5s.	s. £6 6s. p. £8 8s.	s. £5 5s.	s. 7 7s. p. £10 10s.	s. £7 7s. p. £7 7s.	s. £5 5s. p. £7 7s.	s. £6 6s. p. £8 8s.
PRACTICAL CHEMISTRY	s. £2 2s.	s. £3 3s.	s. £4 4s.	s. £4 4s.	s. £1 1s. p. £7 7s.	£2 2s.	s. £3 3s.	s. £3 3s.
MEDICINE	s. £5 5s. p. £7 7s.	1st c. £4 4s. 2nd c. £2 2s.	s. £6 6s. p. £7 7s.	s. £5 5s.	s. or p. £7 7s.	s. £5 5s. p. £6 6s.	s. £4 4s. p. £6 6s.	s. £6 6s. p. £8 8s.
SURGERY	s. £5 5s. p. £7 7s.	1st c. 3 3s. 2nd c. £2 2s.	s. £6 6s. p. £7 7s.	s. £5 5s.	s. or p. £7 7s.	s. £5 5s. p. £6 6s.	s. £4 4s. p. £6 6s.	s. £6 6s. p. £8 8s.
PRACTICAL SURGERY	s. £5 5s. p. £7 7s.	—	s. £2 2s.	s. £5 5s.	—	£6 6s.	£3 3s.	s. £6 6s.
MIDWIFERY	s. £5 5s. p. £7 7s.	s. £3 3s.	s. £5 5s. p. £6 6s.	s. £5 5s.	s. £1 1s. p. £5 5s.	s. £4 4s. p. £6 6s.	s. £4 4s. p. £6 6s.	s. £4 4s. p. £5 5s.
PATHOLOGICAL ANATOMY	s. £2 2s. p. £3 3s.	s. £3 3s.	s. £3 3s. p. £3 3s.	s. £5 5s.	s. £3 3s.	s. £2 2s. p. £6 6s.	s. £3 3s.	s. £1 1s. p. £5 5s.
MATERIA MEDICA	s. £5 5s. p. £6 6s.	s. £3 3s.	s. £4 4s. p. £5 5s.	s. £1 1s.	s. £4 4s. p. £5 5s.	s. £3 3s. p. £4 4s.	s. £4 4s. p. £6 6s.	s. £4 4s. p. £5 5s.
FORENSIC MEDICINE	s. £3 3s. p. £4 4s.	s. £3 3s.	s. £4 4s. p. £5 5s.	s. £1 1s.	s. £4 4s. p. £5 5s.	s. £3 3s. p. £4 4s.	s. £3 3s. p. £4 4s.	s. £4 4s. p. £5 5s.
BOTANY	s. £3 3s. p. £4 4s.	s. £3 3s.	s. £3 3s. p. £4 4s.	s. £4 4s.	s. £1 1s. p. £5 5s.	s. £3 3s. p. £4 4s.	s. £3 3s. p. £4 4s.	s. £4 4s. p. £5 5s.
COMPARATIVE ANATOMY	s. £2 2s. p. £3 3s.	s. £3 3s.	£1 1s.	s. £4 4s.	s. £4 4s. p. £5 5s. £3 3s.	s. £3 3s. p. £4 4s.	s. £2 2s. p. £3 3s.	s. £3 3s.
OPHTHALMIC SURGERY	s. £2 2s. p. £3 3s.	—	—	—	—	£2 2s. £3 3s.	s. £2 2s.	—
DENTAL SURGERY	s. £2 2s. p. £3 3s.	—	—	—	—	£2 2s.	—	—
PSYCHOLOGY	s. £2 2s. p. £3 3s.	—	—	—	—	—	—	s. £3 3s.
PUBLIC HEALTH	—	£1 1s.	—	£1 1s.	£1 1s.	—	—	s. £3 3s.
LIBRARY	1 year, £1 1s. 4 years, £2 2s.	—	Each w. 10s. 6d. Perp. £2	—	£1 1s.	£1 1s.	£1 1s.	£1 1s.

MISCELLANEOUS.

ST. BARTHOLOMEW'S HOSPITAL.—House-Physicianships and House-Surgeons-
ships, 12 months, £26 5s. Dresserships: 3 months, £12 12s.; 6 months, £18 18s.;
12 months, £26 5s. Demonstrations on Histology, £2 2s. Operative Surgery, £1 1s.
CHARING CROSS HOSPITAL.—Hospital Practice after third year, £5 5s. for each
additional winter, and £3 3s. for each summer. Matriculated Students receive,
a reduction of 8 per cent., making the total aggregate (including matriculation
fee of £2 2s.), £80 8s., which may be paid in five instalments. Non-matriculated
Students pay £4 4s. for Comparative Anatomy. The Lectures on Psychology,
and on Normal Histology and Operative Surgery, are free to matriculated stu-
dents; non-matriculated students pay £1 1s. for the former, and £2 2s. for each
of the two latter. Morbid Histology: matriculated, £1 1s.; non-matriculated,
£2 2s. Operative Surgery: non-matriculated, whole body, £8 8s.; half body, £5 5s.
ST. GEORGE'S HOSPITAL.—Perpetual Fee, £105; or pupils paying aggregate fee
by instalments may become perpetual at any time by making up the payments to
£115 10s.—Practical Pharmacy, £1 1s.
GUY'S HOSPITAL.—Natural Philosophy, £4 4s. Extra fees: Practical Chemistry,
£1 10s.; Practical Pharmacy, £5 5s.; Operative Surgery, £2 2s.
KING'S COLLEGE.—Perpetual Fee, £105; or pupils paying aggregate fee by
instalments may become perpetual at any time by making up the payments to
£115 10s.—Practical Pharmacy, £1 1s.
LONDON HOSPITAL.—The fees for surgical hospital practice include dresserships
for 3, 6, and 12 months, and 2 years. Twelve months' Dressership after three
years, £8 8s. Perpetual Fee for Lectures or Hospital Practice alone, £52 10s.
Composition fee for students entering at or before second winter, £73 10s., or in-
stalments of £42 and £36 17s. Practical Chemistry, for apparatus, etc., to stu-
dents of school, £2 2s.; to others, £5 5s. Practical Pharmacy, £4 4s. Use of
microscope in Practical Physiology (unless possessing one), 10s. 6d. Diseases
of Throat and Aural Surgery, each, s. £2 2s., p. £3 3s.
ST. MARY'S HOSPITAL.—Unlimited attendance, (£105 in instalments, or £99 15s.
in one sum. Use of Microscope unless possessing one, £1 1s. Inorganic Practical
Chemistry is included in the General Fee. Aural Surgery, £2 2s. Practical
Pharmacy, 3 months, £3 3s.; 6 months, £6 6s.; 12 months, £10 10s. Instruction
in Vaccination, £1 1s.
MIDDLESEX HOSPITAL.—Occasional students entering to the Hospital Prac-
tice pay a reduced fee of £1 10s. Anatomy, including dissection, s. £10 10s.;

£7 7s.; with both professors, s. £7 7s., p. £10 10s.; (sum), with one professor,
£3 3s.; with both, £4 4s. Matriculated students desiring to attend lectures of
both professors of Clinical Surgery pay an additional fee of £2 2s. for winter and
£1 1s. summer session. Tutor, £3 3s.; for preparation for Preliminary Scientific
Examination of University of London, £5 5s. Students of Practical Physiology
pay £1 1s. for use of microscope. Practical Biology, £6 6s.; Experimental Physi-
cs, £8 8s. Analytical and Experimental Chemistry (exclusive of materials), 1
month, £4 4s.; 3 months, £10 10s.; 6 months, £18 18s.
LONDON HOSPITAL.—The fees for surgical hospital practice include dresserships
for 3, 6, and 12 months, and 2 years. Twelve months' Dressership after three
years, £8 8s. Perpetual Fee for Lectures or Hospital Practice alone, £52 10s.
Composition fee for students entering at or before second winter, £73 10s., or in-
stalments of £42 and £36 17s. Practical Chemistry, for apparatus, etc., to stu-
dents of school, £2 2s.; to others, £5 5s. Practical Pharmacy, £4 4s. Use of
microscope in Practical Physiology (unless possessing one), 10s. 6d. Diseases
of Throat and Aural Surgery, each, s. £2 2s., p. £3 3s.
ST. MARY'S HOSPITAL.—Unlimited attendance, (£105 in instalments, or £99 15s.
in one sum. Use of Microscope unless possessing one, £1 1s. Inorganic Practical
Chemistry is included in the General Fee. Aural Surgery, £2 2s. Practical
Pharmacy, 3 months, £3 3s.; 6 months, £6 6s.; 12 months, £10 10s. Instruction
in Vaccination, £1 1s.
MIDDLESEX HOSPITAL.—Occasional students entering to the Hospital Prac-
tice pay a reduced fee of £1 10s. Anatomy, including dissection, s. £10 10s.;

professors recommend to the Council the names of medical students to be elected associates.

Residence.—Rooms are provided within the College for a limited number of matriculated students. The cost of the academical year varies from £50 to £60. Some of the professors, etc., receive pupils into their houses. There is a dining-hall in the College.

The Medical Society meets on Thursdays, at 8.30 P.M.

The Dean of the Medical Department, or the Subdean, attends daily, Saturday excepted, at King's College, from 11 A.M. to 1 P.M., for the purpose of seeing students and their friends. Any letter addressed to the Dean on the subject of this department will receive early attention.

LONDON HOSPITAL.—Students in Arts of Universities where residence is required, who may have attended Lectures in Anatomy, Physiology, Chemistry, Botany, or Comparative Anatomy, may become pupils of the Hospital, eligible for Hospital Prizes and Appointments, on payment of £52 10s. for Practice (perpetual) at the Hospital. Entrance can be made to separate Courses of Lectures. Graduates of Canadian or American Universities or Medical Colleges are admitted, on showing their diplomas, to six months' dressership and perpetual hospital practice for £10 10s.

The Hospital contains about 800 beds, thus allotted: Accidents and surgical cases, 334; medical cases, 300; diseases of women, 26; children under seven years of age, 68; ophthalmic cases, 12; out-door wards, 60.

Museums, etc.—The Anatomical and Pathological Museum, the Materia Medica Museum, and the Library, are open daily.

Clinical Instruction.—Two medical wards, containing together 30 beds, have been set apart for clinical teaching. The Clinical Professor will meet his class twice a week. Bedside instruction will also be given by the physicians not on special clinical duty. Students requiring signatures for medical practice must attend the Clinical Professor. In the out-patient department, the Physicians and Assistant-Physicians impart instruction at each visit. The Surgeons make clinical observations on their cases, and a clinical lecture is given once a week.

Special Departments.—There are departments for instruction in Obstetric Medicine and Surgery, Vaccination, Diseases of the Eye, Ear, Skin, and Throat, Mental Diseases, Dentistry, and Practical Pharmacy. Students desirous of obtaining a practical knowledge of Mental Diseases can attend, without additional fee, the practice of Dr. Millar, at the Bethnal House Asylum, every Wednesday from 10 to 12.—Dr. Morell Mackenzie gives a course of lectures on Diseases of the Throat.

Appointments.—Two House-Physicians, who must possess diplomas qualifying for registration, are appointed every six months. Clinical Clerks are appointed every three or six months. Every student is expected to act as Clinical Clerk for six weeks in the Medical and as Dresser for three months in the Surgical out-patient department. A Resident Accoucheur is appointed for six months, and a Clinical Obstetric Clerk every three months. All students who have attended a course of instruction in Midwifery can place their name on the list of Maternity Pupils. Two reside in the hospital for two or three weeks. Four House-Surgeons are elected, usually for six months. Any student, who has passed the primary examination at the College of Surgeons, may enter his name on the list as a Dresser. Two Dressers reside and board in the hospital every week. Three Clinical Assistants are appointed every three months for the Medical out-patients, and are eligible for re-election. Each receives a salary at the rate of £30 per annum. A Medical Registrar and a Surgical Registrar are appointed annually; each receives £100. A Dental Assistant, *Post Mortem* Clerks, Prosectors of Anatomy, and Dressers in the Ophthalmic and Aural departments are also appointed. Full pupils, and those who, having commenced elsewhere, pay the general fee to the hospital and college, at or before the beginning of the second winter, are eligible for appointments. All the appointments are open to students without fee. The holders of resident appointments are provided with rooms and board.

Scholarships and Prizes.—Nine scholarships will be offered for competition. 1 and 2. Two Entrance scholarships, value £60 and £40; examination on September 25th, 26th, and 27th; subjects, Physics, Botany, Zoology, and Inorganic Chemistry. 3. and 4. Two Buxton scholarships, value £30 and £20; examination on September 27th, 28th, and 29th.* These scholarships are open to full students of less

* The subjects are:—1. The English Language and Literature. The Examination will include Writing from Dictation, *Prose* Writing, the Composition of a Short Essay or Letter on a given theme, and Questions on the History and Development of the Language and its Literature. 2. Arithmetic, including Vulgar and Decimal Fractions. 3. Algebra, including Quadratic Equations. 4. Geometry—first four Books of Euclid. 5. Latin: Virgil, *Eclogues*, the first six. 6. One of the following

than six months' standing. 5. A scholarship at the end of the winter session, value £20, to a first year's student: subject, Human Anatomy. 6. A scholarship, value £25, to a first or second year's student, at the end of the winter session: subjects, Anatomy, Physiology, and Chemistry. 7, 8, 9. Hospital scholarships, value each £20, for proficiency and zeal in Clinical Medicine, Surgery, and Obstetrics. A second prize, value £5, with certificate, for attendance on the largest number of Obstetric cases.—The Duckworth Nelson Prize, value £10, awarded biennially; open to all students who have not completed their education: subjects, Practical Medicine and Surgery.—Money Prizes to the value of £60 per annum to the most meritorious of the dressers in the out-patient rooms. Special certificates to those gentlemen who have faithfully performed their duties in the hospital, and to those who have distinguished themselves at the examinations.

Special attention is paid to the preparation of students for the examinations of the Colleges of Physicians and Surgeons, the Apothecaries' Hall, and the University of London.

The Medical Society meets for the reading and discussion of papers at 7.30 P.M. on alternate Wednesdays during the winter session.

Information may be obtained from Mr. Waren Tay, Vice-Dean; from any member of the Hospital Staff; or from the Lecturers at the College.

ST. MARY'S HOSPITAL.—Students who have kept the two years' course of medical study at the University of Cambridge are admitted as perpetual pupils on payment of a composition fee of £57 15s.; and students who have kept a portion of the course there or elsewhere, at a proportionate reduction.

The Hospital contains 165 beds—76 medical and 89 surgical. Two wards are appropriated to Diseases of Children and one to those of Women; there are also beds for ophthalmic cases.

The Reading Room and Library are open daily. The *Museum* is open daily to students. It contains about 3,000 specimens of healthy and morbid anatomy. There are also a Materia Medica Department, and a collection of specimens illustrative of Comparative Anatomy.

Clinical Lectures twice a week by the Physicians and Surgeons. Clinical demonstrations on Diseases of the Skin and of the Throat are also given. The students are carefully trained to the use of the Microscope. A Histological Room is open daily.

The Medical Tutor assists the students in the wards of the hospital, and gives practical instruction in the physical examination cases. He also teaches the use of the Stethoscope and other instrumental aids to diagnosis, together with the systematic description and report of cases.

Hospital Appointments are open to the pupils without additional fee, after competition. Three Resident Medical Officers are appointed for twelve months, and an Obstetric Officer for six months; all live free of expense in the hospital.—A Demonstrator of Anatomy, a Medical Tutor, and a Resident Registrar, with salaries of £100, are appointed annually, and may be re-elected.—All students must act as clinical clerks and dressers for six months after passing the Primary Examination. Students of the third year are appointed to assist the Physicians and Surgeons in charge of the out-patients for three months each. Two Prosectors are appointed annually, each of whom receives a certificate and £5.

Scholarships and Prizes.—Three Scholarships in Natural Science, tenable for three years; value £60 the first year, £40 the second year, and £20 the third year; awarded by competitive examination at commencement of winter session every year. An Exhibition of £20 for one year to the second candidate in order of merit. One Entrance Scholarship in Natural Science, tenable for three years; value £60 the first year, £25 the second year, and £15 the third year. The successful candidates must enter as perpetual pupils of the hospital.—Scholarship in Anatomy, value £20, tenable for one year, to students who have completed the second winter session. The successful candidate will be styled Assistant-Demonstrator.—Scholarship in Pathological Anatomy, value £40, tenable for one year, open to students who have completed the third winter session. The holder of this scholarship will be styled Assistant-Curator. *First Year:* Winter Session: Prize of £4 4s. in Anatomy and Histology; one of £2 2s. in Chemistry. Summer Session: Three Prizes, value £2 2s. each, in Materia Medica, Botany, and Practical (Inorganic) Chemistry.—*Second Year:* Winter Session: Prize of £4 4s. for Anatomy and General Physiology. Summer Session: Prizes, value £2 2s. each, for Midwifery and Medical Jurisprudence.—*Third Year:* Winter Session: Prizes of £3 3s. each, for Medi-

subjects at the discretion of the candidate: (a) Greek—Herodotus, Book II; (b) French—Moliere, *Les Femmes Savantes*, and *Le Malade Imaginaire*; (c) German—Schiller's *Wilhelm Tell*; (d) Natural Philosophy, including Mechanics, Hydrostatics, and Pneumatics.

and Surgery, and one of £2 2s. for Pathology. Summer Session : Prize of £2 2s. for Comparative Anatomy. *Third and Fourth Year :* At end of the winter session, Prizes of £3 3s. each to the Clinical Clerk, and to the In-Patients' Dresser, who have discharged their duties in the most satisfactory manner, for the usual term, during the previous twelve months.

The Medical Society meets on alternate Wednesday evenings, during the winter session, at 8 P.M.

Further information may be obtained from Dr. Shepherd, Dean of the School; from any of the Lecturers; or from the Resident Registrar, at the Hospital.

MIDDLESEX HOSPITAL.—The aggregate fee admits to the Library, to one course of Practical Chemistry and two courses of Dissections, to all the lectures, and to the instruction of the Tutor; it includes also all charges for Clinical Clerkships and Dresserships. Members of English Universities who have completed one year of medical study in University are admitted to all lectures and hospital practice required (except Practical Chemistry) for £55; this may be paid in instalments of £35 and £20; but in the latter case, £10 must be paid for each additional year.

The Hospital contains upwards of 300 beds, of which 185 are devoted to surgical and 120 to medical cases. There are 33 beds for cases of cancer; also wards for cases of uterine disease and of syphilis, and beds for cases of diseases of the eye.

The Museum is open to students daily from 9 to 5. It contains above 5,000 specimens.—The Library and Reading Room are open to all general students.

Clinical Lectures are delivered regularly by the Physicians and Surgeons, and by the Physician-Accoucheur and the Ophthalmic Surgeon.—Special instruction in Diseases of the Skin, and of the Larynx and Ear, is given.

The College Tutors assist all general students of the hospital, especially those who are preparing for examination.

Appointments, etc.—Two House-Surgeons are appointed for six months, after competitive examination, in April and October. The Junior House-Surgeon succeeds to the office of Senior House-Surgeon only if he have performed his duties satisfactorily. Each House-Surgeon pays a fee of £21 on appointment; if he have not been a surgical pupil of the hospital, he pays £31 10s. Three Resident Physicians'-Assistants are appointed from time to time for six months, after competitive examination. They must have a legal qualification. Each Resident Physicians'-Assistant pays £10 10s. on appointment; and, if he have been a medical pupil of the hospital for a limited time, a sum sufficient to make him a perpetual student of the medical practice; if he have been neither a general nor an occasional pupil of the hospital, he pays £21. A Resident Obstetric Assistant is appointed for six months. He pays £10 10s. Clinical Clerks and Dressers are appointed for six months. An Obstetric Physicians' Clerk and Ophthalmic Dresser are appointed. The appointments are so arranged that every student may take both a clerkship and a dressership at some period. Each student must be an out-patient clerk and out-patient dresser for six months respectively before being eligible to an in-patient clerkship or dressership.

Scholarships and Prizes.—Two Broderip Scholarships, value £30 and £20, tenable for two years, to students who have completed the third year, for reports or comments on selected medical and surgical cases.—Two Entrance Scholarships, value £25 and £20, tenable for two years,* open to all gentlemen commencing their medical studies at the hospital in October 1877.—The John Murray Scholarship and Gold Medal, founded in connection with the University of Aberdeen, will be awarded in May 1880.—The Governor's Prize, value £21, to the student who, at the end of the third winter session, shall have been most diligent in the wards, and have attained the highest proficiency in the periodical examinations.—A Clinical Prize of £10 10s. to the candidate who stands third in the competition for the Broderip Scholarships.—Class Prizes and Certificates of Honour are given in each subject.

* The Examination will take place on September 27th and following days. The following are the subjects for Examination. *Latin.*—Passages for translation into English, short passages for translation from English into Latin, and questions in Grammar and Ancient Geography.—*Greek.*—Easy passages for translation into English; questions in Grammar and Ancient Geography.—*French or German.*—Passages for translation into English, and passages for translation from English into French or German, and questions in Grammar.—*Mathematics.*—Arithmetic. Algebra up to and including Quadratic Equations, and Euclid, books I, II, III.—*Vegetable Physiology.*—Huxley's Classification of the Animal Kingdom; Rudiments of Animal Physiology. Candidates will be examined in any three, and not more, of the above subjects which they may select; but only one Modern Language and two out of the last three subjects are permitted.

The Students' Medical Society meets in the Board Room of the Hospital once a fortnight during the winter session.

Information may be obtained from Mr. Andrew Clark, the Dean; from Dr. Greenhow, Treasurer of the College; from any of the Lecturers; or from the Resident Medical Officer at the Hospital.

ST. THOMAS'S HOSPITAL.—The Hospital contains 572 beds, of which about 180 are appropriated to ordinary medical and 230 to ordinary surgical cases. There are also special wards for diseases of women, diseases of the eye, venereal affections, children under six years of age, and (in a separate block) infectious diseases.

Clinical Instruction in the wards and Clinical Lectures are given by the Physicians, Obstetric Physician, Surgeons, and Ophthalmic Surgeon. There are special departments for the diseases of women and children; diseases of the eye, with ophthalmoscopic demonstrations; diseases of the skin; diseases of the teeth; and for vaccination.

Museum, etc.—Students have access to the library and to the Museums of Human Anatomy, of Comparative Anatomy, of Materia Medica, and of Chemistry and Mineralogy, and to the Laboratories of Practical Physiology and Practical Chemistry.

Scholarships and Prizes.—Two Entrance Scholarships in Natural Science, value £60 and £40, in first week in October; subjects, Physics, Chemistry, Botany, and Zoology. The William Tite Scholarship, £30, to the student highest on the first class list at the examination at the end of the winter session.—The Musgrove Scholarship, value £42 per annum, biennially to the student highest in the first class list at the end of the second winter session.—A College Scholarship of same value, alternately with the Musgrove Scholarship.—College Prizes each winter, for second and third years' students, of £20 and £10 each year; and for third year's students, of £20, £15, and £10; and £15, £10, and £5 each of two summers.—The Cheselden Medal, annually, to a fourth year's student, for Surgery and Surgical Anatomy.—The Mead Medal, annually, to a fourth year's student, for practical examination in Medicine.—The Treasurer's Gold Medal, annually to a fourth year's student, for general proficiency.—The Granger Testimonial Prize, value £20, biennially, to third or fourth year's students, for a Physiological Essay.—The Solly Medal, with a Prize of £10 10s., every two years, for Reports of Surgical Cases, to a third, fourth, fifth, or sixth year's student.

Appointments.—Two House-Physicians and two Assistant House-Physicians, two House-Surgeons and two Assistant House-Surgeons, and a Resident Accoucheur, are selected from gentlemen who have obtained their professional diplomas, and held office for three or six months. Clinical Clerks and Dressers for in-patients and for out-patients are selected each year to the number of at least forty respectively. Obstetric Clerks are from time to time appointed; also Preceptors, and Assistants to the Demonstrator of Pathological Anatomy. All students have the opportunity of being engaged in the performance of practical duties in connection with the Medical, Surgical, Obstetrical, Ophthalmic, and Pathological Departments of the Hospital. The House-Physicians, House-Surgeons, the Resident Accoucheur, and Dressers and Clinical Clerks, are provided with rooms and commons. Medical and Surgical Registrars are appointed. Each Registrar, on completing his annual report to the satisfaction of the Physicians or Surgeons, receives £40.

Further information may be obtained from Dr. Gillespie, the Medical Secretary, at the Hospital.

UNIVERSITY COLLEGE AND HOSPITAL.—The General and Medical Libraries, the Museums of Anatomy and Pathology, of Comparative Anatomy, of Materia Medica and Chemistry, of Geology, and of Natural Philosophy, and the Parkes Museum of Hygiene, are open daily. There are also a Chemical and a Physiological Laboratory, where instruction is given under the superintendence of the Professors of Chemistry and of Physiology.

Clinical Instruction is given by the physicians and surgeons in the wards and in the out-patient department, and by lectures and examinations. The Wilson Fox, the Holme Professor of Clinical Medicine, delivers Clinical Lectures, and trains the pupils in the practical study of disease. Dr. Roberts and Dr. Gowers, Assistant Teachers of Clinical Medicine, give special instructions in Physical Diagnosis and Clinical Observation. Lectures are given once a week by Mr. Christopher Heath, the Holme Professor of Clinical Surgery; once a fortnight or oftener by Mr. Marshall and Mr. Berkeley Hill. Mr. Erichsen and Sir Henry Thompson, Emeritus Professors of Clinical Surgery, will deliver short courses during the session. Mr. Marcus Beck and Mr. Barker, the Assistant-Teachers of Clinical Surgery, will hold examinations and instruct students in the observation and examination of patients. Clinical Lectures on Midwifery and the Diseases of Women

are delivered once a fortnight; also on Ophthalmic Surgery, and on Diseases of the Skin. Instruction in the use of the Laryngoscope is given by Dr. Poore on Thursdays. Arrangements are made for practical instruction in Vaccination.

Private Instruction.—Gentlemen may obtain assistance in their studies within the College, on application to the respective Professors.

Offices.—Physicians' Assistants, House-Surgeons, Midwifery Assistants, Physicians' Clerks, Surgeons' Dressers, Ophthalmic Surgeons' Assistants, and Ward Clerks, are selected from among the pupils without additional fee. The Physicians' Assistants, the Obstetric Assistant, and the House-Surgeons, reside in the hospital, paying for their board.

Scholarships, etc.—Three Entrance Exhibitions, value £30, £20, and £10 per annum, tenable for two years, to gentlemen who are about to commence their first winter's attendance.*—The Atkinson-Morley Surgical Scholarship, £45, tenable for three years, for proficiency in Surgery.—The Sharpey Physiological Scholarship, annual value about £70.—The Filliter Exhibition of £30, annually in July, for proficiency in Pathological Anatomy.—Dr. Fellowes's Clinical Medals, one Gold and one Silver, with Certificates of Honour, at the end of each winter and each summer session.—The Liston Gold Medal, with Certificates of Honour, at the end of the session, for reports and observations on the surgical cases in the Hospital.—The Alexander Bruce Gold Medal, for proficiency in Pathology and Surgery.—The Cluff Memorial Prize, every second year, to the most proficient in Anatomy, Physiology, and Chemistry; next in award in 1879.—Gold and Silver Medals or other Prizes, as well as Certificates of Honour, after competitive examinations in the classes.—Prizes to the value of £10 in the class of Hygiene.

The Medical Society meets to read and discuss papers on alternate Wednesdays throughout the session, at 7 P.M.

Residence of Students.—Several gentlemen connected with the College receive students to reside with them; and, in the office of the College, there is kept a register of persons who receive boarders.

Information respecting the College may be obtained from the Dean, Dr. Graily Hewitt; the Vice-Dean, Mr. Christopher Heath; or the Secretary, Mr. Talfourd Ely.

WESTMINSTER HOSPITAL.—The aggregate and perpetual fees include only one course of Practical Chemistry and Practical Physiology.† Gentlemen who do not enter as perpetual students before the end of their second year will be charged a fee of £4 4s. for every session after the completion of their fourth winter session, in addition to any special fees which may be payable. Members of the Universities of Oxford or Cambridge, who have completed one year of medical study at the University, will be admitted to the Hospital Practice and Lectures (except Practical Chemistry and Comparative Anatomy) required by those Universities, and by the Colleges of Physicians and Surgeons, on payment of £52 10s. in one sum.

Museums, etc.—The Anatomical Museum is constantly open to the Students. There are also a Pathological Museum and a Materia Medica Museum. The Reading Room is open daily.

Instruction.—There are separate departments for Diseases of the Eye, Ear, Skin, and Teeth, and for Diseases of Women. Instruction in the physical examination of the Chest is given by Dr. Donkin, and in the use of the Laryngoscope by Dr. De Havilland Hall. Mr. C. Brooke delivers a course of lectures on Natural Philosophy.

Appointments.—All these are made without fee.—A Medical and a Surgical Registrar are appointed annually, each with a salary of £40.—A House-Physician, a House-Surgeon, and a Resident Obstetric Assistant are appointed by competition, and are provided with rooms and commons. They each pay a deposit of £20 on appointment; but receive £25 at the expiration of the term if their duties have been performed satisfactorily. The preceding must be duly qualified to practise.—An Assistant House-Surgeon is appointed from among the senior students. He is provided with commons at the hospital table.—A Physicians' Assistant, Surgeons' Assistant, Ophthalmic Assistant, and Assistant in the Skin and Aural Departments, are appointed from students of the fourth year.—Clinical Clerks and Dressers for in-

patients are appointed for six months from general students of the hospital who have passed their first Examination.—Out-patients' Clerkships and Dresserships are conferred on all students in rotation for three months.

Scholarships and Prizes.—The Fence and Houldsworth Entrance Scholarship, each £50 a year for two years; and Two Entrance Scholarships, value £10, tenable for two years.*—Exhibition in Anatomy, Physiology, and Chemistry, value £10 10s., tenable for one year for first year's men.—A prize of £2 2s. by Mr. A. P. Gould, to the first year's student who is most regular and diligent in the Dissecting Room.—Scholarship in Anatomy and Physiology, value £21, to student of second year (to be styled Assistant Demonstrator).—Prize by Dr. Allchin, in class of Histology.—At the end of third summer, prizes of £5 each (books or instruments), in Clinical Medicine and Clinical Surgery.—Frederic Bird Medal and Prize, value £15, to perpetual students who have completed their fourth winter; subjects of examination: Medicine, Midwifery, Diseases of Women and Children, and Pathology.—Chadwick Prize for General Proficiency, £21, to the most meritorious student or students of any year not exceeding the fifth.—Certificates of Honour in each Class.

Communications respecting the Medical School should be addressed to Mr. Cowell, the Dean of the School, from whom all particulars may be obtained. Information may also be obtained from any of the Lecturers, or from the Secretary at the Hospital.

SCHOOL OF ANATOMY, PHYSIOLOGY, AND OPERATIVE SURGERY.—This school, the offices of which are at 16, Woburn Place, has been licensed by the Secretary of State for the purpose of medical instruction. The Lectures are—in Anatomy and Physiology (Tu., Th., S., 4.30), Mr. Thomas Cooke, assisted by two demonstrators; in Materia Medica, Botany, and Chemistry (Tu., Th., S., 3), Mr. George Brown; Edward B. Aveling, D.Sc.Lond.; and Mr. Joseph Ince.

The School meets the requirements of two distinct classes of students: *i.e.*, 1. Advanced students and qualified practitioners, who may wish either to extend their knowledge of the foregoing subjects, or to recall to mind what they once knew and have since forgotten; 2. Beginners entering upon their medical studies by a short term of apprenticeship with a general practitioner. For the former, rapid advanced classes, complete in three months, but still thoroughly practical, will be provided; and for the latter, more elementary classes of six months' duration, also thoroughly practical.

The dissecting-room is open daily from 9 A.M. to 10 P.M. The Demonstrators attend four hours daily. No entrance fee is charged for dissections only; but it is understood that the dissected parts may be used by the Lecturer for the purpose of demonstration.

Fees.—Anatomy and Physiology, Lectures: For Primary Membership Examination of Royal College of Surgeons (6 months), £3 3s.; for Primary Fellowship Examination (with Comparative Anatomy, 12 months), £5 5s.; perpetual for either Examination (4 years), £10 10s. Demonstrators' Class (for pupils of the School only), 3 months, 10s. 6d. Operative Surgery (one course), £5 5s. Anatomy and Physiology for Primary Fellowship, and Operative Surgery, £8 8s. Materia Medica, Botany, and Chemistry (6 months), £5 5s. Each subject separately (6 months), £2 2s.

LONDON SCHOOL OF MEDICINE FOR WOMEN.—The following courses of lectures are delivered at this School: Anatomy, by Mr. Reeves and Mr. Mears; Physiology, by Mr. Schäfer; Chemistry, by Mr. Heaton; Botany, by Dr. P. H. Stokoe; Materia Medica, by Dr. Sturges and Dr. H. Donkin; Practice of Medicine, by Dr. King Chambers and Mrs. Garrett-Anderson, M.D.; Clinical Medicine, by Dr. O'Connor and Dr. Cockle, at the Royal Free Hospital; Midwifery and Diseases of Women, by Dr. Ford Anderson and Dr. Elizabeth Blackwell; Forensic Medicine, by Dr. Dupré; Surgery, by Mr. Cowell; Clinical Surgery, by Mr. Gant and Mr. Rose, at the Royal Free Hospital; Ophthalmic Surgery, by Mr. Critchett, of the Royal

* The next Examination will be held at the Hospital on October 2nd and 3rd. The following are the subjects: 1. *Hebraeae Linguae*, Books III and IV. The paper will contain passages for translation, questions in Grammar, and easy English sentences translated into Latin. 2. *Grammaticae*, or *Gram.* The papers will contain passages for translation into English, and questions in Grammar on subjects furnished by the papers in *Hebraeae Linguae*, Book XIV. 3. *Mathematicae*, or *Math.*—including Vulgar and Decimal Fractions, and extraction of Square Root. 4. *Chimiae*, or *Chem.*—including the Principles and Division of all kinds of Quantities; Proportion, Arithmetical and Geometrical Progression, Simple Equations, and the Principles of the Calculus. 5. *Physiologiae*, or *Phys.*—The latter will be confined to Inorganic Chemistry. The Examination is by written papers. Notice of intention to compete, with a statement of the languages in which the Candidate wishes to examine, and a certificate of moral character, must be sent to the Dean not later than September 25th.

* The subjects of examination are the following: Latin and Greek. Translation into English of passages from Cicero and Xenophon; Translation of short English sentences into Latin. French or German. Translation into English of passages from French or German. *Historia Universalis*, or *Univ. Hist.*—The papers will contain passages for translation into English, and questions in Grammar on subjects furnished by the papers in *Hebraeae Linguae*, Book XIV. *Mathematicae*, or *Math.*—including Vulgar and Decimal Fractions, and extraction of Square Root. *Chimiae*, or *Chem.*—including the Principles and Division of all kinds of Quantities; Proportion, Arithmetical and Geometrical Progression, Simple Equations, and the Principles of the Calculus. *Physiologiae*, or *Phys.*—The latter will be confined to Inorganic Chemistry. The Examination is by written papers. Notice of intention to compete, with a statement of the languages in which the Candidate wishes to examine, and a certificate of moral character, must be sent to the Dean not later than September 25th.

Ophthalmic Hospital, and Mr. James Adams; Pathology, by Dr. Bastian, F.R.S., and Dr. Cheadle; Mental Pathology, by Dr. Sankey; Comparative Anatomy, by Dr. Murie.

The Winter Session of 1877-8 will commence on October 1st, 1877, and will comprise classes in Anatomy, Physiology, Chemistry, and Practical Anatomy with Demonstrations. Clinical instruction will be given at the Royal Free Hospital, and will include lectures on Clinical Medicine, Clinical Surgery, and Hospital Attendance. Dressers, Clinical Clerks, and a Pathological Registrar will be selected from the students after competition.

Fees for all the non-clinical lectures, £80, or £40 for the first year, £30 for the second, and £15 for the third. Fees for clinical instruction and lectures for four years, £45, or £20 the first year, £15 the second, and £15 the third, the fourth year being free. Fees for single classes of non-clinical lectures are £8 8s. for one in the winter, and £5 5s. for one in the summer course.

Two entrance scholarships of the value of £30 and £20 respectively, will be awarded according to the results of a Competitive Examination, to be held on October 1st, 1877. Intending candidates should apply, at least ten days before the date of examination, to Mrs. Thorne, Honorary Secretary, at the School, 30, Henrietta Street, Brunswick Square, W.C.

NOTES CONCERNING THE PROVINCIAL AND SCOTCH HOSPITALS AND MEDICAL SCHOOLS.

UNIVERSITY OF OXFORD.—The instruction in Natural Science is carried on at the Museum, where there is practical instruction in Physics, Chemistry, and Anatomy and Physiology, together with courses of lectures by the several professors, viz.: Regius Professor of Medicine and Professor of Clinical Medicine—H. W. Acland, M.D., D.C.L., F.R.S.; Geometry—H. J. S. Smith, M.A., F.R.S.; Natural Philosophy—Rev. B. Price, M.A., F.R.S.; Experimental Philosophy—R. B. Clifton, M.A., F.R.S.; Geology—J. Prestwich, F.R.S.; Chemistry—W. Odling, M.B., F.R.S.; Physiology—G. Rolleston, M.D., F.R.S.; Zoology—J. O. Westwood, M.A., F.L.S.; Botany—M. A. Lawson, M.A.; Mineralogy—M. H. N. Story-Maskelyne, M.A., F.R.S.; Lee's Reader in Anatomy—J. B. Thompson, M.A.

Large collections illustrate the several subjects; there is a pathological series, including the collection of Schroeder van der Kolk, in the medical department, and a medical laboratory. The Radcliffe Library (in the University Museum), containing nearly 20,000 scientific volumes, is open to all students daily from ten to four, and on certain evenings during term. There are also lectures and practical instruction in Botany at the Botanical Gardens; and clinical instruction at the Infirmary.

UNIVERSITY OF CAMBRIDGE.—The following Courses of Lectures on Medicine and subjects connected with it will be delivered during the ensuing Academic Year. *Michaelmas Term, 1877.*—Chemistry and Physics: Mechanical Physics, by the Demonstrator of Physics, M., W., F., 1; Electro-Magnetism and Electric Measurements, by the Demonstrator of Physics, times to be announced hereafter; General Principles of Chemistry, by Professor Liveing, M., W., F., 12; Physical Chemistry, by Professor Dewar, T., Th., S., 12; Elementary Organic Chemistry, by Mr. Main, St. John's, T., Th., S., 11; Chemical Analysis (University Chemical Laboratory), daily, 10-6; Ditto (St. John's College Laboratory); Ditto (Caius College Laboratory), daily; Volumetric Analysis, by Mr. Apjohn (Caius), M., W., F., 10; Spectroscopic Analysis, by Professor Liveing, M., W., F., 1.30 and following hours; Chemistry—Catechetical Lectures, by Mr. Lewis Downing, M., W., F., 9. Botany: Elementary Morphology, by Mr. Hicks (Sidney), Tu., Th., S., 11; Histology, by Mr. Vines (Christ's), M., W., F., 12. Anatomy and Physiology: Zoology and Comparative Anatomy, *Invertebrata*, by Professor Newton, M., W., F., 1; Osteology of *Mammalia*, by the Demonstrator, T., Th., F., 12; Comparative Anatomy and Physiology, by Mr. Saunders (Downing College), T., Th., S., 9; Practical Morphology, by Mr. Balfour (at the New Museums), Elementary Course (*Vertebrata*), M., W., 10—Advanced Course (*Invertebrata*), S., Th., 11; Practical Physiology and Histology, by the Trinity Prælector, Dr. M. Foster (at the New Museums), Elementary Class, T., Th., S., 10—Advanced Class, M., W., 11; Anatomy and Physiology—The Tissues and Nervous System, by Professor Humphry, T., Th., S., 1; Anatomy and Physiology of the Organs of Digestion, Absorption, Circulation, and Respiration, by Dr. Bradbury (at Gonville and Caius College), T., Th., 12; Human Anatomy—The Joints, by Professor Humphry, daily, 9, from October 9th till 24th; Demonstrations and Catechetical Lectures, by the Professor and Demonstrator, daily, 9; Practical Anatomy in Dissecting Room,

daily, 9-4. Medicine: General Therapeutics, by Dr. Latham (Downing Professor), T., Th., S., 9; Clinical Medicine, by Dr. Paget (Regius Professor), T., Th., and alternate Fridays, 10; also by Dr. Bradbury, M., W., and alternate Fridays, 10; Clinical Surgery, by Mr. Lestourgeon, T., Th., 11.

Lent Term, 1878.—Chemistry and Physics: Practical Physics, by Professor Maxwell or Demonstrator (Cavendish Laboratory), T., Th., S.; Heat, by the Demonstrator of Physics, M., W., F., 1; Sound and Light, by Mr. Trotter (Trinity College), M., W., F.; General Course of Chemistry continued, by Professor Liveing, M., W., F., 12; Chemistry, General Course begun, by Mr. Main (St. John's), T., Th., S., 11; Non-metallic Elements, by Mr. Apjohn (Gonville and Caius), M., W., F., 10; Organic Chemistry, by the Jacksonian Professor Dewar, T., Th., S., 12; Chemical Analysis, University Chemical Laboratory, daily, 10-6; St. John's College and Caius College Laboratories, daily; Chemistry, Catechetical Lectures, by Mr. Lewis, M., W., F., 9. Botany: Histology and Physiology, by Mr. Hicks (Sidney), T., Th., S., 11; Histology, by Mr. Vines (Christ's), M., W., F., 12. Anatomy and Physiology: Zoology and Comparative Anatomy, *Vertebrata*, by Professor Newton, M., W., F., 1; Dentition and Epidermal Structures of *Vertebrata*, by the Demonstrator, T., Th., F., 12; Comparative Anatomy and Physiology, by Mr. Saunders (Downing College), T., Th., S., 9; Practical Morphology, by Mr. Balfour (New Museums), Elementary Class (*Invertebrata*), continued, M., W., 10; Advanced Class (*Invertebrata*), T., Th., 11; Practical Physiology and Histology, by the Trinity Prælector, Dr. M. Foster (New Museums), Elementary Class, continued, T., Th., S., 10; Advanced Class, M., W., 11; Physiological Optics and Acoustics, by Mr. Trotter (Trinity College), T., Th., 10; Anatomy and Physiology—The Organs of Sense, by Professor Humphry, T., Th., S., 1; Anatomy and Physiology of the Organs of Digestion, Absorption, Circulation, and Respiration (continued), by Dr. Bradbury (Gonville and Caius), T., Th., S., 12; Human Anatomy—The Arterial and Venous Systems, by Professor Humphry, daily, 9, from January 17th till February 6th; Demonstrations and Catechetical Lectures, by the Professor and Demonstrator, daily, 9; Practical Anatomy, in Dissecting Room, daily, 9 to 4. Medicine: Principles and Practice of Medicine, by Professor Paget, M., F., 9; Clinical Medicine, by Professor Paget, T., Th., 10; Clinical Medicine, by Professor Latham, M., W., F., 10; Clinical Surgery, by Mr. Carver, T., Th., F., S., 11.

Easter Term, 1878.—Chemistry and Physics: Practical Physics, by the Professor or Demonstrator of Physics, Cavendish Laboratory, Tu., 1; Th., S.; Electricity and Magnetism, by the Demonstrator of Physics; Sound and Light, by Mr. Trotter, M., W., F., 10; Chemistry, Elementary Course, by the Demonstrator of Chemistry, M., W., F., 3; General Course (continued), by Mr. Main, T., Th., S., 12; Elementary Organic Chemistry and Analysis, by Mr. Apjohn, M., W., F., 10; Some Special Department of Chemistry, by Professor Liveing, M., W., F., 12; Chemical Analysis, University Chemical Laboratory, daily, 10 to 6; also in St. John's College Laboratory and Caius College Laboratory, daily; Chemistry, Catechetical Lectures, by Mr. Lewis, M., W., F., 9. Botany: Taxonomy, Glossology, and Phyto-graphy, by Professor Babington, M., Tu., Th., F., 1; Histology, by Mr. Vines, Tu., Th., S., 10. Anatomy and Physiology: Comparative Anatomy and Physiology, by Mr. Saunders (Downing College), M., W., F., 9; Vertebrate Embryology with Practical Work, by Mr. Balfour (New Museums), M., W., F., 10; Practical Elementary Biology, by the Trinity Prælector (Dr. Michael Foster), at the New Museum, M., T., W., Th., F., 10; Physiological Optics and Acoustics (continued), by Mr. Trotter (Trinity College), T., Th., 10; The Muscular System of Man and other Vertebrates, by Professor Humphry, M., W., F., 1; Human Anatomy, Demonstrations and Catechetical Lectures, by the Demonstrator, T., Th., S., 1; Practical Anatomy, in the Dissecting Room, daily. Medicine: Principles and Practice of Medicine, by Dr. Paget, the Regius Professor, M., W., F., 9; Pharmacy and Pharmaceutical Chemistry, by Dr. Latham, Downing Professor, T., Th., S., 9; Pathological Anatomy, by Dr. Bradbury (Linacre Lecturer), T., Th., 9; Clinical Medicine, by Professor Latham, M., W., F., 10; Clinical Medicine, by Dr. J. B. Bradbury, T., Th., 10; Clinical Surgery, by Dr. G. M. Humphry, T., Th., F., 11.

Students desirous of attending Lectures on Thermo-dynamics, Crystallography, or Mineralogy, are referred to the Scheme of Lectures on the Natural Sciences.

Long Vacation.—Practical Chemistry, in the University Laboratory; Courses of Instruction in Practical Anatomy, in Human and Comparative Osteology, and in Practical Histology; Clinical Instruction at the Hospital.

Medical Students requiring Certificates of attendance on a course of lectures on Chemistry will be expected to attend one of the following:

either the General Course of the Professor of Chemistry or the two courses of the Jacksonian Professor in Michaelmas and Lent terms; or Mr. Main's course or Mr. Apjohn's courses in Lent and Easter terms; or the course of the Demonstrator of Chemistry in Easter term together with Mr. Main's course on Organic Chemistry in Michaelmas term. Manipulations have to be practised besides, which may be done in any term.—The Chemical Laboratory of the University is open daily for the use of the students. The Demonstrator attends daily to give instruction. The Dissecting-rooms and Museums of Anatomy are open daily during the vacations as well as in the terms, and the Professor and Demonstrator of Anatomy are in attendance to assist and direct the students. Opportunities for clinical instruction in mental diseases are afforded at the County Asylum, Fulbourn, by Dr. Bacon. Notice will be given of the days and hours. Commencing Students of Medicine must be registered according to the Regulations of the General Council of Medical Education and Registration. Forms for registration, abstracts of regulations, schedules, and other papers, may be obtained from the attendant at the Anatomical Schools, Pembroke Street.

BIRMINGHAM.—QUEEN'S COLLEGE.—Clinical Lectures and Lectures in special departments are given in the General Hospital and the Queen's Hospital, which have a total of upwards of 400 beds. Special instruction is given in the use of the microscope, laryngoscope, and ophthalmoscope, and surgical appliances, also in case-taking and bandaging, with minor surgery and prescribing. Students must attend for six months alternately at each hospital, except those who enter for six months only.

Appointments.—*General Hospital:* Resident Medical and Resident Surgical Assistant, two Resident Dressers, tenable six months. *Queen's Hospital:* Resident Obstetric Assistant, tenable six months; Resident Dresser, tenable three months.

Prizes.—The Sands Cox Prize, value £20 annually, to students who have completed their curriculum, after examination in Medicine, Surgery, and Midwifery.—Warden's Prize, £3 3s., to the most proficient student of the first year.—Two Ingleby Scholarships, after examination in Obstetric Medicine and Surgery and the Diseases of Women and Children; open to students who have completed the second year.—Medals and Certificates of Honour, annually, in each class after examination.

Clinical Prizes.—Two Senior Medical and two Senior Surgical Prizes (third and fourth years), value in each department £5 5s. and £3 3s.; two Junior Medical and two Junior Surgical Prizes (second year), values £3 3s. and £2 2s.; Midwifery Prize, £4 4s. The Medical Tutor holds classes for junior students.

Further particulars may be obtained by application to the Rev. the Warden, at the College; to Dr. Jolly, 83, Newhall Street; to Mr. Priestley Smith, 21, Easy Row; or to Dr. Hinds, 10 Easy Row.

BRISTOL MEDICAL SCHOOL.—This School will henceforth be conducted as a department of the newly established University College, Bristol. Clinical instruction is given at the Royal Infirmary and the General Hospital. The Royal Infirmary contains 250 beds. The General Hospital contains 154 beds. The Infirmary and the Hospital each contain a Library and a Museum.

Appointments.—*Royal Infirmary:* Each Physician can appoint a Clinical Clerk from among the most diligent of his pupils. Dressers reside in the house in weekly rotation when qualified. A Pathological Clerk is appointed every three months, and receives £3 3s. if his duties have been performed satisfactorily.—*General Hospital:* Clinical Clerks, Dressers, and Obstetric Clerks are appointed. The Dressers reside in the hospital in rotation, free of expense. Resident pupils are received at both institutions.

Prizes.—Prizes and Certificates of Honour are distributed at the end of the winter session, after examination in all the subjects of each year.—Prize and Certificates of Honour for Practical Anatomy.—*Royal Infirmary:* Suple's Medical Prize, and Suple's Surgical Prize, each a gold medal value £5 5s. and about £7 7s. in money, awarded after examinations in Medicine and in Surgery respectively. Clark's Prize (interest of £500) to the prizeman of the third year in the Medical School, if he have attended the Royal Infirmary.—*General Hospital:* Lady Haberfield's Prize (interest of £1,000) for general proficiency.—Clarke Surgical Scholarship, £15 annually. Sanders Scholarship (interest of £500) for Proficiency in Medicine and Surgery. Martyn Memorial Scholarship, £20 annually.

Further particulars respecting the infirmary may be known on application to the House-Surgeon; respecting the hospital, on application to Dr. Siddall, at the hospital. Information regarding the Medical School will be afforded by the Honorary Secretary, Dr. G. F. Burder.

LEEDS SCHOOL OF MEDICINE.—There are Anatomical, Pathological, Chemical, Botanical, and Materia Medica Museums. The course of Chemistry is conducted at the Yorkshire College of Science.

Clinical Instruction, etc.—Clinical Lectures are delivered by the Physicians and Surgeons of the Infirmary, and classes meet in the wards for practical instruction.—Courses of Practical Physiology and Practical Surgery are held.—Demonstrations of Aural Diseases, and Ophthalmoscopic Demonstrations, are given. The West Riding Lunatic Asylum at Wakefield is open for the study of Mental Diseases, and a course of lectures will be given during the summer.—Students can also attend the practice of the Leeds Public Dispensary and the Fever Hospital. There are several resident appointments at these institutions.—Courses of lectures on several branches of science are delivered at the Yorkshire College of Science. Students of Medicine are advised to attend the course of lectures on Biology. This course is adapted to the requirements of the First B.Sc. and Preliminary Scientific Examinations of the University of London.

Hospital Appointments.—Every Student in turn must hold the offices of Clinical Clerk and Dresser. There are four Resident Assistants in the Infirmary; two are elected every three months and are re-eligible. They are selected from the senior students.

Prizes.—At the close of each session, Silver and Bronze Medals, Books, and Certificates of Honour, are awarded according to merit.—The Hardwick Clinical Prize, value £10, is given annually for the best reports of medical cases, and the Surgeons' Clinical Prizes of £8, £5, and £3, for the best reports of surgical cases, during the winter session.—The Thorp Scholarship in Forensic Medicine (£10) at the close of each summer session.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—There are a Museum containing specimens of Morbid and Comparative Anatomy, a collection of Wax Models, and a collection of Materia Medica, a Library, and a Reading Room.

Clinical Instruction, etc.—Clinical lectures are given weekly at the Royal Infirmary, which contains nearly 300 beds; the Lock Hospital adjoining contains 80 beds. The Northern Hospital contains 146 beds. For the study of Mental Diseases, a class will be formed to attend the practice of the Rainhill Asylum, where instruction will be given by Dr. Rogers once a week during the summer.

Appointments: Royal Infirmary.—Two House-Physicians and three House-Surgeons are appointed for six months after (if there be more applicants than vacancies) competitive examination. Candidates must have a legal qualification. Three Dressers for each Surgeon and three Clinical Clerks for each Physician are elected quarterly. *Post Mortem* Clerks are appointed for six weeks. All students must perform this duty before the final certificate is signed.

Exhibitions and Prizes.—The Roger Lyon Jones Scholarship: one half (£21 for two years) to the candidate who has taken the highest position in the Honours Division at a Matriculation Examination of the University of London in the same year, or (failing such candidate) at the Preliminary Scientific M.B. Examination; the other half (£21 for two years) to a student who has completed two years, after examination in Anatomy, Physiology, Chemistry, Botany, Materia Medica, and Practical Chemistry.—Gold Medal for Anatomy and Physiology, presented by Mr. Torr, M.P., for second year's students; and one also for Anatomy and Physiology, presented by Dr. J. Bligh, for students of first year.—Medals and Certificates of Honour for groups of subjects in each year.—Clinical Prizes to be awarded by the Physicians and Surgeons of the Infirmary in May 1878, value of each £5, for the best report of twelve medical and twelve surgical cases.

The *Debating Society* meets eight or ten times during the winter session on Saturday evenings, for the reading and discussion of papers.

Communications should be addressed to the Registrar, Mr. W. Mitchell Banks.

LIVERPOOL NORTHERN HOSPITAL.—*Physicians:* Dr. Davidson, Dr. Dickinson. *Surgeons:* Mr. Manifold, Mr. Lowndes, Mr. Puzey, Dr. Campbell. The hospital contains 144 beds.

Fees.—Perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. Students can enter to the medical or surgical practice separately on payment of half the above fees. The hospital receives one resident pupil, fee £63 per annum (for whom there will be a vacancy on October 1st). Attendance on the practice of this hospital qualifies for all the examining boards. For further particulars apply to the House-Surgeon.

LIVERPOOL ROYAL SOUTHERN HOSPITAL.—*Physicians:* Dr. Cameron, Dr. Carter. *Surgeons:* Dr. Nottingham, Mr. Hamilton, Dr. Wollaston. The hospital contains 200 beds. Clinical Lectures are given by the Physicians and Surgeons during the winter and sum-

mer sessions. Clinical Clerkships and Dresserships are open to all students. There is a special ward for diseases and accidents of children. Fees for Hospital Practice and Clinical Lectures, perpetual, £26 5s.; one year, £10 10s.; six months, £7 7s.; three months, £4 4s. The practice of the hospital is recognised by all the examining bodies. A limited number of students can be accommodated with rooms in the hospital. For further particulars, application must be made to the House-Surgeon.

OWENS COLLEGE (MANCHESTER ROYAL) SCHOOL OF MEDICINE.—Museums of Human and Comparative Anatomy and of Materia Medica, and Physiological and Chemical Laboratories, are connected with the College.

The *Royal Infirmary* contains 100 medical and 170 surgical beds. In addition to the practice of the infirmary, the Monsall Fever Hospital (130 beds) and the Barnes Convalescent Home (140 beds) will be open, under certain regulations, for the purposes of instruction. The Royal Lunatic Asylum at Cheadle is also connected with the infirmary, and accommodates 150 patients.

Clinical Instruction is given by the Physicians and Surgeons of the infirmary. Mr. S. M. Bradley gives instructions in Practical Surgery. Medical Demonstrations are given by Dr. Leech and Dr. Dreschfeld; Surgical Demonstrations by Mr. Whitehead and Mr. Hardie; Pathological Demonstrations by Dr. Dreschfeld.

Appointments.—Dressers and Clinical Clerks in the Royal Infirmary are appointed for periods of three months. A Senior House-Surgeon, two Junior House-Surgeons, a House-Physician, and four Physicians' Assistants, are appointed annually. The Senior House-Surgeon and House-Physician are appointed for twelve months, the others for six months; they all receive board, residence, and salary.

Prizes.—*Third Year:* Turner Scholarship of £25, and three prizes of books or instruments, value £5 5s., £3 3s., and £2 2s. *Second Year:* Scholarship of £15, and prizes of books or instruments, value £5 5s., £4 4s., and £3 3s. *First Year:* Scholarship of £10, and three prizes, value £5 5s., £4 4s., and £3 3s. Two Platt Physiological Scholarships, value £50 each, tenable for two years, to students who have attended Physiology in the College Laboratory during one session, for best original investigation and the result of a written examination. Dumville Surgical Prize, value £20, at end of winter session, to students of two years, who have attended four courses, including at least one in Surgery. A Gilchrist Scholarship of £50 *per annum*, tenable for three years in the College, to the candidate standing highest in the Matriculation Examination of the University of London in June, if in the Honours Division; or two of £25 each to the first two candidates in the First Division. Medical and Surgical Clinical Prizes are given for reports of cases at the infirmary.

Prospectuses may be obtained from the Registrar, Mr. J. H. Nicholson.

SHEFFIELD MEDICAL SCHOOL.—The General Infirmary contains 180 beds. Opportunities for clinical study may be obtained at the Sheffield Hospital and Dispensary (104 beds), and at the Sheffield Hospital for Diseases of Women.

The *Infirmary* contains a Museum of Pathology, a Library, and a *Post Mortem* Theatre, with Microscopes and all the appliances for clinical research.—The Library of the Medical School is open to students.

Prizes and certificates of honour are given annually.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—Chemistry and Practical Physiology are excepted from the courses which may be attended in perpetuity by composition students.

A course of Practical Physiology will be given during the summer by the Professors of Physiology and Biology. Fee for the use of microscopes, 10s. 6d.

The *Laboratories*, Libraries, and Museums of Anatomy, Pathology, and Materia Medica are open daily.

The *Newcastle Infirmary* contains 230 beds. Four Resident Dressers are elected half-yearly. They are provided with board and apartments on payment of £10 10s. for the six months. Two Assistants in the Pathological Department are appointed in May and in December. Midwifery can be attended at the Newcastle Lying-in-Hospital, and Diseases of the Eye in the Eye-Ward of the Infirmary.

Prizes.—Four Medical Scholarships, annual value £25 each, tenable for four years, by students residing in Durham or Newcastle. One will be awarded in October. The Dickinson Memorial Scholarship, value £15 annually, for general proficiency. The Tulloch Scholarship, proceeds of £400, to the second year's student most distinguished in Anatomy, Physiology, and Chemistry. The Charlton Memorial Scho-

larship, proceeds of £700, open to perpetual students entered for class on Principles and Practice of Medicine. A silver medal and certificates of honour in each class.

Further information may be obtained from the Registrar, Dr. Luke Armstrong, Newcastle-on-Tyne.

UNIVERSITY OF ABERDEEN.—Fee to each class, £3 3s., except Anatomical Demonstrations, £2 2s. Matriculation fee, both sessions, £1; summer session alone, 10s. A three months' course of Practical Ophthalmology is given in summer.

ROYAL INFIRMARY, ABERDEEN.—Perpetual fee, £6; or first year, £3 10s.; second year, £3. Clinical Medicine and Clinical Surgery, each £3 3s. The General Dispensary and the Lying-in and Vaccine Institutions are open daily, and the Eye Institution three days in the week. Clinical Instruction is given in the Royal Lunatic Asylum for three months in the year.

UNIVERSITY OF EDINBURGH.—Minimum expenses for Lectures and Hospital Practice (including also £21 for degrees of M.B. and C.M.), £104 18s.; Annual Fee for Materia Medica, Chemistry, Surgery, Institutes of Medicine, Midwifery, Clinical Surgery, Clinical Medicine, Anatomy, Practice of Physic, Pathology, Botany, Natural History, Medical Jurisprudence, each £4 4s.; Practical Anatomy, Practical Chemistry, each £3 3s.; Practical Pharmacy, Dispensary, each £2 2s.; Practical Midwifery, £1 4s.; Vaccination, £1 1s.—Every student, before entering with any Professor, must produce a matriculation ticket for the ensuing session, for which a fee of £1 is paid at the beginning of each winter session. Students first entering in the summer session pay a fee of 10s. for that session.—The Library is open every lawful day during the winter session, from 10 A.M. till 4 P.M.; on Saturdays, till 1 P.M.

The following means are afforded for Practical Instruction in winter and summer: Practical Anatomy, under the superintendence of Professor Turner; Anatomical Demonstrations, by Professor Turner; Practical Chemistry, under the superintendence of Professor Crum Brown; Practical Physiology, including Histology, Chemical Physiology, and Experimental Physiology, under the superintendence of Professor Rutherford; Morbid Anatomy and Practical Pathology, under the superintendence of Professor Sanders; Tutorial Class of Clinical Medicine, in the wards of the Royal Infirmary, by the Clinical Tutor; Operative Surgery, by Professor Spence; Bandaging and Surgical Appliances, under the superintendence of Professor Spence; Obstetric Operations, under the superintendence of Professor Simpson; Medical Jurisprudence Laboratory, under the superintendence of Professor MacLagan; Royal Botanic Garden Herbarium and Museum, under the superintendence of Professor Balfour; Materia Medica Museum and Laboratory, under the superintendence of Professor Fraser; and in the summer, Practical Botany and Vegetable Histology, by Professor Balfour; Obstetrical and Gynaecological Operations, by Professor Simpson; Chemistry (Advanced Class), by Professor Crum Brown; Practical Instruction in Mental Diseases at an Asylum, by Professor Grainger Stewart; and Practical Natural History, by Sir C. Wyville Thomson.

Fellowships, etc.—Falconer Memorial Fellowship, for the encouragement of the study of Palæontology and Geology, value £100, tenable for two years, open to Graduates in Science or Medicine of the University of not more than three years' standing. Syme Surgical Fellowship, value about £100, tenable for two years, open to Bachelors of Medicine of not more than three years' standing, who shall present the best Thesis on a Surgical subject, giving evidence of original research. Abercromby Bursary of £20, for four years, to students who have been brought up in Heriot's Hospital. Sibbald Bursary, £30. Three Grierson Bursaries, each £20 *per annum*; in the absence of certain preferential candidates, open to competition: one to the student who shall pass the best examination in the subjects of Preliminary Education; one to the student, commencing the second winter session, who shall pass the best examinations in Chemistry, Botany, and Natural History; one to the student, commencing the third winter session, who shall pass the best examinations in Anatomy and Physiology. Tyndall-Bruce Bursary, £25, to students at end of third winter session; subjects of examination: Materia Medica and Pathology. Competitors for the above three bursaries must have studied the subjects of examination at the University of Edinburgh. Ettles Medical Prize, value about £40, to the most distinguished Graduate in Medicine of the year. Hope Chemistry Prize, value £100, open to all students of the University not more than twenty-five years of age, who have worked for eight months, or for two summer sessions, in the chemical laboratory. Hope Scholarship, value about £30. Neil Arnott Prize, about £40,

TABLE OF THE MEDICAL OFFICERS, PROFESSORS, AND LECTURERS IN MEDICAL SCHOOLS OF SCOTLAND.

For further particulars regarding each Hospital and Medical School, see pp. 357 and 359. The letters (W.) and (S.) in this Table denote respectively Winter and Summer Courses.

LECTURES, ETC.	ABERDEEN UNIVERSITY.	EDINBURGH UNIVERSITY. (d.)	SCHOOL OF MEDICINE, EDINBURGH. (c)	GLASGOW UNIVERSITY. (h.)	GLASGOW, ANDERSON'S COLLEGE. (n.)	GLASGOW ROYAL INFIRMARY SCHOOL.
ANATOMY	Dr. Struthers, 11 (W.)	Mr. Turner, 1 (W.)	Dr. Handyside, 1 (W.)	Dr. Allen Thomson and Demonstrator, jun. 11; jun. 2 (W.); Lect. and Demon., 11 (S.); Elem. Anatomy, M. W. F., 1 (S.)	Dr. A. M. Buchanan, jun., 10; sen., 3 (W.); Surgical Anatomy, 12; Osteology, daily (S.)	Mr. H. E. Clark (W. & S.)
ANATOMICAL DEMONSTRATIONS ..	Dr. Struthers, 9 (W.); 2 (S.)	Mr. Turner, 4	Dr. Handyside, 4 (W.); 11 (S.)			
DISSECTIONS	9 to 4 (W. and S.)	Daily (W. and S.)	9 to 4 (W. and S.)	9 to 4 (W.); 7 to 2 (S.)	Daily (W. and S.)	
PHYSIOLOGY OR INSTITUTES OF MEDICINE	Dr. Ogilvie-Forbes, 4 (W.)	Dr. Rutherford, 11 (W.)	Dr. A. Smart, 11 (W.)	Dr. McKendrick, 12 (W.)	Dr. McVail, 5 (W.)	Dr. W. J. Fleming (W.)
CHEMISTRY	Mr. Brazier, 3 (W.)	Dr. Crum Brown, 10 (W.)	Dr. S. Macadam, 10 (W.)	Mr. Ferguson, 10 (W.)	Mr. Dittmar, 10 (W.)	Dr. John Clark (W.)
PRACTICAL CHEMISTRY	Mr. Brazier, 10 A.M. (S.)	Dr. Crum Brown (W. and S.)	Dr. Macadam, Mr. King, and Mr. I. Macadam, 9 to 5 (W. & S.)	Mr. Ferguson, 10 (W.); Tu. W. Th., 10 (S.) ⁱ	Mr. Dittmar, 10 to 4 (S.) ^o	Dr. J. Clark (S.)
MATERIA MEDICA ..	Dr. Harvey, 3 & 4 (S.)	Dr. Fraser, 2 (W.)	Dr. Moinet, 9 (W. & S.) Dr. W. Craig, 9 (S.)	Dr. Cowan, 12 (W.)	Dr. Morton, 4 (W.)	Dr. John Dougall (W.)
BOTANY	Dr. Dickie, 9 (S.)	Dr. Balfour (S.)	.....	Dr. Dickson, 12 (S.) &	Mr. Hennedy, (10 (S.)	.....
NATURAL HISTORY.	Mr. Nicol, 2 (W.); 11 (S.) ^a	Sir C. W. Thomson (W.) M. W. F., 2; also in Sm.	Dr. A. Wilson, 3 (W.); 2 (S.)	Dr. Young, <i>Zoology</i> , 8 A.M. (S.)		
MEDICINE	Dr. Smith-Shand, 3 (W.)	Dr. Grainger Stewart, 3 (W.)	Dr. Haldane and Dr. Muirhead, 3 (W.)	Dr. Gairdner, 11 (W.) ^o	Dr. Charteris, 5 (W.)	Dr. A. W. Smith (W.)
SURGERY	Dr. Pirrie, 10 (W.)	Mr. Spence, 10 (W.) Operative in Summer	Dr. P. H. Watson, Mr. J. Bell, Mr. Chiene, and Dr. John Duncan, 10 (W.) ^f	Dr. G. H. B. Macleod, 1 (W.) Operative in Summer	Dr. Dunlop, 11 (W.)	Dr. H. C. Cameron (W.) Oper. in Sum.
MIDWIFERY	Dr. Stephenson, 4 (W.)	Dr. A. Simpson, 11 (W.)	Dr. M. Duncan, 11 (W.); Dr. Keiller, Dr. A. Macdonald, Dr. Underhill, & Dr. H. Croom, 10 (S.)	Dr. Leishman, 4 (W.)	Dr. J. G. Wilson, 3 (S.)	Dr. James Stirton (S.)
FORENSIC MEDICINE	Dr. Ogston, 9 (W.) ^b	Dr. D. MacLagan (S.)	Dr. Littlejohn (S.)	Dr. P. A. Simpson, 11 (S.)	Dr. A. Lindsay, 4 (S.)	Dr. McEwen (S.)
PRACTICAL PHYSIOLOGY AND HISTOLOGY .....	.....	Dr. Rutherford (W. & S.)	.....	Dr. McKendrick, 12 (S.)	.....	Dr. W. J. Fleming (S.)
PATHOLOGY	Dr. Rodger (W.)	Dr. Sanders, 2 (W.); and in Summer	Dr. J. Wyllie, 4 (W.); 3 (S.)	Dr. J. Coats, 2 (W.)	.....	Dr. D. Foulis (S.)
HOSPITAL PRACTICE	Royal Infirmary, c Daily, 12	Royal Infirmary, g	Royal Infirmary g	Royal Infirmary, l; Western Inf., m., 9 A.M.	Royal Infirmary, 9 A.M.	Royal Infirmary
CLINICAL MEDICINE	Dr. Smith-Shand, Dr. Beveridge, and Dr. A. Fraser	Drs. MacLagan, Sanders, Grainger Stewart, and Simpson (Dis. of Women), Tu. F., 12 to 2	Drs. Haldane, G. W. Balfour, C. Muirhead, and J. M. Duncan (Obst.), Tu. F., 12	Dr. McCall Anderson, 9 A.M.	Physicians of Royal Infirmary, twice weekly, 9 (W. and S.)	Physicians of Royal Infirmary (W.)
CLINICAL SURGERY.	Dr. Pirrie, Dr. Ogston, and Dr. Will	M. Th., 12 (W.); also in Sum.	Dr. P. H. Watson and Mr. Annandale, M. Th., 12 (W. and S.)	Dr. G. Buchanan, 9 A.M.	Surgeons of Infirmary, twice weekly, 9 (W. and S.)	Surgeons of Royal Infirmary (W.)

a. Zoology with Comparative Anatomy.

b. With Medical Logic.

c. ABERDEEN ROYAL INFIRMARY: *Physicians*—Dr. J. W. F. Smith-Shand, Dr. Beveridge, Dr. A. Fraser; *Surgeons*—Dr. Pirrie, Dr. D. Kerr, Dr. A. Ogston; *Junior Surgeon*—Dr. Will; *Ophthalmic Surgeon*—Dr. Davidson; *Dental Surgeon*—Mr. Williamson.

d. Medical Psychology and Mental Diseases, with instruction at an Asylum, Dr. Grainger Stewart (Sum.).

e. Vaccination, six weeks' courses in Winter and Summer, Dr. Husband. Diseases of Children, Dr. R. P. Ritchie, daily at Children's Hospital (W. and S.); Lect. Tu. and F., 3 (S.); Diseases of the Ear, Dr. Kirk-Duncan, 11 (W. and S.); Diseases of the Eye, Dr. A. Robertson (S.), Tu. and Th. Diseases of the Skin, Dr. A. Jamieson (Sum.), Tu. F., 11. Insanity, Dr. Batty Tuke (S.), M. and Th., 3. Syphilology, Dr. Cadell, M. Th. 3 (S.) State Medicine and Hygiene, Dr. A. Smart, (S.) 4.

f. Operative and Practical Surgery, Dr. P. H. Watson, Mr. J. Bell, Mr. Chiene, and Dr. J. Duncan (S.), 4. Medical Anatomy and Practical Medicine, Dr. C. Muirhead (S.), 1.

g. EDINBURGH ROYAL INFIRMARY: *Physicians*—Dr. MacLagan, Dr. Sanders, Dr. R. Haldane, Dr. C. W. Balfour, Dr. T. Grainger Stewart, Dr. J. M. Duncan, and Dr. A. R. Simpson; *Assistant-Physicians*—Dr. C. Muirhead and Dr. D. J. Brakenridge; *Consulting Surgeons*—Dr. J. Dunsmaure and Dr. J. D. Gillespie; *Sur-*

geons—Mr. J. Spence, Dr. P. H. Watson, Mr. Annandale, and Dr. J. Bell; *Ophthalmic Surgeons*—Mr. Walker and Dr. D. A. Robertson; *Surgeon for Ovarian Diseases*—Dr. T. Keith; *Assistant-Surgeons*—Dr. John Duncan and Mr. J. Chiene; *Dental Surgeon*—Dr. J. Smith.

h. Renal Diseases, Dr. Gairdner, M. Th., 12 (S.) Operative Surgery, Dr. Macleod, M. W. F., 1 S; Lectures on Eye, Dr. T. Reid, Tu. Th., 1 (S.); Practical Pharmacy, Dr. Tennent, M. W. Th., 12 (S.)

i. Chemical Laboratory from 10 A.M. to 4 P.M. (W. and S.)

k. Demonstrations in the Botanical Garden, 6.30 P.M.

l. GLASGOW ROYAL INFIRMARY: *Physicians*—Dr. Perry, Dr. Maclaren, Dr. Wood Smith, and Dr. Charteris. *Surgeons*—Dr. Dunlop, Dr. Cameron, Dr. Morton. Dr. MacEwen, and Dr. E. Watson. *Dispensary Physicians*—Dr. Mather, Dr. Laurie; *Extra Dispensary Physicians*—Dr. J. W. Anderson, Dr. Weir, Dr. Dougall. *Dispensary Surgeons*—Mr. Clerk, Mr. Lothian; *Extra Dispensary Surgeons*—Mr. Watson, Mr. Fleming, Dr. Foulis; *Pathologist*—Dr. Foulis.

m. GLASGOW WESTERN INFIRMARY: *Physicians*—Dr. Gairdner, Dr. McCall Anderson, Dr. Finlayson; *Physician for Diseases of Women*—Dr. Leishman; *Surgeons*—Dr. Macleod, Dr. G. Buchanan, Dr. A. Patterson; *Dispensary Physicians*—Dr. Tennant, Dr. Coats, and Dr. McVail; *Dispensary Surgeons*—Dr. J. G. Lyon, Dr. Knox, and Dr. Christie; *Pathologist*—Dr. Coats.

n. Ophthalmic Medicine and Surgery, Dr. Wolfe, daily, 1 (W. and S.)

o. Practical Medical Chemistry—Mr. Dittmar, 1 (S.)

to the candidate who, having been a medical student of the University during either a summer or a winter session, shall pass with the greatest distinction the ordinary examination in Natural Philosophy for the degree of M.A. The successful candidate must continue a medical student of this University during the winter session. Ellis Prize: accumulated proceeds of about £500, every three years, for an Essay or Treatise in some subject of Animal or Vegetable Physiology. Goodwin Memorial Prize, £60, awarded triennially. Gold medals are given on graduation to Doctors of Medicine whose theses are deemed worthy.

EDINBURGH ROYAL INFIRMARY.—Fees: 6 months, £3 3s.; 1 year, £5 5s.; perpetual, £10. Clinical Medicine and Clinical Surgery, each £4 4s. for the course.—No fees for any medical or surgical appointment. Four Resident Physicians and four Resident Surgeons are appointed; they live in the house for six months free of charge. Candidates must be registered as legally qualified practitioners. Non-resident Clinical Clerks are appointed. Each Surgeon appoints from four to nine Dressers for six months. Assistants in the Pathological Department are appointed by the Pathologist.—Instruction is given in special departments.

SCHOOL OF MEDICINE, EDINBURGH.—The courses qualify for examination for various diplomas and licences, and for degrees in those years in which University residence is not required.

Fees.—For the first of each course of lectures, £3 5s.; second, £2 4s.; perpetual, £5 5s. To those who have already attended a first course in Edinburgh, the perpetual fee is £2 4s. Practical Chemistry and Practical Anatomy (six months), each £3 3s. Anatomical Demonstrations, £2 2s.; with Practical Anatomy, £1 1s.; perpetual, £4 4s. Analytical Chemistry, £2 a month, £5 for three months, or £10 for six months. Vaccination and Syphilology, each £1 1s. State Medicine and Hygiene, £2 2s. Summer courses of Clinical Surgery and Clinical Medicine, each £2 4s.; Practical Anatomy, including Demonstrations, Medical Anatomy, Operative Surgery, Diseases of the Eye, Diseases of the Skin, Insanity, and Diseases of Children, each £2 2s. The minimum education costs in this school for the double qualification of Physician and Surgeon from the Royal Colleges of Physicians and Surgeons of Edinburgh, including the examination fee, is £90 4s., payable by yearly instalments; for the single diploma of either Physician or Surgeon, including the examination fee, £80.

Practical instruction in various subjects may also be obtained on payment of moderate fees at the Sick Children's Hospital, Royal Public Dispensary and New Town Dispensary, Royal Maternity Hospital, and the Edinburgh Eye Infirmary.

UNIVERSITY OF GLASGOW.—Fees, each course, £3 3s., except Lectures on the Eye, £1 1s.

GLASGOW ROYAL INFIRMARY.—This Infirmary contains 570 beds. Of these, 240 are for medical, and 330 for surgical cases, with a special ward for the treatment of Venereal Disease in Males. Diseases of the Eye, Ear, and Throat are specially treated at the out-door department. Fees for Hospital attendance and Clinical Lectures as at the Glasgow Western Infirmary (*infra*).

Appointments.—There are five Physicians' and five Surgeons' Assistants, who are boarded and lodged in the Hospital at the rate of £25 *per annum*, and who perform the duties of House-Physicians and House-Surgeons. These appointments are held for twelve months, six in the medical and six in the surgical wards. Clinical assistants, dressers, and dispensary clerks, are selected from the students without any additional fee. Attendance at the Dispensary for the treatment of out-patients, and admission to the Pathological Museum, are also free.

GLASGOW ROYAL INFIRMARY SCHOOL OF MEDICINE.—The winter session commences on October 30th. During summer, Lectures on Insanity will be given by Dr. A. Robertson, and the City Parochial Asylum under his charge is free to students of this school.

Fees for each course of lectures, first session, £2 2s.; second session and perpetual, £1 1s. The Anatomy Class fees are (including Lectures, Demonstrations, and Practical Anatomy): first winter session, £4 4s.; summer session, £1 1s.: second session, £4 4s.; afterwards, £1 1s. per session.

GLASGOW WESTERN INFIRMARY.—Fees, 1st and 2nd years, each £10 10s., giving privilege of admission and three courses of Clinical Instruction. The several years' payment confers a life privilege of admission. Hospital attendance and Clinical Instruction for 6 months, £7 7s.; 3 months, £4 4s.

GLASGOW EYE INFIRMARY.—Fee, 6 months, £2 2s.; to students who are attending or have attended the Lectures on the Eye in the University, £1 1s.

Instruction may also be obtained at the Glasgow University Lying-in Hospital and Dispensary for Diseases of Women and Children; and at the Dispensaries for Diseases of the Skin and Ear; and the Royal Lunatic Asylum, Gartnavel, is open to students on payment of a small fee.

GLASGOW.—ANDERSON'S COLLEGE.—Fees for all the Lectures required for the Diplomas of Physician and Surgeon, £50. Class Fees for each course of Lectures: 1st session, £2 2s.; 2nd session, £1 1s.; afterwards free. Anatomy Class Fees, for Lectures and Demonstrations: 1st session, £4 4s.; second session, £4 4s. The Dissecting-room is free for two sessions to those who attend both courses of Anatomy; after the second year, £1 1s. per session.

DENTAL SURGERY.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND grants a diploma in Dental Surgery under the following regulations.

Candidates must produce Certificates: 1. Of being twenty-one years of age. 2. Of having been engaged during four years in the acquirement of professional knowledge. 3. Of having attended, at a recognised School or Schools, not less than one of each of the following Course of Lectures: Anatomy, Physiology, Surgery, Medicine, Chemistry, and Materia Medica. 4. Of having attended a second Winter Course of Lectures on Anatomy, or a course of not less than twenty Lectures on the Anatomy of the Head and Neck. (All the courses must be delivered by Lecturers recognised by the College.) 5. Of having performed Dissections at a recognised School during not less than nine months. 6. Of having completed a Course of Chemical Manipulation, under the superintendence of a recognised Teacher or Lecturer. 7. Of having attended, at a recognised Hospital or Hospitals in the United Kingdom, Surgery and Clinical Lectures on Surgery during two Winter Sessions. 8. Of having attended, at a recognised School, two Courses of Lectures upon each of the following subjects: Dental Anatomy and Physiology (Human and Comparative), Dental Surgery, Dental Mechanics, and one Course on Metallurgy. 9. Of having been engaged, during not less than three years, in acquiring a practical familiarity with the details of Mechanical Dentistry, under the instruction of a competent Practitioner. 10. Of having attended at a recognised Dental Hospital, or in the dental department of a recognised General Hospital, the Practice of Dental Surgery during the period of two years. N.B.—The Students of the London Schools are required to register the above Certificates at the College; and special Returns are required from the Provincial Schools.

Note.—All Candidates who commence their Professional Education on or after October 1st, 1877, will, in addition to the Certificates enumerated in the foregoing Clauses, be required to produce a certificate of having prior to such commencement passed the Preliminary Examination in General Knowledge for the Diploma of Member of the College, or an examination recognised as equivalent.

Candidates who were in Practice as Dentists, or who had commenced their Education as Dentists prior to September 1859—the date of the Charter—and who are unable to produce the Certificates required by the foregoing regulations, must furnish the Board of Examiners with a Certificate of Moral and Professional Character, signed by two Members of the College, together with answers to certain inquiries.

The Examination is partly written and partly oral. The written examination comprises General Anatomy and Physiology, and General Pathology and Surgery, with especial reference to the practice of the Dental Profession. The oral practical examination comprises the several subjects included in the curriculum of professional education, and is conducted by the use of preparations, casts, drawings, etc. Members of the College, in the written examination, will only have to answer those questions set by the Section of the Board consisting of persons skilled in Dental Surgery; and in the oral examination will be examined only by that Section. A Candidate whose qualifications shall be found insufficient will not be admitted to re-examination within the period of six months unless the Board shall otherwise determine. Examinations will be held in January, June, and October. The fee for the Diploma is £10 10s., over and above any stamp duty.

The following provision is made for instruction in Dental Surgery.

THE NATIONAL DENTAL HOSPITAL AND COLLEGE has been established during the present year, in accordance with the regulations of the Royal College of Surgeons of England. The hospital and lecturing staff are as follows.

Consulting Physicians: Dr. Pavy, F.R.S., and Dr. B. W. Richardson, F.R.S. *Consulting Surgeons:* Mr. Erichsen, F.R.S., and Mr. Spencer Wells. *Consulting Dental Surgeon:* Mr. J. Merryweather. *Dental Surgeons:* Mr. James Stocken, Mr. Oakley Coles, Mr. G. Williams, Mr. A. F. Canton, Mr. H. T. K. Kempton, Mr. H. Rose. *Assistant Dental Surgeons:* Mr. F. H. Weiss, Mr. W. T. Smith, Mr. T. Gaddes, Mr. L. Stevens. *Lecturers.*—Dental Anatomy and Physiology: Mr. T. Gaddes; Dental Surgery and Pathology: Mr. Oakley Coles; Dental Mechanics: Mr. G. Williams, L.D.S., R.C.S.; Dental Metallurgy: (vacant); Dental Materia Medica: Mr. J. Stocken; Elements of Histology: Mr. T. Gaddes; Demonstrator of Dental Mechanics: Mr. H. Rose; Deformities of the Mouth: Mr. Oakley Coles; Arts and Literature: Rev. H. R. Belcher, M.A.

Fees.—General fee for Special Lectures required by the curriculum: Two Courses each on Dental Anatomy and Physiology, Dental Surgery and Pathology, and Dental Mechanics, with one course on Dental Metallurgy, £12 12s. Single Courses: Dental Anatomy and Physiology, Dental Surgery and Pathology, and Dental Mechanics, each, one course, £2 12s. 6d.; two courses, £4 4s. Dental Metallurgy, one course, £3 3s.; two courses, £5 5s. For Lectures on subjects not required by the curriculum. (These Lectures, with the exception of the Arts and Literature Class, are free to students who have entered for the Special Lectures). Dental Materia Medica, Elements of Histology, and Demonstrations on Dental Mechanics, each £1 1s.; Deformities of the Mouth, £2 2s.; Arts and Literature Class (three months), £3 3s. For the Two Years' Hospital Practice required, £12 12s. Total fee for the Special Lectures and Hospital Practice required, £25 4s.

Information respecting the Hospital Practice and the College may be obtained from the Dean, Mr. Oakley Coles, either at the Hospital, Great Portland Street; or at 5, Upper Wimpole Street, Cavendish Square.

DENTAL HOSPITAL OF LONDON MEDICAL SCHOOL.—Lectures are given at this School on Mechanical Dentistry, by Mr. J. S. Turner; on Metallurgy in its Application to Dental Purposes, by Mr. G. H. Makins; on Dental Surgery and Pathology, by Mr. S. Hamilton Cartwright; on Dental Anatomy and Physiology (Human and Comparative), by Mr. C. S. Tomes.

The general fee for special lectures required by the curriculum, £15 15s.

The staff of the Dental Hospital of London consists of—*Consulting Physician:* Sir Thomas Watson, Bart., M.D. *Consulting Surgeon:* Mr. Christopher Heath. *Consulting Dental Surgeons:* Mr. S. Cartwright; Mr. John Tomes, F.R.S. *Dental Surgeons:* Mr. Fox; Mr. Meadwin; Mr. Gregson; Mr. Coleman; Mr. H. Harding; Mr. A. Hill. *Assistant Dental Surgeons:* Mr. Moon; Mr. A. Gibbings; Mr. D. Hepburn; Mr. R. Woodhouse; Mr. Bartleet; Mr. S. J. Hutchinson.

On every day during the Lecture Session the surgeons of the day will, if practicable, give Demonstrations, especially intended for the Junior Pupils, of the operations performed in Dental Surgery.

The Saunders Scholarship of £20 per annum and Prizes are open for competition.

Fee for two years' hospital practice required by the curriculum, £15 15s. Fees for lectures and practice, £31 10s. Additional fees for a General Hospital for the two years to fulfil the requirements of the curriculum vary from £40 to £50.

Further particulars may be obtained on application to the Dean, Mr. T. F. K. Underwood, at his residence, 11, Bedford Square, W.C., or at the Hospital.

Information respecting the arrangements in the Medical Schools for Instruction in Dental Surgery will be found in the Notes and Tables on pages 344 *et seq.*

STRATFORD-UPON-AVON.—There is no return of births made in this district to the medical officer, so that he regrets he cannot calculate the proportion of deaths under one year to total births. The death-rate is returned at 20.4 per 1,000, but is probably lower, as the calculation is based on the census of 1871; but, deducting the deaths of non-residents, it was only 17.9 per 1,000. The percentage of deaths under one year to total deaths was 16.3, and under five years 25.1. There was not any death from small-pox, and only three from scarlatina, respecting which latter disease Mr. Fosbroke remarks that it might have been spread by a person taking in mangling when there was a case in the house; and also that the erection of the proposed hospital for infectious diseases will be a boon to the inhabitants. The connections between the house-drains and the sewers have in many instances been broken, so as to prevent the entrance into the houses of sewer-gases. The medical officer also refers to the want of a mortuary, and to the non-appointment of a public analyst.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 8TH, 1877.

A FEW MEMORANDA FOR INTENDING STUDENTS.
IN connection with the regulations of examining bodies and programmes of medical schools published in this day's JOURNAL, there are a few points to which it is advisable to direct attention.

It will be remembered that the Recommendations of the General Medical Council underwent thorough revision during the session held last May.

In the registration of students by the Council, an addition has been made to the requirement of evidence of having passed a preliminary examination; the student must now also produce evidence that he has commenced medical study—which, however, as before, must not date earlier than fifteen days before registration. This regulation has, we believe, been introduced for the purpose of ensuring, as far as possible, that the four years (or rather forty-five months) which must intervene between registration as a student and the passing of the final examination have been actually spent in the pursuit of professional knowledge.

The Council has distinctly sanctioned the commencement of medical education in other ways than at a medical school. A student may be registered on producing evidence of apprenticeship or pupilage to a general practitioner or to a hospital or other institution possessing the means of instruction.

It is satisfactory to find the Council authorising pupilage to general practitioners as one of the methods of medical study. While the old five years' apprenticeship was too long, there can be no doubt that very much useful information is to be gained from the instruction given by a general practitioner. Whether, however, the most fitting time for such pupilage is at the commencement or at any other period of the four years of medical study, is a point which is scarcely decided.

It will interest many students to know that the Society of Apothecaries has discontinued registration, having decided to accept that of the General Medical Council. Of such registration, however, evidence will have to be presented by candidates for the examination at the Hall.

The conjoint examination scheme for England is, we understand, still in a state of preparation; hence no announcement of it can be made in the present number. When it comes into operation, care will of course be taken to prevent it from having a retrospective action, unless with the consent of the student.

CHANGES IN THE MEDICAL SCHOOLS.

SINCE the publication of our last educational number, the following changes have taken place in the medical schools.

At St. Bartholomew's Hospital, Mr. Howard Marsh gives demonstrations of Practical Surgery, in place of Mr. Willett.

At the Charing Cross Hospital, Dr. J. M. Bruce gives instructions in Case-taking, in place of Dr. Irvine.

At St. George's Hospital, Mr. J. A. Wanklyn has been appointed Lecturer on Chemistry in the room of the late Dr. Noad. In the Lectureship on Surgery, Mr. Rouse is joined as a colleague to Mr.

Holmes. Dr. J. W. Ogle has retired from the office of Physician, and has been appointed Consulting Physician; Dr. Whipham has consequently been promoted from Assistant-Physician to Physician, and Dr. Herbert Watney has been elected Assistant-Physician. Mr. Edgelow has succeeded Mr. Vasey as Dental Surgeon to the Hospital. Dr. Wadham attends to the department of Diseases of the Skin in place of Dr. Whipham, who takes charge of Diseases of the Throat.

At Guy's Hospital, Dr. Pavy has retired from the Lectureship on Physiology, which is now held solely by Dr. Pye-Smith, and has joined Dr. Wilks in the Lectureship on Medicine, taking the place of Dr. Habershon. Mr. Bettany lectures on Botany, in the place of Dr. Stokoe. Mr. Golding-Bird has been appointed Demonstrator of Practical Physiology. Dr. Galabin is associated with Dr. Braxton Hicks in the Lectureship on Midwifery. Mr. R. C. Lucas teaches Practical and Operative Surgery in place of Mr. Davies-Colley. Dr. Goodhart has been appointed Assistant-Physician to the Hospital. Dr. Pye-Smith gives Demonstrations on Cutaneous Diseases, in place of Dr. F. Taylor.

At King's College, the death of Sir William Fergusson has been followed by several changes in the Surgical Department. The Professorship of Surgery, having been vacated by Mr. John Wood, is now filled by Mr. Henry Smith. Mr. Wood and Mr. Lister (lately Professor of Clinical Surgery in the University of Edinburgh) have been appointed Professors of Clinical Surgery; and, by a special arrangement with the Council, Professor Lister is empowered, during the six months beginning October 1st, to recommend as his House-Surgeon a gentleman already trained in the practice of antiseptic surgery and otherwise thoroughly qualified, although not a student of King's College; and for his three Surgical Clinical Clerkships, without examination, gentlemen who may or may not have previously been students of the College.

At the London Hospital, Dr. Herbert Davies has retired from his share of the Lectureship on Medicine, and is succeeded by Dr. Sutton. The death of Dr. W. B. Woodman having left a vacancy in the medical staff of the hospital, it has been filled by the appointment of Dr. Thomas Barlow as Assistant-Physician. Mr. A. G. Brown lectures on Diseases of the Ear, in place of Mr. Rivington.

At St. Mary's Hospital, Mr. Hanbury has been appointed Lecturer on Botany in place of Mr. Hensley; and Dr. Farquharson gives (with Dr. Cheadle) Demonstrations of Diseases of the Skin, Dr. Handfield Jones having retired from this duty.

At the Middlesex Hospital, Dr. Cayley succeeds Dr. Greenhow as Lecturer on Medicine, his place as Lecturer on Pathological Anatomy being taken by Dr. Coupland.

At St. Thomas's Hospital, Dr. Peacock has retired from the office of Physician, and has been appointed Consulting Physician. Dr. W. M. Ord has in consequence been promoted from the office of Assistant-Physician to that of Physician, and the vacancy among the Assistant-Physicians has been filled by the appointment of Dr. Greenfield. In the Surgical Department, Mr. Simon has retired, and has been appointed Consulting Surgeon; Mr. F. Mason has consequently been promoted from Assistant-Surgeon to Surgeon. Dr. Ord has retired from the joint Lectureship with Dr. John Harley on Physiology, and has joined Dr. Bristowe in the Lectureship on Medicine, taking the place of Dr. Murchison, who has retired, and will give a special course of Clinical Medicine. Dr. Stone has been appointed Lecturer on Materia Medica and Therapeutics; and to the Lectureship on Forensic Medicine, consequently vacated by him, Dr. Payne and Dr. Cory have been appointed. Dr. T. C. Charles teaches Practical Physiology. Mr. Clutton gives Demonstrations of Diseases of the Ear.

At University College, Mr. G. V. Ellis has retired from the Professorship of Anatomy, which, and the Demonstratorship, he had filled with much distinction for many years. Mr. Thane has been appointed Professor of Anatomy. Mr. Erichsen has retired from the office of Surgeon to University College Hospital, and has been appointed Consulting Surgeon.

At the Westminster Hospital, Mr. A. Pearce Gould has been appointed Lecturer on Anatomy in place of Mr. R. Davy, who has become the colleague of Mr. Cowell in the Lectureship on Surgery. Mr. Worsley-Benison has been appointed Lecturer on Botany in place of Mr. Holmes. Dr. Basham has retired from the office of Physician to the Hospital, and has been appointed Consulting Physician; Dr. Allchin has consequently been promoted from Assistant-Physician to Physician, and Dr. A. Hughes Bennett has been appointed Assistant-Physician.

At the Queen's Hospital, Birmingham, Dr. Johnston has retired from the office of Physician, and has been succeeded by Dr. Carter.

In the Bristol Medical School, Dr. E. Markham Skerritt is associated with Dr. Spencer in the Lectureship on Medicine, as well as in the teaching of Pathology. Dr. J. B. Siddall has been appointed a Physician to the Bristol General Hospital, to fill the vacancy caused last year by the death of Dr. Samuel Martyn.

In the Leeds School of Medicine, Dr. J. E. Eddison has joined Dr. Heaton and Dr. Clifford Allbutt in the Lectureship on Medicine, and is succeeded as Lecturer on Materia Medica by Dr. Churton.

In the Liverpool Royal Infirmary School of Medicine, Mr. Rushton Parker takes the place of Mr. Reginald Harrison as Lecturer on Surgery. Dr. Turnbull has retired from the office of Physician to the Royal Infirmary, and has been appointed Consulting Physician; Dr. Davidson has been appointed Physician. Mr. Hakes has been appointed Consulting Surgeon, on retirement from the office of Surgeon; and Mr. W. M. Banks, late Assistant-Surgeon, has been appointed full Surgeon.

At the Manchester Royal Infirmary, Mr. S. M. Bradley has been promoted from the office of Assistant-Surgeon to that of Surgeon, and Dr. James Hardie has been appointed Assistant-Surgeon.

In the Sheffield School of Medicine, the vacancy in the Lectureship on Medicine caused by the death of Dr. J. C. Hall has been filled by the appointment of Dr. Banham and Dr. Thomas as colleagues of Dr. De Bartolomé; Dr. Dyson is associated with Dr. O'Keefe in the Lectureship on Physiology; Dr. Gwynne succeeds Dr. Thomas as teacher of Practical Physiology; and Mr. Snell has been appointed Lecturer on Ophthalmic Surgery. At the General Infirmary, Mr. A. Jackson has been appointed Surgeon in place of Mr. Parker, and Mr. Snell has been appointed Assistant-Surgeon. At the Sheffield Public Hospital, Dr. Dyson and Dr. Thomas have become Physicians, in place of Dr. J. C. Hall and Dr. Law; and Mr. R. J. Pye-Smith has succeeded Mr. A. Jackson as Surgeon.

In the University of Durham College of Medicine at Newcastle-upon-Tyne, Mr. T. W. Barron has been associated with Dr. G. H. Hume in the Lectureship on Physiology, and Dr. W. C. Arnison with Dr. Heath in the Lectureship on Surgery. Mr. H. E. Armstrong gives Lectures on Public Health. Dr. Drummond has been appointed Lecturer on Therapeutics, and Mr. S. McBean on Materia Medica. The Lectureship on Botany is vacant; the previous holders, Mr. H. E. Armstrong and Mr. McBean, having undertaken other duties. In the Newcastle Infirmary, Mr. A. Bell and Mr. J. Hawthorn have ceased to be Assistant-Surgeons, and Dr. Page has been appointed to that office.

In the University of Edinburgh, Sir Robert Christison has retired from the office of Professor of Materia Medica, which he had held upwards of fifty years; and Dr. T. R. Fraser has been appointed his successor.

In the University of Glasgow, Dr. A. Buchanan has resigned the Professorship of Institutes of Medicine or Physiology, and has been succeeded by Dr. J. G. McKendrick, who also teaches Practical Physiology.

The name of Anderson's University in Glasgow has been changed to the more correct one of Anderson's College. Dr. Eben Watson has retired from the Lectureship on Physiology, and has been succeeded by Dr. McVail; and Dr. Charteris lectures on Medicine in the place of Dr. Wood Smith.

OPENING OF THE MEDICAL SCHOOLS.

THE subjoined is a list of the Medical Schools in England and Scotland, with the date of their opening, and the names of the gentlemen appointed to deliver introductory addresses. Where no name is inserted, there is no special introductory lecture.

St. Bartholomew's Hospital—October 1st.
 Charing Cross Hospital—Mr. J. A. Bloxam—October 1st, 4 P.M.
 St. George's Hospital—Mr. Pick—October 1st, 4 P.M.
 Guy's Hospital—October 1st.
 King's College—Mr. Lister, F.R.S.—October 1st, 4 P.M.
 London Hospital—October 1st.
 St. Mary's Hospital—Mr. H. W. Page—October 1st, 3.30 P.M.
 Middlesex Hospital—Mr. A. Hensman—October 1st, 3 P.M.
 St. Thomas's Hospital—Mr. Wagstaffe—October 1st, 4 P.M.
 University College—Dr. John Williams—October 1st, 3 P.M.
 Westminster Hospital—Dr. Grigg—October 1st, 3 P.M.
 Birmingham (Queen's College)—Dr. Bassett—October 2nd, 3.30 P.M.
 Birmingham (General and Queen's Hospitals)—Introductory Clinical Address at the General Hospital—October 8th, 3.30 P.M.
 Bristol Medical School—October 1st.
 Leeds School of Medicine—Mr. J. A. Nunneley—October 1st, 3.30 P.M.
 Liverpool Royal Infirmary School of Medicine—Mr. Rushton Parker—September 29th, 3 P.M.
 Owens College (Manchester Royal) School of Medicine—October 1st.
 Newcastle College of Medicine—Dr. Byrom Bramwell—October 1st, 2 P.M.
 Sheffield School of Medicine—Dr. Banham—October 1st, 4 P.M.
 Aberdeen University—October 31st.
 Edinburgh University—The Principal—October 31st, 2 P.M.
 Edinburgh School of Medicine—Dr. J. Duncan—October 30th, 11 A.M.
 Glasgow University—Mr. Ferguson—October 30th, 12 noon.
 Glasgow, Anderson's College—October 30th.
 Glasgow Royal Infirmary Medical School—November 1st.

A NEW Warrant, conferring disciplinary powers on medical officers of the Army, has just been issued. We shall comment on its provisions in next week's JOURNAL.

THE office of Master in Lunacy, vacant by the death of Mr. Samuel Warren, has been filled up by the appointment of Mr. W. Norris Nicholson, who has for the last sixteen years been the Lord Chancellor's legal Visitor of Lunatics and Chairman of the Board of Visitors. Mr. Nicholson is succeeded by Mr. Edward Ross.

MR. JAMES STEELE, of Miles Platting, Manchester, died suddenly from apoplexy on Wednesday last week, while descending the stairs at the Glasgow and South-Western Railway Station. Mr. Steele was a member of the British Medical Association, and was, at the time of his death, forty-seven years of age.

IT is expected that the British Medical Association will be invited to hold its meeting at Portsmouth in 1878. The subject was a few days ago brought before the Town Council by the Mayor, who read a letter from Dr. Ward Cousins, stating that if an invitation were sent from the Mayor and Corporation and local members of the Association, it would be accepted. After some discussion, the matter was referred to a Committee.

THE Grindelwald glacier is being used as a domestic supply of ice. Sixty men are now daily employed in quarrying the glacier, cutting out blocks of ice about one hundred and fifty pounds in weight. A tramway takes the ice to Interlaken, the descending trucks drawing up the return empty ones. The ice is not only used in Switzerland, but is also sent abroad; a cargo has lately been supplied to the Bulgarian hospitals.

AN inquiry has been held at Wednesbury into the cause of the death of a child named Emma Harris. The deceased, when taken ill, was conveyed to a herbalist, who prescribed for her. After taking medicine, she became worse, and soon afterwards died. The coroner said that the herbalist would probably be prosecuted, and that the parents were liable to be prosecuted for manslaughter. A verdict of death from natural causes was returned, and the mother was censured for not obtaining medical aid.

MORTALITY IN IMPROVED DWELLINGS.

DR. BATESON, the medical officer of St. George the Martyr, Southwark, in issuing a report on the health of the parish for the year ending March last, points out that the death-rate is reduced from 24 per 1,000 persons living in the previous year to 21½ per 1,000 this year. He also states that the mortality shown in Peabody's Buildings, Blackfriars Road, gave evidence of the health enjoyed by those who dwelt there; whilst 21½ died in 1,000 living in the district, but 12½ died to the same proportion of persons in the buildings. Had the mortality been the same outside the walls as within, 505 lives would have been saved. This fact should urge on the carrying out of the Artisans' and Labourers' Dwellings Act, as no doubt the new dwellings erected in lieu of those demolished would prove as efficient for the maintenance of health and life as those raised by the trustees of the Peabody gift. With respect to that district, he was happy to say that some marked and beneficial changes were impending, and buildings in Mint Street, King Street, and Elizabeth Place, and the surrounding neighbourhood were to be removed. They had long been a disgrace to the parish, and quite unfit for human habitation. The population living in the three areas named was 1,346 occupying 602 rooms; the latter would be replaced by 870 tenements, comprising 160 of one room, 235 of two rooms, and 60 of three rooms. The space at present covered was 91,052 feet; the space intended to be covered would only amount to 43,811, so there would remain more cubic feet for the occupants and a larger open space. Half the new buildings were intended to be four, and the other half five, storeys high, and the net cost £33,353. We recommend this report to the notice of local authorities, and especially to those in Bristol, where, we understand, that the medical officer of health has interposed some obstacles to the operations of the Act and the building of improved dwellings, on the strange ground that the mortality in such dwellings is likely to be above the average.

CASTOR-OIL PILLS.

AT the Cannock (Staffordshire) Police-court on Monday, a grocer named Ridding was fined, with costs, £16 9s., under the following circumstances. He sold castor-oil pills, manufactured by a firm in Wolverhampton, which pills, upon analysis, were found to contain no castor-oil, but to contain calomel, aloes, colocynth, etc. Dr. Day said that the pills, if taken in excess, in ignorance of their nature, would act deleteriously. The defendant urged that castor-oil was only a name given to pills which were a harmless aperient.

FATAL CASE OF POISONING BY IRISH YEW.

IN the JOURNAL of last week, we briefly referred to a fatal case of poisoning by Irish yew at Hampton Wick. Since that date, Reuben Lane, the defendant in the case, has been committed for trial; and we are now able to record the details of the *post mortem* examination and of the chemical examination as derived from the evidence given before the magistrates. The young woman who thus met with her death was two months pregnant. She prepared a decoction of the fresh leaves and twigs of the common Irish yew (*Taxus baccata*) by boiling them in a saucepan; of this decoction she took a dose on the evening of Monday, August 20th, and a second dose on the following afternoon. The same evening, after partaking of a supper of fried fish and potatoes at nine o'clock, she took a third dose of the decoction mixed with some chopped and unboiled twigs of yew. No symptoms appear to have followed the first two doses of the decoction. At half-past nine she went to bed. At one o'clock next morning, she was retching, and said she

felt very ill; she drank some water, and her head was bathed by her husband. At two o'clock, she was breathing very hard, and did not reply when spoken to, but the husband thinks she slightly moved her head. She appears to have been comatose. At three o'clock, Dr. Günther was called in, and found her lying in bed dead: there was no distortion of the limbs and no froth before the mouth; the expression of the face was calm. The *post mortem* examination was made by Dr. Günther thirty-three hours after death. The body showed signs of decomposition. There were no external marks of violence. The brain and lungs were perfectly healthy. The pericardium was firmly adherent to the heart, probably in consequence of former pericarditis. The heart itself was larger than normal, and was very flabby. On the right side, there was a large deposit of fat, which extended into the muscular substance. It contained no coagulum, only a small quantity of liquid blood. The liver was healthy. Both kidneys were much congested. The woman was found to be pregnant, but neither the uterus nor the fœtus were in any way affected by what had been taken. The stomach and intestines were jointly examined by Dr. Günther and Dr. Redwood, Public Analyst for Middlesex. The stomach contained about three ounces of half-digested food, through which was diffused a small quantity of the chopped leaves of the yew: these leaves had been preserved in spirit for inspection. The intestines contained a much larger quantity of yew-leaves in a digested condition. A portion of the contents of the stomach was submitted to the ordinary process of oxidation for the destruction of organic matter, with a view to examination for inorganic poisons; but none were found. The contents of the large intestine were exhausted with ether, by which means a substance resembling taxine, the active principle of yew, was obtained. The mucous membrane of the stomach presented signs of inflammation; and the same appearance was observed in the coats of the intestines where the digested leaves were found. The woman seems to have taken about as much of the decoction as would amount to a quarter of an ounce of the leaves. Dr. Redwood administered experimentally to a strong rabbit sixty grains of fresh yew-leaves. In about four hours, the rabbit was dead. It appeared to have died without suffering; its legs were placed beneath the body in the usual sitting posture, and the head was placed on one side, lying on the floor of the hutch, apparently perfectly placid. On opening the body, the stomach of the rabbit was found inflamed. The amount of gastro-intestinal inflammation in the woman was not sufficient to account *per se* for death, and the inflammation was only found where the yew-leaves were deposited. Dr. Redwood expressed the opinion that the decoction alone would not cause death, as water is not a good solvent of taxine, the active principle of yew, and would consequently but imperfectly exhaust the leaves. The yew appears to act as a poison by its depressing action upon the heart. It has not often caused death in the adult human subject; but deer and cattle are not uncommonly killed by eating the leaves, and children have been poisoned by eating the berries.

SUPERSTITION IN FRANCE.

A CORRESPONDENT of the *Univers* gives an account of the pilgrimage to the famous shrine of Notre Dame de Lourdes, and of the alleged miracles there wrought. The pilgrims were early risers, and arrived at Lourdes at six o'clock in the morning. We are told that several of the party had died by the way, and thus the assemblage was freed of many of the most hopeless cases. When the sick pilgrims began to feel discouraged and to despair, they were cheered by their enthusiastic leader, M. Henri Lasserre, who narrated, for their encouragement, the former cures effected at this shrine. The most remarkable case was that of Madame Quillé, aged 28, who had been ill eight years and was completely paralysed in her legs. Her pains were at times so great that morphia had been administered, and to this she appears to have become accustomed. She also suffered from "painful suffocations", which appear to have been, in all probability, attacks of globus hystericus. Arrived at the scene of the miracles, she was plunged into the *piscine* or pool. She felt a marvellous change come over her, and

quickly got out of the pool without assistance. We are not surprised at the result, and would strongly recommend a similar plan of treatment in other cases of hysterical paraplegia in young women. A long journey, thorough change of scene, and last, but not least, the sudden immersion in cold water, while at the same time the patient is strongly impressed with the fact that she is certainly about to be cured, is probably the best method of treatment of this form of paralysis. It is worthy of remark, that all the pilgrims whose cure is narrated were females. Another case which attracted much notice was a young nun, who was said to have been consumptive from the age of four years. She was liable to fainting attacks, and had lost the use of her voice. Greatly against her own inclination, and only at the imperative order of her superior, did she go to Lourdes. After a five days' journey, she arrived at the grotto; she was plunged in the pool, and got out exclaiming, "I am cured". Do we not constantly see such cures follow a sharp galvanic shock? We are told that half the patients cured belonged to religious orders, and that most of them were paraplegic.

DEATH OF SIR FRANCIS HICKS.

SIR FRANCIS HICKS, Treasurer of St. Thomas's Hospital, died somewhat suddenly at Margate on September 1st. Sir Francis, who was greatly respected, and who has always shown the greatest attention and assiduity in discharging the public duties of Treasurer, was formerly a West Indian merchant. He was appointed Treasurer of St. Thomas's Hospital on the retirement of Mr. Baggallay in 1865, at the time when the hospital was in a transition state, and immediately after the Charity Commission investigation. Owing to the illness of Sir John Musgrove, President of the hospital, the work of reconstruction of the hospital buildings devolved upon Sir Francis. In 1871, on the occasion of the opening of the new hospital, on the Albert Embankment, by Her Majesty the Queen, Sir Francis was knighted. It is reported that the Lord Mayor, Sir Thomas White, will be his successor in the office of Treasurer to St. Thomas's Hospital.

THE DEATH OF M. THIERS.

THE death, on Monday last, after an illness of a few hours only, of the eminent French statesman M. Thiers, appears to have been due to an unfortunately confident exercise of the physical energy which has through life been one of his characteristics. It appears from the accounts in the daily papers that he had been slightly ailing for some days previously, though not absolutely ill. On Monday morning, a high wind accompanied by cold rain prevailed at St. Germain, where he was lodging. This depressed M. Thiers, who felt restless and reluctant to work. He went out to drive, notwithstanding the weather, and returned to lunch at noon with a hearty appetite. In reply to a question from Mme. Thiers, he said there was nothing the matter except the discomfort which the barometrical pressure nearly always caused him, and that he would again go out to fight against it. He accordingly went out for a walk on the terrace, leaning on a servant's arm. The storm grew more violent, and the rain more piercing. M. Thiers, fatigued with the effort to face it, suddenly stopped, saying he could go no farther, and walked home with a faltering step. On entering, he complained of being very cold, and was seized with a fit of shivering, but thought it would pass away after he had taken his usual afternoon nap. He slept nearly an hour, and then suddenly sprang up, exclaiming that he was choking. He coughed violently and fainted. A local practitioner was called in, and applied leeches behind the ears; and his family physician, M. Barth, was sent for. He recovered consciousness, but his strength gradually failed, and he fell into a state of coma, which ended in death. From this description, which is derived chiefly from the *Daily News*, it seems probable that the immediate cause of death was rapidly progressing pulmonary congestion, the result of the action of atmospheric influences on a man eighty years of age, whose energy had, as occurs in many instances, outlived his powers of resistance.

DR. DONOVAN.

THE circumstances of the Indian famine have revived the recollections of the Irish famine. "One who saw it" writes to the *Times*:—Reading the leading article on the Indian famine in your issue of the 15th instant, I see you quote Dr. Donovan's account of the Irish famine of thirty years since. This much esteemed physician is still alive, utterly broken down in health, principally from his arduous duties of that period, and in reduced circumstances, owing to prolonged illness, receiving only from the Irish Local Government Board the small pension on his retirement as Medical Officer of the Skibbereen Workhouse, which they cannot exceed, owing to the restrictions of the Superannuation Law for Poor-law Medical Officers. Your powerful aid in calling attention to him may induce the Government to increase his small pension, and thereby aid in making some provision for his family.

PUBLIC HEALTH.

DURING the week ended September 1st, 5,748 births and 3,327 deaths were registered in London and twenty-two other large towns of the United Kingdom. The natural increase of population was 2,421. The mortality from all causes was at the average rate of 21 deaths annually in every 1,000 persons living. The annual death-rate was 19 per 1,000 in Edinburgh, 22 in Glasgow, and 21 in Dublin. The annual rates of mortality per 1,000 last week in twenty English towns were as follow: Sheffield 18, London 18, Plymouth 20, Portsmouth 20, Bradford 21, Leeds 21, Bristol 22, Oldham, 23, Norwich 24, Manchester 24, Newcastle-on Tyne 24, Nottingham 24, Liverpool 25, Sunderland 26, Wolverhampton, 26, Birmingham 27, Hull 27, Brighton 30, Leicester 33, and Salford 38. The annual death-rate from the seven principal zymotic diseases averaged 5.5 per 1,000 in the twenty towns, and ranged from 3.5 in Oldham to 11.9 and 13.7 in Hull and Salford. Diarrhoea showed exceptional fatality in Leicester, Hull, and Salford. Scarlet fever caused eight deaths in Wolverhampton. Small-pox caused 23 deaths, of which 20 occurred in London and 3 in Liverpool. In London, 2,496 births and 1,238 deaths were registered. Allowing for increase of population, the births exceeded by 169, whereas the deaths were 215 below, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the two previous weeks had been 19.3 and 18.6 per 1,000, declined last week to 18.3. The 1,238 deaths included 20 from small-pox, 17 from measles, 26 from scarlet fever, 5 from diphtheria, 19 from whooping-cough, 18 from different forms of fever, and 154 from diarrhoea; thus to the seven principal diseases of the zymotic class 259 deaths were referred, against 346 and 260 in the two preceding weeks. These 259 deaths were 137 below the corrected average number from the same diseases in the corresponding week of the last ten years, and were equal to an annual rate of 3.8 per 1,000. The 26 deaths from scarlet fever exceeded the number in any week since the beginning of June. The 18 deaths referred to fever were 19 below the corrected average weekly number. The deaths from small-pox, which had been 21 and 11 in the two previous weeks, rose to 20 last week; of these, 13 occurred in the metropolitan asylum hospitals. Of the 20 fatal cases of small-pox, 11 were certified to be unvaccinated, 4 vaccinated, and 5 were "not stated" as to vaccination. The number of small-pox patients in the metropolitan asylum hospitals, which in the fourteen preceding weeks had steadily declined from 964 to 279, further decreased to 246. During July and August, the fatal cases of diarrhoea in London were 1,470, against 1,521 and 2,603 in the corresponding periods of 1875 and 1876. The annual death-rate from diarrhoea last week did not exceed 2.3 per 1,000 in London, whereas it averaged 5.3 per 1,000 in the 19 provincial towns, in which it ranged from 1.3 and 2.1 in Bristol and Wolverhampton to 9.3 in Leicester, 11.1 in Salford, and 11.2 in Hull. In Greater London, 2,993 births and 1,511 deaths were registered, equal to annual rates of 35.8 and 18.1 per 1,000 of the population. At the Royal Observatory, Greenwich, the duration of registered sunshine in the week was 37.8 hours, the sun being above the horizon during 96 hours.

SUICIDE AT NORTHAMPTON LUNATIC ASYLUM.

A SAD accident has occurred at the Northampton Lunatic Asylum. A lady inmate secreted all the scraps of paper she could lay hold of without the knowledge of the attendants; she then managed to get away from the dining-room, and, going to an empty sitting-room, there lighted the paper at the gas and set fire to her clothes. She was so severely burnt before the attendants found her that death speedily followed. Such sad occurrences cannot always be prevented, even by the most vigilant care.

CHINESE OPIUM-SMOKING.

THE Chinese Government has passed a permissive edict calling upon the governors of the various provinces to suppress the indulgence of opium-smoking. A prolonged notice of three years from the present date is given before the edict comes into force. It remains to be seen how far an edict of the Government is capable of suppressing a vice so deeply rooted in the Chinese nation as that of opium-smoking.

A LONDON CHURCHYARD AS AN ORNAMENTAL GARDEN.

THE Rector and Churchwardens of St. Luke's, Old Street, have applied to the Chancellor, at the Consistory Court, for a faculty to convert the closed burial-ground of the old parish church of St. Luke into a garden planted with trees and flowers. No opposition has been raised to the proposed improvement, and the inhabitants have been informed that, though the memorial stones will be removed, the human remains will be left untouched. The Vestry of St. Luke's have voted £500 for the purpose of making the garden. We are glad to see the surroundings of this church turned to such a useful and honourable purpose. Surely, the memory of the departed will none the less remain in the memory of any of their descendants still living, because their children are able to enjoy healthy recreation in a ground lately occupied by a forest of memorial stones. We hope other rectors will follow the good example thus set.

THE SCUTARI HOSPITAL.

A CORRESPONDENT of the *Times*, writing from Pera on August 26th, says:—Dr. Patterson, of the British Hospital, Galata, Dr. Lucas, and another English doctor, visited the Scutari Hospital this week unexpectedly, for the purpose of examining the bullet-wounds of the soldiers who have come from the war. They found one thousand three hundred sick and wounded Turkish soldiers, and also two Russian prisoners. The latter, as well as the former, were very carefully attended to. All those medical gentlemen give a most favourable report of the condition of the inmates of the hospital. The arrangements and management are said to be as good as could be desired in every respect, whether as regards cleanliness, medical stores, nourishment, or administration. This branch of the Turkish service is conducted on the right principles of science and humanity. There are several Christian doctors, Turkish subjects, belonging to the army, and well qualified for their duties. There was only one sword or bayonet wound to be seen among all the wounded in the Scutari Hospital.

CHOLERA ON A FRENCH SHIP.

A CORRESPONDENT of the *Daily Telegraph* reports that cholera has broken out on board the French Government ship *Corrèze*, on her return voyage from Cochin-China, for which place she left Toulon last May. The Minister of Marine had been previously informed of the fact from Singapore by the captain, and has taken the following precautionary measures. The *Corrèze* will not be allowed to enter the port of Toulon. As soon as she is signalled in the Mediterranean waters, she will be directed to remain in the offing in view of the Hyères Islands, to which two ships will be sent to receive the passengers and crew, who will go through a certain number of days of quarantine before landing. The *Corrèze* will then be scuttled and left under water until she has been sufficiently purified by the sea-water, after which time she will be raised. The two other ships, which will take off the passengers and crew of the *Corrèze*, will in their turn be

relieved of their burden and sunk for a time in the same way. By means of these precautions, it is hoped that the course of the pestilence will be interrupted.

THE RUSSIAN MEDICAL OFFICERS.

A CORRESPONDENT, writing from the Schipka Pass, says:—During the fighting, I spent some time with the surgeons working in the most advanced positions, and should like to bear testimony to their admirable devotion to duty and their skilled dexterity. In their eagerness to assist the wounded, the Russian surgeons somehow neglect the axiom that their quarters should be in a sheltered spot; but, indeed, on all the ridge it was hard to find a sheltered spot. The Turkish bullets whistled over and through the little group. Indeed, one patient received a fresh wound while the earlier one was being dressed; but the surgeons pursued their duties with a noble courage and disregard of risk. Their kind attention to the wounded, and their attention to trifles, such as supplying water, laving burning faces, and administering restoratives, filled me with admiration.

POISONED ARROWS.

THIS subject is revived in the following letter, which has been addressed by Professor Halford to the editor of the *Melbourne Argus*.

"Sir,—A few years ago—the date I cannot now recollect—I wrote to you on the subject of poisoned arrows, stating that I could not get any evidence of the poisonous nature of the matter with which the South Sea Islanders smeared their arrows. My experiments were made on dogs and pigeons, with arrows given me by Mr. Butters. Since that date, Commodore Goodenough lost his life from wounds inflicted with, we suppose, similar arrows; but the Surgeon of Her Majesty's ship *Pearl*, Dr. Messer, after experimenting with the supposed poison, came to the same opinion as I had myself been driven to. Dr. Messer has communicated his opinion to the authorities at home, with the result of surprising a good many of the readers of the *Times*, etc. Before leaving the colonies, Dr. Messer wrote to me enclosing some of the poison he had procured subsequently to the death of the lamented commodore, requesting me to try its effects on some of the lower animals. I have done so, and am again driven to the same opinion; viz., that the tetanus following these wounds is not due to the matter with which these arrows are smeared, as I have failed to get any bad symptoms after freely wounding two dogs and one rabbit, and inserting two different samples of the poison at intervals of three weeks. It is two months since the animals were first wounded; no tetanus resulted, and they are now quite well. Now, as tetanus is produced both in man and dogs by similar vegetable poisons, it is not likely there can be much error in the opinion arrived at by Dr. Messer and myself; viz., that the stuff with these arrows are smeared is not in any way poisonous. Should we be believed, it may lessen in some way the terror which has hitherto seized on every one wounded by the arrows of the South Sea Islanders, and possibly avert in many cases fatal results."

ARTISANS' DWELLINGS.

THE recent report of the Metropolitan Board of Works gives an account of the proceedings thus far taken under the Artisans' Dwellings Act of 1875:

"The first official representation which reached it under this Act was for the removal of the unwholesome district between Gray's Inn Lane and Leather Lane, on the north side of Holborn. The Board cut down the plans which were presented to it, and the Home Secretary consequently rejected them as inadequate. Its report now explains that the proposed widening of Gray's Inn Road will take down most of the property with which the sanitary scheme would have dealt, and that, therefore, it remains for the present in abeyance. The White-chapel and Limehouse scheme has been confirmed by Parliament, and will probably be the first carried out. It will displace 3,669 persons of the working classes; and, when several streets have been widened and extended, there will be healthy accommodation provided in twenty-four blocks of buildings for 3,870 people. There are to be 121 tenements of a single room, 650 of two rooms, and 351 of three rooms. Other schemes have been sanctioned dealing with crowded parts of White-chapel, in which 3,967 persons now living in 1,483 rooms in squalid streets and alleys will have 1,880 rooms of a healthier kind provided for them. A Southwark Dwelling Improvement proposes to sweep clean two areas now occupied by some of the worst property in London, where 1,340 persons are living in 602 rooms, and to provide for the same number of

inhabitants 810 rooms in new and wholesome dwellings. There are similar schemes for Islington, where 547 persons are to be transferred from 197 rooms to 241; and for Clerkenwell, where 497 persons living in 210 rooms are to have 270 of a better character. In St. Luke's, nine new streets are to be formed, and 1,686 rooms occupied by 4,010 persons are to be destroyed, and 1,850 new places made for the same number of inhabitants. Of the Great Wild Street improvement, we gave a full account some time ago. This terrible district of courts and alleys, which include, the report says, 'some of the most wretched houses in the metropolis', is to be dealt with at once, and 773 rooms provided for 1,780 persons instead of the 694 they now occupy. A similar improvement is to take place in Bedfordbury, including the widening of Chandos Street, Charing Cross. Here the new buildings are to be six storeys in height, and 446 rooms provided for 811 persons in place of the 370 they now fill. In Westminster, a beginning is to be made by the widening of several streets, the removal of 510 rooms occupied by 1,380 persons, and the building of 750 rooms for the same number. Several other areas are still under the consideration of the Board, and there seems to be every reason to believe that before this year is out the Artisans' Dwellings Act will have originated some important improvements in the dwellings of the working classes of London."

CORONERS AND MEDICAL WITNESSES.

IN the report of a recent inquest on a case of poisoning by laudanum, at Chesterfield, the coroner, Mr. Busby, is stated to have spoken to the following effect:

"The coroner said he wished to make an observation with regard to the conduct of medical men who were engaged in such cases as the present. Doctors seemed to have very false notions as to what their duty was. When called in to attend a patient they were bound by their retainer to give the best information in their power as to what that patient was suffering from. When the present case was reported to him, the medical men refused to give any information whatever unless they were called as witnesses. He did not say this out of a spirit of unkindness to anybody, but difficulties were multiplied by medical men refusing to give general information, when it was impossible to know beforehand without such general information what was a proper case in which to hold an inquiry, and what was not. It was against the interests of the profession to withhold such information; in fact, they were bound to give it. The coroner went on to say that he should make it a rule, in future, not to allow fees to druggists who were called upon to give evidence in similar cases to the present, this being the only means he had of showing the extreme danger of the way laudanum was dealt with."

We are informed that it is the practice of the coroner in question, in a case of suspicious death, to endeavour to obtain as much information as he can from the medical men, through the medium of the police; so as, if possible, to procure such information without being obliged to call the medical man as a witness and pay him a fee. If this be the case, it is he who has wrong notions of the mutual duties of the doctors and of himself. No medical practitioner is bound, in a case of suspicious death, to give, in the first instance, more information than is required for the determination of the question whether an inquest is necessary. Any more detailed evidence he is justified in withholding, unless he be duly summoned, and paid the fee provided by law.

SCOTLAND.

IT is proposed, but not yet definitely settled, to pave Princes Street, Edinburgh, with wood.

A MEDICAL student, who had failed at three examinations, was found dead in a house in Edinburgh on Saturday night. He had a bottle on him which had contained poison.

AN appeal has been made by the Edinburgh University authorities for contributions from Scotchmen in Canada and the United States towards the funds for the new University buildings. A similar appeal has been made to India, but has not been very warmly responded to. Dr. William Taylor has undertaken to make a personal appeal to many wealthy Scotchmen in America.

ABOUT twenty people were lately charged at the Southern Police Court of Glasgow with having overcrowded their houses. All who had been previously convicted of overcrowding were fined. The magistrates of Glasgow have determined to exercise to the utmost their powers in these cases, in order to prevent the spread of infectious diseases.

ON Friday last, some workmen in the grounds of Donibristle Park, near Aberdeen, came upon five human skeletons, about eighteen inches beneath the surface of the ground. Lounge Point, where they were found, is about two hundred yards from the scene of the murder of the Earl of Moray by the Earl of Huntly, in 1591. It is conjectured that these remains belong to some of the Earl's retainers killed in the conflict.

RAINFALL IN SCOTLAND.

THE rainfall over various parts of Scotland, during the past month, has been unusually high: at Greenock, it was over ten inches. The greatest fall took place on the 20th, when the gauges showed 2.61 inches. There were only four entirely dry days during the month. At Jedburgh, again, the fall was 7.72 inches, while the average during the same month of the last thirteen years was 2.26. The greatest monthly fall in any of these years was in September 1872, when it was 4.91, and December 1876, 6.31. There were only five days last month in which there was no rain. At Arbroath, there fell 7.42 inches; the average of the month for thirty-four years being 2.5 inches. This gives 167,000 gallons, or about 750 tons of water on the surface of an acre.

DROWNING OF A MEDICAL MAN.

THE Bombay mail of last week brought the sad intelligence of the death by drowning of Dr. Dugald McGregor in Bombay Harbour. Dr. McGregor studied at Glasgow University, where he graduated in 1862; and two years later went to Bombay, where he has continued to practise since. He enjoyed an extensive practice, and had a wide circle of warmly attached friends. On August 7th, he was returning in his own boat from a visit to one of the vessels in the harbour, when the boat was struck by a heavily laden native *proa* under sail and sank. The other occupants of the boat were rescued; but, when Dr. McGregor's body was recovered shortly afterwards, life was found to be extinct. Dr. McGregor was a brother of the Rev. Dr. McGregor of Edinburgh, a distinguished Scotch minister.

THE UNIVERSITY OF UPSALA.

A DEPUTATION, including Sir C. Wyville Thomson, Professor Balfour, Dr. Crichton Browne, Mr. Buchan, and others, left Edinburgh last week for Sweden, in order to be present, as representatives of the University and Royal Society of that city, at the festivities which are to take place this week in celebration of the four hundredth anniversary of the University of Upsala. The proceedings will extend over several days, and a large gathering of *savans* is expected. The Edinburgh Royal Society, in a Latin address appropriate to the occasion, conveys its congratulations to the University authorities, and expresses cordial admiration of the illustrious men who have adorned that seat of learning in the past and are now worthily maintaining its reputation, and of their brilliant achievements in the service of science.

THE HEALTH OF SCOTLAND.

THE report of the Registrar-General for Scotland, for the second quarter of 1877, has just been published. From it we learn that, during the three months ending June 30th, there were registered in Scotland 33,355 births, 19,586 deaths, and 6,735 marriages. The birth-rate was high, being the same as that recorded for the corresponding quarter of 1876; the death-rate below the average of the quarter for the last ten years; and the marriage-rate unusually high. The births represent an annual birth-rate of 3.75 per cent. on the estimated population. During the second quarter of the ten years immediately preceding, the average rate was 3.681 per cent. Eight per cent. of the births were

illegitimate. As usual, the rate of illegitimacy was far higher in the mainland-rural districts than elsewhere. It is rather remarkable, however, to find a lower rate of illegitimacy in the large towns than in the insular-rural districts. In the large towns, the rate was 6.3 per cent. The deaths were in the proportion of 2.20 per cent.; the average of the ten years preceding having been 2.218. The annual death-rate of England during the quarter was 2.139 per cent., the average being 2.110. The percentage of deaths was highest in the large towns, 2.72 per cent.; and lowest in the rural districts, insular and mainland, which each stand at 1.84 per cent. The deaths from zymotic diseases was only 14.5 per cent. of deaths from all specified causes; of these, 10 were from small-pox. The total deaths from diseases of the respiratory organs, exclusive of consumption, were equal to 24.5 per cent. of the total number of deaths from specified causes. From violence, privation, etc., there were about 90 deaths per month. There were registered, during the quarter, 22 deaths from intemperance and 11 from delirium tremens. The estimated population of Glasgow in the middle of 1877 was 555,933, and that of Edinburgh 218,729, and of Leith 54,257. The excess of births over deaths during the quarter exceeded the number of Scotch emigrants by 11,191.

GLASGOW FEVER-HOUSE.

DR. RUSSELL, Medical Officer of Health for Glasgow, in his fortnightly report, laid before the Town Council on Monday afternoon, calls attention to the limited accommodation for fever cases in the City Reception House for the infected, in the following terms. "During the past month, in connection with the scattered outbreaks of typhus, mostly in overcrowded houses, ten infected families, comprising forty persons, were removed to the Reception House. Fever developed itself in five of these persons after removal. There is no doubt that the Reception House is a most valuable coadjutor with the Hospital in the suppression of infectious diseases. I believe that the transference of the healthy members of the family not only prevents the spread of infection in the neighbourhood, but cuts short the process of self-infection within the family itself. It is quite evident that, in the event of any great extension of fever at any time, our present Reception House would be much too small."

THE GLASGOW SCANDAL.

IN addition to the matron, two nurses, and the medical student who was acting as house-surgeon, Dr. Tannahill, one of the physicians to the Glasgow Maternity Hospital, has been apprehended on a charge of contravening the Anatomy Act. We gave some particulars of the nature of the case last week. Dr. Tannahill, after being examined before the Sheriff, was liberated on bail.

IRELAND.

SICK AND DESTITUTE POOR IN WORKHOUSES AND WORKHOUSE HOSPITALS.

MAJOR THE HON. W. LE POER TRENCH, R.E., Mr. Andrew Doyle (Poor-law Inspector, England), and Mr. Charles Sharman Crawford, have been appointed Commissioners to inquire into Poor-law Unions and Workhouses, etc., in Ireland, especially in regard to the number of such Poor-law unions and workhouses, and to the provision now made for the relief of the sick and destitute poor in workhouses and workhouse hospitals; and as to whether any changes in that respect are necessary or desirable. The Commission has power to make full inquiry into the matters aforesaid in such places as they may deem necessary or convenient, etc. Although it does not appear, from the circular letter of the Local Government Board acquainting Boards of Guardians of the issue of such Commission, that matters relating to out-door medical relief come within the province of the Commission, we trust that, as the sick admissions into workhouses and workhouse hospitals must in most cases be on the recommendation of the dispensary medical officers, the administration of such dispensary medical relief will be taken into consideration, notably that portion of it which grants power to every member of the Dispensary Committee to issue

dispensary tickets, a fertile source of great abuse of dispensary medical relief by persons who ought to be made to pay for such medical attendance.

ROYAL COLLEGE OF SURGEONS.

THE following is the number of candidates from the various medical schools who presented themselves for the Primary and Pass Examinations for the membership of the Royal College of Surgeons during the Session 1876-77. The list includes the number of those who passed and of those who were rejected. We have added a fourth column, which gives the proportion of rejections, and which, as will be seen, varied considerably at the different schools. The candidates who are indicated by a fraction in any column have been educated at more than one medical school.

PRIMARY EXAMINATIONS.—1876-77.

Medical School.	Totals.	Number passed.	Number rejected.	Proportion of rejections.
St. Bartholomew's	119	82.50	36.50	1 in 3.26
University College	100.50	69	31.50	" 3.19
Guy's	80	70	10	" 8.00
St. Thomas's	60	38.50	21.50	" 2.79
London	42.16	24.3	17.83	" 2.36
St. George's	40.6	26.3	14.3	" 2.84
King's College	33.50	24.50	9	" 3.72
St. Mary's	27.50	18.50	9	" 3.06
Middlesex	24	20	4	" 6.00
Charing Cross	20.6	15.3	5.3	" 3.88
Westminster	11	8	3	" 3.66
Manchester	35.50	23.50	12	" 2.96
Liverpool	30.50	25	5.50	" 5.54
Bristol	23	8	15	" 1.53
Birmingham	21	15	6	" 3.50
Leeds	20	15	5	" 4.00
Sheffield	7.50	3.50	4	" 1.87
Newcastle-on-Tyne	13	9	4	" 3.25
Cambridge	9.50	7.50	2	" 4.75
Dublin	20.50	7	13.50	" 1.52
Belfast	3	3	—	" 0.00
Cork	2	—	2	" 2.00
Galway .. ..	.50	—	.50	" 1.00
Edinburgh	25	18.50	6.50	" 3.84
Glasgow	4	2	2	" 2.00
Aberdeen .. ..	.50	.50	—	" 0.00
Montreal	3.50	2.50	1	" 3.50
Toronto	3	2.50	.50	" 6.00
New York	1	—	1	" 1.00
Ohio, Cincinnati	1	—	—	" 0.00
Laval .. ..	.50	.50	—	" 0.00
Bombay	5.50	4.50	1	" 5.50
Calcutta	2	2	—	" 0.00
Madras	1	1	—	" 0.00
Berlin	1	—	—	" 0.00
Leipsic .. ..	.50	.50	—	" 0.00
Totals	792	546	246	3.13

PASS EXAMINATIONS.—1876-77.

Guy's	83	68	15	1 in 5.53
St. Bartholomew's	72	62	10	" 8.00
University College	51.3	51.3	—	" 4.94
King's College	45.50	32.50	13	" 3.50
St. Thomas's	42.6	32.6	10	" 4.25
St. George's	27	24.50	2.50	" 10.80
London	26	19	7	" 3.71
St. Mary's	19.3	14.50	4.2	" 3.99
Middlesex	15.16	11.1	4.03	" 3.95
Charing Cross	7.83	6.50	1.3	" 6.02
Westminster	7.23	3.53	4	" 1.95
Manchester	23	13	7	" 3.37
Birmingham	24	19	5	" 4.83
Leeds	20.3	14.50	5.83	" 3.48
Liverpool	10.16	4.83	3.3	" 3.08
Bristol	9.50	4	5.50	" 1.72
Newcastle-on-Tyne	9.3	2.3	4	" 1.57
Cambridge	3	1.50	2	" 1.75
Sheffield	2	1	1	" 2.00
Dublin	3.50	5.50	4	" 2.37
Belfast	2	2	—	" 0.00
Galway .. ..	.50	—	—	" 0.00
Cork .. ..	.50	—	.50	" 1.00
Edinburgh	23.16	13.3	9.83	" 2.35
Aberdeen	5.3	4.3	1	" 5.30
Glasgow	1	1	—	" 0.00
Bombay	2.50	1.50	1	" 2.50
Calcutta	2	1	1	" 2.00
Caracas	1	1	—	" 0.00
Lidge	1	1	—	" 0.00
Toronto	3	3	—	" 0.00
Montreal	3	2.00	.50	" 0.00
New York	1.3	1.3	—	" 0.00
Ohio, Cincinnati	1	—	—	" 0.00
Totals	579	432	137	4.15

HINTS FOR SURGICAL WARD CLERKS.

THE following instructive remarks appeared in a number of *Guy's Hospital Gazette* some weeks ago.

Before commencing work, the clerk must provide himself with a clinical thermometer, a spring measuring tape, and a good large note-book. The thermometer should be obtained from a good maker, and care be taken that it is one the graduation marks upon which will not easily rub off. The choice of the surgeon made, and the distribution of his wards mutually arranged, the ward clerk will be introduced to his beds by the registrar, and should at once commence his duties. Briefly, they will consist in taking careful histories of all new patients on their admission, and of daily visiting them during their stay in the hospital, and noting any circumstance of importance in their progress or in the treatment adopted. He will be expected to go round his beds with the surgeon and the registrar, and always to be present at operations, of which he will always write full descriptive reports.

A word or two now about note-taking for the student's own use. This is a most necessary practice if he wishes to derive full advantage from his appointment, and when he holds a dressership he will find a good selection of cases most valuable. I should advise him to eschew case-books; the time for them is not yet. When he is full dresser or house-surgeon will be quite early enough for those convenient tabulated forms, admirably adapted for recording those salient points which as yet he does not know how to recognise. The best mode is to provide himself with an ordinary good sized note-book. Divide this into spaces of eight or ten leaves, according to its size. Allot each of these spaces to a case, and take the history, and day to day report into this *in extenso*. You will find it most inconvenient to carry an ink-bottle and your folio of report-sheets round the ward with you, and, besides, good succinct reports fit for your surgeon and registrar to examine can never be made unless you prepare a rough preliminary draft. Make this rough draft then in your note-book, instead of upon scraps of paper, and, when you have finished your round, copy it on your report-sheets in such revised form as may be necessary. If you write in one page only of each leaf, you will find that the notes will remain legible for an indefinite length of time, and, as they are only for your own eye, a few interlineations and erasures will be of very slight importance. If at any future time you have leisure to enter analyses of these cases into a proper case-book, by all means do so. With respect to taking the histories themselves, you will often find more difficulty. Patients vary much in this respect, some seem instinctively to tell you just what you want to know, others require the talents of a cross-examining barrister to extract any satisfactory particulars from them. As a rule, the best mode is, after you have obtained the family and personal history, to ask the patient to give an account of his illness in his own way. Do not interrupt him, however much he may ramble from the point at issue, but carefully notice all he is telling you, and, when he has finished, endeavour, by cross-examination based upon his statements, to elicit the facts you require. Always take care to distinctly separate objective from subjective symptoms. Everything coming under the former head should be put down; you will find it necessary, especially in female patients (who often exaggerate them very much), to eliminate a great portion of the latter. Beware of putting down a diagnosis in place of a description of symptoms. This is an error that reporters too frequently fall into. For instance, they will sometimes put down off-hand that a fracture of the shaft of the femur was discovered, instead of describing shortening, deformity, crepitus, too free mobility, loss of power, or other signs present in the injured limb. This is sufficient to show what I mean, and is an error that you cannot be too careful to avoid. In injuries, deformities, suspected new-growths, and other cases, it is a very good rule always to carefully compare the affected side with the opposite one. The histories of children may be best obtained from their friends at the time of admission, or on subsequent visiting afternoons. With respect to all patients, one golden rule should always be borne in mind, viz., to take the history whenever possible immediately after admission. The aspect of many surgical cases, more especially of accidents, may change materially in a few hours. Accidents, unfortunately, are just those cases in which this rule is most difficult to carry out, inasmuch as they come in at all times, and in a large number of cases during the night. If, however, you are reporting in an accident-ward, it is well during your surgeon's taking-in week to look in several times in the course of the day, as well as on Sunday, whilst, if you live within a reasonable distance, you may easily pay a visit to your ward the last thing at night. In those cases which you cannot possibly see on admission, you must have recourse to the dresser, who will almost always be ready to give you any information in his power. After the history is once taken, never let a day pass without visiting each one of

your cases. I do not mean by this that you are expected to make an entry daily; on the contrary, in many cases you may even have no particular worthy of record for many days, or even weeks, but remember that, if any complication does arise, you are expected to be fully acquainted with it. Be always observant of such details as the way in which a patient passes the night, or the amount of food that he takes. For information upon these points, you must have recourse to the sisters.

One time of visiting your ward should be as closely adhered to as possible. This should be in the morning, and the best time to begin is about ten. The dressers usually begin their work about that time, and the reporter then has an opportunity of seeing the dressings, at least occasionally. This is a most important advantage, as, of course, he must never disturb a dressing on his own authority; and, besides, much valuable information as regards the details of dressing may be obtained, more especially if the ward clerk is careful to cultivate amicable relations with the dressers, which I should most certainly advise him to do. In the wards of an antiseptic surgeon, the reporter will be expected to be at hand to work with the spray-producer. This much despised employment appears to me to be of the most advantage, as it gives him the opportunity of closely observing all the proceedings of the surgeon and dressers, and this, more especially in the operating-theatre, is a most valuable privilege. The clerk should never omit to accompany his surgeon in his rounds. If he does, he fails in a very important part of his duty, and loses much of the advantage accruing to him from his appointment. Take careful note of all the remarks your surgeon makes, and anything bearing upon your cases may with advantage be put down on the alternate page, which I advised you to leave blank in your note-book. The same remarks apply with equal force to the rounds of the registrar. You should never fail to have every report posted up for him, and should make a point of eliciting information upon every point in your cases that is not perfectly clear to you. He will at each visit collect the completed reports, and these should always be properly filled up in the case of discharge with a full account of the patient's condition, and a comparison of his symptoms with those recorded on admission, and, in the case of death, with a description of circumstances under which it occurred and of the *post mortem* appearances observed. Before leaving this part of the subject, I must refer the student to the very excellent tables issued to each clerk, as aids to methodical and accurate observation. He should refer to them continually whilst making his reports.

I propose now to make a few brief remarks upon what may be called the manipulative part of a ward clerk's work. With regard to the use of the clinical thermometer, but little would seem necessary, although I have seen a reporter taking temperature with the bulb of the instrument uppermost, and another quietly setting down the abnormally low temperatures indicated to him by the inferior extremity of his index. Some difficulty may occasionally be met with in children, or in cases in which both axillæ are blocked up by a splint. In the last, take the temperature under the tongue, in the popliteal space, or in the inguinal fold. The thermometer should be kept *in situ* about five minutes, and you must be careful that it is not shaken out of position during that period. In children or restless patients, it is advisable to keep the patient's arm still with your hand. Always record your temperatures on the back of the patient's bed letter for the convenience of the house-surgeon or dresser. After operations, the temperature should invariably be taken daily, until it becomes normal.

The clinical examination of urine you will find necessary in many cases. The points you will have to observe will be quantity, colour, deposit, specific gravity, reaction, presence of albumen, sugar, pus, blood-corpuscles, tube-casts, or crystals. When you require urine for examination, give directions to the nurse, who places it in a conical glass ready for you. The specific gravity will be ascertained by means of the urinometer. In normal urine, it ranges from 1015 to 1025. For albumen, the best mode of testing is to add a few drops of nitric or acetic acid to the suspected urine in a test-tube, and then to boil it over a spirit lamp. By the proportion that the precipitated albumen bears to the whole quantity of urine taken, you will be able to form a rough estimate of its amount, which must be expressed in fractions. Always examine for albumen before operations. To detect sugar, boil a small quantity of Dr. Pavy's solution (liq. Pavii) in a test-tube, and then gradually add about an equal quantity of the suspected urine. If sugar be present, a precipitate of a deep reddish yellow colour will be found. The presence of pus in any quantity may be demonstrated by the addition of a small quantity of liquor potassæ, when a thick glairy mass is formed. The pus-cells under the microscope are characteristic. They are somewhat larger than blood-corpuscles, faintly granular all over, and, if you introduce a little acetic acid at the edge of the slide, two or three distinct circular nuclei will come into view. With the ap-

pearance of blood-corpuscles, most students are familiar. As seen in urine, they are mostly somewhat altered in form, being indented round the edges like a cog-wheel. Be careful not to mistake albumen resulting merely from the presence of pus or blood for that due to kidney-disease. If in doubt, always examine for pus and blood; sometimes you will have to look for tube-casts as an indication of renal disease. These, under the microscope, are large, somewhat oval, tubular bodies, composed of fibrine which has coagulated in the kidney tubules. Occasionally, owing to their transparency, you will have some difficulty in making them out. Tilt one side of the slide up, so that the light will be transmitted through them obliquely, and they will usually be brought into view. The microscopic examination of urine for crystals will often be necessary, especially when you wish to ascertain the nature of a calculus. Those most frequently met with are uric acid, triple phosphate, and oxalate of lime. Uric acid crystals are of a red or deep yellow colour, and most frequently lozenge-shaped. Triple phosphates are quite transparent, and usually prism-shaped. Often, however, they have a serrated stellate appearance like a star-fish. They are easily dissolved by the addition of acetic acid. Oxalate of lime crystals have usually a typical envelope shape, and less frequently a distinctly "dumb-bell" form. In examining urinary deposits, be careful to let the urine stand for some hours, and to plunge the dipping-tube quite to the bottom of the glass containing it.

THE SECTION OF PHYSIOLOGY AT THE MANCHESTER MEETING.

THE subjoined notes arrived too late for insertion in the report of the proceedings of the Section of Physiology in last week's JOURNAL.

Physiological Experiments in the University of Leipzig.—Professor LUDWIG gave a description in German of some work which had been done in the Physiological Laboratory of Leipzig under his direction.

1. *Effects of Transfusion as compared with Feeding with Albuminous Bodies.*—The experiments showed that if blood were transfused from one animal (dog) into the vessels of another animal of the same species, the latter animal after a few hours became very hungry, and required food to be given it to sustain it; while, if the fibrin obtained from the same amount of blood were given by the mouth, the animal was properly nourished.

2. *Effects of Ligature of both Thoracic Ducts in the Dog.*—When this operation, a difficult one, was performed and the dogs recovered, a curious state resulted. The receptaculum chyli burst; the chyle was extravasated into the surrounding parts; and the lower quarters and legs of the dogs became quite puffy and, to all appearance, œdematous. But this swelling was caused by the chyle, which found its way under the fasciæ of the muscles and gravitated towards the limbs; a fatty œdema being thus produced. This led Professor Ludwig to discuss the usually accepted theory of the passage of fatty particles into the villi.

3. *Feeding Dogs with Sugar, Fatty Matter, and Albumen.*—*a.* If a dog were fed with sugar, no trace of it was to be found in the portal vein, or even in the small intestine; none was found in the chyle. It seems, therefore, that sugar is very rapidly decomposed in the intestine. *b.* In dogs fed with fatty matters, the chyle from the thoracic duct, on being analysed during digestion, yielded 13 per cent. of fat, whilst the amount usually obtained is given at 4 per cent. *c.* In feeding with milk, even twenty-four hours after the meal milk is to be found in the stomach; and it seems that the albuminous and other constituents of the milk are only passed on in small amounts into the duodenum; and this, it was suggested, was probably regulated by some reflex mechanism.

Dr. GAMGEE gave a *résumé* in English of Professor Ludwig's remarks.

Induction Apparatus.—Professor HUGO KRONECKER showed a modification of an apparatus devised by Dr. Stirling for rendering induction shocks given consecutively of nearly equal intensity. The apparatus consists of a style attached to a lever, which can be so regulated as to interrupt the current a certain number of times per second. The essential point is that a stream of water is made to wash the surface of the mercury and thus keep it free from the layer of oxide formed, and so render the opening or closing shocks more equal in intensity.—The apparatus shown by Herr Kronecker has been improved from its original form, and the method has been called that of "Capillary Contact".

INSANITY AMONG FEMALES.—At the Wandsworth and Clapham Union last week, a letter was read from the Brookwood Asylum, stating that no more patients can at present be admitted on the female side of the institution. It was stated that other asylums in the district were similarly crowded.

ASSOCIATION INTELLIGENCE.

SHROPSHIRE AND MID-WALES BRANCH.

THE annual meeting of the above Branch will be held at the Lion Hotel, Shrewsbury, on Wednesday, September 19th, at 1.30 P.M. : J. RIDER, Esq., President, in the Chair.

The dinner will take place at the Lion Hotel, at 4.30. Tickets, 7s. 6d. each, exclusive of wine.

The Secretary will feel obliged if those members who intend to read papers, or bring forward subjects for discussion, will kindly inform him as soon as convenient.

HENRY NELSON EDWARDS, *Honorary Secretary.*

Shrewsbury, September 3rd, 1877.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting of this Branch will be held at Stockton, on Tuesday, September 25th.

Gentlemen desirous of reading papers or making other communications, are requested to give notice to the Secretary.

G. H. PHILIPSON, M.D., *Honorary Secretary.*

Newcastle-upon-Tyne, August 20th, 1877.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE Wakefield Guardians and Rural Sanitary Authority have been invested with urban powers over the district of Stanley-cum-Wrenthorpe.

THE Bulwell Local Board and Urban Sanitary Authority, Nottingham, have increased the salary of Mr. Robert G. Buckby, the Medical Officer of Health, from £30 to £50 per annum.

THE POOR-LAWS.—In reply to the recommendations of a deputation to the Local Government Board of Poor-Law Guardians, under the auspices of the Social Science Association, Mr. Sclater-Booth has conceded the following points:—That grandsons should be liable to help to support their pauper grandparents; that some better arrangement for the recovery of the costs of medical advice should be devised; that Justices of the Peace should be empowered on receiving a certificate from the medical officer, to order the removal to a workhouse of persons without proper lodging and accommodation; that no relief should be given for a longer period than thirteen weeks without a reconsideration of the case; that immediate out-door relief to widows with children be modified by taking some of the children into the workhouse; that it is inexpedient to allow out-door relief to the wives and children of persons who are in gaol; and that non-resident relief should be as a rule abolished. Although unable to acquiesce in all the suggestions of the deputation, the President was fully in accord with them in the desire to place the administration of out-door relief upon a sound and proper basis throughout the country: and with that object he was glad to endorse so much of the views of the deputation.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

ROTHERHAM.—Dr. Hardwicke begins his report by referring to the large rainfall in 1875 and 1876; viz., 26.4 inches in the former, and 28.7 in the latter year, with a considerable decrease in the number of deaths from zymotic diseases and bronchitis. The population is estimated at 30,149. The number of births is returned as 1,314, and of deaths 653; so that the birth-rate was 43.6 and the death-rate only 20.16 per 1,000 population. The deaths of children under one year to registered births were 18.41 per cent. The inspector's report shows that a system of house-to-house inspection is carried out; as, whilst only 139 complaints were received, no less than 3,150 houses and premises were inspected. The house-drainage must be very imperfect, as 10,109 loads of night-soil were removed; but, as it is stated that new sewers have been made, these nuisances will probably be speedily abated.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

1. J. S. W., M.D., re-elected Officer of Health to the Parish of St. Andrew's Rural Sanitary Authorities.

MILITARY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SCIENCE.—List of gentlemen who were successful for appointments in Her Majesty's Army Medical Service, at the examination held at the University of London, on August 13th, 1877.

	Marks.		Marks.
1. Keayes, W.	2249	16. Barrington, H. E. W.	1785
2. Crofts, F. W.	2014	17. Lloyd, O. E. P.	1495
3. Young, P. G.	1928	18. Smith, R. B.	1495
4. Beamish, R. T.	1851	19. McLaughlin, H. J.	1480
5. Lundy, A. C. J. R.	1775	20. Grier, H.	1464
6. Parke, W. A.	1750	21. Leader, N.	1465
7. Green, A. P.	1764	22. Donovan, H. L.	1463
8. Kayne, C. A.	1755	23. Bell, G. W.	1445
9. Anderson, J.	1725	24. Conolly, J. V.	1387
10. Power, E. R.	1725	25. Lyle, A. A.	1380
11. Maguire, D.	1615	26. Clinch, J. V.	1378
12. Mulrenan, J.	1600	27. O'Neill, L. S.	1365
13. Pellaw, J.	1575	28. Charlton, H. A. H.	1353
14. Tidbury, J.	1550	29. Quarry, C.	1345
15. Reuth, J. J.	1515	30. Hayes, W.	1259

M.B. asks whether officers of the Army Medical Department who may wish to retire from the service in one or two years after joining, either owing to their finding it unsuitable for them or for other reasons, find any difficulty in doing so?

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, August 30th, 1877.

Edwardes, William Whitfield, Llansantffraid, Oswestry
Knox, Charles, Cloughton, Birkenhead
Stevenson, Walter Thomas, Snaith, Yorkshire

The following gentlemen also on the same day passed their primary professional examination.

Bridges, Ashley Colston, St. Mary's Hospital
Webster, Ridley Manning, Middlesex Hospital
Wright, Herbert Eilston, Guy's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

- AMERSHAM UNION—Medical Officer. Salary, £50 per annum, and fees. Applications on or before September 27th.
- BEDFORD GENERAL INFIRMARY—Resident Surgeon. Salary, £100 per annum, with board and lodging. Applications on or before September 27th.
- CARLISLE DISPENSARY—Junior House-Surgeon. Salary, £20 per annum, with apartments, coals, gas, and attendance.
- CITY OF LONDON LYING-IN HOSPITAL, City Road—Consulting Surgeon. Applications on or before September 18th.
- DENTAL HOSPITAL OF LONDON—Medical Tutor and Demonstrator of Dental Operations. Salary, £100 per annum to each of the offices. Applications to be made on or before September 15th.
- KENT AND CANTERBURY HOSPITAL—House Surgeon and Dispenser. Salary, £50 per annum, with board, lodging, and washing. Applications on or before September 21st.
- NANTWICH UNION—Medical Officer. Salary, £36 per annum and fees. Applications on or before September 12th.
- NORTH-EASTERN HOSPITAL FOR CHILDREN, Hackney Road—Physician. Applications on or before September 17th.
- NORTHUMBERLAND COUNTY LUNATIC ASYLUM—Assistant Medical Officer. Salary, £100 per annum, with furnished apartments, board, and washing. Applications on or before September 13th.
- ROYAL FREE HOSPITAL, Gray's Inn Road—Assistant Physician and Assistant Surgeon. Applications to be made on or before September 19th.
- ST. MARY'S HOSPITAL MEDICAL SCHOOL—Pathologist and Medical Tutor. Salary, £100 per annum. Applications on or before September 24th.
- ST. MATTHEW, Bethnal Green—Resident Medical Officer. Salary, £200 per annum, with board and residence. Applications on or before September 27th.
- WESTERN GENERAL DISPENSARY—Hon. Physician and Hon. Surgeon. Applications on or before September 18th.

BIRTHS, MARRIAGES, AND DEATHS.

The *Deaths* are taken from the names of Births, Marriages, and Deaths, as published, which should not be considered as final until the announcement.

MARRIAGE.

SHARPE, Fanny, on September 2nd, at St. Salvator's Church, Exeter, by the Rev. Canon H. D. S. (previously Canon of Exeter), M.D., the daughter of the late daughter of Capt. E. Bayly, Friars Lodge, Exeter.

LECTURES ON PHYSIOLOGY FOR LADIES.—Under the auspices of the Yorkshire Ladies' Council of Education, a course of sixteen lectures on Elementary Physiology will be delivered at Leeds by Dr. Edith Pechey. The introductory lecture by Miss Pechey was delivered on August 29th. At the conclusion of each lecture, tutorial instruction will be given to the lady students attending the class.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
THURSDAY...	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS Not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

INTENDED PROSECUTION OF A MEDICAL STUDENT IN GLASGOW.

IT may be remembered that some time ago we mentioned the existence of an outcry against the officials of the Glasgow Maternity Hospital, in relation to a woman who had been delivered of a child there. This case, known as the case of Flora McLean, has now been taken up by the authorities; and the house-surgeon, matron, and two of the nurses are to be subjected to a criminal prosecution. It has been felt that the house-surgeon, although not to be shielded from the due course of justice, ought to be supplied with the means of defending himself, and a subscription has been set on foot to enable him to employ proper counsel in his defence. The appeal has, we believe, been already responded to with considerable liberality by the medical profession in Glasgow and neighbourhood; and we are sure that if any who are acquainted with the case and have not yet subscribed see this notice, they will at once send a subscription to Dr. James Morton, Glasgow, the honorary treasurer of the fund. The subscriptions vary from five shillings to a guinea.

PROVIDENT DISPENSARIES, MEDICAL AID SOCIETIES OR CLUBS.

SIR,—Will you, or any of your readers and members, kindly inform me if there is anything like the above established, to give medical advice, medicine, etc., at home, or at a fixed place, without visiting? If so, I should like to know how they work and the particulars of working them, and my best way to commence starting one. Would it be unprofessional to send circulars? Being a young married medical man, suffering from an internal complaint, which has compelled me to give up my present practice, I am desirous of doing something, but it must be free from exertion and nightwork. I am going to reside in a seaside town, where there is no hospital or dispensary, so I thought something like the above might answer. What should be my conduct as regards the resident medical men; should I call on them on my arrival and state my intention, or not? I do not wish to work at variance with them. A reply in your next number will greatly oblige, yours truly,

A MEMBER.

** We are not at present aware of any analogous case to that of our correspondent. Such, however, may exist, and perhaps some of our readers will kindly inform us. We would decidedly recommend our correspondent to communicate on his arrival with the resident medical men and freely state to them his circumstances and intentions, and there is no doubt that he would meet with generous consideration.

VIVISECTION.

AT a meeting of the Midland Counties Veterinary Association, held at Wolverhampton, a discussion took place on the subject of vivisection. The practice was condemned as unnecessary for the purpose of ordinary surgical education; and, when practised for the purpose of scientific knowledge, the meeting was of opinion that the operation should be performed only by experienced professors, and that no animal should be operated on except under the influence of an anæsthetic.

MR. MASON (Pontypool).—It is scarcely possible to express a decided opinion on the ethical point in dispute, without knowing what the other side has to say. We would recommend our correspondent to again apply to the surgeon of whose conduct he complains for an explanation, and to inform us of the result.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

THE ANNUAL MUSEUM AT MANCHESTER.

The museum secretaries very much regret that one of Dr. Braidwood's microscopical slides has been lost during the recent meeting of the Association. The missing slide has a special value, inasmuch as one of the drawings which appeared in the JOURNAL was taken from it. The secretaries will feel much obliged to the other gentlemen who have exhibited microscopic sections, if they will look through their specimens to see whether the slide in question may not have got inadvertently into one of their boxes. Should any gentleman have the good fortune to meet with this slide (section of skin in scarlet fever), it will save time if he will return it direct to Dr. Braidwood, 35, Park Road South, Birkenhead.

NATIONAL FUNDS ASSURANCE ASSOCIATION.

SIR,—I have examined several lives for the National Funds Assurance Association (Limited), but have received no remittance of fees. The examination took place in July 1875. No reply has been received from my numerous applications for my account; but my last letter was returned, marked by the Post Office officials "Gone—no address". Can any of your correspondents give me any information as to the whereabouts of the Society?—I am, etc., S. C. R. A.

MEDICAL ETIQUETTE.

SIR,—Will you allow me to ask your opinion on the following point? A. is an old practitioner, and has attended a certain family for more than twenty years. The wife dies, and the widower marries again. In about six weeks after marriage, his second wife takes ill. A. is called in, and pronounces it a bilious attack, complicated with nervous disturbance. She gets better and then worse, and goes on in this way for a fortnight, when she wishes her medical attendant before marriage to be called in to consult with A. B. accordingly comes. The patient is taking effervescent salines for the sickness. B. changes the medicine to lemon-juice and potash. B. is asked to come with A. again in the morning. The husband meets A. and B. coming together in the morning, and says, "My wife requests that B. will not withdraw from the case". The patient is seen by both A. and B. A. feels that he has lost the confidence of the wife, perhaps of the husband too, although he used to be lavish in his expression of confidence in A. A. begs to withdraw under the circumstances, and B. keeps the case without any hesitation. Is he (B.) justified in so doing?—Yours faithfully, AN OLD SUBSCRIBER TO THE JOURNAL.

* The case in question is an instance of the treatment to which professional men are liable through the fickleness of their patients; and it is not easy to be always secure against such treatment. Still we think that B., if he were aware (as we suppose he was) of the length of time during which A. was the medical attendant of the family, should have remonstrated strongly against the displacement of A. in his favour.

M. D. (Queenstown) asks whether a member of the Apothecaries' Company of London is disentitled to hold the appointment of medical apothecary to a hospital or dispensary in Ireland. According to the Medical Act, he is qualified for the office; but the answer to our correspondent's question would depend on the existence in the hospital in question of rules limiting its officers to the holders of certain qualifications.

VITAL VALUE OF PLUGGING.

REFERRING to our note under this head at page 145 of the JOURNAL for August 4th, the gentleman concerned in the case in question writes as follows:—"If by *secundum artem* you mean that, as a general rule, a cut-throat should not be treated by 'plugging,' I freely admit the general appropriateness of your remarks; but the case in question was one of such an exceptional character, that I had no hesitation in adopting 'plugging,' because I saw at once that any other treatment would have been of no vital value."

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; etc.

** We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Paget, Cambridge; Dr. Macleod, Glasgow; Dr. George Johnson, London; Dr. J. Matthews Duncan, Edinburgh; Dr. M. A. Eason Wilkinson, Manchester; Mr. S. B. Mason, Pontypool; Mr. Richard Jeffreys, Chelmsford; Mr. G. H. Whidborne, Exeter; Dr. Thomson, Peterborough; Dr. R. H. S. Carpenter, London; Mr. J. B. Johnson, Highgate; Alpha; Dr. Francis Warner, London; The Secretary of Apothecaries' Hall; Dr. John Fegan, Belfast; The Registrar-General of England; Dr. McKendrick, Glasgow; M.D.; The Registrar-General of Ireland; W. W.; Dr. J. Milner Fothergill, London; A. W. D.; Dr. Wardell, Tunbridge Wells; R. M.; Dr. Alfred S. Taylor, London; Mr. Frederick Scott, Manchester; Our Edinburgh Correspondent; Dr. Goodhart, London; Mr. N. A. Humphreys, London; Dr. James Ross, Manchester; Dr. Heywood Smith, London; Dr. W. Fairlie Clarke, Southborough; Dr. Donovan, Leicester; Mr. H. Graham, London; Mr. W. H. Jalland, York; Dr. Collie, Homerton; Dr. J. W. Moore, Dublin; Dr. Joseph Bell, Edinburgh; B. D.; Forcups; Mr. Bennett May, Birmingham; Dr. J. G. Blake, Birmingham; Dr. Walters, Reigate; etc.

THE
FOUR APOSTLES OF SURGERY:
AN HISTORICAL SKETCH.

Being the Address at the Annual Meeting of the Glasgow and West of Scotland Branch of the British Medical Association.

By GEORGE H. B. MACLEOD, F.R.S.E.,

Surgeon in Ordinary to the Queen in Scotland; Regius Professor of Surgery, University of Glasgow; President of the Branch, etc.

GENTLEMEN,—My first duty, on taking this chair, is to acknowledge the honour you have done me in selecting me as your President. I need not say how much I appreciate this mark of your confidence, especially as this is but the second occasion on which you have exercised your right of choice. I regard your kindness the more highly, as I succeed a man so respected and honoured as Professor Allen Thomson. Having, first as a student and latterly as a colleague, come much into contact with Dr. Thomson, I can the more thoroughly value his commanding talents and high character, and I am sure you will heartily endorse the wish which I express that, in that retirement which, after his long career of distinguished usefulness, he is about to seek, he may enjoy for many years to come the affectionate regard of his large circle of friends. In electing him as our first President, we conferred on him the highest honour we had to bestow, and indicated to the British Association where they could find a worthy chairman. They have taken the hint, and, in choosing him, they have honoured our city and our Association.

Gentlemen, during the past year—the first of our individual existence as a Branch of the Medical Association—we have been almost wholly occupied in organising and consolidating our Society, and it is most gratifying to think that, mainly by the efforts of our energetic secretary, we, the youngest scion, are already the tenth most numerous Branch of the thirty-two which constitute the parent Association. I have every confidence that another year's operations will advance our position both in numbers and influence.

During the past winter, we had one meeting to discuss the provisions of the Habitual Drunkards Act; and, though I was unable to be present, I understand from others that that very important topic received the attention which its gravity deserved. It will be the duty of the Council to call you together if any question of vital interest to the profession occur during the coming year.

Gentlemen, it is my duty to address you on some subject of general interest; and, in the choice of a topic, I have been mainly guided by the desire to occupy some ground a little beyond the usual range of such undertakings, and to dwell on a subject which had especially occupied my own attention. I thought you might not be unwilling to pass for a short time beyond the horizon of every-day questions and renew your recollections of the larger field beyond; for I take it to be a good thing now and again to get out of the narrow valley in which all of us are daily labouring, and from a mountain-top to look back on the long and rugged path by which our profession has advanced. Every soldier in such a great battle as that in which we are individually bearing a humble part gains much by an occasional survey of the whole field, so that, by securing a comprehension of the general plan and the various positions occupied, he may the better be able to direct his personal efforts. I have determined, in the time at my disposal, to try to draw your attention, in a rapid sketch, to the chief influences or forces which have moulded our science, and to the history and place of those men who, by their genius and labours, have most powerfully aided its development. If I confine my remarks to that branch of medicine with which my own life has been chiefly occupied, it will be because I am most familiar with its history, and not from any belief that a broad distinction can or should be drawn between medicine and surgery properly so-called. Surgery is, I hold, medicine and something more. It is medicine with an additional arm.

That medicine, speaking generally, is a science of the greatest and most momentous consequence will be readily conceded by this assembly. That it is perhaps the oldest of all studies may be assumed; that, notwithstanding all the labour which has been bestowed upon its cultivation in times past, it has not yet reached perfection or acquired the position of one of the exact sciences, is simply due to its subject—matter and mind—both unstable, both ever varying, both complex and mys-

terious in their combination and reactions, both ever subject to endless influences from within and from without. It is, no doubt, from a want of due appreciation of this difficulty that even thoughtful men have cast discredit on medicine as a science, and that the great Lord Bacon spoke the phrase so often quoted that its labour had “been more in a circle than in progression”; for he adds: “I find much iteration but small addition.”

It is necessary to survey a large part of the road which medicine has travelled, and not to confine our review to a limited period, in order to understand aright the real progress which has been made, and to see that, with all the halting and turning aside, and even occasional retrogression, which have marked epochs of the history of our science, still there has been in truth a grand advance along the whole line. I have always thought that a careful study of medical history should form a portion of our professional training, so that men would know what had been done in the past, and avoid that painful “iteration” of which Bacon speaks, and thus, too, be better prepared to prosecute original research. Such knowledge would greatly diminish our professional discoveries and our literature. “Nescire quid antea quam natus sis acciderit, id est semper esse puerum” is as true of medicine as of history.

Every great epoch in the history of medicine has been signalised by the advent of a man of genius who has been the personification or summing-up of the spirit and doctrines which had been gradually growing, and to which he has given expression and embodiment; and, in most cases, the characteristic of such eras has been chiefly due to the bias given and the influence exercised by such men. Hippocrates, Galen, Ambroise Paré, and John Hunter were each the summation of centuries of work. They systematised and consolidated it so as to supply a new starting-point to the science they adorned; they brought to full maturity the fruit which had for long periods before their respective epochs been slowly ripening. It is my desire to explain and illustrate this thesis.

Little or nothing is known regarding medicine before the birth of Hippocrates, *i.e.*, B.C. 450. It is true that we have reason to suppose that, in India and China, a large amount of medical knowledge existed; and we know that the ancient Egyptians attained to a certain eminence in the art; but it was in the free and enlightened land of Greece—a country which, with its freshness and vigour, was then the perfect Eden of human intelligence—that medicine really took root and flourished. There, as in all primitive nations, medicine was intimately associated with, and subservient to, the religious rites, and the priests became its chief expounders. Long after Greece had lost her independence, the most celebrated physicians of the age were sons of her soil. In the gymnasia, where every art which could conduce to mental or, above all, to that bodily vigour and perfection which the Greeks so much admired was studied and practised, medicine naturally was much prized, and some of the most distinguished practitioners of the time—Galen among the rest—were surgeons to these establishments. There were two classes of practitioners in these institutions: the higher, called *Gymnastici*, attended to the numerous injuries which occurred; while an inferior set, termed *Aliptæ*, took charge of the frictions and lubrications so much employed, and which in time came to supplant as remedies all other appliances, and constituted the “*Iatroliptic*” medicines of later times. Diet and exercise formed a very important part of the remedies used by the ancient Greek physicians, and much space is given to the consideration, in their writings, of such therapeutics. In our own time, the fashionable hydropathic establishments are perhaps, on the whole, the nearest modern representatives of the gymnasia.

In the Greek schools of philosophy, again, where intellectual exercises sharpened the wits and expanded the mind, medicine was a favourite theme. In truth, medicine was then considered a branch of philosophy, and Aristotle expresses their close relationship when he says: “The philosopher should end in medicine and the physician commence with philosophy.”

Finally, in the poetic and fervid mythology of Greece, which embraced almost every object and force in Nature, and in which the gods were no longer the cold passive abstractions of the East, but the active, warm, and living personifications of perfect humanity, medicine was represented. Æsculapius was to the Greeks the type of the healing power of Nature. Sprung from the great sun-god Apollo, who daily spread a mantle of light and beauty over their happy land, they gave to him the epithets *Hæmæus* and *Panæus*, and called his temples *Asclepeions* in their honour. These temples continued to be the centres of the study and the practice of medicine down to the Christian era, and till the oracles were rendered mute by the spread of the new faith.

It was my good fortune, many years ago, to visit most of the more celebrated of the *Asclepeions*, and the temple of *Iatrosophia*.

ruins will never be effaced. I well remember my first glimpse of Cos when, after sailing for several days amidst the splendours of the Ægean, past Patmos, with its sacred memories of the aged apostle of the Apocalypse, and Samos, where Pythagoras was born, and close by many headlands and bays covered with the remains of places "famed in story", we at last anchored before the ruins of the great temple so long the leading medical school of antiquity, and the place where the venerable father of our science was born. The famous fountain, still called by the name of Hippocrates, is nearly all that remains of that once celebrated place. The groves and pillared porticos have long disappeared, and tangled weeds cover the prostrate fane. A short distance off, on a sunny slope, lay the rival temple of Cnidos, from which emanated the earliest medical writings, *The Cnidean Sentences*, while the renowned Halicarnassus was but a short way removed. It was in such lovely situations that the Greeks placed their great hospitals. They stood on high windy promontories, looking forth on a grand expanse of summer sea, like Cnidos and Cyrene; or sheltered in deep bays and surrounded by groves of fragrant orange and citron, like Cos, Smyrna, and Corinth; or secluded in wooded mountain-girt valleys, like Epidaurus and Pergamus, and Tricca and Tithorea. Everything which beautiful scenery and health-giving pure air could accomplish in restoring the sick was provided. Within the sacred enclosure, no dying person could enter nor parturient woman remain. A theatre, stadium, baths, medicinal waters, works of that divine "art" which was born in Greece, and music, which in these institutions was specially cultivated, were all supplied, in order to divest the mind of its sorrows, and give it confidence and hope. Within the dim and silent temple the solemn figure of the god sat enthroned. He held a staff in one hand and with the other rested on a serpent, which was the type of prudence and renovation, and which still continues the cherished emblem of our art. A dog, to represent fidelity and honesty, lay at his feet, and a cock, to indicate vigilance, was close by. The serpent was of a peculiar species alone found at Epidaurus, and it was kept alive in the temple. It was one of those that, in later times, the Romans, when in straits from epidemic disease, borrowed in order to secure the protection of the Greek God of Healing.

The sick who came to consult the god, having been purified and anointed, passed the night within the temple lying on the fleece of the ram they had sacrificed, and, in dreams or in solemn accents, they received instructions as to their ailments. The deceptions practised by the priests have been well satirised by Aristophanes and Aristides. The officials having alone the right of interpretation, and being far from ignorant, knew well how to give a fitting turn to the dream or other communication. A record was made on tablets of brass or stone of the cases treated and the remedies used, and thus in time a vast number of crude observations were accumulated. Surgical instruments and medicinal drugs being also shown in these temples, and operations performed, it is easy to understand how these establishments became in time medical schools.

Such was the position of affairs when, amidst the sacred mysteries of the temple at Cos, Hippocrates was born. His father being a priest, he was from childhood initiated into the learning and practice of the place. He in time ministered, as his forefathers had done, at the altar; but, applying his great genius and remarkable discernment to unravel the confused records of the temple, he generalised the information there hid, checking its teaching, no doubt, by his own personal observation and experience, and analysing and setting forth the principles which were involved till he produced those remarkable writings which are the foundations of our professional literature, and which, while they were the undisputed dogmas of medicine for many centuries, are still quoted with respectful regard. By him was laid in simple truth the foundations of that great temple of medical science of which we here to-day are humble students.

As in various other great epochs of the world's history, remarkable galaxies of men of genius have appeared contemporaneously or in close succession, so with Hippocrates came a great company of men eminent in many departments of human activity. In history, eloquence, poetry, philosophy, and art, work was done which the world still despairs to equal. Pericles the statesman, Socrates, Plato, Xenophon, Democritus, Herodotus, Thucydides, Sophocles, Æschylus, Aristophanes, Euripides, gave to philosophy, history, and poetry a foremost place; while Phidias and Praxiteles, Scopas and Polyclethus, gave life to marble, so that it was said to breathe. In painting, too, Apelles, a fellow-townsmen with Hippocrates, together with Zeuxis and Parrhasius, gave on canvas that warmth and beauty to the human figure which the marble denied. The world has never witnessed such an extraordinary concentration of intellectual glory, within so limited a period and in so small a country. Not the least eminent of these divine workers and thinkers was "the old sage of Cos". Doubtless, there has been ascribed to

him much insight into disease which, perhaps, he never possessed; but still his labours were many, and the fruit abundant. If his successors called him "divine", and Galen revered his writings as the voice of the Deity, it is no wonder that for two thousand years he should have ruled in the schools, and that his authoritative voice should still reach us. To our wider knowledge, much that he believed seems full of error, and even in some parts ridiculous; but, read by the light of his time, it is marvellous what glimpses he had of truth. He pursued medicine in the true spirit of the Baconian philosophy, relying on observation and experience as his guides. His descriptions of disease have ever been quoted as the perfection of terseness and of truth, while his well-known aphorisms have passed into every language. Where do men not repeat the solemn, almost desponding, opening phrase: "Life is short and art is long, the occasion fleeting, experience fallacious, and judgment difficult"?

Hippocrates specially studied that natural history of disease to which men in modern times attentively turn for guidance, and his great aim was to derive from such study a rational prognosis. He had great trust in the recuperative powers of the body, which he connected with those universally diffused forces of "Nature", which he saw tended, if undisturbed, to restore and repair. His "vis medicatrix" was the "anima mundi" of Pythagoras, and his great "physician of diseases". Not under the dominion of superstition, like many of his contemporaries, he avoided (as Hunter did) all foolish hypotheses and adhered to facts. In his remarks on diet and climate, he is particularly happy; and he did not consider it derogatory to give advice to his disciples even as to how to wear or dispose their robes, so as gracefully as well as effectually to do their duty.

It would be wholly beyond my purpose to dwell at present on the doctrines and teaching of Hippocrates; but I may remark that his views on the primitive elements (fire, air, water, and earth), and on the humours (black and yellow bile, blood, and phlegm), which so pervade his writings, together with his opinions on critical days and on that prognosis derived therefrom, which the Greek physicians looked on as the "crowning department of medical science", gave a complexion to the doctrines of the medical schools of which traces still continue in our phraseology, if not in our belief. On fractures and dislocations, and on many operations and instruments, he wrote most ably; and anticipated, as regards "immovable" apparatus and the treatment of club-foot without cutting the tendons, some practical points which have been ascribed erroneously to recent times. I would quote from the sayings of Hippocrates one sentiment before passing on. "Do not seek", he says to his followers, "either pomp or riches; heal gratuitously with the sole desire to secure esteem and gratitude. When you can, aid the poor man and the stranger, and, if you love mankind, you will love your art. If you are consulted about an affection, do not use long words, neither employ a studied or inflated discourse; for nothing more truly indicates incapacity as to imitate the empty buzzing of the hornet. In those diseases which allow of a choice of remedies, the instructed man will employ the simplest and most convenient as being the least liable to lead to error." Such sentiments are worthy of repetition in all times. The oath he administered to his pupils, too, breathes the same high unselfish spirit: "With purity and holiness I will pass my life and practise my art." This he himself did, and hence his unsullied reputation, and the veneration in which men held his name.

After the death of Hippocrates, came the reign of the philosophers who, disdaining the patient method pursued by him, thought to learn the science and practice of medicine by disputations and foolish speculations on theoretical questions. The temple practice was no longer a mystery, but known to a large circle, and medicine might have made a true advance if it had only been cultivated in a proper spirit. The Greek of that day sought knowledge in the discussions of the marketplace; but a comprehension of physic was not thus to be acquired. The various "sects" by which medicine was so long distracted thus arose. Rationalists or Dogmatists contended with Empirics and Methodists; Pneumatics, Gymnastics, and Eclectics had each their special shibboleth; and broke to atoms the concrete science which the labours of Hippocrates had welded. It would not be difficult to show that in our own day, without perhaps so distinct a classification, there are representatives of all these schools; and we all know that many of the terms and phrases we every day use took their origin from the doctrines of these disputers. Medical science was not advanced by their debates. In their dealings with medicine there was much activity, but almost no progress. Certain it is that the intellect was sharpened and acumen increased, but of substantial fruit the ingathering was small. Amidst this strife of tongues appeared a polished "litterateur" and undoubted gentleman—"the Cicero of Medicine"—Celsus. He must have been a man of remarkable application, as well as talent, if all the

works on so many and such discordant subjects as have been ascribed to him emanated from his pen. The precise time and place of his birth and of his death are equally unknown, so that critics have doubted his personality altogether, and thought that "Celsus" was a mere *nom de plume* used by many authors. There is much, however, in his descriptions which belies this, as the style, together with the vividness and the expressions, would imply the work of one man, and he a practical and experienced physician. I doubt not some here have, like myself, seen in the Museum at Naples many examples of surgical instruments exhumed from the buried cities, which not only illustrate in every particular his descriptions of them, but anticipate completely the shape and construction of some of our most useful modern inventions. Celsus describes, among many other operations, the autoplastic operation by sliding, commonly designated "the French"; and the opening up of the cavity of the nose, to apply remedies in *ozæna*, has come to the front within the last few weeks. "Infubulation", too, which he recommends to insure continence in both sexes, has, I understand, been re-invented and used for curing masturbation. Nothing can excel the description of "lithotomy on the gripe" given by Celsus (hence termed "Lithotomia Celsiana"). That method clearly prepared the way for Dupuytren's bilateral operation. Unquestionably, he used the ligature, though he speaks of applying it to "veins", which in his anatomy was not synonymous with the same word now. He tied both varicose veins and piles as in our own day; and he applied a ligature to vessels in recent wounds, tying them in two places and dividing the artery between. In his dissertations on hernia, ranula, suppression of urine, poisoned wounds, diseases of the eye and testes, he has foreshadowed not a few modern views. But my time will not allow any further remarks on a writer who was, at least, a most able encyclopædist, and gave an accurate account of the state of medical knowledge at the beginning of the Christian era. No work on medicine has been oftener re-edited or more esteemed than his *De Re Medicâ*.

For four centuries after Hippocrates, the sects ruled the medical world. Their teaching was summed up and closed by Galen, who lived in the second century. He it was who bound up the divisions, and restored our science—one and indivisible—to its proper dignity.

Let me here, however, for a moment pause to allude to a great school which, under the enlightened Ptolemys, did good work at Alexandria for nearly three centuries before Christ. Human anatomy was there born, and learned men came from the most distant parts to gaze on the human skeleton. Though the writings of Erasistratus and Herophilus have perished, their works remain in their discoveries and the example they showed. The division of nerves into motory and sensory was then made, and Cassius speaks of the decussation of those of the cranium, and explains thereby the seat of paralysis on the side opposite the lesion. Physiology, chemistry, botany, clinical medicine, and operative surgery were cultivated in the medical department of that great Museum which, supported by the State, was devoted to the liberal arts. There Euclid, Theocritus, Callimachus, Ammonius, and Dioscorides taught, and the catheter and lithotrite were invented. When the Romans, B.C. 30, added Egypt to their other conquests, and led all arts and sciences captive to the City of the Seven Hills, they found in the temples, porticos, library, gymnasia, and hippodrome of Alexandria much which excited their wonder and admiration.

Rome continued the mistress of the world till the end of the fifth century, and drew to herself the learning and the wealth of the nations; and if, in these later times and within this then insignificant island of the western sea, there has arisen a greater and further-reaching seat of empire than Rome could boast, there has certainly never elsewhere in the world's history been any centre to which the products, both mental and material, of the known earth were drawn as they then were to Rome. Galen flourished at the zenith of that remarkable period. Already the leaven of the Christian faith had begun to stir the whole polluted mass of the pagan world, and cause, as is usual from the seething of such antagonistic influences, a disturbing, if not calamitous, effect. The old order changed, yielding place to new; for God had fulfilled himself in a new way on the earth, and given an aim and object to human effort. Before Christ taught, the world was "like a vast body without a soul". True, the human conscience had never been without a witness; but men had sought vainly to discover the unknown God whom they were blindly prompted from within to serve. They sought Him in every natural object and phenomenon. Sun, moon, and stars, dawn and sunset, the blue sky overhead, and the oceans, rivers, and mountains, the trees and winds, the summer flowers and autumn fruits, the winter's frost and the whisper of spring in the woods, were clothed by them with sentient existence and received divine honours. Human heroes and abstract principles, and even vices

and diseases, were included in their long list of deities; but with all that "the world by wisdom knew not God". The philosophers had tried to discover the mystery of life in the universe, but were only perplexed by what seemed an inexplicable whirl of mind and matter coming from the unknown and passing on into darkness. Burdened with a feeling of hopeless impotence, they tried in vain to arrange the chaos; but they held no key to the enigma, no thread to guide them in the labyrinth. Christ alone could bridge over the gulf which divided humanity from God, and reconcile all contradictions, while he quenched with living water man's thirst for a knowledge of the infinite. Henceforth the religion of mere nature and sense was to give place to that of conscience and morality. In the earlier Christian ages, however, the effect of this great revolution on the whole field wherein its action was felt was in some sense disastrous; and medicine, following, as it necessarily did, the varying phases of intellectual activity, suffered proportionately. The miracles of the early church, putting aside as they did the ordinary laws of nature, gave rise to confusion rather than order in men's minds. Fantastic and incongruous developments of the new faith prevailed. The Gnostics, Cabalists, and Mystics of the early church exercised for centuries a pernicious influence. Amulets, charms, incantations, talismans, and many other superstitious and mischievous inventions, took the place of remedial agents. Many of the talismans were, as is well known, exquisite works of art; but not a few were most repulsive in their nature. The cure in any case was ascribed to them, and not to the drug or surgical appliance they accompanied. All the absurdities of astrology and magic were in full force, and decided the selection of remedies. Such choice, too, was sometimes founded on dreams, or in some supposed resemblance in shape or colour to the affected part or the leading sign of the disease. They were heating or cooling, drying or moistening, in their effects. More ridiculous still was the idea that by arithmetical or musical combinations could their efficacy be determined. The most complex prescriptions, too, were employed. The celebrated *theriacum*, so much sought after and valued, contained no fewer than sixty-six most heterogeneous and discordant ingredients. Such superstitious and unreasoning practice was not, be it remembered, confined to the ignorant laity, but controlled the proceedings of the most celebrated physicians. As late as the fifteenth century, cancer was treated in Italy by the excrement of young men fed on fresh-water crabs dried and powdered; and Carpe's celebrated human cerate for wounds, which he only divulged because he had been divinely commanded to do so, was composed of the scrapings of the head of a mummy digested in female milk.

On the other hand, Christianity gave us hospitals and other charitable institutions, from the new view which it inculcated of man's duty to his fellows. These hospitals replaced the *Asclepiens*, and attracted the services of the most noble matrons of the time. They were for the most part attached to religious houses, and were served by an order of priesthood named "Nosocomi", while the "Parabolani" were lay brothers.

But to return from this long digression: Galen was born at Pergamus and studied at Smyrna and Alexandria, afterwards serving as gymniasarch in his native city, and finally settling as a teacher of anatomy and surgery in Rome. Very numerous treatises were ascribed to him, on medicine and other subjects. His *Ars Medica*, which was the textbook of the schools for fifteen hundred years, gave a complete epitome of the medical knowledge of his day and of his own large experience, while his *Methodus Medendi*, written in his old age, was a summary of his latest views. Galen brought medicine again back to the true path, and pointed out to his successors the right road to advance. While Rome was growing in power, but scanty place was found for our craft. Slaves and freedmen alone practised, and the designation "physician" was a reproach. In the time of the later emperors, however, medicine had acquired a high place in the social scale. The heads of the profession were assigned a place and emoluments which have never been approached in any age or country. They ranked with the highest dignitaries, and received an annual state maintenance which has been reckoned as equal to £10,000. Medical education, too, both practical and theoretical, was carefully supervised, and licences to practise were given by examination. The preliminary training was in some respects of a high order, and the professional part occupied five years. The whole social life of the students was carefully looked after, and they were kept in strict discipline. Midwifery was almost wholly in the hands of females, and medicine and surgery knew no divorce.

Galen was a theist, and, in the celebrated passage denouncing those who would place the supreme good in their own will, he expresses his faith in these noble words: "I hold true piety to consist not in sacrificing to him hecatombs of bulls or burning incense of cassia, or of hundreds of fragrant ointments in his honour, but rather in ascertaining

for myself and in teaching to others something of his wisdom, his goodness, and his power."

From the time of Galen to the thirteenth century, we encounter no names of authority. They were all mere commentators bowing down servilely to the authority of Hippocrates and Galen, the then only two pillars of the medical edifice. Cælius Aurelianus, Antyllus, Heliodorus, Pliny the Elder, Aretæus, Paulus Ægineta, Alexander of Tralles, Aëtius, and Oribasius (he who found the Delphian oracle mute) were writers of note but of little originality.

[To be continued.]

ATROPIA AS A REMEDY FOR OPIUM-POISONING.*

By G. E. PAGET, M.D., F.R.S.,

Professor of Physic in the University of Cambridge.

THE manifest antagonism of morphia and atropia in some respects has naturally given rise to the hope that they would prove antidotal. In the only case in which I have tried morphia as a remedy for poisoning by atropia, the morphia seemed antidotal. The following case may be taken as an answer to the question whether atropia is of use as a remedy for poisoning by laudanum.

On December 2nd, 1874, a man and his four children were admitted into Addenbrooke's Hospital with symptoms of poisoning by laudanum, which had been given by the father to the children and himself. Some of them had been made to vomit when first discovered. Four of the five recovered, and their cases are no more interesting than other ordinary cases of opium-poisoning. The one who died was three years and a half old. He was admitted to the hospital at 1.30 P.M. The time at which he swallowed the laudanum is uncertain; it was probably about 11 A.M., or between that and 11.30 A.M. On his admission, he had a drowsy look, almost that of stupor. His pupils were very small. He was made to swallow large quantities of warm water; his fauces were tickled and vomiting was excited. The vomit had a faint, but quite distinguishable, odour of laudanum. He was then made to swallow large quantities of strong coffee, and much of this also was vomited.

After this, endeavours were made to keep him awake by compelling him to walk about, and by shaking and occasionally slapping him. Notwithstanding, the drowsiness was manifestly increasing. Therefore, at 2 P.M., 1-100th of a grain of sulphate of atropia in solution was injected under the skin at the epigastrium; and, as no benefit or any effect was apparent after ten minutes, 1-200th of a grain was similarly injected; thus making 3-200ths of a grain injected. After this, the influence of the atropia on the iris was gradually and plainly manifested. The pupils, which had been contracted to a pin's point before the administration of the atropia, gradually became largely dilated, and the dilatation after a time became so extreme that scarcely any iris could be seen. Nevertheless, the stupor went on increasing, and reached its highest degree while the pupils were largest.

About 3 P.M., he could be roused only for a few seconds at a time by the incessant and energetic employment of the various ordinary means. While he was in this heavy stupor, his arms were several times extended in tonic spasms, and his eyes now and then squinted divergently. About 3.30 P.M., his pupils being at this time dilated to an extraordinary degree, the stupor had deepened into coma. The respiratory efforts nearly ceased. Artificial respiration was then employed on Silvester's method, and the circulation was assisted by gentle friction of the feet and legs. At 4 P.M., the appearance of the child was almost death-like; his cheeks and lips were livid, his extremities becoming cold.

The artificial respiration was, however, persevered in incessantly. The pupils gradually recovered from their extreme dilatation, and, at 6 P.M., had regained an ordinary size. A little rattling was audible in the trachea. Under the idea that this might possibly have been due to some coffee that had been put into his mouth and not swallowed, he was held up by his feet for a few moments with his head hanging downwards. The tracheal *râle* was not removed by this operation, but he seemed a little roused by it. Soon after this, a slight improvement was noticed, the face assuming a less death-like appearance. The artificial respiration, which had been kept up incessantly for two hours and a half, was now intermitted occasionally for half a minute at a time. The holding him up by the feet, which had seemed of benefit by rousing him, was repeated about every quarter of an hour. On each occasion that this was done, there appeared a marked temporary improvement, and, on its third repetition, he opened his eyes and

looked about for a few seconds, though the tracheal *râle* did not cease. By the artificial respiration and the occasional inversion of the body, the improvement was maintained, and in the evening he began to be able to take beef-tea and milk, and afterwards, with the beef-tea and milk, small quantities of brandy were given, and he took about a drachm of it every two hours. Still more marked improvement followed this treatment. From about 3 A.M. till between 5 and 6, it was found safe to discontinue the artificial respiration for ten to fifteen minutes at a time and allow him to sleep. But, between 5 and 6 A.M., it was found more difficult to rouse him, and artificial respiration had again to be kept up continuously, except at the moment when nourishment was given. At 8 A.M., and on several occasions between this hour and 11, he seemed to be sinking, but rallied again under friction of the body and the energetic practice of the artificial respiration.

By 11 A.M., a decided improvement seemed established. Artificial respiration was discontinued, and he was allowed to sleep for half an hour at a time, when he was aroused to take nourishment and rid himself of the mucus, which still tended to accumulate in his trachea. A few mucous *râles* were at this time heard at the bases of the lungs. When roused, he was now able to answer "Yes" or "No" to questions, and twice he said he was "tired". He was now allowed to sleep undisturbed for an hour at a time.

He continued breathing quietly until about 1 P.M., when he awoke with his face very livid, and seemed in peril of instant suffocation. But he coughed vigorously, freed his trachea of a quantity of mucus, and then again breathed quietly. After this alarm, he was not allowed to sleep longer than half an hour at a time. But there seemed to be an increasing tendency to the accumulation of mucus, and the dyspnoea at times was urgent.

At 3.20 P.M., after a short sleep, he had again a violent struggle to get his breath, and this time the struggles were in vain. His face became very dusky. Artificial respiration was again employed; but, in spite of all efforts, he died in a few minutes. On *post mortem* examination, the lungs were found congested, but nothing else worthy of note.

The points of interest in the case are—1. The extraordinary extension of life by the diligent employment of artificial respiration after the condition of the patient had become apparently hopeless. The period from the taking of the poison was probably twenty-eight hours; that from the commencement of the treatment certainly twenty-six; that from the commencement of artificial respiration twenty-four hours. 2. The rousing of the child when he was held with his head downwards; the power of this in rousing him was well marked after all the ordinary means had ceased to have any effect. 3. The failure of the atropia to relieve the stupor, though manifesting its full influence on the iris. This was so plain that, even from the single case, we should be justified in inferring that (in a child at least, if not in all cases) atropia is useless as a remedy against opium-poisoning after the stupor has reached the degree at which the patient is incapable of standing. It seems to me more than probable that the expectations of atropia being a remedy against opium-poisoning will be wholly disappointed. But, if I try it again, I shall try it before the stupor has become well marked.

DOUBLE THROMBOSIS OF THE MIDDLE CEREBRAL ARTERIES, WITH AORTIC DISEASE, IN A CASE OF SYPHILIS.

By the late S. MARTYN, M.D., F.R.C.P.,

Senior Physician to the Bristol General Hospital; Lecturer on Pathology at the Medical School.

G. S., AGED 32, a printer, was admitted into the Bristol General Hospital on October 15th, 1875, under the care of Dr. Martyn, when the following notes were made by Dr. Imlay, the physician's assistant.

He had been ailing for ten days, and in bed one week. Five days ago, *i.e.*, after feeling poorly enough to lie in bed for two days, he appeared pretty well at night; but, next morning, was found by his friends in his present condition. For four days, therefore, his state had been this. He was hemiplegic on the right side, and there was entire loss of the power of speaking, while he understood well, and replied by signs. No cause was assigned, and there was no history of rheumatism. [Recently, however, he had been very irritable and nervous, and complained of weak memory and dimness of sight.]* The general state at present was one of much prostration. He was pale and damp, lying helplessly on his back. The temperature was

* Abstract of communication made to Cambridge and Huntingdon Branch.

† Informant from his employer, obtained afterwards.

98.8 deg. on the left side, and 99.2 deg. on the right or paralysed side. Facial paralysis was well marked, and, like the rest, on the right side; the mouth being drawn over to the left. He could not push out his tongue; loss of speech was complete; he could not inflate the cheek. Paralysis of the right arm and leg was complete, without rigidity, and in the leg there was loss of sensation also, and the foot was cold. The pulse was 100, full and hard, so that it could almost be rolled under the finger. Respirations 20. The tongue was dry and covered with dark brown fur. He had great difficulty in swallowing even a little milk from a spoon. The urine was passed involuntarily, but he could give warning. There was a syphilitic sore on the glans and several extensive cicatrices.

He was ordered iodide of potassium—five grains every four hours; the hair to be removed; the mouth to be mopped out with chlorinated soda; and to have castor-oil and enemata. The diet was ordered to consist of milk and beef-tea every two hours by spoon.

October 19th. There was no change. Constipation being severe, he was ordered an aloetic draught every morning, castor-oil, and enemata.

October 23rd. The back of the neck was blistered.

October 28th. The dose of iodide of potassium was doubled, and eggs were added to the diet.

October 30th. The blister was repeated.

November 2nd. The paralysis of the right face and arm was decidedly less and the tongue cleaner.

November 6th. He moved the right arm and hand with ease. He swallowed better. He was quite clear mentally, but very emotional, and cried at any expression of sympathy. The bowels were never moved without castor-oil, but not involuntarily. Bromide of potassium was added to his mixture.

November 13th. He became towards the evening suddenly worse, covered with profuse perspiration and very weak. Temperature 103.4 deg. He was ordered sinapisms, etc.

November 14th. He could not now move the left arm and leg, but was still conscious. Temperature 103 deg. Stimulating enemata were ordered and evaporating lotions; but he sank steadily during the two following days, and, on November 17th, died in the night.

Necropsy, November 18th, 1875.—On removing the skull-cap, a nodule of bone like a limpet-shell was found on the falx cerebri. In the circle of Willis, several spots of delicate and translucent atheroma were observed. Both middle cerebral arteries, at corresponding points, were opaque, enlarged, and blocked by thrombi. Both corpora striata presented spots of pinkish yellow creamy softening, each as large as a hazel-nut. Upon the upper surface of the cerebellum, there was a little lymph. The heart and its valves were healthy. The aorta presented many smooth, soft, and pink patches of "atheroma". The liver was fatty and adherent to a large and softened spleen.

REMARKS.—We may summarise the history of this fatal illness as follows. A young man of good health, robust frame, and excellent abilities, having been at the head of his department in a large firm, is, after a brief period of weak and irritable nervousness, with some loss of memory and dimness of sight, suddenly attacked with right hemiplegia of the face and limbs, the tongue being immovable and deglutition difficult. After a few weeks of considerable amendment, he is suddenly paralysed on the other side and dies. The lesion proves to be atheroma of the aorta, "nummular" in character, together with arteritis at the base, so marked in the middle cerebrals as to have resulted in narrowing, formation of thrombi, and consequent softening of both corpora striata in nearly equal degrees, producing necessarily a fatal result.

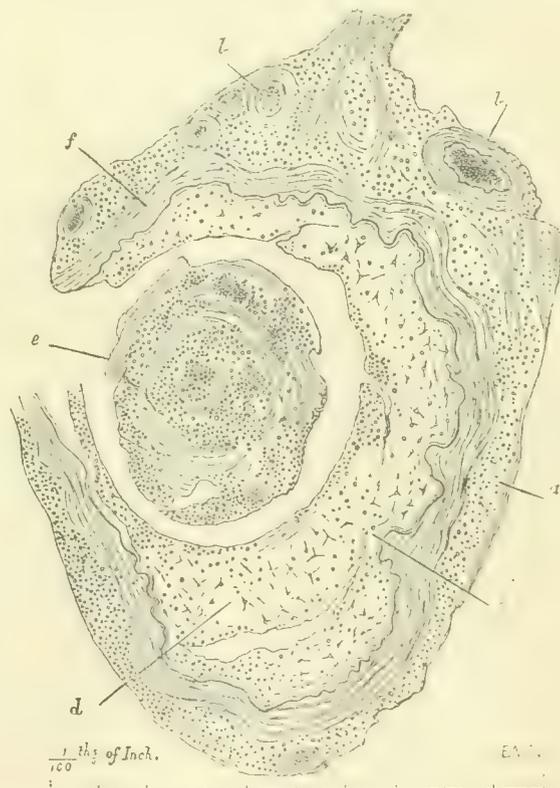
Much interest attached to the diagnosis and prognosis in this case. The sudden hemiplegia pointed to lesion of the motor tract far forward, and we diagnosed the mischief as being in that situation. But what lesion? Embolism seemed excluded by the absence of heart-disease or other embolic source; while a thrombotic occlusion was not very likely to have been almost immediately repeated on the corresponding artery of the opposite side. Syphilitic softening I did suspect; but, if so, why an absolutely sudden attack? The highly emotional state of the man, with a sort of hysterical twitching, led me to venture to predict irritation of the upper lobe of the cerebellum, and in that spot we did find a layer of plastic lymph, a concurrence which I had observed in several other cases. The only previous disease known had been severe syphilis, as shown by an open sore with surrounding cicatrices, for which, it came out, he had been recently fleeced to a large extent by a secret case quack.

It is difficult to avoid the belief that the arterial disease was syphilitic. In the aorta, the spots were smooth, nummular, puffy, and pink, none of them presenting the ordinary degenerate appearance so familiar in ordinary atheroma. In the cerebral vessels, the obstructed spots

were fusiform rings of hard connective tissue, a true periplus endoarteritis.

The Netley School of Observation, as is well known, maintains strongly the causal connection between arteritis and syphilis, even to the production of aneurism. Indirectly, our case supports this view; but, if the statement that aneurism is, amongst soldiers, eleven times as fatal as amongst civilians be near the truth, it is certain that syphilis can but furnish one factor to its production. Now, several toxæmic states are producers of arteritis, as, for example, the gouty, rheumatic, hepatic, or renal excrementitious, alcoholic, and syphilitic; besides which, in the known preference of atheroma for the points of arterial wall most exposed to mechanical violence from the circulating current, we have another instance of *causa causans*. Given the arteritic irritation from any toxæmia, with increased blood-pressure at its exacerbations, we may readily suppose that accidental temporary overtaxing of the circulation, such as is likely to occur more in the male sex, and especially in soldiers, is the remaining factor needful for production of aneurism.

The anatomy of our occluded middle cerebrals (as seen in the microscopical preparations) is that of "arteritis". The outer coat is thick-



ened to a nodular mass consisting of an indifferent small-celled growth. The inner coat is, however, also enormously thickened, and its layers split up by a mucoid basis, in which are imbedded the small and often stellate cells. These small cells sparingly infiltrate the muscular coat also.

This whole combination is very likely to be of syphilitic character; for, were we dealing with endoarteritis chronica deformans, the greatly diseased adventitia would be surprising, while in ordinary arteritis the inner coat would scarcely be the seat of myxomatous transformation.

Anatomists, as at the Pathological Society's discussion, ask for "peculiarities which should enable us to say what is (microscopically) and what has been syphilitic". For the present, we have no new morphological element to show, but we have a mode of growth which is very unique: we see a very local phenomenon, much production of cells in connective tissue, increase all round, sudden limitation of size, and rapid metamorphosis by cell-growth without corresponding vascularisation, so that a fatty or granular pulp occupies the centre of a fibro-myxomatous shell. These are some of the marks which combined go for a good deal to stamp a syphilitic...

named even excluding tubercle. The *clinique* of cases like the present is rendered difficult from the frequency with which gout, alcoholism, and syphilis are likely to be found in the same individual.

In conclusion, I would venture to suggest that mucoid infiltration of a thickened inner coat affords an explanation of the rapid improvement often seen in cases of occlusion. Just as external gummata disappear when painted with iodine, so, by absorption of the semifluid mucoid structure in the artery, it may unexpectedly again become patent to the blood-current.

CASES OF ASTHMA NERVOSUM, SUCCESSFULLY AND PERMANENTLY CURED WITH ARSENIC-INHALATIONS AND GALVANISATION OF THE PNEUMOGASTRIC NERVES.*

By ADOLPHE WAHLTUCH, M.D., L.R.C.P.Lond.,
Manchester.

WITHIN the last six years, seven cases of nervous asthma have come under my observation, and I believe them to be of sufficient interest to be recorded as illustrations of an obstinate and distressing disorder of a true nervous nature having been speedily relieved and permanently arrested by electricity and arsenic-inhalations.

CASE I.—W. M. of Prestwich, near Manchester, consulted me on October 26th, 1871. His age he stated to be twenty-three; he has enjoyed a liberal education and good living, his parents being wealthy merchants in the city. At fourteen, he had pneumonia, and since that time, now nine years, he was subject to frequent attacks of asthma. Lately, he had them every night. They generally came on him suddenly in the evening before bedtime, and lasted through the greater part of the night. The attacks commenced with a sudden feeling of suffocation, want of air, and great anxiety; and ended with coughing and sneezing, and with more or less of thick mucous discharge coming out through the mouth and nose. In daytime and in the interval between the attacks, he felt quite well, and his breathing was free and easy. He had tried various drugs, chiefly narcotics and antispasmodics, but without any good effect. He had frequently changed his residence; travelled and spent some time in France, Germany, Portugal, Italy, Switzerland; but nowhere felt benefited. At Heidelberg, he experienced some relief from the use of compressed air in the pneumatic chamber, and also felt better during a twelvemonths' stay at Lisbon. Whenever he returned home, the attacks came on in a more aggravated form.

My plan of treatment was the following. At first, I ordered a large dose of muriate of quinine (ten grains) to be taken every evening before the expected attack, which periodically reappeared at the same hour before bedtime. The result was a later outbreak of the attack, which awoke him after a few hours of sound sleep. I then ordered spray-inhalations of arsenic twice a day, and in gradually increasing doses, changing now and then the preparations. The following were used in succession: Arseniate of soda (one-sixth to one-half grain); arseniate of potash (Fowler's solution, half a drachm to a drachm); arseniate of ammonia (one-quarter to one-half grain). To the inhalation, I at first added tincture of *datura tatula*, but soon had to leave it out, as it produced symptoms of narcotic poisoning. The arsenic-inhalations were administered during the first two months twice a day; the third month, once a day; the fourth month, three times a week; the fifth month, twice a week; and after the fifth month, the inhalations were entirely discontinued. Considering my patient's disease to be of a nervous character, and believing the pneumogastric nerve to be the chief actor, I decided from the first to try also the effects of galvanisation. I selected the continuous current derived from Althaus's battery, with fifty small Smee's cells, of which I used at first five, and gradually and carefully increased to thirty cells. A wet sponge, dipped in tepid salt-water, and connected with either of the electrodes, was applied to the skin of the neck; that connected with the positive pole I put to the submaxillary fossa, along the inner edge of the sterno-cleido-mastoid muscle; and the other sponge, connected with the negative pole, I placed close to the trachea and near the sterno-clavicular articulation. I galvanised each *nervus vagus* separately from two to five minutes. Galvanisation was applied daily for six months.

The attacks at first changed the hour; instead of 7 P.M., they awoke him every day at 4 A.M., but were of a milder character. The attacks returned nightly from October 26th to November 3rd; then again, November 7th, 18th, 20th, 21st, and 25th; December 3rd, 15th,

and 29th; and lastly, January 17th, 1872. He continued the treatment till May, 1872, but had no more attacks since January 17th, 1872; and continues free from any asthmatic symptoms to this day, for more than five years and a half. He is actively engaged in business in Manchester, and frequently travels on the Continent; but continues to enjoy very good health in all seasons and climates. I am, therefore, justified in considering him permanently cured, and believe the chief remedial agents to have been the use of galvanism and arsenic inhalations.

CASE II.—T. W. K. of Bowdon, Cheshire, consulted me September 4th, 1872. He was engaged in the Manchester trade, and twenty-five years old. When a child, he frequently had croupous attacks. When fifteen, he had gastric fever, and subsequently pneumonia. Three years ago, he had slight pleurpneumonia, and since that time he had suffered from frequent attacks of dry nervous asthma. The attacks occurred at all times, but chiefly in the night. Crowded rooms, sea- or mountain-residence, any change of air, would bring on an attack. In the intervals, his breathing was free and easy, and he had no cough. After the attacks, he expectorated thick mucous discharge. His chest was broadly built; respiration was audible and clear all over the thorax; the percussion sound was normal; the cardiac sounds were clear; the uvula and epiglottis were large, but of a healthy appearance.

I ordered arseniate of soda inhalations, and applied daily the continuous current to both *nervi vagi*, in a similar manner to that described in the first case. The treatment continued during a month, he having had only one mild attack in the beginning. I saw him lately, and he told me that he had no attacks during nearly five years since I attended him.

CASE III.—T. St., a tailor, aged 38, consulted me in March 1874. He had had much mental trouble lately. For a month he had suffered from frequent attacks of sudden oppression in his chest, with shortness of breath, and a feeling of anxiety and distress, and ending with profuse perspiration. The duration of the attack was a quarter of an hour. Sleep was restless, digestion good, no cough. The application of galvanism to both *nervi vagi* alternately during five minutes, and a few inhalations of conium-spray, arrested the attacks, and after a month's treatment he felt quite well. I saw him again two years afterwards, and he reported himself free of any attack.

CASE IV.—On March 5th, 1876, early in the morning, I was suddenly called to attend Miss M. H., a teacher of music, aged 23. She had been subject for twelve years to frequent attacks of nervous asthma. Her father and younger sister in Germany are likewise subject to asthmatic attacks. She came over to England twelve months ago, expecting to derive benefit from the change of climate, but found herself to be as frequently attacked here as she used to be at home. I saw her just recovering from a severe morning attack, with short and quick respiration, all the cervical muscles in a contracted state, the face bluish, with sibilant *râles* all over the chest; she coughed and sneezed violently, expectorated thick mucous discharge, vomited and perspired profusely. She then felt exhausted and went to sleep, to awake in half an hour with free and easy breathing, and with no *râles* anywhere in the thorax.

I ordered spray-inhalations of marine salt with arsenic, and applied the continuous current to each pneumogastric nerve, from March 6th to August 19th, 1876; first month, every morning; second month, every other day; then only twice a week. During the treatment, she had an attack in April, another in July, and lastly three attacks, one daily, from 2nd to 5th of August, when she had catamenia. During the last twelve months, she has had no attack, and is now enjoying very good health.

CASE V.—Miss E. H. of Bowdon, Cheshire, aged 42, has been under my observation since June 1876. She suffered for eight years from severe attacks of nervous asthma, and is also subject to bronchial catarrh. She used to have frequently abscesses in the lower part of her back, but had none since August 1875. Has had ulcerated tonsils eighteen months ago. The asthmatic attacks came suddenly in her sleep, generally between 2.30 and 6 A.M.; but any exertion or a rich supper would bring them on. She has frequently pains in the back of her head and neck. Menses regular. Appetite moderate. Bowels sluggish. I saw her both during the attack and also in the intervals. Dry whistling *râles* could be heard everywhere during an attack; but in the interval, although the breathing was free and easy, moist *râles* were audible in the scapular region of the thorax. The attacks resembled those described in my other cases.

The treatment consisted in galvanisation of the *nervi vagi*, and in spray-inhalations, chiefly of arsenic, and also of various additions at different times, such as chloride of ammonium, tincture of *datura tatula*, ozonised sea-salt, salicylic acid, and cherry laurel-water. She had attacks June 30th, July 11th and 13th, September 15th, December 4th, 1876, and the last time, January 17th, 1877. She also had two attacks of acute bronchial catarrh in September 1876 and February 1877,

Read before the Medical Section at the Annual Meeting of the British Medical Association in Manchester, August 1877.

which I treated with Iceland-moss poultices applied to the whole thorax, and the internal administration of expectorants with belladonna; stopping inhalations and galvanisation during the bronchial affection. She is at present in a much better state of health than for years, and had no spasmodic attack since January last.

CASE VI.—Mrs. T. of Ashton-on-Lyne, aged 33, widow, consulted me in July 1876. She had a severe attack of capillary bronchitis a year ago, and had since been frequently a sufferer from nervous asthma with bronchial catarrh. She used, under my direction, spray-inhalations of ozonised sea-salt with arseniate of soda, and galvanisation of both *nervi vagi*, for a fortnight; and she discontinued the treatment as she felt much benefited, and promised to see me again whenever an asthmatic attack might occur, but I had no opportunity of seeing her any more.

CASE VII.—Mrs. E. C. of Altringham, Cheshire, aged 37, married and a mother of two children, had suffered for fourteen years from nervous asthma and chronic bronchial catarrh. Spray-inhalations of chloride of ammonia, arseniate of ammonia, and cherry-laurel water, and galvanisation of both pneumogastric nerves, used during a month, gave her great relief; but I lost sight of her after December 1876, as she left this neighbourhood, and had no opportunity of persevering with the treatment.

REMARKS.—The treatment of nervous asthma by galvanisation of the pneumogastric nerves, and also by spray-inhalations of arsenic, seem to me to be very efficient, as, of seven cases under my observation, five were permanently cured and two greatly benefited. Four of my patients suffered from nervous asthma only, and three had, in addition, bronchial catarrh. One case was also hereditary, her father and sister being subject to asthma nervosum.

Galvanisation has been used with brilliant success for the treatment of two cases of true nervous asthma by Dr. Althaus (*Treatise on Medical Electricity*, second edition, London, 1870, page 522); also by Dr. Benedikt of Vienna, in one case (*Electrotherapie*, Wien, 1868, page 309); and by Dr. Brunner of Warsaw, in four cases lately published (*Soverennaja Medicina*, Warsaw, 1877, Nos. 1-4).

Successful cures of nervous asthma have been effected with arsenic-inhalations by Dr. Wistinghausen (*Petersburger Medicinische Zeitschrift*, 1862, page 137), and also by Dr. Lewin (*Inhalationstherapie*, Berlin, 1865, pp. 443, 445).

I am of opinion that the two methods of treatment by galvanisation and inhalation may be safely combined, and ensure permanency in their beneficial effects.

NOTE ON FIBROID CHANGES IN THE LUNG AND THEIR RELATION TO SYPHILIS.

By JAMES F. GOODHART, M.D.,

Assistant-Physician to Guy's Hospital and the Evelina Hospital for Children.

IN the number of the BRITISH MEDICAL JOURNAL for September 1st, my friend Dr. A. B. Shepherd, in his Further Remarks on the Natural History of Consumption, alluding to syphilitic disease of the lung, says that the cases upon which I based my remarks at the Pathological Society do not agree with the descriptions of the very few cases quoted in his second Goulstonian lecture, and I may add they certainly do not. The subject is one which has lately been fully discussed, and I do not propose to enter upon it again any further than is necessary to explain any discrepancy that may seem to exist between the one class of cases and the other. But to do this is really necessary, as it seems to me; because, if further observations are to be conducted from Dr. Shepherd's standpoint, a large number of cases will receive no consideration, and the main question—Does syphilis affect the lung?—answered in the affirmative by him, is likely to be negated by others on his own cases. For instance, it is surely no unfair argument to say that if, in the hundreds of cases of syphilis that have been carefully observed and of which the *post mortem* appearances are now recorded, only four or five of peculiar lung-change have been found, the peculiarity of the disease is likely enough due to something other than the syphilitic poison. If no other disease than that be syphilitic, then it is, indeed, very doubtful whether that, from its rarity, can be considered syphilitic. But if others, taking a broader view of the matter, say that fibroid changes in large or small quantity are found in the lung in an undue proportion of the cases of lung-disease in syphilitics, Dr. Shepherd's position is thereby strengthened.

For what is this disease of the lung which is considered as characteristic of syphilis? It is, and I quote from the second Goulstonian lecture of last year (BRITISH MEDICAL JOURNAL, 1876, vol. i, p. 623), "a form very closely resembling that described by Dr. Sutton as

fibroid degeneration of the lung"; and Dr. Sutton closes his article in the *Medico-Chirurgical Transactions* by endorsing the remarks of Dr. Wilks, that this "is merely the extreme development of a morbid condition such as is every day seen in a less degree in phthisical lungs". In this frequently seen gradation between slight and advanced forms of disease, lies the whole strength of my position. The extreme form must have had some beginning; and how else could it begin than by some such changes as those described and exhibited at the Pathological Society? Dr. Shepherd seems to me to take an extreme condition as his type or standard, and to call nothing syphilitic till that extreme is reached. But what was the commencement of this change? Is it any the more syphilitic or characteristic of syphilis in having advanced so far? And should we not expect that, for one such case as this, many others of comparatively trivial disease or of some earlier stage would occur? Again, Dr. Shepherd writes: "The pathological change in this form is quite distinct from that—if I may use the term—accidental occurrence of syphilitic deposits, in which the lung, in common with other organs, reveals the presence of gummata of varying size and shape and in different stages of development." Then, again, referring to my cases, "They include mainly cases of gummata, gangrene, ordinary yellow deposits, with destruction of tissue or partial fibroid change".

But in what, it may be asked, does the difference between the two forms, as thus described, consist? A gumma is a local fibroid change—gangrene is its sequel when it occurs in such cases; and ordinary yellow deposits are found in both forms. Thus, the difference is merely one of degree, not of kind, and this conclusion is further supported by the analogy to be drawn from syphilitic disease in the liver. In the latter, as is of course known to everyone, the usual condition is one of local gummata; but, on examining many of these cases more closely, it is found that there is a spreading interstitial cellular growth (the early stage, in fact, of fibroid disease or cirrhosis) in a large part of the organ. Yet, a true syphilitic cirrhosis is far from common; nay, just as extreme disease of the lung, it is exceedingly rare. But there would, it seems to me, be just as much reason for calling the cirrhosis the essential or specific disease, and the local changes the accident, if we did not by this time know better, as for applying those terms to the changes in the lung. All the extreme changes in such a chronic disease must be rare, because in both cases other viscera become hampered and the patient dies in their course, or (if it be a well founded inference from our present data, that the earlier changes are due to syphilis) because they are arrested by medicines. Moreover, and this does not lessen the force of the evidence which exists in favour of syphilitic disease of the lung, such extreme cases as that recorded by Dr. Pye-Smith, for instance, where one lung was converted into a mass of fibroid tissue and no healthy tissue left, are really not due to the syphilis so much as to the position taken by the disease, and this is determined in most, if not all, cases by local conditions. In Dr. Pye-Smith's case, the general affection of the whole of one lung was due in great part, as I thought when making the *post mortem* examination, to the fact that there was very considerable narrowing of the main bronchus, and which may be presumed to have favoured some collapse. In like manner, other cases may be due to the thickening of the pleura, or effusion, and so on. But these are no characteristics of the syphilis; they are possessed in common by some tumours at the root of the lung and by some old pleuritis; though, if it be essential for its production that complex conditions must concur, the manifestation of a particular form of pathological change must be rare.

It was my great aim at the Pathological Society to strengthen the position of former observers in bringing up further evidence to show that the lung is no exception to the rule observed by syphilis in other viscera; and that in it, as in other parts, nodules, gummata, fibroid changes, cicatrices, or whatever they may be called, were not uncommon. My own sense of right conclusions will be satisfied, even if it be admitted generally, that syphilis modifies other forms of lung-inflammation and tends in them to the production of a fibrous form. Thus, if a syphilitic person get a catarrhal pneumonia or bronchitis from any cause whatever, its course is likely to be modified. I do not know that facts prove more for any other viscus than that. I doubt whether late syphilis has a predilection, so to speak, for any organ any more than I suppose that croupous pneumonia has a predilection for attacking the base of the lung. The outbreak is determined by strictly local conditions, and these are often made more apt by some local cause of inflammation. Thus, one man has his liver affected, another his brain, another his heart or large vessels, another his lungs or skin.

I never attempted to show that the partial fibroid changes were the same in outward appearance as the few recorded cases which alone Dr. Shepherd would call syphilitic. Rather the contrary; entrenching myself behind Dr. Wilks and Dr. Wilson Fox, I professed to be unable to distinguish decisively between chronic forms of tubercular disease

and these partial fibroid changes. But there are others who would not go thus far with me. Dr. Greenfield thinks that it is possible by histological investigation to say that some of these chronic indurations are syphilitic; and, if he be right, there is an end of the matter. I do, however, think that, in comparing the various chronic destructive diseases of the lung, we can say that some degree of fibroid change in the lung is more common in those lung-diseases associated than in those unassociated with syphilis; and that, without any improbability, we can mentally bridge over the gap between the lesser and the greater, and foreshadow the occasional occurrence of a change such as Dr. Shepherd pictures.

The really important point of this question, however, is this, and so far all must be at one. It is very necessary to recognise clinically as often as possible the form of disease from which a patient is suffering. If we limit our idea of lung-syphilis to that form described by Dr. Bämler, Dr. Shepherd, and others, we only find it occasionally, when it is a pathological curiosity, and I may add past cure. But if, on the other hand, we assume—and, in doing so, I repeat we are only assuming what from the course of disease in other viscera is probable, and what there is at all events some evidence to support, if not sufficient to prove—that fibroid changes in the lung are not uncommon in syphilis, we do throw light upon a class of cases where, with some indications of phthisis, the chief symptoms are those of bronchitis with emphysema, and in which, I believe, a great deal of good is occasionally done by iodide of potassium.

CASE OF PULMONARY STENOSIS WITH PATENT FORAMEN OVALE.

By ROBERT SAUNDBY, M.D. Edin.,

Pathologist to the General Hospital, Birmingham.

THE patient, a boy, W. W., aged 11 years, was admitted under the care of Dr. Wade on the evening of December 20th, 1876, in a very exhausted condition, with orthopnoea, aphonia, and œdema of the lower limbs. He had a constant teasing laryngeal cough, with mucous expectoration. Physical examination showed redness of the vocal chords; râles over both lungs; a double murmur at the base of the heart, heard best in the aortic area; and a systolic murmur at the apex. The urine was scanty, highly albuminous, and contained granular casts. There was no cyanosis; his face was white and puffy. His condition was not favourable for further examination, and he died on the morning of the 24th, less than four days after admission.

I obtained from his mother the following details of his personal and family history. His father is a healthy man, and has had no illness except jaundice. His mother, who follows the laborious occupation of a washerwoman, had rheumatic fever twenty years ago, but has had no symptoms or signs of cardiac affection. She has had several children, of whom none have been blue, but they are delicate. She always thought the deceased to be quite a healthy child up to the age of five years, when suddenly, without previous illness, he became paralysed on his right side, both limbs being affected; but his speech was unimpaired. He was under treatment at the Children's Hospital, and got better of the paralysis, but has ever since been ailing and has had a constant cough. During last year, he was an in-patient of the Homœopathic Hospital in this town, but got worse; and two months since, when he was removed, his legs were swelled. For twenty-four hours before his admission here, he was seized with an attack like croup, when he was seen by Mr. Baker, who advised his removal to this hospital. He had never looked blue at any time.

NECROPSY.—The integuments generally were pale. There was œdema of the lower limbs. The head was not opened. The larynx showed traces of recent catarrhal inflammation. Both lungs were congested, and the lower lobes were hepatized. The liver was congested and fatty. The kidneys were congested; and, under the microscope, the tubules were seen to be stuffed with fatty epithelium. The spleen, stomach, and intestines were healthy. The pericardium was distended with clear serum; the surface of the heart was smooth; the right cavities and the venæ cavæ were distended with recent clot; the aortic and pulmonic valves were tested, and found competent. On opening the right auricle, after removing the clot, it was found to be dilated. The foramen ovale was quite patent, and admitted a cylinder fifteen-sixteenths of an inch in diameter. The Eustachian valve was represented by only a narrow fold. The auricular appendix and the orifice of the coronary sinus were dilated, and the latter contained old clot; the tricuspid valve was healthy; the orifice admitted a cylinder one inch in diameter. The pulmonary orifice was small, the segments being adherent, so as to form a ring admitting a cylinder only six-

sixteenths of an inch in diameter. The valve was very little thickened; above it, in the pulmonary artery, there were numerous warty vegetations on the lining membrane. The ductus arteriosus was, I believe, quite closed; but its condition at the time was not noted. The right ventricle was dilated and hypertrophied. The left auricle and ventricle were empty, and appeared healthy. The mitral orifice admitted a cylinder thirteen-sixteenths of an inch in diameter; and the aortic orifice, measured in the same manner, was nine-sixteenths of an inch in diameter.

REMARKS.—The stenosis of the pulmonary orifice was considerable. According to Dr. Wilks's tables, the pulmonary orifice should be one-eighth larger than the aortic opening; but the measurements given show it to have been one-third less. Moreover, the foramen ovale was so large, and the tension in the pulmonary veins so diminished, that blood, in all probability, passed through in considerable quantities. Much unoxidised blood, no doubt, passed into the systemic circulation; yet none of these coincident phenomena at any time caused cyanosis. It is now generally admitted that simple admixture of venous with arterial blood will not produce cyanosis. Brescher's case, quoted by Rokitsansky (Sydenham Society, vol. iv, p. 248), of the subclavian artery of the left side arising from the pulmonary artery without causing anomalous colouration of the limb, is sufficient to disprove the hypothesis; and the case reported by Dr. Peacock (*Med.-Chir. Trans.*, 1849), in which a perforated septum divided the conus arteriosus from the right ventricle and caused considerable obstruction and cyanosis, although the auricular and ventricular septa were intact, shows that such admixture is not even a necessary factor in the production of this phenomenon. According to Rokitsansky (*ibid.*, p. 343), cyanosis "depends upon an obstruction in the passage of the venous blood into the heart, and upon an overcharging of the venous system, which is either transient or habitual, according to the circumstances of the case, and induces a corresponding repletion of the capillaries". Thus stated, the proposition is too general, and lacks the definiteness requisite for its application to those cases, which are called cyanosis proper. Rheumatic affections of the auriculo-ventricular valves never produce cyanosis to such an extent as to deserve the name of morbus ceruleus. Niemeyer justly observes in a note (*Text-Book of Pract. Med.*, vol. i, p. 369), "that the great cyanosis of persons with congenital malformation of the heart is due to an especial cause, becomes evident from the fact that individuals with congenital cyanosis do not become dropsical nearly so soon as those suffering from acquired cyanosis. This would not be the case if the cyanosis were due to venous engorgement". He finds this especial cause in the mixture of the blood and its consequent dark colour, or in the dark colour it acquires by the extreme retardation of the circulation, added to the venous obstruction. But the occurrence of cyanosis does not keep a definite relation to these causes; for mixture of the blood, slowness of the circulation, and venous obstruction may occur singly, or all combined, without producing cyanosis. Here, as a loophole for escape, we are told that cyanosis never occurs in anæmic or thin-blooded subjects. Certainly the children described by Dr. B. W. Foster (*Clin. Med.*, p. 35) as suffering from diarrhœa, ill fed and ill cared for, and of whom he says "the extreme poverty of the parents rendered the supply of the bare necessities of life often precarious", were, in all probability, anæmic and "thin-blooded"; yet they were marked examples of cyanosis.

The absence of cyanosis in the great majority of cases of venous obstruction compels us to seek for some more precise expression of the cause than the words quoted from Rokitsansky. As a rule, venous obstruction causes, not cyanosis, but œdema; and the exceptions are to be found in those cases where the obstruction is gradual and the vessels can accommodate themselves by dilatation and by gaining support from the condensation of their surrounding tissues. In the disease called cyanosis, the blueness is always most visible in those parts which, from their size, position, or anatomical peculiarities, are prone to turn blue under the influence of external cold. The vessels in these parts are easily dilated; the blood-current, from some cause, is naturally feeble, and stagnation easily occurs. We must bear in mind that blueness in these parts is not under any circumstances a true indication of the general condition of the capillary circulation. Most, if not all, of these cases of cardiac defect with cyanosis are congenital or acquired in early childhood, when the modifiability of structure is very great. The appearance of cyanosis depends upon the compensation being sufficient to allow the venous obstruction to do no more than cause dilatation and retardation of the current in the capillaries of certain peripheral parts. If the compensation be greater, no symptoms may be present until they are developed by the strains on the circulation entailed by the growth of the body or other causes. If the compensation be less, death ensues, or œdema occurs and the cyanosis is

masked. It is obvious that cyanosis *might* occur at any age; but it is easy to understand why it is so much more apt to occur in childhood, when the strain on the circulation is so small and the adaptability of the organism so great. The openings in the ventricular and auricular septa are important compensations, which permit the overgorged right heart to empty itself, and in this way reduce the pressure in the venous system. To this fact I attribute, in great part, the absence of cyanosis in the boy W. W.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

ST. BARTHOLOMEW'S HOSPITAL: SURGICAL CASES.

Scirrhus of the Breast.—A woman, thirty-seven years of age, was brought into the theatre for the removal of a scirrhous tumour. Mr. Savory, contrary to his usual practice, removed only a portion of the gland, leaving the nipple intact. The incisions were made in perfectly healthy tissue wide of the tumour. Catgut ligatures were used and cut short; silver sutures were employed to close the wound, and a pad of dry lint was placed over the breast. On examination of the parts removed, the skin over the tumour was seen to be retracted; on section, it cut with a crisp feel. The section was concave on the surface; the growth infiltrated the adjacent tissue, and was not incapsulated. The patient had herself strongly urged early operation, feeling sure the tumour was cancerous, as she was aware that four of her aunts on her father's side had died of cancer.

Aneurism of the External Iliac Artery.—A warehouseman, thirty years of age, apparently in good health, presented an aneurism of the external iliac, forming a tumour as large as a small orange just above the right groin. No determining cause was apparent; there were no signs of syphilis, and no disease was discovered in any other artery; the heart's sounds were healthy. As the tumour was rapidly increasing in size, on the second day after admission Mr. Savory exposed the external iliac artery by means of the usual incision. The vessel was found to be diseased and dilated for an inch above the aneurism; but, the upper portion being healthy, a thick silk ligature was here passed round the vessel, and both ends of the thread brought out through the wound. When seen on the fifteenth day after the operation, the tumour had shrunk to one-third its former size, and the wound was nearly healed, with but little suppuration along the track of the ligature. No complications have occurred, and the man is in all respects doing well.

Amputation of the Leg for Chronic Ulcer.—A woman under the care of Mr. Willett had suffered much pain from an extensive ulcer of the leg of four or five years' duration; and, six months ago, extensive and deep sloughing set in, completely "barking" the leg around its middle portion; this was attributed by the patient to the use of a carbolic acid lotion. The suffering had been so great that sleep could hardly be procured by the use of opium and other sedatives, and the destruction of tissue was so extensive that a cure appeared impossible. Amputation was performed at the upper third of the leg through healthy tissues, the femoral artery being commanded by a tourniquet; the anterior flap was cut very short, and the posterior one long. By this method, the bone gave more support to the soft parts, preventing their swaying about, and the line of union was brought well in front of the bone. Antiseptic precautions were used, the operation being performed under carbolic spray produced by hand-pressure, and, the sections being made through sound tissues, a favourable result was anticipated. In this case, there was no difficulty in securing the vessels, as there sometimes is near the interosseous membrane; catgut ligatures were employed and cut short; a drainage-tube was laid between the flaps, which were brought together by silver sutures.

Operation for Ganglion of the Wrist.—A man had been troubled four or five years by a ganglion of the wrist on the right arm, which prevented his grasping any object firmly. One portion of the ganglion was above the annular ligament, another in the palm of the hand. Mr. Marsh employed Esmarch's bloodless method, and performed the operation under the carbolic spray. An incision was made into the upper swelling; a little bursal fluid escaped, but none of the "seed-like bodies" often found; a drainage-tube was then inserted without a counter-opening. The arm was put upon a straight splint. Several

cases of ganglion have been thus treated lately with success. In all these operations, anæsthesia was produced by first administering nitrous oxide gas and then using ether.

Severe Injury to the Head.—A young woman under the care of Mr. Marsh was brought to the hospital after having been brutally hit on the head several times with a blunt axe; fifteen scalp-wounds had been inflicted, and three fractures were detected, besides several places at which the bone had been chipped out. She was unconscious for a few hours after the assault; but, notwithstanding the amount of injury inflicted, she has made a good recovery thus far, without the occurrence of any serious symptoms. Now (ten days after admission to the ward), all the wounds are suppurating freely; in one, pulsation is seen, evidently from communication with the brain; a scalp-abscess formed and has been opened. The patient is well enough to amuse herself by reading. A large poultice is applied to the whole head, and the woman is kept very quiet.

WARDS OF DR. BLACK.

Paraplegia, probably of Syphilitic Origin.—A confectioner, twenty-eight years of age, of generally healthy appearance, complained of great weakness of his legs, so that he could only just walk upstairs with assistance. His illness commenced four months ago with gradual loss of power in his legs, his arms remaining as strong as before. He had also been much troubled with vertigo when walking or attempting to walk. It was observed that, though the right pupil was widely dilated, the left was small and irregular, evidently the result of old iritis. He had been an in-patient eleven years before with venereal disease, and it appeared probable that syphilis was the cause of his paraplegia.

Addison's Disease.—A young man complained of vertigo, increased by any attempt to walk, frequent irregular vomiting, inability to obtain sound sleep, and some emaciation. His illness had come on gradually during some months, and had compelled him to leave his work. His complexion was very dark, but the conjunctivæ were unstained. The increased pigmentation was principally seen on the face and neck; no stainings were found on the mucous membrane of the mouth; this deep colouration had been acquired during the last year. His gums were very spongy and bled easily. There was no abdominal pain or tenderness, and the chest presented no abnormal physical signs. No family history of phthisis was obtained. The case appeared to be one of Addison's disease as yet only partially developed.

Rheumatic Pericarditis.—A lad convalescing from rheumatic fever presented one important sign of pericarditis; viz., a general heaving over the præcordial region and a diffuse wave-like impulse; the area of præcordial dulness was also much increased. Earlier in the illness, there had been a friction-sound, but this had passed away, probably owing to the occurrence of adhesions.

Rheumatic Fever accompanied by Jaundice.—A man had rheumatic fever in 1874 and again in 1875. He has now been ill eight days, and lies in bed with a dull depressed aspect; his manner is very languid; he complains much of pain in his back and joints; there is a considerable amount of arthritis, especially in the hands. Three days ago, he became jaundiced, and the colour is now of considerable depth. His temperature is nearly 102 deg. Fahr. The liver is slightly enlarged; but the exact cause of the jaundice is not apparent. The bowels have been opened by sulphate of magnesia, and he is taking a mixture of bicarbonate of potash.

Urgent Hæmoptysis.—A young man was brought to the hospital on account of a violent attack of hæmoptysis. He was not emaciated, and did not present the appearance of phthisis; but it was considered undesirable to employ the methods of physical examination, or to allow the patient to narrate his history, till the hæmorrhage had ceased. The diagnosis was deferred. The treatment employed was symptomatic; he was ordered to keep perfectly still in bed and suck ice.

A Case of Hyperpyrexia of Doubtful Origin.—A lad was carried into the hospital complaining of pain in his abdomen and left thigh. He spoke with some difficulty, being much exhausted by pain and want of sleep. He was evidently very ill; his temperature was 105.5 deg. Fahr.; pulse 144, and respirations 32 to the minute. His chest presented no signs of disease; the heart's action was forcible, but otherwise healthy. When perfectly still, there was no pain; but the upper part of the left thigh and left inguinal region were very tender, without redness or swelling. His illness had come on suddenly five days previous to admission. The case was evidently one of acute disease; his head was quite clear; there appeared no signs of any specific fever, and the disease appeared to be local in its origin. Examination showed no signs of hip-disease or of caries of the spine. A large poultice was ordered to be applied to the seat of pain; a dose of castor-oil was administered, to be followed by a Dover's powder.

DR. ANDREW'S WARDS: VISITED BY DR. DUCKWORTH.

Mediastinal Tumour.—A woman twenty-seven years of age had been in the hospital several times before, suffering from attacks of urgent dyspnoea on any attempt at movement. Her face was dusky and bloated, the neck full, respiration catching, and there was an occasional tendency to syncope. On physical examination, the pulses were found equal; the respiratory murmur over the right lung was much diminished, indicating probable pressure upon that bronchus; there was no dysphagia or other sign of concentric pressure; the pupils were equal. There was a large area of mediastinal dullness both back and front; the heart's impulse was felt outside the nipple-line, and a systolic *bruit* was heard towards the apex; the pulmonary second sound was accentuated, this being probably due to obstruction of the pulmonary circulation. There has lately been marked epigastric pulsation, probably due to distension of the right side of the heart. These symptoms appeared to be produced by a slowly growing mediastinal tumour; there were no definite indications as to its nature; there were no signs of syphilis, and probably it was malignant.

Erysipelas of the Face with Hyperpyrexia.—A woman with facial erysipelas, at the seventh day of the disease, presented a temperature varying between 105 deg. and 106 deg. Fahr. The urine was albuminous. The patient had been treated with tincture of perchloride of iron internally and cold sponging of the body. It was proposed to employ the tepid bath, should the temperature continue as high for another day.

TUNBRIDGE WELLS INFIRMARY.

AN UNUSUAL FORM OF CANCER.

(Under the care of Dr. WARDELL.)

FOR the report of the following case, we are indebted to Mr. CLELAND LAMMIMAN.

Alfred E., aged 6, was admitted into the Infirmary May 6th, 1876. On admission, the appearance of his face was very remarkable. The eyes were greatly protruded, their axes widely diverged; the corneæ of both were opaque, and the lids were tightly stretched over the globes. Beneath the eyes were two semi-fluctuating elevations which spread inwards, almost obliterating the protuberance of the nasal bones; the skin over them was brightly distended, and it looked thin and glistening, and covered a purplish substance beneath. The nasal apertures were filled with a mass of florid granulations which protruded from them, and from these a sanious corrosive discharge was constantly flowing over the face. The mouth was wide and gaping; the lips were covered with dry black sordes, which implicated nearly the whole depth of the labio-dental sulcus and plated over the incisor teeth. The tongue was dry and black, and was thrust back into the isthmus faucium by a fungous mass, which pulsated distinctly, and which at times was partially thrust out of the open mouth. This growth seemed to proceed from behind and to press forward the soft palate, which it also involved. The respiratory sounds were whistling, and the upper part of the pharynx seemed quite stopped up with this abnormal product. He took milk when it was given to him with avidity. He held the mug with both hands, and, with painful effort and gurgle, and after much exertion, he could drink but little. Not being able to articulate, he tried to convey to the nurse his desires by a guttural scream. He seemed to be quite deaf. The stench from the secreted discharge was of intolerable odour.

The growth first became apparent about four months previously, and had increased with wonderful rapidity. It was at the first supposed to be an abscess.

May 20th. Temperature 99.4 in the axilla. He still took liquid food. Respiration was carried on in revolutions gradually becoming shallower and shallower, until suddenly he made a long deep whistling inspiration.

May 25th. Temperature 101, morning; 102, evening. The fingers were always in the putrescent mouth. Lumps of fleshy substance were at times taken away, which left a horrid chasm with tags of sloughy material protruding from it. Portions of those lumps, seen under the microscope, exhibited all the characteristics of malignancy.

May 30th. He drank and breathed more easily. He had himself pulled out from his mouth large pieces of cancer, which he threw from him on the floor. The hæmorrhage had, in consequence, been profuse. The eyes were almost extruded from the sockets; the mass below seemed on the point of bursting. The features did not look human; and altogether he was a pitiable spectacle. Temperature 101, morning; 103, evening.

He lingered on until June 12th, his condition becoming more and more wretched, and the stench more loathsome.

Twenty-four hours after death, an inspection was made. The mass before described was found to be the ordinary cerebriform cancer. It filled the nasal fossæ; it had absorbed much of the surrounding bones; it filled the antra; it had almost obliterated the orbits; it spread into the sphenoid fissure, the bones being almost indistinguishable, and extended to the under surface of the anterior cerebral lobes. Downward, it blocked up the pharynx and the glottis. The parents would not allow the chest and abdomen to be opened.

REVIEWS AND NOTICES.

CLINICAL LECTURES ON DISEASES OF THE HEART AND AORTA.

By GEORGE BALFOUR, M.D., Physician to, and Lecturer on Clinical Medicine in, the Edinburgh Royal Infirmary. Pp. 428. London: J. and A. Churchill. 1876.

FOR many years, the physicians of the Royal Infirmary of Edinburgh have held a prominent position in relation to the diagnosis and treatment of diseases of the circulatory organs, and, in fact, stand unrivalled, even by those of Dublin, in their knowledge of these important diseases. Still some hesitation is experienced in accepting the following statement made by Dr. BALFOUR in this book: "The time is rapidly approaching when the knowledge of medical physics shall be so widespread as effectually to eliminate mere opinion at least from the diagnosis of diseases of the heart, an organ the condition of which we can ascertain in so many different ways that, with sufficient care, we can be almost as certain of the state of its orifices, at least during life, as if we had it on the dissecting-table." A careful perusal of the work will, however, make it clear that the diagnosis of affections of the heart, at least of valvular affections, has attained a high development in Edinburgh. The care bestowed in this work upon the diagnosis of the tricuspid lesions, not only regurgitation, but the rarer disease tricuspid obstruction, of mitral regurgitation, of the diseases evidenced by murmurs over the pulmonary area, "the region of romance", all testify to the capacity of the writer.

Unqualified praise cannot, however, be bestowed upon this work, which is of unequal merit. The writer omits the past history of our literature on diseases of the heart, and evinces an admirable familiarity with what has been done recently, especially in Germany. In his preface, he states that his is but "a limited purpose; it is to regard the diseases of the heart only in one point of view, *i.e.*, as they appear in the living man". The work hence lacks a great deal of the pathology of heart-disease, of its causes and of its progress, which is essentially necessary to form a text-book. For instance, fatty degeneration occupies but half a page thrown in almost accidentally amidst a dissertation upon the means of relieving angina pectoris; and what is said refers solely to its diagnosis, which is made unduly doubtful. There is no chapter devoted to hypertrophy or dilatation, and yet surely these modifications of nutrition are as important as, if not more so than, those changes in the valves whose outward indications are excellently described and discussed.

Again, Dr. Balfour's style makes his book harder reading than it might be. Thus, in speaking of the prognosis of mitral stenosis, he says what is most excellent in itself in a manner which detracts from its value: "But, whenever the right ventricle becomes affected with secondary dilatation, the prognosis becomes at once more serious, and all the more serious the earlier in life this takes place, because then the probability is greater that the stenosis dates from early youth, childhood, or infancy, and the earlier the probable date of the stenosis so much the more probable or certain is the presumption of hypoplasia of the aortic arterial system, and the existence of that along with dilatation of the right ventricle renders the prognosis most grave indeed, and at once reduces the expectation of life from many to only a few years—probably to not over two or three years, except under the most favourable and exceptional circumstances."

Dr. Balfour, too, has strong views opposed to what is held by other able writers on heart-disease. Thus Marey, Walshe, Hayden, and others, hold that the pulse of mitral stenosis is small and weak, but regular, Walshe even going so far as to say that stenosis regularises the irregular pulse of mitral regurgitation. Here it is written "extremely irregular action is almost pathognomonic of mitral stenosis". He also writes of gouty irregularity that, though it may be much relieved by treatment, a permanent cure is but rarely attained: a view not in consonance with what has recently been stated by other writers. Again, in speaking of the treatment of irregular heart, he says: "But bathing, particularly sea-bathing, must be shunned as dangerous, the shock being only too apt to produce, in such cases, spasm of the heart, cramp, as it is so often called, which is so instantaneously fatal that the patient

sinks, but is not drowned; he is dead before he sinks." Surely, to use the language of the late Dr. Hughes Bennett, "it is not cramp, but rather the want of it", which is the danger here. The death is due to spasm of the arterioles raising the blood-pressure in the arteries, and so obstructing the flow forward of the blood, with the palsying effect of cold upon the heart itself, a mass of blood chilled by the general contact with the cool surrounding fluid being sent into the cardiac chambers.

From this work being essentially clinical, it may be surmised that the treatment of heart-disease will receive its due and proper attention. A chapter is specially devoted to it, and is well worth perusal by every member of the profession. Probably digitalis has never, amidst all its advocates, found so doughty and unhesitating a supporter as Dr. Balfour. Even in aortic disease, where most men feel the need for caution, its use is strongly recommended; but evidently when the muscular walls are yielding, is regarded as the time for its use *par excellence*. His views on the treatment of heart-disease are sound and trustworthy, and ought to add to the advancing faith in the treatment of these maladies, to which much stimulus has been given in recent years. Like Dr. Wilks, the writer advocates the use of *copaiba* in cardiac dropsy after tapping or purging; but he stands alone in his advocacy of "raw onions", and it seems that even in Edinburgh the patients will not always take kindly to this medicinal agent.

The chapters devoted to the blood-vessels are good, and, as might be expected, that on aneurism is of high merit, especially as to treatment. The introduction of iodide of potassium for the relief of aneurism by the late Dr. Graves of Dublin has been followed out systematically by Dr. Balfour. He says that, after having treated a number of cases with this agent, with relief to the symptoms, and often with subsidence of the tumour: "These results are extremely encouraging; and, when we reflect upon the entire absence of any risk to the patient from the treatment, and the almost absolute certainty of relief to his sufferings, and prolongation of his life being at least attained, I think I am warranted in saying that no treatment for internal aneurism hitherto devised holds out anything like an equal prospect of relief, if not of cure, with that by the iodide of potassium". These views are in strict accord with those of the Dublin school, recently issued by Tufnell and Hayden.

In conclusion, we can say that this work of Dr. Balfour is not, as a consequence of its design, likely or suited to become a popular textbook for students and young practitioners. But, for those who have paid considerable attention to heart-matters, it will be found most interesting and instructive reading, and by such will be perused with real pleasure, especially as to the diagnosis of the confessedly more difficult and obscure valvular diseases of the heart.

A PRACTICAL TREATISE ON DISEASES OF THE SKIN. By LOUIS A. DUHRING, M.D. Philadelphia: Lippincott and Co. 1877.

DR. DUHRING is thoroughly versed in the teaching of the Vienna school of dermatology, has had experience of skin-diseases in Paris, London, and the United States, and has studied carefully and judiciously the modern literature of the subject to which he has devoted himself as a specialist. These combined qualifications have enabled him to produce a work which will at once take its place in English-speaking countries as a standard book. Within the 600 pages to which the volume extends, nearly everything that is known in relation to the diagnosis and treatment of skin-affections finds its place. Unavoidably also, in a work of this comprehensive character, a good deal is to be found in regard to pathology and treatment that is purely speculative. On the whole, we know no work which the busy practitioner who has to treat this troublesome class of diseases can consult with more advantage, and we cordially recommend it.

It is only fair to say that books like the present one, deriving all that is really fundamental from the classic work of Hebra, offer the most enduring testimony to the benefits which that distinguished man has conferred on medical science.

Treatises on skin-diseases generally begin by a classification, and each new author, as a rule, invents a new system. Dr. Duhring, we are glad to say, is an exception. He adopts Hebra's system, but yet not simply, the arrangement being "that of Hebra, modified". We could have wished that he had seen his way to adopt it pure and simple, were it only to have given the weight of his authority to the view that "systems" might be left alone for a time. When a great man introduces into medicine anything new, whether it is a classification of skin diseases or a method of treating wounds, the crowd of followers that spring up are sure to introduce "modifications", which, unfortunately, too often deserve another name. Neumann "simplified" Hebra's system by placing the erythemata amongst the "uncontagious

inflammations", cutting out the hyperæmic and anæmic classes, and throwing benign and malignant growths into "tumours". Abstractly something might be said for this, but at the same time the adoption of his system with these alterations justified Hebra's retort that it had not been simplified, but mutilated. Dr. Duhring lays himself open to the same criticism. Like Neumann, he has left out the condition of "anæmia" of the skin. This class was introduced by Hebra, not because an anæmic skin constitutes a specific disease, but because its recognition in various conditions is of practical importance. He has also rejected Hebra's division of new growths into those which are simple and those which are cancerous, a division which clinically and practically is perfectly justifiable. His rejection of the class of cutaneous ulcers makes it necessary for him to include scrofulous ulceration, described by him as scrofuloderma, amongst new growths. If either Neumann's or Duhring's system had preceded Hebra's they would have been useful, and therefore justifiable; coming after it, they may fairly enough be termed mutilations. Hebra's system, although probably not a final one, may be let alone until another and better one is found to take its place.

Amongst a good deal that is new in the book, we may instance a description of an affection observed and described by the author as *neuroma cutis*. It is produced by a growth on the nerves of the skin of numbers of small hard rounded tubercles. It is a very painful disease, of which yet only two cases have been recorded, one being seen by the author.

Good accounts are given of the syphiloderma pigmentosum of Hardy and Fournier, and of the pruritus hæmalis first described by Dr. Duhring, and since recognised by other dermatologists.

The diagnosis and management of eczema are admirably described. The details of the topical treatment introduced by Hebra are given fully and clearly, and formulæ are added for the best manner of preparing the most useful ointments and lotions. This chapter would alone render the book a valuable one. But Dr. Duhring goes far beyond Hebra in the extent to which internal remedies should be employed, recommending aperients, diuretics, alkalies, tonics, etc., according to the kind of case, in a much more general way than his master does. Indeed, all through the book there are strongly marked traces of a faith in drugs which, we fear, is more frequently held by the physician in the first decade of his practice than in the second.

Dr. Duhring describes as a specific disease an impetigo which is different from the pustular form of eczema to which that term was formerly applied. True pustules rise abruptly from the surface like the bullæ of pemphigus, and have no inflammatory base or permanent areola. "It is an affection confined for the most part to children, and is usually encountered between the ages of three and eight. As a rule, it occurs in stout, well-nourished, and healthy subjects, who, perhaps, have had little or no previous illness. It does not appear to be in any way connected with eczema: it is not apt to be associated with disorder of the stomach or of the bowels: it is not contagious." He distinguishes this affection from the impetigo contagiosa described by Dr. Tilbury Fox, the initial lesion of which is described as a vesicopustule, whilst in the impetigo in question it is a "perfect pustule". Thus we have impetiginous eczema, impetigo proper, and impetigo contagiosa, as three diseases specifically distinct. The subject is one that can hardly be considered exhausted by the chapter in this book, and we may venture to express a hope that Dr. Duhring may at some time give a more complete description, with illustrative cases.

A description of the condition described by Dr. Tilbury Fox as dysidrosis, and by Mr. Hutchinson as cheiro-pompholix, is given under the former title. Dr. Duhring states that he has seen the affection in several instances, but remarks that "it is quite rare in the United States, and that he has never encountered cases so extensively developed as those described by Dr. Fox". We must express our disappointment that fuller details are not given of the cases. Neither the pathology of this form of eruption, which is by no means uncommon with us, nor the best method of treating it, is definitely settled. It is to be hoped that Dr. Duhring will return to the subject, and assist in working out these problems.

Under the title morphea, we have as a synonym keloid of Addison, but Dr. Duhring distinguishes this disease from scleroderma. "Morphea differs from scleroderma in that its lesions are more or less circumscribed. . . . It also differs from scleroderma in the absence of the peculiar sclerodermic hardness." Observers in London need not have much doubt that the keloid of Addison, morphea (in the present sense as distinguished from a phase of leprosy), and scleroderma are one and the same disease. Cases to prove this abundantly are always forthcoming when wanted. The difficulties raised by these terms will in time disappear in America as more cases come under observation, where, however, Dr. Duhring's opinion would seem to be held by other derma-

tologists. We learn, for example, from the *Transactions* of the New York Dermatological Society, that Dr. Balkley showed a case of "morphea" which Dr. Piffani considered to be "a typical case of chronic scleroderma". It is almost to be regretted that the ten minutes under water which Lord Palmerston thought would alone cure the evils of Ireland cannot be used as a heroic remedy for the confusion produced in dermatology by nomenclature.

Alopecia areata is described as non-parasitic, and as due to "want of nerve force". The author seems to have overlooked Malassez's careful investigations, which have resulted in the discovery of small spherical bodies in the epidermis having the characters of vegetable spores. The views of the French observer have been adopted by Cornil and Ranvier, and are assuredly not to be passed over in silence. Nothing shows more clearly the uselessness of invoking want of "nerve-force" (the Mrs. Harris of modern physics) than the certainty that with the discovery of a fungus in the epidermis in or near the diseased patches the hypothesis would *ipso facto* fall to the ground, independently of the accuracy or the contrary of Malassez's views.

We have touched on some points that seem open to criticism, but a large part of the contents of the book deserves only commendation. It is clearly and simply written, admirably arranged, and provided with a very complete index. It will interest and instruct alike the student, the practitioner, and the specialist.

SELECTIONS FROM JOURNALS.

MEDICINE.

MULTIPLE LIPOMATA AFTER TYPHUS.—Wolzendorff describes, in the *Deutsche Zeitschrift für Chirurgie*, Band vii, the case of a countryman, aged 21, who had a severe attack of typhus from the middle of February to the end of March. In the beginning of April, he observed on the flexion surface of each forearm several easily compressible swellings of the size of hazel-nuts. Not only did these grow rather quickly, but fresh ones appeared almost daily on different parts of the body. In the middle of April, there were forty-two, of which sixteen were on the right and eleven on the left thigh. Their microscopic characters were those of lipoma. Their growth was at first rapid; it then ceased or became almost imperceptible. The author has not been able to find any record of similar cases, and leaves undecided the question of the influence of the typhus poison in their production.

ETIOLOGY OF TONSILLITIS.—Staff-surgeon Henry F. Norbury, R.N., of H.M.S. *Juno*, has contributed a paper on the subject of "Acute Tonsillitis Dependent on Atmospheric Fungi", to the last official *Report on the Health of the Navy*. Having frequently examined, microscopically, the air of the ship when she was in and on the other side of the Suez Canal, Mr. Norbury observed the presence of very numerous globose spores of fungi. These spores corresponded exactly with many found on yellowish white elevations that appeared on the tonsils of twelve men suffering at the time from all ordinary symptoms of acute tonsillitis. These globose spores were of well defined contour, varying in size from 1-1200th to 1-2000 of an inch in diameter, some of the larger possessing a yellowish tint. The filaments, whether of the fructification or mycelium, were simple, cylindrical, extremely slender, and colourless. The patients in question slept in different parts of the ship, and had no particular communication with each other on duty or otherwise, and hence it is remarked that they could not have contracted the disease from each other. The writer makes the following suggestions: "Whether the spores, having previously lighted upon the food, came into contact with the tonsils during deglutition, I am unable to state; but as, after a hard day's work in the tropics, men usually sleep heavily, and often with their mouths wide open, the affection was probably caused by prolonged inhalation of the spores, which found a cavity, the tissue of which was perhaps also relaxed by smoking, or otherwise temporarily impaired. No similar case of tonsillitis was seen prior to the appearance of the spores in the air."

SURGERY.

TREATMENT OF VARICES OF THE LEG. In No. 7 of the *Berliner Klinische Wochenschrift* for this year, M. Schede describes his method of applying the antiseptic method to the treatment of varicose veins. In the first place, a certain number of cases were treated by laying bare the dilated veins at numerous points in their course, then applying the ligatures, and dividing the vessel between them. Healing almost always took place by the first intention; but this method did not afford absolute security against the formation of new varices. There was so

little reaction, that in general no thrombus was formed. Schede then applied catgut ligatures subcutaneously, tying them first over a roll of Lister's antiseptic gauze, and afterwards over salicylized cotton; and removing them after two or three days. By means of these compresses, a greater extent of the dilated veins was obliterated. Finally, the compressing roll was replaced by a piece of India-rubber tube of the size of a finger, varying in length according to circumstances, and the ligatures, which were only loosely tied, were removed, half at the end of twelve, and half at the end of twenty-four hours. Recovery was complete at the end of eight days.

ACUTE PROGRESSIVE NEURITIS.—H. Eichhorst describes, in Virchow's *Archiv*, Band lxi, the case of a woman aged 66, who, after suffering some weeks from symptoms resembling those of quotidian fever, was suddenly seized with severe pain and paralysis of the left superficial peroneal nerve. The limb sweated, and felt warm, and the skin was red. Very soon, there was cutaneous anaesthesia; and in less than twenty-four hours the nerves and muscles ceased to respond to the induction-current. After a week had been passed without fever, the same symptoms appeared in almost all the nerves of the limbs in the following order. The deep peroneal nerve of the left side was attacked, then the left peroneal, and the crural and sciatic nerves along their whole course; the left forearm (the radial region first) then became affected, then the left arm, and finally the right upper limb. The paralysed limbs became oedematous, and hæmorrhages of the size of pins' heads appeared on the inner side of the forearm. After the disorder had continued two weeks, albuminuria set in; twenty-four hours before death, the patient became amaurotic (though nothing could be discovered by the ophthalmoscope) and unconscious; respiration became difficult, and coma and death followed. Beyond intense redness and hyperæmia of the optic commissure and nerves, nothing abnormal could be found in the brain or spinal cord, although a most careful microscopic examination of the anterior grey columns of the cord was made. The peripheral nerves could be seen with the naked eye to be the seat of diffuse and deep colouring with blood. On transverse section, the connective tissue within the nerve-trunks was found to be coloured; and the white colour of the nerve-medulla was replaced by a dirty red. Numerous white lymphoid elements were collected around the vessels. The greater number of the nerve-tubes were unaffected. The freedom of the central medullary substance approximates this case to Landry's form of so-called acute (ascending) paralysis. The rapid and total loss of irritability in the affected regions, the fever, the pain, the consecutive anaesthesia, and above all the characteristic *post mortem* appearances in the affected nerves, give the case a quite exceptional position, and justify the name, neuritis acuta progressiva, given by the author.—*Centralblatt für die Medicin. Wissensch.*, June 23rd.

PATHOLOGY.

LYMPHANGIOMA.—The hitherto scanty history of lymphangioma has been increased by the publication, in the *Archiv für Klinische Chirurgie*, vol. xx, by G. Wegner, of seven cases in which very careful microscopic examinations were made. He also examines the five cases of macroglossia described by H. Maas in the same journal, and concludes that in most cases this affection is a lymphangioma. He divides lymphangioma into simple, cavernous, and cystic. 1. By the term simple lymphangioma he understands a tumour, composed of lymph-spaces and lymphatic vessels, both capillary and of large calibre, generally forming an anastomosing network. The spaces are either filled with fluid contents which escape if the part be not handled carefully, or there are true lymph-thrombi. The latter are subject to a peculiar kind of secondary degeneration, in which the whole thrombus is broken down into a thick, fluid, colourless, waxy-looking substance, reminding one of the gelatinous change of the thyroid gland. Simple lymphangioma is a dilatation with hyperplasia of already existing lymphatics. Most cases of macroglossia and macrochilia belong to this class. 2. Cavernous lymphangioma consists of a trabecular work of connective tissue, having large spaces generally visible to the naked eye, communicating freely, and containing lymph. The lymphangioma of this class observed by Wegner were situated in the nipple, in the supra-clavicular region, in the forehead, and in the infraspinous region. 3. Cystoid lymphangioma is formed of a convolution of lymphatic vessels dilated into sacs and cysts; the communication of the cysts with the vessels being either entirely shut off or rendered very narrow. These three forms are not sharply defined, but there all possible transitions. Lymphangioma may be either congenital (macrochilia, hygrochilia, etc.) or hereditary; and the latter may not be developed until late in life. Their etiology is unknown. They occur almost exclusively in

the subcutaneous adipose tissue and in the fatty connective tissue around the large vessels, also in the submucous tissue; they grow either diffusely or as sharply defined tumours. The diagnosis is often first arrived at by exploratory puncture. Extirpation is indicated in most cases, and is usually successful, even when partial.—*Centralblatt für die Med. Wissenschaften*, July 21st.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

OZONIC OINTMENT AND OZONIC TOILET-VINEGAR.

THOSE enterprising manufacturing chemists, Messrs. Ferris and Co., of Bristol, have forwarded us samples of ozonic ointment and ozonic toilet-vinegar. The first-named preparation was originally introduced to the notice of the profession by Dr. Day of Geelong, who advises the use of it in scarlet fever, recommending that the whole surface of the body should be well rubbed with it three times a day, continuing this treatment for three weeks. Dr. Day claims for it many advantages in the treatment of this fever, and also in arresting its spread. We have found it useful in making *post mortem* examinations; for, when carefully rubbed on to the hands and under the nails, it powerfully aids in neutralising the offensive odour which clings to one when engaged in such duties. It will also be found most useful in the lying-in room, and we would particularly recommend this preparation to the attention of accoucheurs. As regards the ozonic toilet-vinegar, we have found it to be a most powerful and agreeable disinfectant. It can be used in washing the hands after *post mortem* examinations; and it will also be a great addition in every bedroom, and notably in sick-rooms, as it rapidly deodorises and disinfects vessels, etc., that have been used by the sick. Cloths dipped in this vinegar and hung up in the sick-room would render the atmosphere pure, and therefore more bracing. Messrs. Ferris and Co. prepare the ointment at 4s. the single pound, or seven-pound parcels at 3s. 6d. per pound. The toilet-vinegar is sold in 1s., 2s. 6d., and 4s. 6d. bottles.

LACTOPEPTINE.

MESSRS. CARNRICK, KIDDER, AND Co., pharmacists, of Great Russell Street Buildings, Great Russell Street, have forwarded us a preparation which has been introduced by them to the notice of the profession and the public under the above heading. The formula for it is sugar of milk, 4 ounces; pepsin, 8 ounces; pancreatine, 6 ounces; ptyalin or diastase, 4 drachms; lactic acid, 5 fluid drachms; hydrochloric acid, 5 fluid drachms. It is sold in the form of powders, in ounce bottles containing forty-eight two-grain doses, and can be readily taken after meals, in doses from ten to fifteen grains, either in wine or water. Being presented in a saccharated form, it is agreeable to the taste, and can therefore be administered to young children.

We have submitted this preparation to trial, and can confidently recommend it as a valuable medicinal agent in cases of imperfect or weakened digestion.

SUNDERLAND.—There were 4,409 births and 2,262 deaths registered in 1876, showing a birth-rate of 40.6 and a death-rate of 20.8 per 1,000 inhabitants, which was lower than usual. There were 662 deaths of infants under one year, which are equal to 15 deaths in each 100 births. The mortality under five years was high, having been 48.7 per cent. of the whole. The borough suffered severely from scarlet fever, 133 deaths occurring from this cause, 34 from typhoid fever, 42 from measles, and 141 from diarrhoea, making, with the deaths from typhus, diphtheria, and whooping-cough, 431 deaths, or 3.9 per 1,000 population. The greater part of the deaths from scarlatina occurred in the Monkwearmouth (colliery) district. A map is appended, showing the localities in which these diseases chiefly occurred, which is useful, especially if it be published annually. The system of scavenging has been improved during the year by collecting the house-refuse of an evening, because many of the houses have no back yards. Large quantities of meat unfit for food were seized; the slaughter-houses carefully looked after; the lodging-houses frequently inspected; and the sanitary work appears to have been well carried out. Dr. Yeld also thanks the medical profession for giving him early information of infectious diseases.

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 15TH, 1877.

THE RIVERS POLLUTION ACT.

THE year of grace which Parliament allowed before the provisions of the Rivers Pollution Act which refer to sewage matters could be put in force having now expired, and the Act being capable of enforcement in all its stringency, the Local Government Board have issued a circular on the subject for the purpose of bringing the Act formally under the notice of sanitary authorities, and of informing them what their powers and responsibilities under it are. This circular epitomises so well the principal provisions of the Act, that we may extract from it with advantage such information with regard to the scope and working of the new machinery for preventing the pollution of rivers as may be of general interest to our readers.

The Act contemplates four distinct categories of pollution. The first is the deposit in a river of any solid refuse or rubbish, whether it be in a putrid condition or not. This portion of the Act, which has been in operation for the last twelve months, is primarily directed against the obstructions to the flow of rivers which are frequently produced, especially in manufacturing districts, by throwing cinders and other solid manufacturing refuse into them. It deserves notice, however, as an illustration of the looseness with which the Act is drawn, that the solid matter must be the "refuse of any manufactory, manufacturing process, or quarry, or any other rubbish or cinders, or any other waste". The words which we have italicised seem to indicate that, if material were thrown into a river which could not be proved to be technically *waste*, for instance, earth, it would not come within the scope of this portion of the Act. Moreover, whatever be the quantity of solid matter deposited, no offence against the Act would be committed, unless it were shown by the prosecution that an obstruction to the flow of the stream had been caused thereby. The second and most important category of offences created by the Act consists in the introduction of solid or liquid sewage-matter into a stream. As the Act gives no definition of the term sewage, it must be left to the decision of the courts of law to determine what is to be understood by it. Practically, we apprehend that it may be taken to include all forms of *domestic* waste, as distinguished from the refuse of manufacturing operations, with which latter matters the other provisions of the Act deal. A very important question here arises, as to whether the refuse of animals is to be held to be sewage under all circumstances. For, if so, the Act will have a very important bearing on agricultural operations, especially as it is not necessary, in order to create an offence against it, that the sewage-matter should flow or fall directly into a stream. It is sufficient to constitute the illegality if it be ultimately "carried" there. The third series of provisions deals with "poisonous, noxious, or polluting liquid from any factory or manufacturing process"; and the fourth and last with the refuse of mining operations.

Although the Act will have a large bearing on the acts of the public individually, especially in rural districts, where streams are generally used by the occupiers of houses as carriers for refuse of all kinds, it is upon sanitary authorities themselves that its weight will chiefly fall,

since not only is the sanitary authority the body to whom the duty of enforcing the Act is delegated; but, as the body which is responsible for dealing with the collective sewage of any locality, it is responsible for so dealing with such sewage as not to allow it to pollute any stream, and it is liable to proceedings against it by any person who may be aggrieved by a neglect on its part of this duty, or by any neighbouring sanitary authority who may have a similar cause of complaint.

A very important distinction is drawn by the Act between sewage which is allowed to pass into a stream through a conduit either in actual existence or in course of construction at the time when the Act was passed, and through one which has been constructed since that date. In the former case, no penalty can be enforced if the defendant can show that the best practicable and available means are used to render the sewage harmless. Moreover, in this class of cases, the Local Government Board has been invested with the power of suspending the operation of the Act for a limited period, provided that they are satisfied that there is reasonable ground for so doing. Offenders whose works of construction have been made since the passing of the Act have no such *locus penitentiae* afforded them, except in the case of offences arising from the discharge into streams of the liquid refuse of manufactories, in which case proceedings under the Act cannot be commenced without the consent of the Local Government Board.

Much of the good intention of recent sanitary legislation has been minimised by the permissive nature of the duties with which sanitary authorities have been invested in regard to it. The same permissive feature characterises the responsibilities which devolve upon sanitary authorities under the Rivers Pollution Act, except in the case of mining or manufacturing pollutions, in which case, if a sanitary authority, on the application of any person interested, refuse to take proceedings, or to apply for the consent of the Local Government Board for that purpose, the person so interested may apply to the Board; and if they, on inquiry, be of opinion that the sanitary authority should take proceedings, they may give directions accordingly.

As the provisions of the Act are calculated to press very severely on manufacturers, sanitary authorities having sewers under their control are required to give facilities for enabling manufacturers within their districts to carry the liquids proceeding from their manufactories into such sewers. What these facilities are to be is not specified, nor does it seem very clear what a sanitary authority can do in such a case, where a sewer already exists, beyond what the law on this subject has already for some years prescribed. But, where no such sewer exists, there does not appear to be any compulsion on the local authority to provide one; and there is also a further provision that a local authority shall not be compelled to admit into its sewers any liquids which would "prejudicially affect them", or "would affect the disposal by sale, application to land, or otherwise", of the sewage matter conveyed along them, or which would, from its temperature or otherwise, be injurious in a sanitary point of view. Nor are the authority to be required to give such facilities where their sewers are only sufficient for the requirements of their district. The interpretation of some of these provisions is sufficiently open to differences of opinion to promise plenty of opportunity for legal contention when questions of this kind come to be adjudicated on, and we have no doubt that the Act will provide in this as well as in other respects abundant field for the labours of the gentlemen of the long robe. But, even when legal proceedings have been commenced, they may apparently be arrested at any stage by the large restraining power which the Act has granted for this purpose to the Local Government Board. This power will be exercised through the inspectors appointed by the board for this purpose, the first two of whom are Mr. Robert Rawlinson, C.B., and Dr. Angus Smith, F.R.S. If the inspectors in any case, no matter what may be

the nature of the pollution, grant a certificate that the defendant has adopted the best practicable means for rendering the polluting matter harmless, the court before which the case may be brought will be bound to accept the certificate as sufficient evidence of the fact; and we may assume that the prosecution would, as a necessary consequence, come to an end, though what effect such a certificate would have in the case of any action for damages is less evident. The certificate so given will continue in force for two years, at the expiration of which period it may be renewed for the like or a less period. The court before which offenders against the Act are to be brought is the county court having jurisdiction in the place where the offence is committed, and the powers of the court in regard to the prohibition of pollutions are practically as effective as are those which have been hitherto exercised by the Court of Chancery.

Such are the general provisions of an Act which inaugurates a new era both in public hygiene and in manufacturing economy. Its grasp is so comprehensive that it may be invoked by a sanitary authority to abolish that most common of all institutions in rural districts, a privy perched over a field-side ditch, or to prevent the same authority from allowing the collective drainage of a score of such privies from finding its way into the brook into which the ditch drains. The machinery by which the Act is to be put in force is exceedingly simple, and, though it would be too much to hope that any Act of Parliament could be worked without involving expensive litigation in cases in which important interests are involved, we have no hesitation in saying that the powers which the Local Government Board will be able to exercise through its inspectors will, if properly used, reduce litigation under the Act to the narrowest possible limits. Of the high fitness of the two gentlemen who have been appointed to this office for the important duties which they will be called upon to perform it is unnecessary for us to speak, and we feel satisfied that they will bring to their work not only the eminent scientific and technical knowledge which they in combination possess, but also the tact and discretion in the exercise of their large powers which their previous training has given them. That their appointments will be no sinecure may be safely assumed, and we shall look with interest for their reports on the cases which may come first before them, as indicating the general principles on which they will shape their policy.

THE PLAGUE.

SINCE we last had occasion to record the progress of plague in the East, a further development of the disease has occurred, which gives to its presence there an interest for Europe that the recent manifestations of the malady had not previously possessed. Indeed, it must now be admitted that the forecasts of Mr. Netten Radcliffe in this country, and at a later date of Dr. August Hirsch in Germany, of Europe being endangered by the reappearance of plague in Mesopotamia and in other parts of the East, are justified by the event. If private information that we have received should be verified, plague has even now passed the Russian frontier and shown itself in scattered instances in the Caucasus.

Earlier in the year, we had occasion to direct attention to a rumour of plague having appeared at Resht, in Persia. Resht is the capital of the province of Ghilan, and is situated south of the Caspian, at a distance of sixteen miles from the shore of that sea. It has an estimated population of fifty thousand souls, and is the principal market through which Russian goods find entry into Persia. Enzelli, a small port on the Caspian, is in fact the port of Resht; and it is in direct communication by steam-vessels with Baku, in the Caucasus, throughout the whole year, and with Astracan during several months. The rumour of plague in Resht came originally from Turkish sources, and naturally caused considerable uneasiness in Russia. A physician was at once despatched to the place by the Russian Government to make

inquiry on the spot; and he reported (his report being published in the Russian journals) that the disease which had given rise to the rumour of plague in Resht was an endemic fever complicated with buboes, and not plague. Notwithstanding this seemingly authoritative opinion, the rumour grew more and more consistent. The disease, whatever it might be, persisted; and, no longer confined to Resht, it showed itself in other parts of the province of Ghilan, and, as we are informed, cases occurred also in neighbouring parts of Transcaucasia. The Russian Government, now thoroughly alarmed, despatched a second medical commission to Resht, and peremptorily cut off direct communication between the port Enzelli and the ports of Baku and Astracan; placing military cordons also on the roads leading from Ghilan into the Caucasus. The report of the second Russian medical commission has not yet been received; but the reports of Ottoman sanitary physicians who have had the opportunity of studying recent plague in Bagdad, and have lately visited Resht, leave no reasonable doubt on the mind that plague is actually present in Resht and other localities of the province of Ghilan. It would appear, in fact, that the disease has been present in the province since May last, if not from an earlier date; and that not a week has passed without several deaths having occurred from it. At present, simply the facts of prevalence, and of an increasing prevalence, are known; for no official returns are made by the Persian authorities, and none are procurable.

Of the origin of this outbreak of plague in the province of Ghilan, nothing definite seems to have been ascertained. Popular rumour ascribes the outbreak to the carriage of the infection of the disease from Mesopotamia. This is quite possible, seeing that Resht lies upon one of the routes of traffic from the south of the Caspian to Bagdad, and that it is also a route favoured by Shiite pilgrims from the south-eastern shore of the Caspian, and from the Caucasus, in journeying to and fro through Mesopotamia when visiting the shrines at Nedjef and Kerbella. As yet, however, there does not appear to be any information of plague existing in any place intermediate between Resht and Bagdad, and it will be well to suspend judgment on the origin of the disease in Resht.

The development which plague underwent in Bagdad and its vicinity last year gave rise to a fear that the disease might undergo still further development there this year and spread largely into Persia. The disease has appeared in Persia, as above related; but, although it re-appeared and prevailed considerably in Bagdad, it does not seem to have been either so widely diffused or so fatal in that city as in 1876. In the last named year (1876), the deaths from plague in Bagdad officially recorded were about two thousand six hundred; in the present year (1877), the deaths officially recorded do not appear to have exceeded one thousand seven hundred. The disease, however, is reported to have shown itself higher up the river Tigris this year than in any previous year since its reappearance in Mesopotamia.

We shall probably have to wait until the end of the war before a clear account of the progress of plague in the present year within the Turkish dominions in Asia can be obtained. Meanwhile, the facts remain, that plague now exists on the frontiers of Europe, and that Russia has there entered into contention with a foe which may eventually prove to be less easily combated and more fatal than the Turks.

Since the foregoing was written, Dr. Tholozan, physician to the Shah of Persia, has communicated a paper to the Academy of Sciences, Paris, which gives certain additional facts as to the prevalence of plague in Northern Persia. According to Dr. Tholozan, there broke out in December 1876, in the villages of Shahroud, Jaferabad, and Dezedjo, province of Astrabad, near to the south-eastern corner of the Caspian, a disease characterised by inflammatory swellings in the groin, the armpits, and the ears. These swellings were accompanied by intense fever, headache, and mental derangement. Death followed on the second or fourth day. The mrlady, which was undoubtedly plague, lasted about a month, and disappeared at the end of January. The villages are out of the route of both pilgrims and caravans, and for more than two years none of the inhabitants had made the pil-

grimage to Mesopotamia. Shahroud is situated in a broad fine valley, without marshes, at an altitude of about 1,000 *mètres* above the level of the Black Sea. Dr. Tholozan states that all investigations, both at Shahroud and at Resht, have failed to discover any relation whatever between the outbreak of plague there and the outbreak in Mesopotamia; and he believes each outbreak to have been of local origin. He observes that the first cases of Resht were of a date when the disease was scarcely developed at Bagdad, and that neither pilgrims nor caravans from Mesopotamia had arrived at Resht. He fixes the time of commencement of the outbreak at Resht in the beginning of March: but information communicated to us makes it probable that neither the date of commencement nor the conditions under which the disease first showed itself at Resht have as yet been clearly ascertained; and it is to be remembered that this is the fourth year of prevalence of plague in Mesopotamia.

A CASE OF SUPPOSED POISONING.

A CASE has recently occurred at Devonport which has given rise to some important medico-legal questions. Among these, we may notice prescribing by druggists; the effects of opiates on infants; death from alleged narcotic poisoning, but subsequently proved to be from intussusception.

A child named Vogwell, six months old, had suffered from diarrhoea. The mother took it to a druggist; and he prescribed and supplied a mixture which at first caused sickness, but subsequently it appeared to make the child sleepy. The child, on awaking, seemed well and took food as usual. Other doses of the mixture were given, with the effect of causing sickness and sleepiness, but not of a prolonged or unnatural kind. The child died in about a week, the principal symptoms for some days before death being occasional diarrhoea, with violent and incessant vomiting.

Dr. Row, a physician who was called in shortly before death, stated at the inquest that he found the skin of the child pale and cold, the eyes sunken and glazed, and the pupils contracted. He could detect the smell of opium in the medicine, and he was inclined to look upon the case at that time as one of opiate-poisoning. This is the conclusion to which most medical men, under the circumstances, would probably have come.

Dr. Row was requested to make a *post mortem* examination for the inquest, and he gave thereon the following evidence. The body, when fully exposed, was that of a full-grown, well-nourished, fine child. There were no marks specially noticeable about the body, except those of decomposition. The usual examination was made, and all the organs were found healthy with one exception, which is a very remarkable one. The stomach and intestines were quite empty; but in the middle part of the small intestines, extending over three or four feet of their length, portions of the gut were run into one another in the form of intussusception. Considerable portions were thus sheathed, or telescoped into one another. Dr. Row stated that he never met with such a case before, nor ever heard of it in a child. It was most remarkable; and it is proof positive that it existed before the child's death and was the cause of the death. It was undoubtedly the natural result of disease.

But for this careful *post mortem* examination made by Dr. Row, the druggist who supplied the medicine might have been charged with poisoning. The symptoms were, however, quite in accordance with the appearances. Violent and incessant vomiting is one of the marked effects of intussusception, which is more common in children than Dr. Row supposes. Vomiting and diarrhoea no doubt led to death by exhaustion, as a result of this obstruction of the bowels. These are not symptoms met with in opiate-poisoning.

The druggist, who was examined at the inquest, fairly admitted that there was a small quantity of opium in the medicine; and, from his

evidence of the composition of the mixture, there was not enough to cause death, although, in our view, opium in any dose should not be given to infants of this age.

The case principally illustrates the great importance of *post mortem* examinations being made before an opinion is expressed respecting the cause of death. Dr. Row, much to his credit, here candidly admitted that he had found appearances in the body to account for death from natural causes, without reference to poison. We have known, on two occasions, erroneous charges of poisoning raised in which infants had really died from intussusception of the bowels.

THE JURISPRUDENCE OF APHASIA.

QUESTIONS of law are often likely to arise, as they have indeed already arisen, in connection with aphasia; and they are of a nature to give much trouble to practitioners. A recent lecture on the subject by M. Gallard of La Pitié presents some features of interest, which are summarised in M. Lucas-Championnière's *Journal de Médecine et d'Hygiène Publique*.

The greater number of aphasic persons have undergone a certain intellectual depression, dating from the attack; but nevertheless they preserve, in many cases, enough intelligence to express themselves by gestures when they cannot do so in writing, either because of paralysis of the right arm or because they have lost the power of expression. Such persons, however, have still enough intelligence and will to interest themselves in the carrying on of their affairs, and to take an active and useful part in them when they become able to make themselves sufficiently understood to get their injunctions obeyed. Often, however, in these cases, interested persons demand the sequestration of the estates of such "aphasiacs"; but this is only legally justifiable when the individual is in an habitual state of imbecility, dementia, or mania, either with or without lucid intervals. These conditions often do not exist in the aphasiac. The question was raised in this particular instance *à propos* of a case in which the patient, in spite of an enfeebled intelligence, had become capable of writing with the left hand. He could not, however, write if left to himself, and could only recopy what was written and set before him. But he did not recopy with indifference all that was set before him, and the expert physicians vainly tried to make him recopy a power of attorney or a will; while he willingly wrote any ordinary phrase or document which did not bind him to anything. This man, then, knew perfectly what he was doing; and the Société de Médecine Légale concluded that he possessed still enough intelligence and free will to be able to continue to enjoy his civil rights, the intellectual debility which he had suffered not appearing to be sufficient to justify what the French laws call an "interdiction". Nevertheless, the Society was of opinion that it would be desirable to impose on him "a judicial council", which should guarantee him against the dangers to which he would be exposed in the conduct of his affairs. The Tribunal of Avignon gave a decision in conformity with these conclusions. In this case, the patient made a holograph will, which was contested, but sustained by the court.

ARMY HOSPITAL CORPS WARRANT.

ROYAL Warrants for the guidance of the Army Medical Department have not always been subjects of congratulation, and it is with the greater pleasure that we express our cordial satisfaction with the regulations recently issued for the guidance of the Army Hospital Corps. In these, for the first time, the principle of unification has been fully recognised, and a fatal blow struck at that dual system of administration which could have been productive of nothing but confusion and discomfort. It is now arranged that the Director-General shall be vested with the supreme administrative charge of the Army Hospital Corps; and that, under him, officers of the medical department shall

have the absolute command of the officers, non-commissioned officers, and men of the hospital corps, as well as of the patients in hospitals. The only point of true discipline in which their authority is not supreme is in the matters of courts-martial, which must be dealt with by the military authorities; but all ordinary offences are settled by the medical commandant, and in his hands remain the men's defaulters' sheets for future reference. At the same time, the responsibilities of the medical officer in charge of large hospitals are lessened, by the appointment of officers of the Army Hospital Corps to act as quartermasters and take over the complicated detail and equipment of those institutions. All this is a move in the right direction, and cannot fail to give great satisfaction; and, when we are enabled to state that the military element at the head of the large military hospitals has also been swept away, we shall most gladly congratulate Whitehall Yard on having conferred a solid and lasting benefit on the members of the Army Medical Department.

OWING to an outbreak of yellow fever, the inhabitants of Fernandina, Florida, are leaving the place.

THE Session in the Hungarian Universities, in consequence of a regulation made two years ago, began on September 1st.

THE fresh term of the Laws of Health Class, in connection with the Midland Institute, Birmingham, was inaugurated on Monday by a free public lecture on Food, by Dr. W. Ogle, Medical Officer of Health for Hertfordshire.

THE next examination for the Certificate in Sanitary Science of the University of Cambridge will begin on October 2nd. Application for admission to this examination, which is open to all whose names are on the *Medical Register* of the United Kingdom, should be made to Professor Liveing, Cambridge, on or before September 18th.

THE working men of Richmond belonging to the various friendly societies of the neighbourhood have instituted among themselves a Hospital Sunday. A general meeting of the societies having been arranged for Sunday afternoon last, the offertories were devoted to the funds of the Richmond Infirmary. The sum of £20 was collected.

TH. HUSEMANN has, by boiling the iodide of methyl and methyl with nitrate of silver, produced two compounds—nitro-methane or nitro-ethane—both of which are stated, in comparatively small doses, to produce analgesia without affecting the heart's action. Thus far, the experiments have been made on animals only.

AN inspector from the Local Government Board has been making an inspection of the parish burial ground at Sedgely. He found the ground overcrowded to such a degree, that not only were human remains lying within a few inches of the surface, but in many cases corpses had been disturbed.

JESSE KEY appeared on remand last week at the Birmingham police court, in answer to a summons charging him with having contravened the Medical Act of 1870 by unlawfully, wilfully, and falsely pretending to be a physician. A copy of the *Medical Directory* for 1877 was produced, but it was held that the book could not be received in evidence; and, as the official *Medical Register* could not be produced, the summons was dismissed.

MADLIE, TIETJENS.

MADLIE, TIETJENS was tapped at Worthing last week. Considerable relief followed, and arrangements were made for her removal to London yesterday (Thursday) afternoon, which were carried out very satisfactorily. Mr. Harris of Worthing accompanied her; and very soon after her arrival Dr. Howell and Mr. Spencer Wells met him in consultation.

QUIS CUSTODIET?

AT the meeting of the Walsall Rural Sanitary Authority last week, it was reported that scarlet fever was very prevalent. The disease originated in the family of Dr. Cooke, one of the Board's medical officers, after their return from Brighton. It has since extended to several families.

HYGIENE OF BOARD SCHOOLS.

"THE result and fatality of preventable disease as a result of school-communication is appalling." This sentence from a recent American report on school hygiene is one with which all persons who have any knowledge of the facts will fully concur; and it is likely to continue to be applicable until a system of medical inspection is established in connection with our Board and National Schools. There is one direction in which school-managers might at once do something to limit these dangers; and that is, by instituting such inspection as shall insure that every child is properly protected by *efficient* vaccination-marks from the small-pox.

PECULIAR PEOPLE.

MR. C. C. LEWIS held an inquest at Plaistow last week on the body of George Dowsett, a child, the son of a working couple who belong to the sect called Peculiar People. The deceased suffered for some days from congestion of the brain and diarrhoea. The parents gave it brandy and arrowroot, but did not call in medical assistance, because, they told the coroner, "it was against their conscience, and they wished to trust to the Lord". They added that Daniel Tansley, a platelayer, one of the "elders" of the sect, attended, called upon the Lord on behalf of the child, and laid his hands upon it, but did not anoint it. The jury returned a verdict of "Death from natural causes"; but the coroner told the father he had had a narrow escape, and pointed out that people who wilfully neglected to call in medical aid might, in case of death, be charged with manslaughter.

INQUIRY AT AN INDUSTRIAL SCHOOL.

MR. W. L. DONALDSON, Deputy Coroner for Middlesex, resumed an inquiry last week at the North-Eastern Hospital for Children, relative to the death of Clara Jane Winter, aged 13, who, it was alleged, had been neglected and otherwise ill-treated whilst an inmate of the Cambridge Heath Industrial Schools. Mr. J. L. Jeans appeared for the London School Board, and Mr. Sims on behalf of the institution. Mary Allen said the deceased was her granddaughter. She last saw her alive on July 25th, at the Cambridge Heath Industrial Home. The deceased was then so weak that witness led her to a seat. The witness also noticed that her arms were very thin, and asked Miss Dunkinson, the matron, whether the child had received medical advice. Miss Dunkinson, in reply, said: "Oh, there is not much the matter with her; she does not require medicine; it is constitutional; she takes her food." The deceased complained that she could not eat the thick bread, and begged of witness to take her home, so that she might lie down. She pointed out a room in which she said her sister was a prisoner. Witness sought a second interview with the matron, and was refused, but received a message that if she wanted to make a complaint or remove the child she must see Mr. Lloyd, the honorary secretary. Witness said if the child could be removed to a hospital it should not be at the expense of the institution. If not allowed to take her away, her mother would apply for a magistrate's warrant. In answer to Mr. Sims, she said she was not aware that the deceased suffered from a deep seated disease, and denied that she was ill when sent to the home. The jury returned a verdict that "Death arose from tubercular meningitis of the membranes of the brain, consequent upon natural causes". To this was appended the following rider: "That the said jury further desire to add that Miss Dunkinson (the matron) and Mr. Defriez (the house-surgeon) were both guilty of gross negligence, the deceased having received no medical attention during the absence of Mr. Defriez from town; secondly, that Mr. Defriez was censurable for not having defined accurately the 'general nourishing diet'

prescribed by him; and thirdly, that Miss Dunkinson and Mr. Defriez were both reprehensible for neglecting to send the deceased sooner to the Children's Hospital."

A FRENCH SURGEON AND FRENCH SURGERY.

M. LUCAS-CHAMPIONNIÈRE, the one and, so far as we know, the only, faithful follower of Professor Lister's antiseptic method in Paris, has during the last two years obtained, under the most unfavourable circumstances, results which are of a character strikingly in contrast with the painfully bad results of operations to be seen generally in the Paris hospitals. M. Lucas-Championnière cites, in the last number of his excellent *Journal de Médecine Pratique*, two cases in which, while supplying the place of M. Péan at the Hôpital Lariboisière, he laid open the knee-joint by large incisions, obtaining recovery in both cases without suppuration and without loss of movement in the joint. Such a result ought to produce a very strong impression in Paris, for it may be doubted whether the oldest surgeon in the hospitals can show such a record of two successive cases as this young but carefully antiseptic operator was able to predict and to obtain by strict adherence to Mr. Lister's precepts and practice. The introduction of Mr. Lister's method in the Paris hospitals would be an immense boon and cause great saving of life. Union by first intention is still the exception rather than the rule; and, notwithstanding the learning and the ingenuity of the surgeons, the results are at present very far worse than in either England, Germany, or America; and at the present moment the results of French surgery are very far from being worthy either of the high abilities of French surgeons or of the traditional repute of the French school of medicine. Nor would it be difficult, if we were called upon, for us to point out the reasons why.

DRINKING-WATER AT HEALTH-RESORTS.

THE *Sanitary Record* has set on foot a very useful inquiry. It is an investigation of the water-supply of seaside watering-places. Mr. Wigner, who is undertaking the matter, has begun with Norfolk and Suffolk. He visited Hunstanton, Wells, Yarmouth, and Lowestoft; and his researches in some instances are noteworthy. Hunstanton water is fairly good, notwithstanding that "the colour was a dirty opaque yellow". This showed that the water wanted filtering; but it was free from animal contamination. Wells seems to be a very appropriate name for the little Norfolk town which bears it, for the water is derived entirely from wells; but, though well-water, it was anything but good. It is not absolutely dangerous, but "it must be condemned as totally unfit for domestic use". The report of Yarmouth water, both pump and public, is very unfavourable. The pumps, it is said, ought to be shut up, and the corporation ought to make the water-company improve their water. Lowestoft reservoir-water is fairly good; but that of the hotels, which is supplied by pumps, is contaminated by drainage and "is as bad as it is possible for drinking-water to be".

THE AIR OF TOWNS.

MR. BAXENDELL of Manchester has prepared some statistics of death-rates of great towns from respiratory diseases, which indicate the vast importance of a searching inquiry into the pollution of the air of towns and the means of guarding against the effects of noxious gases upon health. According to this authority, during the five years 1868-73, the average death-rate from diseases of the respiratory organs was 2.27 per 1,000 in Westmorland (one of the healthiest counties in England), and 2.51 in North Wales. For the whole of England and Wales, it was 3.54; for Salford, 5.12; and for the registration district of Manchester, 6.10. Taking, however, the township of Manchester alone, it appears that in 1874, the last for which returns have been published by the Registrar-General, the death-rate from these diseases amounted to 7.7, or three times the average of healthy districts, and more than double the general average for town and country districts, healthy and unhealthy. If, therefore, the rate could be reduced to the average for all England, there would be an annual saving of over seven hundred lives in Manchester alone. In 1873, the deaths in Westmorland from diseases

of the respiratory organs were 13.7 per cent. of the total deaths from all causes; in North Wales also, 13.7 per cent.; in all England and Wales, 17.2 per cent.; in Birmingham, 18.2; in Liverpool, 18.7; in Sheffield, 21.0; and in Manchester, 21.6 per cent.; but, excluding the out-townships, the rates in the township of Manchester alone amounted to 23.2 per cent. It appears, therefore, that Manchester suffers more from diseases of respiratory organs than any other town or city in England; and it may be safely affirmed that, if no means can be found of reducing the number of deaths from this class of diseases, it is hopeless to expect that any material improvement can be made in the general state of the public health, or any sensible reduction effected in the general death-rate of the city.

STREET-ACCIDENTS TO CHILDREN.

DR. SEPTIMUS GIBBON, the Medical Officer of Health of the Holborn District, in his recent report, expressed his satisfaction that the London School Board are, at the instance of the National Health Society, about to open their playgrounds more continuously and systematically for the purposes of recreation; and adds the hope that it may be found to have an effect in lessening the number of children run over in the streets. The sooner this experiment is tried, the better. At present, it is to be limited to twelve of the school-playgrounds. The Board, however, rather ungenerously propose to throw the burden of payment of superintendents of playgrounds upon the National Health Society; and we do not hear that even one playground has yet been opened.

HYDROPHOBIA.

NOT fewer than five cases of hydrophobia have been treated at one hospital—the London—this year. The alarming and increasing prevalence of hydrophobia in many of our great cities points to a necessity for more stringent regulation with a view to the arrest of the contagious disease of rabies in the dog. A first and very necessary precaution would be to require the owner of every dog to inscribe his name and address on the collar of such dog. We should then at once get, by elimination, a census of "masterless dogs", and should probably diminish the proportion of rabid loose dogs. Subsequently, further measures of precaution might, if necessary, be taken.

ARSENIC IN WALL-PAPERS AND DRESSES.

OF fifty samples of wall-paper recently examined by Professor A. P. Kerley, twelve were found to contain arsenic. The arsenic was present either as arsenite of copper or aceto-arsenite of copper. Two samples, not reported, which contained no green colour, were found to contain arsenic; and several papers with green figures contained no trace of arsenic. Six samples of green tarlatan, all that were tested, were found to contain large amounts of aceto-arsenite of copper. The higher the price paid, the more arsenic was found. The green colouring matter was held more firmly to the fabric by means of gum arabic and starch. From the results tabulated, it appears that a room sixteen feet square and nine feet high will have spread upon its walls, provided any of these papers are hung, from fifty-two grains to more than eight ounces of poisonous green colouring matter. We may also calculate that a green tarlatan dress of sixteen yards will contain nearly five and one-half ounces of this same dangerous "Paris Green". The remedy is simple: be careful not to buy such wall-papers or dresses.

CREMATION.

THE *Salt Lake Herald* of August 1st gives an account of the cremation of the remains of the late Dr. C. F. Winslow in that city on the preceding day, in pursuance of his direction that this should be the process adopted for disposing of his body. The deceased having been "a disbeliever in fixed forms of religion", there was no prayer or religious ceremonial. The time occupied was two hours and thirty-five minutes. The ashes were found to weigh four pounds four ounces; they were removed in a case, to be placed in the coffin of the wife of the deceased. During the burning, most offensive fumes were perceived at a distance

of fifty or sixty rods from the furnace. It is obvious in this case that a very imperfect and badly devised apparatus was used. With a Siemens furnace, no such fumes could escape, nor is there any source of offence.

SEIZURE OF PUTRID FISH.

THE officers of the Fishmongers' Company have, during the last month, seized not less than 58½ tons of diseased fish at and near Billingsgate Market. This large quantity included fish of all sorts; most of the stock had been brought up by water, but about one-third of the quantity arrived by train. In thus protecting the interests of the public, the Fishmongers' Company have distinguished themselves among the other City companies by zeal in a good work.

GOVERNMENT SANITARY INQUIRY AT GAINFORD.

A GOVERNMENT inquiry has been held at Gainford by Mr. John Thornhill Harrison relative to the drainage and water-supply of the village, at the instance of the Rev. Dr. Edleston, the vicar of the parish. The whole evidence adduced went to prove that the sources of water-supply from the wells in the village were polluted, and that no adequate system of drainage existed. It appears probable that the Local Government Board will apply for a mandamus to enforce the construction of new works.

THE HEALTH OF PRINCE BISMARCK.

PRINCE BISMARCK, when passing through Leipzig on his journey to Gastein, consulted Dr. Georgii, who at the present time holds the position of burgomaster of the town. It is stated that he complained of being still unable to apply himself with vigour to his work, and that whenever he has been at work for some hours during the day, he is unable to sleep for many nights afterwards. He added that he feels his health is exhausted, and that he desires nothing more than quietness and retirement.

OUTBREAK OF TYPHOID FEVER AT BARNESLEY.

A SERIOUS outbreak of typhoid fever has occurred at the colliery village of Hoyland, in the Barnsley Union, where already nearly twenty deaths have occurred. The disease has spread to some of the neighbouring villages, where deaths have also been reported. On account of the large amount of sickness in the neighbourhood, the elementary school in the town has been closed for the present. The epidemic has not come without warning; for months past, the medical officer of health has been urging on the authorities the necessity of improving the drainage of the town.

SMALL-POX AND VACCINATION.

WE have received a brief but valuable statistical document, in the form of an official report by Dr. Collie of the cases of small-pox admitted lately into the Homerton Fever Hospital. This hospital was opened for the receipt of small-pox cases on December 8th, 1876, and was closed on May 12th. In the interval, 915 cases of small-pox were admitted, of which 173 died. This gives a mortality of 18.8 per cent.; which, however, may be reduced to 16.7 per cent. by deducting twenty cases which were moribund on admission. Fifty other cases were admitted, of which four died. Analytical tables appended to the report show the relation between the state of vaccination and the mortality from variola. Of 131 unvaccinated persons, 70 died, or 53 per cent.: of these, 80 under the age of 16, and 19 above that age, had the disease in the confluent form, with a mortality of 49 (or 61.25 per cent.) among the former and 11 (or 57.9 per cent.) among the latter. Malignant small-pox occurred in ten of the cases, and was fatal in all; as indeed it was in the whole of 23 cases which occurred. Bad vaccination was noted in 396 cases, of which 91 or 23 per cent. died: of these, 53 under sixteen had confluent small-pox, and of these 18 died; while of 115 above that age who had the confluent disease, 47 died. The mortality exceeded 50 per cent. in 9 cases of confluent small-pox under sixteen "said to be vaccinated", of whom 5 died; and 22 cases of confluent

small-pox above sixteen presented "no evidence" of vaccination, of whom 13 died. As fairly vaccinated, are classed 388 cases; among which the mortality was 2.3 per cent. The numbers of marks were as follows: one, 98 cases—of these, 65 had discrete small-pox, 31 confluent (with 3 deaths), and 2 malignant (both fatal); two marks, 139—viz., 108 cases of discrete small-pox, 30 of confluent (1 fatal), and 1 of malignant (fatal); three marks, 87 cases—viz., 71 with discrete and 16 with confluent small-pox (no deaths); four marks, 37 cases—viz., 30 with discrete small-pox, 6 with confluent (1 fatal), and 1 malignant (fatal); five marks, 14—viz., 10 with discrete, and 4 with the confluent, form of the disease—none fatal. There were also three patients with six marks or more who had the discrete or mild form. Dr. Collie appends also a table giving a comparison of observations made in the epidemics of 1871 and 1877 by himself and Dr. Twining, showing that the mortality per cent. in cases with one vaccine cicatrix was 7.9, and in 1877 7.7; while in those with two cicatrices it was, in 1871, 4.8, and in 1877, 3.7. We make no further remark on these valuable statistics, than to commend them to the notice of both the supporters and the opponents of vaccination.

AMERICAN DERMATOLOGICAL ASSOCIATION.

WE have received a programme of the first annual meeting of the American Dermatological Association, which was to be held at the Cataract House, Niagara Falls, on the 4th, 5th, and 6th instant, under the presidency of Dr. James C. White of Boston. Dr. L. A. Duhring of Philadelphia and Dr. R. W. Taylor of New York are vice-presidents; and Dr. L. D. Bulkley of New York is secretary. The programme includes the titles of seventeen papers on diseases of the skin and syphilis, by Drs. White, Yandell, Bulkley, Duckworth (London), Duhring, Taylor, etc.

COMPLAINT AGAINST A CORONER.

A COMPLAINT has been made against Mr. William Carter, the coroner for East Surrey, on account of the delay in holding an inquest in East Moulsey until six days after death, with the result of great inconvenience to the friends of the deceased in deferring the interment. The matter has been brought under the notice of the Home Secretary, and affords another example of the necessity for reform with regard to the office of coroner. There are two coroners for the county of Surrey, each taking a separate district. It must be remembered that within the last ten years the population of this county has increased 31 per cent., and the number of inquests held has increased in a larger proportion. The most reasonable remedy for preventing delay in holding inquests appears to be the appointment of deputy coroners, who may assist when the work is most pressing. It is evident that, from a sanitary point of view, delay in holding inquests should be avoided.

SPAFIELDS BURIAL-GROUND AS A PUBLIC GARDEN.

A NEGOCIATION is being carried on between the Marquis of Northampton and the Works Committee of Clerkenwell respecting the proposal to lay out Spafields burial-ground as a place of public recreation for the benefit of the parish, and also to be used at certain times exclusively by the Volunteers as a drill-ground. If this scheme be carried out, a small portion of the ground will be fenced off as a playground for the children attending the Spafields Chapel Schools. It appears very desirable that all open spaces should be retained as recreation-grounds; and the provision of playgrounds for children is a matter of great importance to the healthful education of children. We hope the scheme will be successfully carried out by the Clerkenwell Board.

DR. BELL FLETCHER.

DR. BELL FLETCHER, the senior member of the honorary staff at the Birmingham General Hospital, has resigned office, and the Committee propose his appointment as consulting physician. A number of friends in Birmingham have further arranged to receive subscriptions towards the placing of his portrait amongst those of the many worthies that

already adorn the board-room of the hospital. A local paper remarks "that such a compliment is richly deserved, for Dr. Fletcher was elected physician in 1848, and ever since that time has served the institution, and has uniformly enjoyed the confidence and esteem of his colleagues on professional and personal grounds". Dr. Fletcher was one of the principal founders of a school in connection with the hospital, and has, indeed, done so much work in connection with it, and has obtained so much more than a local reputation, that he has amply deserved, as he has often received, the thanks and praise of his fellow-townsmen; and it is gratifying to find professional work so heartily appreciated.

POISONING OF A CHILD BY NICOTINE.

DR. THOMAS, deputy coroner for Central Middlesex, held an inquiry on Tuesday as to the death of Arthur George Stevens, aged 3, of Spencer Road, Highgate Rise, who, it was alleged, had died from nicotine, sucked from a foul wooden tobacco-pipe. The father said that on Saturday week deceased was playing in the yard with other children, who were blowing soap-bubbles. He gave deceased a new clay pipe, which he soon broke, and he returned for another. He then took down from a shelf, where it had been for more than a year, an old wooden pipe, which he washed and handed to deceased, observing that he would not break that. Deceased was quite well at that time. In an hour afterwards, he became sick, and vomited very much, afterwards becoming very drowsy and pale. On Sunday, he was worse; and castor-oil was administered, and he was put to bed. After a very bad night, he was much worse on Monday; and in the evening witness went to Dr. Rawlins's surgery for advice. The child, however, continued to grow worse, and died at ten on Wednesday evening. Dr. Rawlins of Highgate Road said deceased was suffering from narcotic poison when he first saw him. He was easily aroused, and could then answer questions. All the symptoms were consistent with narcotic poisoning from tobacco, and the death was undoubtedly from imbibing nicotine contained in the old wooden pipe which deceased had sucked. Two drops of pure nicotine would kill a man, and one drop would kill a large dog, and a very small quantity would be sufficient to kill a child. The deputy-coroner observed that this case should be a warning to smokers not to leave their old pipes about. A verdict in accordance with the medical evidence was returned.

DEATH OF DR. MEYRICK.

WE extract from the *Standard* the following notice of the lamented death of one of the English surgeons who have accompanied the Turkish army, and have ably sustained the reputation of the British medical profession for skill and humanity.

"A sudden and unexpected gloom has been cast over the English surgeons, who with such untiring devotion do their utmost to carry the humane intentions of British charity into effect. As hardworking, as tenderly compassionate for the wounded, as indifferent to danger, whenever such indifference could benefit the sufferers, as any of the surgeons who are doing their duty here at the front was Dr. Meyrick, who, together with Dr. Leslie, was the first man to reach the army of Reouf Pacha six weeks ago. They had been sent out by the National Aid Society. Dr. Meyrick was a young man of robust appearance and thoroughly healthy constitution. Accompanying Reouf Pacha in his unlucky march from Yeni-Zagra towards Eski-Zagra, both doctors were present at the unfortunate fight near Dalboka. Reouf Pacha's officers were afterwards unanimous in declaring that the English *hakims* had shown the greatest intrepidity, establishing their ambulance close to the front, in a small wood, which was much exposed to the Russian shells. Though the Russians more than once during the day fired on the ambulance, the neutrality of which was sufficiently indicated by an enormous white flag of the size of a bed-cloth, the surgeons never ceased performing their duty till the hour of panic and confusion, when they were obliged to follow the troops in their over-hasty retreat, losing great part of their stores and private luggage on the way. The following night they only had a couple of hours' rest, and next morning saw them at Karabanar, where I witnessed the self-devotion with which they continued to help the wounded till far into the night, despising fatigue and exhaustion. On that occasion, poor Meyrick caught the

first symptoms of the disease which was to bring him prematurely to his grave. When a few days afterwards Suleiman Pacha's army marched from Yeni-Zagra towards the Balkans, Dr. Meyrick insisted upon accompanying his comrade, heedless of the severe diarrhoea from which he had been suffering for several days. Two days of exhausting marches proved too much for the weakened frame, and the same day that we joined the head-quarters at Feredskoï, Dr. Meyrick, who was no longer able to remain on horseback, bade us farewell. Fortunately Commissary Young, to whom the National Aid Society is indebted for the reputation it enjoys of being the most ably managed of the different charitable societies represented at the Turkish armies, had just arrived to pay a short visit to the army, and it was in his kind company that poor Meyrick returned to Adrianople. We all were looking forward to his return when the sad news came of his having died at the German Hospital at Constantinople. I was present when Meyrick dressed the last wounds he was destined to heal. Many a wounded Turkish soldier, in these times of dearth of medical assistance, when calling out in despair for the English *hakim*, who is so much occupied that hours and fatal hours must elapse before he can attend the soldier's call, will unknowingly proclaim what a loss the death of Dr. Meyrick is to the suffering Turks. Men who die the death of Meyrick need no praise."

HOSPITAL SATURDAY FUND.

THE amount received by this fund up to Wednesday was about £2,500. This is exclusive of the sums collected in the streets on Hospital Saturday. The amount is about £300 in excess of the sum received at the corresponding period of last year. M. Leopold de Rothschild, one of the vice-presidents, has sent a donation of £50.

VIOLENT DEATHS IN ENGLAND AND WALES.

THE 4,257 deaths in England and Wales during the spring quarter of 1877 differed but slightly from the numbers in the two preceding quarters, and were equal to an annual rate of 0.70 per 1,000 persons living, and to 3.2 per cent. of the deaths from all causes. In the agricultural counties of the eastern division, the death-rate from violence did not exceed 0.48 per 1,000; whereas it was equal to 0.81 in the northern counties, where so large a proportion of the population is engaged in mining. In the twenty large towns, the death-rate from violence averaged 0.82 per 1,000; and, while it was but 0.35 and 0.38 in Brighton and Portsmouth, it was equal to 1.15 in Liverpool and 1.27 in Birmingham.

PUBLIC HEALTH.

THE Registrar-General's return for the week ending Saturday, September 8th, shows that during the week 5,719 births and 3,172 deaths were registered in London and twenty-two other large towns of the United Kingdom. The annual rates of mortality per 1,000 last week in the twenty English towns, ranged in order from the lowest, were as follow: Portsmouth, 14; Brighton, 15; Nottingham, 16; London, 17; Leeds, 18; Oldham, 19; Bristol, 22; Sheffield, 22; Hull, 22; Newcastle, 23; Wolverhampton, 23; Salford, 24; Manchester, 24; Norwich, 24; Bradford, 24; Sunderland, 25; Birmingham, 25; Liverpool, 27; Plymouth, 30; and the highest rate, 32, in Leicester. The annual death-rate from the seven principal zymotic diseases was equal to 9.9 and 11.6 in Norwich and Leicester. The high rates from zymotic diseases in Norwich and Leicester were due to the exceptional fatality of diarrhoea. Scarlet fever shows fatal epidemic prevalence in Wolverhampton; 10 deaths were referred to this disease within the borough last week. Small-pox caused only 11 deaths in the twenty towns, of which 8 occurred in London and 3 in Liverpool. In London, 2,356 births and 1,180 deaths were registered. Allowing for increase of population, the births exceeded by 64, whereas the deaths were so many as 257 below, the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the three preceding weeks had been equal to 19.3, 18.6, and 18.3 per 1,000, further declined last week to 17.4. During the past ten weeks of the current quarter, the death-rate has averaged 19.7 per 1,000, against 21.8 and 22.9 in the corresponding periods of 1875 and 1876. The 1,800 deaths included 8 from small-pox, 23 from measles, 17 from scarlet fever, 7 from diphtheria, 19 from whooping-cough, 21 from

different forms of fever, and 87 from diarrhoea; thus to the seven principal diseases of the zymotic class 182 deaths were referred, against 346, 260, and 259 in the three preceding weeks. These 182 deaths were 186 below the corrected average number from the same diseases in the corresponding week of the last ten years. The number of small-pox patients in the Metropolitan Asylum Hospitals at Homerton, Stockwell, Hampstead, and Fulham, were 206 on Saturday last, against numbers declining from 964 to 245 in the fifteen preceding weeks. Dr. Frankland reports, as the result of his analysis of the waters supplied to the metropolis and some of its suburbs during August, that, taking unity to represent the average amount of organic impurity in a given volume of the Kent Company's water during the last nine years, the proportional amount of such impurity in an equal volume of water supplied by each of the other companies, and by the Tottenham Local Board, was: Colne Valley, 0.4; Tottenham, 0.5; Kent (Deptford Wells), 1.0; New River, 1.4; East London, 2.0; West Middlesex and Lambeth, 2.2; Kent (Plumstead Well), 2.3; and Chelsea, Southwark, and Grand Junction, 2.4. With the exception of the New River, the waters drawn from the Thames and Lea, although equal in quality to the average summer standard, were not so unusually good as those supplied during the previous month. With the exception of the Lambeth Company's water, which was slightly turbid when drawn from the main, the waters were delivered in an efficiently filtered condition. Dr. Frankland draws attention to the exceedingly abundant supply of water yielded by the wells sunk into the chalk outside the London clay, as compared with those sunk through the clay within London, which yield an entirely different, though excellent water. Dr. Hill reports that the water supplied to Birmingham showed "a slight increase in organic and other nitrogen, the former doubtless owing to defective filtration; it was turbid, greenish-yellow, and contained infusoria". The water supplied to Glasgow from Loch Katrine contained "muddy particles and a slight amount of fibrous matter".

A NEW REMEDY.

THE American journal *New Remedies* condenses from a foreign source the following account of the *Tayuya* (*Dermophylla pendulina*), the use of which is being much pushed in Italy. *Tayuya*, or *tauyua*, is the name of a vegetable drug, which has been employed for a very long time by the natives and physicians of Brazil, as a remedy in various diseases. *Tayuia de abobrinha* or *abobra* is the common name of the plant in question, which is *Dermophylla pendulina* (Manso), nat. fam. Cucurbitaceæ-Bryoniaceæ, and whose synonyms are *Brianosperma ficifolia* (Mart.), *Bryonia ficifolia* (Lam.), *Bryonia tayuya* (Velloso). The root is the most active portion. It is said to be a most valuable remedy in malarious fevers, dropsy, syphilis, mental disorders, elephantiasis, skin diseases, etc. It has also been used with tolerable success externally, in form of a lotion, particularly in an affection common to Brazil, namely, an inflammation of the sphincter ani (*bicho do cû*), according to Rosenthal, in his *Synopsis plantarum*. Stanislaus Martin states (in *L'Union pharm.*) that he had received specimens of the root in slices, two inches broad and about a quarter of an inch long. According to Martin's description, it does not seem to be much different from that of the European *Bryonia* root. He extracted from it a green resin (*tauyuin*); a citron-yellow fat, and brown extractive matter, both of very bitter aromatic taste; tannin, pectin, traces of glucose, starch, and volatile oil; and he found the ash to contain magnesia, lime, alumina, potassa, and iron. He could find no alkaloid in it. Professor Luigi Gabba of Milan extracted the root with alcohol, and obtained by evaporation a brown extract, of neither acid nor alkaline reaction, very stable, and drying up to an amorphous mass, which was only partially soluble in cold, but more so in boiling water. The latter solution, mixed with dilute sulphuric acid and heated, did not exhibit any remarkable change, but gave indications of glucose. As this reaction failed to make its appearance before the addition of the acid, Gabba concluded that the root contained a glucoside. Professor Zenoni states that, on exhausting the root with ether and then treating it with

acidified alcohol, he obtained a substance which appeared to give him the reactions of an alkaloid. Yvon, who subjected Martin's investigation to a control, found in it a wax-like resin, soluble in ether and chloroform, of acid reaction, greenish-yellow colour, and very bitter taste. Its melting-point is said to be at 49 deg. Cent. (120 deg. Fahr.), and its solution in alkalies or ammonia developed microscopic crystals. This resin is said to be the active portion. An alcoholic tincture of the root deposited, after concentration, a small quantity of prismatic crystals, but they were devoid of alkaloidal properties. The explorer Luigi Ubicini brought the root to Europe, and caused a strong tincture to be prepared from it, of the strength of one part dry root to three parts of alcohol. This was directed to be diluted with three times its weight of dilute alcohol before using, and this diluted tincture is used internally as *Tinctura Dermophyllæ diluta* in doses of two to twelve drops, three to four times a day. The daily dose should not exceed twenty-four drops. For external use in syphilitic or scrofulous skin-diseases, it is to be diluted with twenty or thirty times its weight of water, although it may be used in concentrated form upon indurated glands.

DEATHS IN PUBLIC INSTITUTIONS.

DURING the second quarter of this year, the deaths in workhouse establishments, hospitals, and public lunatic asylums in England and Wales were 13,379, or 10.2 per cent. of the whole number of deaths registered during the quarter. This proportion, remarks the Registrar-General, exceeds that which prevailed in any quarter since the end of 1869, and was 1.0 above the average percentage in the corresponding quarter of the seven years 1870-76. In the twenty large English towns, 6,684, or 16.2 per cent. of the deaths, were recorded in public institutions; the percentage ranged from 7.4 and 7.7 in Bradford and Oldham to 18.7 in Brighton and Wolverhampton, and 20.2 in London. Excluding the twenty large towns, the average proportion of institution deaths in England and Wales last quarter averaged 7.4 per cent.

HEALTH OF HEALTH-RESORTS.

THE last quarterly return of the Registrar-General gives the mortality of forty-six English watering-places; and these are, in the aggregate, comparatively healthy. Some of them are large towns, but the majority of them are places of moderate extent and population. The inland places are, on the whole, the densest, and the mortality therein is slightly higher than in the places on the seaside; but the difference is not great. In the three months of April, May, and June 1877, the mortality was at the rate of 17.8 in the seaside districts, and 18.6 in the inland districts, or 18.0 in both classes combined. This was 3.5 below the death-rate (21.5 per 1,000) of the kingdom, and 4.7 below the death-rate of the town districts. Upon the whole, the selection of summer resorts is judicious. The mortality was much below the average in Margate (13), Ramsgate and Broadstairs (16), Eastbourne and Seaford (13), Worthing (16), Littlehampton (15), Lyme Regis (11), Dawlish and Teignmouth (15), Torquay (15), Weston-super-mare (16), and Clifton (14). In Lowestoft, 14 children died of measles, yet, including these deaths, the rate of mortality was low (14). So, in Dover, there were deaths from whooping-cough and scarlet fever, yet the mortality (16) was below the average. The mortality was above the average in some districts. Thus, it was 24 in Whitby, where there were deaths from diarrhoea and scarlet fever. Whitby contrasts with Scarborough, where the mortality was 18. The Registrar-General asks whether the drainage and water-supply are as good in Whitby as they are now in Scarborough? In the Welsh subdistricts, the mortality was at rates above 20, except in Aberystwith, where it was 19; it was 22 in Bangor, 27 in Creuddyn (of which Llandudno is a part), 25 in St. Asaph (of which Rhyl is a part). In Walleey, where New Brighton is on the south side of the Mersey, the mortality was 19, and there were deaths from small-pox. In North Meols, of which Southport-on-the-Sea is a part, the mortality was 25, and there were a few deaths from various zymotic diseases. In Poulton-le-Fylde, including Blackpool-on-the-Sea and Fleetwood at the mouth of the Wyre, the

mortality was 21, and several zymotic diseases were rife. In Harrogate, where the authorities appear to have quarreled with their medical health officer for discussing the state of their district, the mortality was 23, and higher than in any other inland health-resort. There were 4 deaths from scarlet fever, 2 from diphtheria, 1 from whooping-cough, 3 from diarrhoea. The annual mortality of Harrogate was 18 in the ten years 1861-70. Clifton was the healthiest of the inland districts (14). The mortality of Bath was raised by measles. One thing to bear in mind in consulting these returns is, that every part of a wide district may differ in salubrity, and that, while some of its houses are suffering, others are quite free.

CORONERS' INQUESTS.

THE Registrar-General states that, during the three months ending June last, 6,456 deaths in England and Wales were registered from the certificates of coroners, equal to 4.9 per cent. of the total deaths, showing a slight decline from the average proportion in recent quarters. In the twenty large towns, the percentage averaged 6.0; in Sheffield and Oldham, the proportion of inquest cases was so low as 2.4 and 2.8, while it was equal to 8.1 in Manchester and 8.3 in Birmingham. The Medical Officer of Health of Sheffield recently called attention to the large proportion of uncertified causes of death in that borough, with especial reference to the small number of inquests held. During the quarter now under notice, no fewer than 112, or 6.6 per cent., of the deaths were registered in Sheffield without any certificates of their causes. Registrars are instructed to refer all cases of deaths from violence, as well as all cases attended by any apparently suspicious circumstances, to the coroner previously to registration; if, however, the coroner decide not to hold an inquest, the registrar is bound to register the death on the best information as to its cause that he can obtain from the ordinary informant. The local registrars report that in Sheffield, in many cases of deaths from violence and other causes referred to the coroner, he pronounced inquests to be unnecessary. If more than 8 per cent. of inquests are necessary in Manchester and Birmingham, it would be difficult to prove that only 2.4 per cent. are necessary in Sheffield. The proportion of uncertified deaths is dependent in great measure upon that of inquest cases, and it may be stated that, in London, where the proportion of inquests last quarter was equal to 6.6 per cent., the proportion of uncertified causes of death but slightly exceeded one per cent.

METALLIC COMPOUNDS IN ALIMENTARY SUBSTANCES.

AT the recent meeting of the Pharmaceutical Conference in Plymouth, a paper was read on the influence exercised by the presence of metallic compounds in alimentary substances. Dr. Paul and Mr. Kingzett gave the results of an investigation into the physiological action of the copper known to be contained in preserved peas, particularly those of French manufacture; and it was stated by the authors that the copper as it exists in the peas is not only in an insoluble state and in actual combination with the albuminous constituents of the peas, but is not removed by the water used in the process of cooking. During digestion, this copper passes entirely into solution if sufficient time be allowed; nevertheless, it is for the most part excreted in the feces, being probably reprecipitated through the agency of biliary fluid as phosphate. Only a very minute trace, therefore, is absorbed into the system, thus proving the non-injurious nature of such peas as an article of food. It was also shown that many compounds used largely in colouring confectionary contain from 6 to 70 per cent. of stannic oxide; besides which other articles of food containing metallic compounds were described. In the discussion which followed, Dr. Wright called attention to some instances of poisoning through the agency of lead, tin, and zinc, which had been reported in the daily papers. Dr. Redwood stated that, in his opinion, the vendors of preserved peas containing copper should be prosecuted on the ground that they were selling an article of food containing something not natural to the peas, but intentionally introduced. To this it was replied that persons who consumed such peas

would not suffer the slightest injury to health, a conclusion which, it is said, received considerable support from evidence given in the discussion by various speakers.

SCOTLAND.

DR. PINKERTON and Dr. McPherson of Glasgow have left to join the Turkish army, under the auspices of Lord Blantyre.

DR. EBEN WATSON has been appointed President of the Glasgow Medico-Chirurgical Society, and Dr. G. H. B. Macleod Vice-President.

LAST week, at Kelso, a child about eighteen months old, daughter of a basket-maker residing in the town, died from having sucked the heads off several lucifer-matches. Death took place within twenty-four hours after the child had swallowed the poison.

DURING the month of September, the deaths registered in Leith were 66 in number, being equivalent to an annual mortality of 15 per 1,000. Twenty-five of these deaths were those of persons under five years of age. Four deaths only were from zymotic diseases. There were 131 births, of which 11 were illegitimate.

THE severity of the weather of late in Scotland is marked by the fact that, on the Wednesday of last week, the Grampian Hills were covered with a fresh coating of snow; and on the day previous, the hills around Crieff were in the same condition, as were also the Glenalmond Hills. It is not often that fresh snow is seen on the hills with the harvest still three weeks' distant.

WE learn that the operation of excision of the larynx, for a recurrent papillomatous growth on the under surface of the vocal cords, has just been performed at the St. George's Road Training Home for Nurses, Glasgow, by Dr. David Foulis. The patient was, at the time of the report, in a satisfactory state. The whole of the larynx, with the exception of the superior cornua of the thyroid cartilage, was removed.

A MAN employed in the Port-Glasgow Gasworks was arrested last week, and charged with the culpable homicide of an elderly lady in whose house he had been at work. It appeared that, in the course of his examination of the gas-meters, he had omitted to fasten properly one of the screw-plugs, and that the consequent escape of gas had led to the death of the unfortunate woman and the serious illness of another inmate of the house.

THE CHAIR OF PHYSIOLOGY IN ABERDEEN UNIVERSITY.

DR. WILLIAM STIRLING has been appointed by the Crown to the vacant Chair of Physiology in Aberdeen. Dr. Stirling has already given such excellent promise of ability, both as a teacher and as an observer in physiology, that the appointment will meet with general approval. While the Medical School of the Northern University thus receives an additional strength, we congratulate Dr. Stirling on being placed early in life in a position in which he may do much to advance physiological science. With Rutherford in Edinburgh, McKendrick in Glasgow, and Stirling in Aberdeen, Scotland is pre-eminently fortunate in the occupants of her Chairs of Physiology.

THE EDINBURGH POLICE BILL.

THE Edinburgh New Police Bill contains some clauses interesting from a professional point of view. Such are some of the by-laws relating to the health of the city. Among others, clauses have been introduced relating to the sale of milk in the city, the regulation of dairies, and the intimation of cases of illness from infectious disease in these establishments. The question was raised, at a recent meeting of the Lord Provost's Committee on the subject, as to whether dairies or shops for the sale of milk should not be licensed in the same way as byres, and the whole matter was referred to the Medical Officer of Health and the

Town Clerk for adjustment. It was suggested that a clause should be introduced by which medical men would be bound to report to the authorities all cases of infectious disease occurring in their practice. This was generally approved of by the Committee; but, on the suggestion of one of their number, the clause in question was ordered to be communicated by the Town Clerk to the various medical bodies in the city for their consideration, and, at the same time, a hope was expressed that favourable answers would be received to it.

UNIVERSITY OF ABERDEEN: UNIVERSITY COURT.

A VACANCY has occurred in the representation of the General Council in the University Court by the appointment of the Rev. Dr. Christie to a Divinity Chair. It is highly desirable, for many reasons, that the medical graduates, who form a large and influential portion of the Council, should have a direct voice in the government of the University. We believe that the name of Dr. Macrobin, Emeritus Professor of Medicine and late Dean, has been brought forward. Dr. Macrobin represented a few years ago the Edinburgh and Aberdeen Universities in the General Medical Council. His long and intimate acquaintance with medical affairs claims for him a favourable reception at the hands of the graduates, with whom the election rests.

PUBLIC BATHS IN GLASGOW.

THE Public Baths in Kennedy Street, Glasgow, have now been open three months, and have been used by 16,505 persons. The London Road Baths, in addition to being open on week days, are available on Sunday mornings; and, on an average, 127 baths have been used daily. This success has been very gratifying to the Town Council, as a sign of the improved moral and educational condition of the townspeople. It seems probable that, in about two years' time, these baths will become self-supporting.

ACCOMMODATION FOR THE POOR IN GLASGOW.

THE reports of a Special Committee of the Glasgow Parochial Board, appointed to consider as to the accommodation for the ordinary inmates of the poorhouse and the insane of the parish, state that they were unanimously of opinion that it would be highly inexpedient to erect any new buildings on the present premises, as there was reason to believe that the Lunacy Board would in that case refuse their sanction to the existing parochial asylum accommodation. The Committee recommended the Board to seriously consider the propriety of taking steps for the purpose of building a new asylum to accommodate all the insane of the parish. A letter was read from the Secretary of the General Board of Lunacy, stating that, as the City of Glasgow depended greatly on the Asylum of the Barony Parish and the Midlothians for accommodation, and that accommodation was only placed at the service of the City Parish when not required by its owners, he had been instructed to inquire whether the City Parish had any intention of providing accommodation to meet their wants; and that, in the event of the City of Glasgow Parish declining to move in the matter, the Board would address themselves to the District Board of Lunacy to fulfil their statutory duty.

OUTBREAK OF TYPHOID FEVER IN EDINBURGH.

DURING the past few months, Edinburgh has enjoyed a remarkable immunity from any serious epidemic of any kind, and the deaths from all the zymotic diseases put together have been relatively very few. About a fortnight ago, however, the Medical Officer of Health was informed of a serious outbreak of typhoid fever at Coltbridge and other districts in the west end of the city, which, it was believed, had been caused by means of milk sold at a dairy in which was a person suffering from the fever. The district where the outbreak first occurred is without the municipal boundaries; but steps were at once taken, and the dairy patient was removed to the Infirmary. Over twenty families in the district were suffering from the fever when the outbreak was first noticed, and a number of additional cases have occurred since. Several of the cases have been attended with a fatal result. It is stated that

the retailers of milk who were supplied by the dairy referred to, and by another in the same district, in which the sanitary arrangements were found very defective, have been advised by Dr. Littlejohn to discontinue their supply for the present, and that this advice is to be acted upon. The dairies themselves have undergone a thorough sanitary investigation.

IRELAND.

DUBLIN Hospital Sunday will take place on the 11th November next, and we are informed that nearly two hundred churches have already promised to support the movement this year.

At a late meeting of the House Committee of the Dublin Orthopædic Hospital, it was resolved, in view of several urgent cases waiting admission, that six more beds should be fitted up, making a total of twenty beds in the Institution.

DR. B. W. RICHARDSON, of London, has been lecturing lately on the subject of temperance in the north of Ireland, and this week delivered a lecture in Dublin on "The Science of Temperance", the chair being occupied by Dr. Samuel Gordon, President of the College of Physicians.

DURING the week ending September 1st, the deaths in Dublin represented an annual mortality of 21.0 in every 1,000 of the population. There were only 19 deaths from zymotic diseases, being less than one-half the average number in the corresponding week of the last ten years.

ONE of the inmates of the Richmond Lunatic Asylum died last week, from the effects of a piece of meat lodging in his throat whilst at dinner. An inquest has been held, and a recommendation added by the coroner's jury that an additional attendant should be on duty in the dining hall, to see that the food of the patients was properly cut up.

STIMULANTS IN WORKHOUSES.

THE guardians of the South Dublin Union have reduced the expenditure for stimulants by upwards of £600 during the year ending March last. It has been suggested, in order to test the merits of stimulation and abstinence, that the number of aged, infirm, and invalids in the workhouse should be given with the mortality, so that the results under both methods could be compared by examining those returns for last year and the year preceding.

DOWNPATRICK.

At a recent meeting of the guardians of this Union, the Board considered a scheme prepared by Mr. Nolan, C.E., for the proper sewerage of the town. The committee which had charge of the sewerage and water-supply recommended it to be adopted, and it is intended to proceed with a proper supply of water for Downpatrick, after the sewerage is completed. The report was unanimously adopted, and was ordered to be forwarded to Dublin for the approval of the Local Government Board.

THE RECENT ELECTION OF A MEDICAL OFFICER TO THE NORTH DUBLIN UNION.

At a meeting of the guardians of this Union held on the 29th ult., a communication was received from the Local Government Board, who transmitted the copy of a letter which they had received from Mr. Stoker, one of the candidates at the recent election for a medical officer to the workhouse, protesting against the appointment of Mr. Kenny, principally on the ground that one of the guardians who voted for Mr. Kenny was, on the day of election, an uncertificated bankrupt, and deprived of all qualification entitling him to act or vote as a guardian. The guardians, in reply, stated that the election took place in the usual manner, and that no objection was made to the vote of

a guardian on the occasion of the election. The Local Government Board have since decided, on the advice of counsel, that the thirtieth section of the Irish Poor-law Relief Act provides that no defect in the qualification, election, or appointment of any person acting as a guardian at a Board of Guardians shall vitiate or make void any proceedings of such Board in which he may have taken part; and under these circumstances they see no reason for setting aside Mr. Kenny's election.

HEALTH OF IRELAND: QUARTERLY REPORT.

THE births during the quarter ended June 30th amounted to 37,280, being equal to an annual ratio of 1 in every 35.8, or 27.9 per 1,000 of the population, being 3 per cent. under the average for the second quarter of the past five years; and the deaths to 25,710, affording an annual ratio of 1 in every 51.9, or 19.3 per 1,000 of the population, against an average rate of 19.1 per 1,000 for the corresponding quarter of the five years 1872-6. Of these 25,710 deaths, 3,343, or 13 per cent., were of children under one year old; and 10,647, or 41.4 per cent., were of persons aged sixty years and upwards. Although the inclement weather which characterised the earlier part of the year had the effect of increasing the mortality from pulmonary affections, still the total deaths were but very slightly in excess of the average for the June quarter. The deaths returned as due to the eight principal zymotic affections came to 2,206, or 8.6 per cent. of the total deaths, and 41.3 in every 100,000 of the population. This number, although 55 over the deaths from the same causes in the corresponding quarter of last year, is under the average mortality for the second quarter, and 242 less than in the first quarter of this year. Small-pox caused 17 deaths, 7 of which took place in Dublin; and diphtheria 63, being 36 less than in the March quarter. The mortality from measles was much higher than usual, owing to the prevalence of the disease in Dublin; the deaths numbered 336; whilst there was a remarkable decrease in the deaths from scarlet fever, only 214 deaths being registered, being 403 under the average for the eight preceding quarters. Whooping-cough caused 460 deaths, being somewhat over the average; and fever 720, a slight increase over the number in the June quarter of last year. The deaths from diarrhoea were below the average, amounting to 391; and but 5 deaths were ascribed to simple cholera. As regards sanitary matters, numerous complaints are made by the registrars of the want of a proper supply of water in various districts, of polluted wells, bad sewerage, wretched cabins, manure heaps close to the dwellings, and overcrowding. For example, a registrar writes: "The sanitary state of Sweedon District is very bad; cattle are kept in nearly all the dwelling-houses, and manure is allowed to accumulate for days without being removed"; and another says: "There is a house in which the fever was, that is only ten feet long and twelve broad, containing the father and mother, and eight children, two cows, one ass, two pigs, and twelve or thirteen hens."

SANITARY CONDITION OF NEWTOWNARDS.

A SPECIAL meeting of the Urban Sanitary Authority was held on last Monday for the purpose of taking into consideration the water-supply of this town. The chairman read analyses of eighteen samples of water that had been forwarded to Dr. Cameron of Dublin for examination; six of these samples, taken from various pumps in the town, were reported as perfectly unfit for domestic use. The drainage of the town appears to be very defective, and it is stated that there are 2,031 houses in Newtownards, of which only 1,379 possess back doors, and but 1,346 are supplied with ashpits. The question of a proper water-supply and an improved sewerage scheme has been deferred until a future meeting.

SURGEONS WILLIAM M. POWER (1864), George Kell (1864), with seniority of the 5th of September, E. W. Doyle (1864), J. H. Martin (1865), W. H. Stewart (1865), and Thomas Conry (1865), with seniority of the 6th of September, have been appointed Staff-Surgeons in Her Majesty's Fleet.

SURGEON TO THE QUEEN IN SCOTLAND.

WE hear with great pleasure that the appointment of Surgeon to Her Majesty the Queen in Scotland, vacated by the removal of Professor Lister to hold the office of Surgeon and Professor of Clinical Surgery in King's College, London, has been bestowed on Professor Macleod of the Glasgow University and Royal Infirmary. The appointments to Her Majesty's medical staff have for many years been made with so just a discrimination of professional merits and claims, as to have elicited the general approbation of the profession; and we had already intimated that Professor Macleod appeared to be indicated by that opinion as peculiarly deserving of the high distinction thus conveyed.

THE ANNUAL MUSEUM.

I.

THE objects sent for exhibition this year were so numerous that, after all the available space in the medical school had been crowded out by pathological specimens, surgical instruments, and physiological apparatus, the large chemical laboratory was kindly lent by Professor Roscoe for the exhibition of drugs, drawings, and photographs; while the engineering drawing room was reserved for microscopes and microscopical preparations. The various objects exhibited were arranged in seven classes.

CLASS I.—Pathology.—The Owens College, being a comparatively young institution, cannot be expected to possess as yet a large permanent museum; but the pathological specimens, if not numerous, are very good. We may notice particularly a good display of calculi, being mainly the collection of the late Mr. W. Smith. A large number of calculi were also contributed by Mr. Heath, Mr. Lund, Mr. Stocks; and the large and valuable collection of the late Mr. George Southam was kindly lent by Mr. Frederick Southam. One of the finest collections of distorted pelvis in existence was lent by the Board of Management of St. Mary's Hospital from the Radford Museum. A considerable number of interesting pathological preparations were also lent by the Board of Management of the Manchester Royal Infirmary. Amongst these were the preparations of cystic kidney which are figured in Dr. Roberts's work *On Urinary Diseases*, and an unique specimen, originally the property of Dr. Eason Wilkinson, of curvature of the spine with ossification of nearly all the ligaments and muscles of the entire trunk. Some valuable specimens were also sent from the Hospital for Sick Children, Pendlebury, among which we may mention a case of cholesteatoma of pia mater, one of glioma of the pons Varolii, and a curious specimen showing the presence of two ureters to one kidney. Mr. Lund exhibited a collection of surgical curiosities, ranging from a piece of India-rubber tubing removed from the bladder of a boy up to a piece of a gun-barrel (626 grs.) removed from the forearm after repeated bleeding had occurred; and Dr. James Hardie a valuable collection, mainly illustrative of diseases of bones and joints. Dr. Burney Yeo contributed an aneurism of the abdominal aorta, which caused death by pressure on both renal arteries, leading to uræmic convulsions; and several objects of interest were contributed by Mr. Edmund Owen, Mr. Whitmarsh, and Mr. Field. An enormous tumour of the dura mater, which produced no pressure-symptoms during life; and a punctured fracture of the roof of the orbit, exhibited by Mr. Windsor; along with a lympho-sarcomatous tumour of the right auricle of the heart, shown by Mr. Stocks, were particularly worthy of notice.

Nothing tends to show more the enthusiasm with which the study of pathology is prosecuted in the sister island than the large number of specimens which were sent for exhibition from Ireland. Dr. Duffey was indefatigable in collecting specimens; and Dr. Hayden entrusted to his care the thirteen hearts, illustrative of mitral stenosis, from the cases which are published in detail in his work, *The Diseases of the Heart and Aorta*. Several interesting preparations were also shown by Dr. Bookey and by Dr. Ringrose Atkins; and from the specimens of the latter we may single out for special mention a left hemisphere of the brain, prepared by nitric acid solution, and showing an area of softening in the ascending frontal and ascending parietal convolutions, from a patient who suffered during life from right brachial monoplegia. Dr. Anningson took charge of several specimens from the Pathological Museum, Cambridge, amongst which we noticed a human skull with symmetrical depressions in the outer table of the parietal bones, very like corresponding depressions in the skull of the gorilla.

CLASS II.—Physiological Apparatus.—In the physiological laboratory were exhibited a collection of microscopical sections of the normal tissues, prepared under Professor Gamgee's superintendence. There was also shown the splendid collection of physiological apparatus belonging to the Owens College, a pneumatic apparatus by Professor A. Geigel of Würzburg, and another by Professor Waldenburg of Berlin. Professor C. Schorlemmer also contributed specimens of rare chemical preparations, including aurin and derivatives of ethane prepared synthetically.

THE MICROSCOPICAL SECTION AT THE MANCHESTER MEETING.

A NOVEL feature of the annual meetings of the Association, or rendered so by the prominence given to it at the recent meeting in Manchester, was the exhibition of microscopic objects. A special and convenient room was devoted to this purpose, and, by an appeal to some of the leading microscope makers, among whom were Dancer, Armstrong (Manchester), Beck and Beck, Pillischer, Crouch (London), and Ferris (Bristol), about one hundred microscopes were collected for the purposes of the section.

With the greatest kindness and courtesy, many of the leading microscopists put their collections at the service of the section, and even, as especially in the case of Professor Charcot and Dr. Gowers, devoted considerable time to demonstration of the points their specimens were intended to illustrate. These demonstrations proved very attractive, and the room was much frequented throughout the meeting.

In addition to many interesting objects sent from the West Riding Lunatic Asylum by Drs. Major and Lewis, from London by Drs. Goodhart and Barlow, by Dr. Dreschfeld and other local microscopists, the following collections attracted much attention, viz.: that of Professor Charcot, illustrating spinal sclerosis, and the similarity of cirrhosis produced by ligation of the bile-duct in a rabbit to that caused by the impaction of a gall-stone in the duct of a man; that of Dr. Gowers, showing the changes in the nerve-centres, especially the medulla oblongata, in hydrophobia—changes which he regarded as sufficiently distinctive to permit the disease to be recognised in three cases out of four by the microscope; that of Sir William Gull and Dr. Sutton, illustrating their theory of arterio-capillary fibrosis; that of Dr. Braidwood, showing the condition of the skin at different periods during the course of an attack of small-pox, scarlet fever, and measles; that of Dr. C. Creighton, illustrating the evolution of mammary cancer; and that of Mr. Rushton Parker, showing sections of tumours of the upper jaw.

ABUSE OF MEDICAL CHARITY.

THE subjoined remarks, quoted from the *New York Medical Record* of July 21st, will be read with interest by those who desire reform in our system of so-called medical charity. It will be seen that abuses similar to those complained of here press heavily on our Transatlantic brethren, who have lately begun an agitation with the object of obtaining improvement.

There is a movement on foot in New York to organise a society for the control and suppression of the existing abuse of medical charity. No more opportune time than the present could have been selected for the scheme. Never before in the history of medical practice has the question assumed such an importance, as bearing upon the actual livelihood of a large class of struggling physicians. It is an acknowledged fact that professional incomes have decreased within the past two years. Under the circumstances, this could hardly be prevented. Aside from the healthfulness of the season, the physician does not have so much to do as formerly, because even those of his patients who are sick have fallen into the habit of economising on his services. In many of the cases in which he might have been called, he is not sent for at all, and a surreptitious dose of castor-oil and a few mustard-plasters, or catnip tea, or a gin toddy does the business. And some of the best paying patients are not ashamed to say that it is too expensive to be sick, and that the necessity of sending for the doctor is a positive pecuniary calamity. The physician is, in fact, looked upon more as a necessity in extreme cases than as a luxury in trivial ones. Many of the leading practitioners have had their incomes reduced one-third, while others have suffered a reduction of almost one-half by such an understanding on the part of their patrons. It is not because there are not as many sick as usual, but that, for pecuniary considerations, these patients are willing to run some risks rather than incur frequent professional visits.

But, as we have before intimated, this is the result of a natural stringency in money matters, and cannot possibly be prevented. The association of the shrinkage of incomes with the abuses of charity is, however, of more importance, because it involves the possibility of a remedy. The managers of the charities are more to blame for this condition of things than those who take advantage of them. There is at present more than the ordinary temptation to save expenses in everything. It can hardly be done in food and raiment, for neither the butcher, the baker, nor the tailor believe in giving to the poor for charity's sake. But the doors of the dispensaries stand open to receive everyone who may choose to enter and obtain the benefits of gratuitous treatment. The number of applicants to these charities are increasing every year, and the profession is getting poorer and poorer. In olden times, no one expected dispensary or hospital treatment who could afford to pay even a small fee. Now, the excuse of hard times is unblushingly offered by thousands who cheat the practitioner not only out of small, but not infrequently out of large fees. It is an old story to tell of hundreds of men and women who have incomes which would make the poor doctors absolutely independent, and yet who have recourse to the dispensary for free medical treatment. It is preposterous to assume that this abuse cannot be corrected by even ordinary care on the part of those who have such matters in charge. That it has not been done long ago is, perhaps, as much the fault of the medical gentlemen attending these institutions as anyone else. The managers of these charities have no reason to complain of the number of persons treated, so long as professional services are so freely thrown away for the sake of clinical advantages. And this is a difficulty which is almost insurmountable in the way of necessary reform. In fact, we believe, if some of our dispensary and hospital attendants were compelled to restrict their services only to worthy applicants, they would rebel at once against what they would, perhaps, call a conspiracy against their legitimate clinical opportunities. In more than one dispensary in New York, there are specialists who quiet their consciences by never asking their dispensary patients whether they are able to pay a physician or not. Although this is downright professional swindling, and is placing a premium upon the fraudulent cupidity of a large and constantly increasing community, it is quietly winked at even by college professors, and is regarded as one of the necessities of advancing medical civilisation.

But the real sufferer from all this manœuvring is the practitioner who is content with moderate fees, for whom bread and butter in hand is a positive necessity, and who cannot afford to trust to the chances of making a distinguished reputation in the future. This class is a very large one; is composed of hard and conscientious workers, and deserves some consideration from their more prosperous brethren. We are a little doubtful that they will obtain much of a show, considering the avowed and greedy selfishness of those who hold hospital and other similar professional appointments for individual advancement. If the new association to which we refer can succeed in arousing a sentiment of fair play on the part of some of the clinical monopolists, it will not have been organised in vain.

The crying necessity is for a radical change in hospital and dispensary management. In meeting such a requirement, there is not the slightest danger that the poor will suffer. Even if all the dispensaries were abolished and the doors of all the hospitals closed, the needy would still have the requisite attendance. There is not a young practitioner in New York or any other large city who would not be willing to attend the poor gratis in his own office, or visit them at their homes, provided he could be guaranteed against being cheated out of those fees which are lost in the mistaken and false charity of dispensary and hospital practice. But nothing can be done to effect any change in the present state of affairs, unless some parties really interested take hold of the question with a distinctly avowed purpose. The agitation of the question of the medical provident system had a tendency in this direction, but it has evidently amounted to nothing. This result has been obtained because such a scheme as might be devised in connection with the provident plan might not work advantageously, but because the matter is unfortunately in the hands of those who are more or less indifferent to the pressing claims of the despairing professional bread-winner.

The best hope of reform rests in the efforts of men who shall be willing to work to correct the abuses; to go out of their way to detect frauds and to bring the same to the notice of the board of managers, and of the medical staffs of the different infirmaries. It is to the interest of the men who are really suffering as the result of the different abuses to follow up unworthy cases, even to the doors of the dispensaries, and into the wards of the hospitals, and enter a protest against their being treated as deserving objects of charity. By well organised and permanent efforts in this direction, a sufficiently strong professional

and public sentiment may be created to make it hazardous for any medical or other officer of a hospital or dispensary to knowingly admit to the benefits of the charity any patient against whom suspicions of pecuniary competency can be entertained. If the association which is being formed in New York is to be composed of this sort of working material, it can from the start be assured of the active and willing support of the rank and file of the profession.

SPECIAL CORRESPONDENCE.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Infirmiry Board.—Result of Mr. Netten Radcliffe's Suggestions.—Recent Meeting of the Association.—Dr. W. Roberts on Contagium Vivum.—Professor Sayre's Demonstrations.

THE new Board at the Infirmiry appears resolved to do its work thoroughly. It has at least entered on its duties earnestly and in the right way, doing its own work, and not looking to anyone, "nor Lancelot nor another", to do it for them. One result of the new régime seems already to point to a separate and independent staff of medical and lay officers for the outlying fever and convalescent hospitals at Monsal and Cheadle. The question of removal of the infirmiry is for the present allowed to sleep, and, on the whole, this period of repose is telling in favour of the non-removalists, inasmuch as sufficient time has now elapsed to show how beneficial have been the alterations made by the late Board in consequence of the suggestions of Mr. Netten Radcliffe. Ever since the erection of the huts, and the lessened number of patients within the old walls thus rendered possible, a salutary change has come over the condition of the building; and of late erysipelas and pyæmia have been as conspicuous by their absence as they previously were by their presence. Indeed, the question of removal can no longer be debated on the ground of unhealthiness previously alleged, and truly alleged, against the infirmiry, but on the perfectly distinct issues of space and economy.

The late meeting of the British Medical Association in our city has left many pleasant memories; but, along with these recollections of friendships made or cemented, a doubt obtrudes itself on many minds as to whether the most is made of the scientific possibilities of such a great gathering. The innovation of introducing debates on previously arranged subjects is regarded as a valuable one, but the debates themselves, on the whole, are spoken of as disappointing and of little scientific value.

Probably the two events of the meeting which created most interest, and both were and are the chief subjects of conversation within and without the ranks of the profession, were Dr. W. Roberts's address on Contagium Vivum and Dr. Sayre's Demonstrations on Spinal Deformities. Although Dr. Roberts did not introduce any novel fact or argument into his address (nothing indeed being new, except it be a novel method of performing an old experiment), the address is universally regarded as an admirable résumé of our knowledge on the subject. The general arrangement of the paper, the lucid and charming style, the pure and elegant English, are all models of what such a paper should be; and there is no doubt that by this address Dr. Roberts distinctly advanced his already high reputation as a scientific physician. But what must be said of Dr. Sayre? The effect of his demonstrations was electrical and altogether novel. No one had seen anything like it or him before; his ready sympathy (he broke down more than once at the very relation of some case of a child's suffering), his rich manly voice, his manhood altogether, his droll Americanisms, his utter disregard of conventionality, his manifest earnestness, and, above all, his powers and his genius, which could not be mistaken,—"fetched" (there is no other word but this slang expression for the effect produced) the people in the most wonderful way. Nor has the influence of his demonstrations passed away with his own departure; for amateurs may now be found in almost every hospital, and in many a private house as well, working away with pulleys and plaster of Paris with the most perfect faith and enthusiasm.

It will be well indeed if, amidst the general jubilation, no case of unintentional hanging occur, or no case of angular curvature be suddenly straightened altogether too thoroughly by forgetting that it is in lateral, and not in angular, disease that Dr. Sayre hoists his patient from his heels by his head alone. At Dr. Sayre's last demonstration, an accident occurred perhaps worth recording. There was amongst the audience a gentleman well known to the profession in Manchester, who, for the last thirty years, has been a sufferer from angular curvature in the cerebral spine. Very appropriately, he was

selected to propose a vote of thanks, and, in doing so, after detailing his own terrible suffering from a well meant but officious and useless treatment, he went on to say: "When I look back to that time of suffering and torture and contrast it with the result of what we have witnessed here to-day, I have no hesitation in saying that my spinal column would have been perfectly straight had it been treated as Dr. Sayre has demonstrated. I know it is true, I am persuaded of the fact, because at this time, after a hard day's work, if I feel pain or tired about the cervical region, I have simply to place my thumb under my chin and raise the head only half an inch, and at once the relief is obtained which I so much need."

TREBIZONDE.

[FROM OUR OWN CORRESPONDENT.]

SINCE I last wrote, a batch of medical stores, the best perhaps that Constantinople could afford, but many of the articles of a very useless character, have been sent out by the Stafford House Committee. They arrived here on the 7th, in charge of Lieutenant Malcolm Drummond, R.N., who kindly volunteered to escort them from Constantinople on their perilous journey to this outlandish region. I have learned within the last few days the truth, which I had for some time suspected, as to the utter want of medical organisation at the front beyond Kars. It appears that, with an army of 30,000 men, there are actually four so-called doctors—two Germans and two Greeks. There is now one case of surgical instruments; until after the battle of Eshek Kalias, there was not even this case. There is not so much as a single hand-stretcher with the whole army. A field hospital of twenty tents has been formed at head-quarters, in which there were thirty patients at the beginning of the present week. None of these were wounded, but they were principally cases of dysentery and tonsillitis. The patients have nothing in the shape of ground-sheets or beds to lie upon, and their sole covering for the nights, which are now pretty cold, are the great-coats of the men who are fortunate enough to have them. The young German student who is in charge of this hospital writes that he is utterly without drugs or medical stores of any kind, and sends a list of things required. This list is somewhat amusing, and seems to have been compiled from the trade-list of some wholesale drug-merchant, commencing with the traditional "acetum", and comprising an alphabetical catalogue of drugs and chemicals which, at any rate, speaks well for the young gentleman's knowledge of the more recondite articles of *materia medica*, the only omissions being those of the most obviously necessary and useful essentials of medicine and surgery. Such as our stores will supply, he shall have without delay (I speak as a Turk!); but I am afraid he is doomed to bitter disappointment as to the number and variety of the articles he will receive. At Kars, about thirty miles from the front, there are ten medicals in all, but I believe of the usual kind met with in this country; for a description of which I refer the reader to Sandwith's *History of the Siege of Kars* twenty years ago, things, however, being rather worse now than then. We paid our visit of inspection (by special invitation) to the principal hospital here a few days ago. Our visit was evidently expected, and things were put into shipshape. When the bandages were removed, however, one was forcibly reminded of the "whited sepulchre" under an unusual display of neatness of bandaging; it was, indeed, in every case, "rottenness and men's dead bones". The remark of the British Consul, who accompanied us, was not far off the truth when he said—"Of all the 2,000 or 3,000 cases of wounded which have come into this city, the only ones which have received any surgical care or attention are the 300 and odd patients of your 'English Hospital', which have passed through your own hands." The "physicians" are, I believe, actually responsible for the treatment of the wounded; but these gentlemen are either superior or inferior to the practice of surgery, and the care of the patients devolves upon the "surgeons", who, in Turkey, are nothing more than mere dressers and servants of the hospital, reminding one of the days when barber-surgery flourished in our own country. The term "fracture", in Turkish hospitals, may be taken in every case to be synonymous with "cripple for life". I think I mentioned in my last the utter absence of the employment of oiled silk or other like tissue in the dressing of the wounds. It was pointed out to me with great pride by the principal medical officer that my suggestions had been attended to, and that oiled silk was now used. I found that this was indeed the case. The old charpie, very dirty and very dry, was there; next, a very elaborate exhibition of bandaging; and, external to all, a complete envelope of oiled silk, in some cases of two or three thicknesses! It is evidently considered to be a "very pretty" dressing, and a good way of keeping bandages clean and neat. My Hibernian colleague suggested that it is probably bought by *the mile* in these

parts; whether paid for or not is another matter. I was honoured yesterday by a call from our principal medical officer, who had got himself up for the occasion in full-dress uniform. He was very polite and complimentary as to our work; and, on retiring, gave something more than a very broad hint that he would be very glad to accept a bottle of cognac from us if we would send it to his house at night. I sent him a bottle, and have lively feelings of gratitude—that is to say, of "favours to come"!

We have had about thirty new admissions in one hospital during the week—drafts from the other hospitals—all in a very neglected state. These have afforded another batch of amputations, which I hope may turn out fairly successful in result.

THE MEDICAL PROFESSION IN INDIA.

[FROM OUR OWN CORRESPONDENT.]

The Hospitals.—Decrease of Chronic Dysentery.—The Subordinate Medical Department.—Hospital Servants.

HAVING now taken a superficial "look round" at the inhabitants of the continent of India, and the conditions under which they live, let us return to the point from which we started: the rest-camp at Allahabad. Before paying a visit to the hospital, which is naturally the first place of interest for medical men, I may state that there are nearly 60,000 British soldiers in India, of whom nearly 40,000 are in the Bengal Presidency, and the rest pretty evenly divided between the Presidencies of Bombay and Madras. There are about 200 medical officers to look after the welfare of the men, besides that of the women and children. Ten per cent. of the men are married.

Looking at the statistical records of the last few years, it is very gratifying to see the decreased mortality among the troops serving in Hindustan. The facilities of sending home sick men are, of course, immensely increased from what they were in the old days; and, although a great many invalids are sent to England annually, still improved sanitary arrangements, and a sounder method of treating disease, have really very much decreased the deaths from maladies contracted in the tropics. About forty years ago, it is reported as a common saying that, if a British regiment, 1,000 strong, remained in India ten years, none of the men would return to England. In other words, 10 per cent. died annually. Apparently, 8 per cent. was the actual average. Turning to the *Army Medical Department Report for 1875*, we find that the average strength in all India was 59,344; admissions into hospital, 77,373; invalided to England, 2,744; died in India, 1,030; of the invalids on the sea-voyage or after arrival in England, 69. And taking Bengal, as the largest Presidency, we find that, for every 1,000 men, there were admitted into hospital (omitting decimals) 1,353; died, 18; invalided, 40; and 56 were constantly sick. The usual duration of each case of illness was fifteen days. It will be seen that there is a vast improvement.

The visiting hour for the hospitals, as may be supposed, is early—about seven o'clock in the cold season and six during the hot weather. The hospital buildings are thatched or tiled single-storeyed barracks (double-storeyed ones are being built in some stations). The wards, which accommodate ten men, are lofty and comfortable. There is a verandah on each side of them. Every patient has, by regulation, at least 120 superficial feet and 2,400 cubic feet of space in the wards; and as the wards communicate by high arches, and there are six doors on each side of the ward, between the men's beds, ventilation is ample. The first thing a medical officer does on arrival is to inspect the meat, bread, milk, vegetables, tea, and groceries for the patients' diets. The mutton is generally good, but thin; the whole sheep, when skinned and cleaned, only weighing from twenty to twenty-five pounds—rather a contrast to a fine Leicestershire sheep, for which we often long out here! If any article supplied by the Commissariat for the patients appear of inferior quality, the medical officer can immediately apply for a committee of three officers; and if it be condemned, it is at once changed. But, as a rule, all the rations are good. The men reported sick are next seen; trivial cases being treated and sent back to duty or detained for the day, while the serious ones are at once admitted into hospital. It is a standing rule that, if a man be not fit for duty, after attending for one day, he is taken into hospital and his name placed in the books. The next step is to go round the wards; and this is done in company with one of the apothecaries, a soldier orderly, and about half a dozen natives, comprising a compounder, dresser, cook, sweeper, and others. The aspect of the patients, as a body, is now very different from what it was some twenty years ago. Then, almost every third man was a pale emaciated being, walking about with difficulty, whose life was a burden to him. These were the victims of chronic dysentery. Now, I may say, such a case is rarely if ever seen. Thanks to Mr.

Docker, a surgeon of the British Medical Service, who reintroduced the treatment of dysentery by large doses of ipecacuanha, in 1858, these lamentable sights are no longer met with. Judging from the results we now see daily, how such a valuable drug ever fell into disuse seems a marvel; for I have no doubt that many of my readers will remember that formerly ipecacuanha used to be called the *radix antidysenterica*. But when large numbers of British troops first came to the East, and were attacked by dysentery, calomel and bleeding still held sway; and what results attended this treatment, a perusal of the medical records of the time will show. If we have a specific for any disease, apparently we have one for acute dysentery in ipecacuanha. Many medical officers can testify that for years they have treated that disease with large doses of this drug *alone*, without any of the numerous cases that have passed through their hands terminating fatally or becoming chronic. Certainly, Mr. Docker has been the means of saving thousands of lives of British soldiers in India.

The hospitals are generally pretty empty during the cold season in Upper India. The time for malarious fevers has passed, and there is a special immunity from the complaints that crowd the English Hospital, viz., diseases of the thorax. It has been said that the diaphragm divides the organs that are usually affected in the Temperate and the Torrid Zones. Here, diseases of the abdominal organs are mostly met with. There are, of course, cases of venereal disease; but the syphilis is not of a severe type. (There are lock hospitals, where all prostitutes are registered, examined weekly, and treated when necessary, at every station.) Stomach and liver derangements, mostly the effects of drink, make up most of the cases under treatment. There is ordinarily very little surgery, a trivial operation creating quite a sensation. Indeed, except during the autumn months, after the rains, or during an epidemic, the actual professional work, prescribing for patients, takes up comparatively little of the medical officer's time. The office-work, writing out cases, sending in returns and reports, and correspondence, occupies most of it. But even that is not hard: a couple of hours in the morning and a short evening visit generally complete the day's duties, except a daily look at prisoners in the cells and a weekly health-inspection of men and barracks. In each hospital, there is a hospital sergeant, who makes out the daily sick report, which goes to the commanding officer; the weekly medical and sanitary returns (in triplicate), which go to the principal medical officer of the district and the Surgeon-General at the army head-quarters. Monthly and annual reports have also to be prepared; so that there is a good deal of writing to do. A hospital writer is also allowed, a soldier, to assist generally.

But the medical officer's right-hand man is the apothecary; and, as this class of warrant-officer belongs specially to India, a detailed description of his duties may prove interesting. The "Subordinate Medical Department" consists of apothecaries, assistant-apothecaries, and hospital apprentices. Europeans or Eurasians, between the ages of fourteen and eighteen, can enter it. A boy commences as hospital apprentice, and is attached to a hospital of a British regiment for two years. At the end of that time, he has to pass an examination in the elements of anatomy, medicine, and surgery, and, more particularly, the preparation and doses of medicines. If successful, he then goes to the Medical College in Calcutta for three years; and after that term, if pronounced fit, he is promoted to be assistant-apothecary. There are two classes in this grade; after five years' service in it, he can pass by examination from the second to the first. Then, after another five years, he can be promoted second-class apothecary; and after five years more and a final examination, he can become first-class apothecary. He can serve altogether forty years. The pay is good, and the pension comfortable. Many of them make a good deal by practice among natives. In every hospital of a British cavalry or infantry regiment, there are one apothecary, one assistant-apothecary, and two or more hospital apprentices. A battery of artillery has one assistant-apothecary. These warrant-officers are responsible to the medical officer in charge for the safe custody of all the medicines and instruments. All dangerous drugs are marked with a yellow label, with the word "Poison" on it, and these are always kept locked up in a cabinet by themselves. The apothecary pays attention to this. He takes down the medical officer's prescriptions and orders, when going rounds. He either makes up the medicines with his own hand, or superintends the native compounder when preparing them. He keeps the surgical instruments in good order, and sees that they are fit for immediate use. The medical officer himself inspects them frequently. The apothecary is responsible that the patients get their medicines at the stated times; he looks after all the details, and, in the absence of the medical officers, is the working head. He prepares the daily list of diets and extras required by the patients, and gives it to the purveyor, a native under the commissariat officer. He gets ready the monthly diet-sheets, showing the expenditure of every single item, supported by vouchers,

which have to be passed by the pay-examiners. The medical officer naturally sees that they are correct, as any loss would have to be borne by himself. He prepares the half-yearly requisition for the supply of medicines and instruments from the medical depôts. Native drugs are supplied monthly from the *bazars*, for which requisitions have also to be prepared. Thus the amount of work and responsibility also devolving on the apothecaries are very considerable; and it makes a great deal of difference to a medical officer if his apothecary be a good one or not. Some of them, it must be confessed, are not as careful and diligent as they might be; but, as a rule, they are hardworking and painstaking, very kind and attentive to the men when in hospital, and, on the whole, are a valuable class of public servants.

In the hospital of a British infantry regiment, averaging, when not divided by detachments being at different stations, between 700 and 800 men, there is a large staff of native servants: over fifty. There are two compounders, five cooks, six *bheesties* or water-carriers, and seven sweepers. These attend to the latrines, which are on the dry-earth system, and keep the wards and ground surrounding the building clean. There are two dressers and twenty *coolies* or personal attendants for the patients. Besides these, the native purveyor has half a dozen subordinates. He takes charge of all the wine and "medical comforts" that are issued as extras; also all the bedding and clothing for the sick; the latter is changed twice a week at least. With all these in and about the hospital, collected together on the last day of the month, when the muster is taken by the medical officer, they form a good body of men; and their pay is no slight item of expense to the Government.

ASSOCIATION INTELLIGENCE.

SHROPSHIRE AND MID-WALES BRANCH.

THE annual meeting of the above Branch will be held at the Lion Hotel, Shrewsbury, on Wednesday, September 19th, at 1.30 P.M.: J. RIDER, Esq., President, in the Chair.

The dinner will take place at the Lion Hotel, at 4.30. Tickets, 7s. 6d. each, exclusive of wine.

The Secretary will feel obliged if those members who intend to read papers, or bring forward subjects for discussion, will kindly inform him as soon as convenient.

HENRY NELSON EDWARDS, *Honorary Secretary*.
Shrewsbury, September 3rd, 1877.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting will be held at the Council Chamber, Town Hall, Stockton-on-Tees, on Tuesday, September 25th, at 3 o'clock P.M.: S. W. BROADBENT, Esq., President.

The following papers and communications have been promised.

1. Mr. Broadbent: Short Report of Case of Sudden Death from Embolism of Superior Vena Cava; with Specimen.

2. Mr. Laidler: Short account of a Case of Extraction of a Foreign Body (pen-case) from the Left Bronchus by a new invention.

3. Mr. Laidler will exhibit and explain the "Bronchial Plummet" which he has invented.

4. Dr. Murphy will exhibit and explain a "Retractor" for keeping open the Incision after Tracheotomy, while a tube is being introduced or a foreign body extracted.

5. Dr. Murphy: On Uterine Catarrh.

6. Dr. Philipson: Report of a Case of Ovarian Cancer.

Dinner at the Black Lion Hotel, Stockton, at 5 o'clock P.M. Charge, exclusive of wine, 6s. 6d.

Gentlemen who intend being present at the dinner are requested kindly to give notice to Dr. Foss, Stockton, on or before Friday, September 21st.

The Chairman of the Committee of the Stockton Hospital, and Dr. Foss, will be happy to see as many of the members as can attend, at the Stockton Hospital, at 12 o'clock, and will conduct them over the Hospital.

G. H. PHILIPSON, M.D., *Honorary Secretary*.
Newcastle-upon-Tyne, September 11th, 1877.

SOUTH EASTERN DISTRICT: EAST SUSSEX DISTRICT MEETINGS.

THE next meeting of the above District will take place at the Castle Hotel, Hastings, on Friday, September 28th, at 3 P.M.: Dr. BAGSHAW of St. Leonard's in the Chair.

Dinner at 5 o'clock.

Notice of intended communications is requested by Wednesday, the 19th instant, in order that they may be inserted in the usual circular.

THOMAS TROLLOPE, M.D., *Honorary Secretary.*

9, Maze Hill, St. Leonard's-on-Sea, September 11th, 1877.

YORKSHIRE AND EAST YORK AND NORTH LINCOLN BRANCHES.

A CONJOINT meeting of these Branches will be held in the Infirmary, Hull, on Wednesday, October 3rd, 1877, at 1.30 P.M. Members intending to read papers are requested to forward the titles to either of the Secretaries before the 22nd instant.

After the meeting, the members will dine together at 5.30 P.M., at the Station Hotel. Tickets (exclusive of wine), 7s. 6d. each.

W. PROCTER, M.D., York, } *Hon. Secretaries.*
E. P. HARDEY, Hull, }

September 7th, 1877.

STAFFORDSHIRE BRANCH: ORDINARY MEETING.

THE third ordinary meeting of this session was held at the Mines' Drainage Offices, Darlington Street, Wolverhampton, on May 24th, 1877. Present: Dr. MILLINGTON in the chair, and thirty-four members.

New Members.—Dr. C. A. McMunn of Wolverhampton and Dr. J. Cooke of Tettenhall were elected members of the Branch.

Habitual Drunkards Bill.—It was proposed by Dr. BODINGTON, seconded by Mr. SPANTON, and carried unanimously:—"That the members present be requested to sign a petition to be presented to the House of Commons in favour of Dr. Cameron's Bill."

Prosecution of Unqualified Practitioners.—Mr. SPANTON (in the absence of Mr. FOLKER) proposed, and Mr. WESTON seconded, the following resolution: "That the Council of the Branch be requested to represent to the Council of the Association the desirability of undertaking the work of prosecuting unqualified persons who represent themselves as members of the profession."—An amendment, moved by Mr. MANBY, seconded by Dr. ARLIDGE, and supported by Dr. Totherick, Mr. Kely, Dr. Bodington, and Mr. Garner, was carried: "That, under present circumstances, it is advisable that the consideration of the question raised by the motion should be deferred until after the conclusion of the next session of Parliament."

Pathological Specimens, etc.—1. Mr. SPANTON exhibited a specimen of Cystic Sarcoma of the right breast, removed from a female.

2. Mr. FROST showed a leg which had been amputated for Osteoid Cancer.

3. Mr. GARNER made a few remarks upon a large Vesical Calculus removed *post mortem* from a woman.

4. Mr. J. H. HARTILL exhibited an Ovum about four weeks old in the membranes entire; also a specimen of Extra-uterine Foetation, removed from a woman who died suddenly from hæmorrhage into the peritoneal cavity.

5. Mr. VINCENT JACKSON showed a boy, aged 10, whose right Median Nerve above the wrist had been surgically reunited on account of its traumatic division, the result being a complete return of the sensibility and usefulness of the hand.

6. Dr. MILLINGTON showed a drawing of a case of Epithelial Cancer of the upper part of the larynx.

Paper.—Mr. E. F. WESTON read a paper upon Tracheotomy in Diphtheritic Croup, with two successful cases.

PUBLIC HEALTH

POOR-LAW MEDICAL SERVICES.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

MACCLESFIELD.—Measles and scarlet fever prevailed in this borough during 1876 to such an extent that the deaths from the former were nearly equal in number to the total from the seven chief zymotic diseases in 1875. There were 220 deaths from zymotic diseases, out of the 1,157 deaths from all causes. There were also 21 deaths of children under one year out of each 100 registered births, which is nearly 5 per cent. above the mean for London. The birth-rate was 35.2 and the death-rate 28.1 per 1,000 living. There is no hospital accommodation for the reception of cases of infectious diseases, although Dr. Buchanan has reported as to its necessity.

HACKNEY DISTRICT.—The annual chronicle of the sanitary history of a metropolitan borough does not present much opportunity for sensational writing or for originality of treatment on the part of its author. It will, however, be evident to any one who will take the trouble to read the report which Dr. Tripe has forwarded to us, that he has very fully and carefully narrated the doings of his department during the past year; and that, as might be expected from the attention which he has always given to statistics, his pages bristle with numbers, and are replete with the information which is to be deduced from them. The chief sanitary event of the year in the district seems to have been the outbreak of small-pox with which Hackney, in common with other parts of the metropolis, was visited. The epidemic, which commenced in July, increased steadily in severity until the close of the year, since which it has been gradually declining. From a table which Dr. Tripe gives, it appears that, whilst it was much more severe at the outset than was the corresponding outbreak of 1871-2, it was more quickly reduced in its proportions. In point of time, the outbreak was delayed beyond the period at which it might have been expected; viz., in 1875. This Dr. Tripe attributes to the large reduction in the proportion of susceptible persons amongst the population which was produced by the severity of the epidemic of 1871-2. The greater rapidity with which the violence of the recent epidemic was reduced may, we have no doubt, be attributed to the greater efficiency with which it was practicable to carry out preventive measures in 1876-7 than in 1871-2. The work of disinfection especially seems to have been carried on with great energy, nearly 5,350 articles having been passed through that ordeal in the course of the year. The total cost to the district of this branch of sanitary work was only £87 : 19 : 6—a sum which is incommensurate with the great advantages which were reaped from it. We do not know whether the borough of Hackney is at all a *champ de bataille* for the anti-vaccinationist faction, or whether the instructive remarks and evidence which Dr. Tripe has thought well to introduce into his report on the subject of vaccination are merely intended for the benefit of the inhabitants generally: in either case, they are in good place, since, in the face of the stupid and mischievous agitation which is so industriously fomented on this subject, it is well to lose no opportunity of indoctrinating the public with the real facts of the case. In connection with the progress of population in the district, Dr. Tripe states that there has been an increase of the birth-rate over the death-rate; the ratio of the two having been as 180 to 100 in 1867, and as 193 to 100 in 1876. He adduces this fact in contradiction to the fallacy that a high birth-rate necessarily induces a high death-rate; and he adds, in further confirmation of his argument, the fact that the death-rate of Hackney for the year 1876, even including the deaths from small-pox, was as low as 18.5, being the smallest recorded since 1856. As there appear to be persons—judging from a recent correspondence—who still believe in the necessity of the coincidence to which Dr. Tripe adverts, we commend his illustration to their attention, though we must confess that we have not much expectation that it will lead to their conversion, inasmuch as a man who cannot see that such a connection, when it does exist, as it unquestionably sometimes does, is due, not to a necessary connection, but to the action of special disturbing causes, is not likely to be convinced, even though all Hackney were to rise in argument against him to the contrary. Dr. Tripe insists with some energy upon the impropriety of applying the term "preventable" to what are commonly termed zymotic diseases, on the ground that to do so leads the public to believe that "medical officers of health or others have the power of preventing all deaths from such causes". We must confess that this objection appears to us somewhat hypercritical; nor can we see any reason why the public should not be allowed to entertain the idea that all such deaths are essentially preventable, provided only that medical officers of health and others were invested with the powers that are necessary to prevent them. One thing is very certain: that, if we once lead the public to believe that zymotic diseases are not generally preventable, we shall in a very large degree remove the *raison d'être* not only of medical officers of health, but of the whole system of legislation of which they form a part. The work of nuisance-inspectors appears to be carried on in Hackney with great efficiency, no less than 6,103 houses having been inspected during the course of the year. In addition to this number, 517 houses were inspected against which specific complaints had been lodged. But it is important to note, as illustrating the importance of a systematic house-to-house investigation, that no less than seven times as many nuisances were discovered during the systematic investigation as were the subject of particular complaint. This plan of house-to-house inspection has been regularly carried out in Hackney since 1866; and we think that Dr. Tripe is quite justified in asserting, as he does, in regard to it, that it has doubtless assisted most materially in keeping the death-rate of the district so

low in comparison with that of other metropolitan districts and parishes. The effect of this systematic inspection is especially shown in the diminution of overcrowding which it brings about, this form of nuisance being particularly fostered by the sense of impunity with which it can be perpetrated in localities where regular inspection is unknown. We think, therefore, that the borough of Hackney is to be congratulated on the evidence of activity in every branch of its sanitary department which Dr. Tripe's report offers; and the tabulated statement of deaths with which it concludes gives valuable information to the local authority as to those parts of their district in which the ravages of infectious disease indicate probable sanitary deficiencies against which all their watchful efforts will have to be directed.

CARLISLE.—The deaths from scarlet fever and typhus, as well as from all causes, were much smaller than in former years, as there were only 800 deaths in 1876, against 1,055 in 1874. In 1874, there were 275 deaths from scarlet fever and typhus, and only 8 in 1876; so that the annual death-rate was below 21.

GOOLE.—This urban district contains a population of about 9,000, averaging about five persons to a house. Dr. Parsons says that the houses for the working classes have been built in the fimsiest way, and are being rapidly pushed forwards, to avoid the new by-laws which have been sent to the Local Government Board. The drainage, especially in the older parts of the town, is said to be bad, the drains being of brick and flat bottomed. The water-supply is derived from wells, and was found to be polluted in about one-third of those examined. There were 390 births in 1876, and 203 deaths, giving a death-rate of 22.5 per 1,000, or 21.3 when corrected for extraneous deaths, against 25.6 in 1875. The deaths from zymotic diseases occurred in the proportion of 4.6 per 1,000 population, and there were 19 deaths of infants out of each 100 born.

GREAT YARMOUTH.—There were 1,490 births and 920 deaths registered in 1876, giving a birth-rate of 32.53 and a death-rate of 20.08 per 1,000 living, which is nearly 1.0 below the average death-rate of "fifty cities and towns in England and Wales". There were 155 deaths from zymotic causes, of which 98 were due to diarrhoea (chiefly amongst children), 22 to scarlet fever, 16 to fever, 12 to whooping-cough, 6 to measles, and 1 to cholera. The health of the town is very satisfactory at the present time. Much sanitary improvement has recently taken place; viz., the erection of an infectious diseases hospital and a Ransom's disinfecting apparatus; the formation of a new cemetery; the ventilation of the public sewers; the farming out, to a responsible person, of the "scavengering" and "night-soil removal"; the enforced closure of a large number of polluted wells; a more rigid observance of the sanitary laws relating to cleanliness about privies, yards, and outhouses; repeated inspection of cowhouses, dairies, etc.; and a strict supervision of milk and other articles of food. The following sanitary matters are now engaging the attention of the sanitary authority: flushing the sewers; removal of the slaughter-houses and the erection of a public *abattoir* in lieu thereof; registration of the lodging-houses; and the construction of one or more new streets through thickly populated localities.

MILITARY AND NAVAL MEDICAL SERVICES.

STAFF-SURGEON JAMES CROWDER EASTCOTT (1865) has been promoted to the rank of Fleet-Surgeon in Her Majesty's Fleet, with seniority of the 30th of August.

DEPUTY INSPECTOR-GENERAL OF HOSPITALS AND FLEETS Chas. T. S. Kevern has been awarded the Greenwich Hospital pension of £50 a year, vacant by the death, on the 14th ultimo, of Deputy Inspector-General of Hospitals and Fleets John Andrews.

EXEMPTION from payment of income-tax on lodging-money issued at home stations, has been extended by the Commissioners of Inland Revenue to army medical officers not doing duty with regiments, chaplains to the forces, and departmental officers and subordinates of the Royal Engineer Department. This privilege, however, will not be allowed in the cases of officers appointed to a station for a fixed term of years. The new arrangements will take effect from 1st of April 1877, and paymasters have been authorised to refund to the officers concerned the income duty on lodging-money paid by them since that date.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, September 6th, 1877.

Bateley, Robert Godfrey, Balaam Street, Plaistow, E.
Bottrell, James Francis Henry, 42, Bloomsbury Square
Buckle, John, The Oaks, Catton, Norwich
Hooker, Joseph Stenson, 46, Watling Street, E.C.
Leah, William, Birchfield, Birmingham
Salter, John Reynolds, Taunton
Trevan, Frederick Adolphus, Port Isaac, Cornwall

The following gentlemen also on the same day passed their primary professional examination.

Griffiths, Ernest Edward, Middlesex Hospital
Jeram, James William, St. Bartholomew's Hospital
Pearce, John Puckey, Middlesex Hospital
Ward, George Smith, King's College

MEDICAL VACANCIES.

The following vacancies are announced:—
AMERSHAM UNION—Medical Officer. Salary, £50 per annum, and fees. Applications on or before the 27th instant.
BEDFORD GENERAL INFIRMARY—Resident Surgeon. Salary, £120 per annum, with board and lodging. Applications on or before the 27th instant.
BRISTOL GENERAL HOSPITAL—Physician's Assistant. Salary, £50 per annum, with board, lodging, and washing. Applications to be made on or before the 21st instant.
CITY OF LONDON LYING-IN HOSPITAL, City Road—Consulting Surgeon. Applications on or before the 18th instant.
DENTAL HOSPITAL OF LONDON—Medical Tutor and Demonstrator of Dental Operations. Salary, £100 per annum to each of the offices. Applications to be made on or before the 15th instant.
KENT AND CANTERBURY HOSPITAL—House Surgeon and Dispenser. Salary, £50 per annum, with board, lodging, and washing. Applications on or before the 21st instant.
NORTH DEVON INFIRMARY, Barnstaple—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to be made on or before the 21st instant.
ROYAL FREE HOSPITAL, Gray's Inn Road—Assistant Physician and Assistant Surgeon. Applications to be made on or before the 19th instant.
ST. MARY'S HOSPITAL MEDICAL SCHOOL—Pathologist and Medical Tutor. Salary, £100 per annum. Applications on or before the 24th instant.
ST. MATTHEW, Bethnal Green Resident Medical Officer. Salary, £50 per annum, with board and residence. Applications on or before the 27th instant.
WESTERN GENERAL DISPENSARY—Hon. Physician and Hon. Surgeon. Applications on or before the 18th instant.
WESTMINSTER HOSPITAL—House-Surgeon and Resident Obstetric Assistant. Applications to be made on or before the 15th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

MOORE, Charles Arthur, M.B., C.M., appointed House-Surgeon to the Royal United Hospital, Bath, *vice* Walter Brown, L.R.C.P., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The Charge for inserting notices of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

ADAMS.—On September 5th, at Ripplingale, Lincolnshire, the wife of George Norris Adams, M.B., of a son.
RENTON.—On September 7th, 1877, at Viewlands, Blackhill, Durham, the wife of *George Renton, M.D., of a son.
THOMSON.—On September 6th, at Kingswinford, Staffordshire, the wife of *John Thomson, of a daughter.
STEWART.—On September 10th, 1877, at Mount Hope, Sneyd Park, near Bristol, the wife of *James Stewart, B.A., L.R.C.P.Ed., of a daughter.

MARRIAGE.

FRANCIS BRYAN.—On September 6th, at St. Peter's Church, Northampton, by the Rev. J. C. B. W. Warwick, Rector of Astley Abbots, Shropshire (brother-in-law of the bride), assisted by the Rev. E. N. Tom, Rector of the Parish, the Rev. David Francis, Vicar of Llanydywydd, Cardigan, South Wales, to Amy, third daughter of *J. M. Bryan, M.D., F.R.C.S., of Northampton.

DEATH.

TURNER, Robert, M.D., at Keith, Banffshire, aged 74, on September 7th.

BEQUESTS. The late Mrs. Sarah Hinton of Bath has left £1000 to the Royal United Hospital in that city.

DR. C. HARRISON of Lincoln has been appointed a Certifying Surgeon under the Factory Act, in the room of the late Mr. E. F. Broadbent.

MR. GEORGE OWEN MEAD, Senior Surgical Scholar (1877) of St. Bartholomew's Hospital, has been appointed one of the Surgeons of the National Society for the Aid of the Sick and Wounded, and has left England for Constantinople and the seat of war in Bulgaria.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 2 P.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

THE EDUCATIONAL NUMBER.

THE following corrections require to be made in the Educational number issued last week. At page 344, under St. Bartholomew's Hospital (Appointments), it should have been stated that the house-physicians and house-surgeons are appointed *without paying a fee*. At page 355, note m, for "Mr. Merryweather," read "Dr. Merryweather"; and in note n, for "Assistant-Surgeon, Mr. Snell," read "Ophthalmic Surgeon, Mr. Snell." At page 358, in the column headed "Aberdeen University," the Professorship of Physiology of Institutes of Medicine should have been marked "vacant"; and in the same column, opposite "Botany," for "Dr. Dickie," read "Mr. Trail." In the same page, in footnote c, for "Dr. Pirrie," read "D. Kerr, and Dr. A. Ogston," read "Dr. Pirrie, Dr. A. Ogston, and Dr. Will"; and for "Junior Surgeon, Dr. Will," read "Junior Surgeon, Dr. Garden".

SPHYMOGRAM.

SIR,—Notwithstanding the objections which were made against it at its introduction, "telegram" has turned out to be a very useful, and is a not inelegant, word. Why should not "sphygmogram" replace the lengthy "sphygmographic tracing," which is even more unwieldy than the now obsolete and forgotten "telegraphic despatch"? I have personally found it a very convenient term.—I am, sir, your obedient servant.

Leeds, September 10th, 1877.

T. CHURTON.

* * * If we remember rightly, the principal objection to the word "telegram" was, that it was not correctly formed, and that the proper word to use was "telegrapheme". Some controversy on the subject took place between etymologists; but custom has settled the question in favour of "telegram". As our correspondent says, the word is a convenient one; and we see no objection to the introduction of "sphygmogram".

SWIMMING.

GOETHE, in the very interesting notes to the *West-östlicher Divan*, speaking of the education of Kjekjawus, king of the Delemites, author of the *Book of Kabus*, relates the following anecdote. "His father, in order to develop his bodily capacity to the utmost, entrusted him to the care of a most excellent master, who brought him back to him well acquainted with all knightly accomplishments: shooting, riding, shooting with the bow while riding, casting the spear, and, while carrying the bat, to hit the ball in the cleverest manner. After he had succeeded in all these, the king appeared to be satisfied in the highest degree, and accorded great praise to the teacher; but he added: 'I have one thing to speak of. For everything in which I have instructed my son, there is need of a foreign instrument: one cannot ride without a horse, one cannot shoot without a bow, and what is his arm without a spear, and what the game without the bat and the ball? There is one thing which you have not taught him, which only requires himself, which is most necessary, and in which no one can assist him.' The teacher stood abashed: the prince had not learnt to swim. This also, notwithstanding the opposition of the prince, was learnt, and was the means of saving his life when he was shipwrecked on the Euphrates, while on a pilgrimage to Mecca with a great number of pilgrims, when but few lives were saved."

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

THE RECOGNITION OF HOMŒOPATHISTS.

SIR,—I had thought that the recently raised question as to whether or not we ought to meet homœopaths in consultation had been answered and done with, but the letter in the JOURNAL of the 18th of this month shows me that there is still an idea—in the minds of some persons at least—that homœopaths ought not, as it is put in the adroitly worded letter, to be refused the freest "professional intercourse" with us. It is a really important matter; and I venture to ask to be allowed to express my own difficulties, as I believe others take the same view. I believe in allowing the study and teaching of medicine, and its practice too, to be absolutely free; and I think that all members of the profession should be allowed to do what they honestly believe to be the best for their patients. But it is obvious that, whether the homœopathic theories are true or not, it would not only be waste of time, but it would be absolutely dangerous, for a homœopathic practitioner, and one who believes the system to be nonsense, to be meeting and prescribing at the bedside of a patient. Indeed, this is so obvious, that the claim for the enjoyment of "professional intercourse" has, unless I have entirely misunderstood Dr. Wyld and Dr. Richardson, been based on the assumption by them that the gentlemen who are known as homœopaths are really not believers in the homœopathic theories at all, and that, as a matter of fact, they do not practise homœopathy, except on rare occasions. It is for the homœopaths to rest under this imputation if they choose. I for one quite expected that it would be indignantly denied. I have known homœopathic practitioners personally, and I have always taken them to be honourable gentlemen, who were subject, as I thought, to a sort of craze, but I thought they believed in what they practised, and practised what they professed. I could understand a demand that the homœopathic "system" should be further investigated; I could understand a claim to recognition on the ground that if they are wrong, we at least may be wrong in some of our opinions; but I can not understand that the claim to recognition should be based on the ground that, while calling themselves homœopaths, while declaring that they were followers of a particular system entirely different from anything practised by us—while, in short, reaping all the advantages that the profession of homœopathy may bring them, they are all the time doing exactly the same as we are in the treatment of everything but cholera and three or four other diseases. To base the claim to admission to professional intercourse on such grounds seems to me an insult to their honour and to our common sense. If I have understood Dr. Wyld and Dr. Richardson, it comes to this, that if the homœopaths now in practice were compelled to enter the Palace of Truth and to declare exactly what their inmost thoughts were, we should hear the reputed homœopathist address his unhappy patients somewhat after this fashion: "We," he would say, "as Dr. Wyld has already told you, have for many years led you to believe you were being treated on a wonderful system, different from anything taught or practised by any of the leaders of medical science, or by the others who make up the bulk of the medical profession in the world. We have had our special druggists, our pamphlets, our manuals, and our pharmacopœias; we have given you wonderful little globules; we have given you medicines, as you thought, different from anything you could get elsewhere, and we have written you prescriptions that any ordinary practitioner of medicine could not even understand. This, now, has come to an end. As certain indiscreet persons have told you, except in a very few cases, we really have been all along treating you just in the same way as if you had gone to Dr. X, or Mr. Y, in the next street. Do not be angry: we meant it all for the best. You have had all the pleasure of believing that you were supporting the one true faith of an oppressed minority struggling to uphold its system against overwhelming odds, and you have, after all, been none the worse. If you have cholera or anything in that line, we shall be happy to use the real homœopathic article on the true principles; but for the future you may as well understand that we treat you just like the others would do. We did not volunteer all this information before, because we did not see any use in so doing. We got on very well as we were, and you were happy; but it is all out now, and we may tell you that it is no use trying to find a real homœopathist. No one now believes in Hahnemann's theories, nor in the doctrine of *similia similibus curantur*, so you need not leave us, in the hope of finding any one who does."

I have not the slightest desire to put the case unfairly: I only wish that we should clearly understand the position held by the homœopaths. If it be true that they do not believe what they have professed and do not practise, as their patients and the public believe, after a method entirely different from ourselves, let them say so distinctly to their patients and to the public, and they will be welcomed by us all. We, as a profession, are not bound to any "system" whatever, but we are bound by the rules of common honesty and straightforwardness; and I for one protest, not against the recognition of men who have been believers in homœopathy but who have changed their opinions, but against the recognition of any men, whether homœopaths or anything else, on the confessed ground that they do not really practise according to the system they profess.—I am, yours respectfully,

August 25th, 1877.

SIR,—I have read with care Dr. Wyld's "Form of Resolution intended for signature by both parties", and am led to ask him by what process does he propose to divest himself and friends of the distinctive name (Homœopath) under which he has founded his practice and present repute. 1. Is Dr. Wyld prepared to suppress the publication of the *Homœopathic Medical Directory*, or at least to withdraw, once and for all, his name and that of those who have signed his very ingeniously worded resolution, from the *Homœopathic Medical Directory*? 2. Will Dr. Wyld and his friends undertake to suppress the sale of homœopathic books, tracts, leaflets, and Journal, by homœopathic druggists, whose windows and counters are covered with such literature? 3. Will Dr. Wyld and his friends set their faces against a practice confined, so far as I know, entirely to homœopathic practitioners, of prescribing for unseen patients who send a detail of their symptoms derived solely from their own feelings and imaginations?

The Resolution holds that it is competent for any qualified medical man to adopt any theory or practice which he believes to be best for his patients. I would remind Dr. Wyld that his method of practice is not founded upon a theory but upon a dogma, and that the sect has always maintained that it was in possession of a

fundamental "law" (*similia similibus*) by which drugs should be prescribed for the cure of disease. The homœopath is the medical dogmatist of the present day, and in my judgment, it is the clinging to this dogma that best accounts for the sterile issue of their labours from a scientific point of view. As judged by the reports of their annual congresses, a genuine desire has arisen amongst some of the leaders to get rid of the logical inconveniences in practice of their "fundamental law"; and, consequently, they now ask to be considered as physicians who are ready to receive light come from whence it may, and let it be ever so much opposed to their distinctive dogma. I am quite prepared to aid them in their aspirations for freedom; but, before we sign Dr. Wyld's Resolution, let us have a distinct understanding in regard to the concessions which the homœopath is prepared to make in order to assimilate its relationship to the great body of the profession and the public to that adopted by the leading practitioners of the old school.—I am, Sir, yours, Birmingham, August 28th, 1877. F.R.C.S.

SIR,—It has much surprised me that so little notice has hitherto been taken of the very important resolution which has obtained the signatures of the leading homœopathic practitioners in London, and which was published in the JOURNAL of August 18th. Surely the elementary principles of toleration are too well understood in the latter half of the nineteenth century for any one to deny that it is "competent for any qualified medical man to adopt any theory or practice which he believes to be best for his patients". We all claim this liberty of opinion, and what we claim for ourselves we ought to be ready to grant to others. The only real justification we ever had for excluding qualified homœopathic practitioners from professional intercourse was that, by assuming a distinctive title, they (whether intentionally or unintentionally matters not) were advertising to the public the possession on their part of a special method of treatment; but now that this idea is repudiated by them, we have not an atom of excuse for excluding these gentlemen from our societies and libraries, and from professional intercourse generally. Let me not, however, be misunderstood. Every man has a right, in his individual capacity, to refuse to meet in consultation any homœopathic practitioner, just as he has a right to refuse to meet any other practitioner; and I have no doubt that, with reference to homœopaths, this right will continue to be exercised by a large number of practitioners—by myself, probably, amongst the number, for many years to come; but the present attitude of the profession goes much further than this. One of the famous resolutions passed at the Brighton meeting of the Association in 1851 was directed not simply against homœopaths themselves, but against those "who, under various pretences, meet in consultation or hold professional intercourse with those who practise homœopathy". This resolution manifestly oversteps the bounds within which a society can rightfully control individual action and judgment; it is essentially as immoral as the prohibitory regulations of a trades-union, and, like other immoral actions, it is sure to bring with it its own punishment; and I trust that at the next annual meeting this resolution will be openly repudiated and rescinded. Of this I am satisfied, that there is a large and growing mass of liberal opinion within the profession with regard to this subject, and nothing can possibly be gained by shirking its discussion. The professional conscience is becoming awakened, and the question will not sleep. Let us, therefore, take this problem in hand, temperately and gravely, as befits the discussion of all ethical questions; and surely there will be found within the profession sufficient wisdom and forbearance not merely to settle the outstanding differences between ourselves and homœopathic practitioners, but also to define more clearly the limits within which the profession, in its collective capacity, or as a society, can rightly interfere with the actions and judgments of its individual members.—I am, sir, yours truly, Manchester, September 3rd, 1877. JAMES ROSS.

VACCINATION.

SIR,—It is of great importance that the question "Why will not one vesicle suffice?" asked by Mr. Hardwicke in your issue of the 25th instant, should be quickly and decisively answered, as it is an inquiry frequently made by parents; and invidious comparisons are often drawn between the doctor who produces one vesicle only, and him who desires to produce four or five. Will you allow me to draw attention to the evidence collected by Mr. Marson, from the records of the Small-pox Hospital, showing that in nearly six thousand cases of small-pox, contracted after vaccination, the mortality per cent. was in those having one cicatrix 7½; in those having two cicatrices, 4½; in those having three cicatrices, 1¾; in those having four or more, ¾; whilst in the unvaccinated it was 35½? Facts like these should make us hesitate to leave an infant to the comparative unprotectedness of one or two cicatrices, in conformity with the wish of a timid parent, who generally needs but a little kindly explanation of the above statistics to take a more rational view of the case.—I am, sir, your obedient servant, Birmingham, August 27th, 1877. HENRY DENNE.

SIR,—In spite of the letters signed "J. E. S." and "Public Vaccinator", which appear in your issue to-day, I am still an unbeliever in the superior value of four marks in vaccination over two or one. Your correspondents give statistical reasons, backed up with the experience of some years, why four marks are not only superior to two, but actually the least number that can effectually shield the patient from variola. The question, however, to my mind is not what statistics show, for they are not infallible; what I want to get at is, what is the reason that four marks are so superior to two in shielding from variola? What scientific reasons have we for assuming that four are superior in efficacy to two, and yet that eight are not in the same degree superior to four? If your correspondents will answer me this satisfactorily, my opinion may, perhaps, be shaken. At present, I am fain to believe that two marks will suffice equally as well as four, and, therefore, to make four is to inflict cruelty on the infant.—I am, Sir, yours faithfully, Sheffield, September 1st, 1877. HERBERT JUNIUS HARDWICKE.

REGULATION OF COLONIAL DEGREES.

MR. J. B. JOHNSON (Highgate).—The resolution to which our correspondent refers was passed at a meeting of the General Medical Council on May 17th. It will be found (as copied from the minutes of the Council) at page 646 of the BRITISH MEDICAL JOURNAL for May 26th. It was proposed by Mr. Simon and seconded by Dr. Storrar, and was as follows:—"That the Council would approve of amendments of the Medical Act to the following effect.—a. That medical qualifications granted under legal authority in any part of Her Majesty's dominions outside the United Kingdom, and entitling to practise in such parts, should be registrable within the United Kingdom on the same terms as qualifications which are granted within the United Kingdom, but in a separately arranged section of the Register." (Sections b and c of the resolution refer to registration of foreign degrees, etc.) The resolution as quoted by our correspondent is not correctly given—in fact, it was never passed in that form. The General Medical Council as yet possesses no power of registering foreign or colonial degrees obtained since the passing of the Medical Act.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

DEVILLE v. THE HARROGATE IMPROVEMENT COMMISSIONERS.

SIR,—Judgment was given in this case in July last in favour of the plaintiff (Dr. Deville) on all points. The bill of Dr. Deville's solicitor was taxed a few days ago, and I am now able to state the costs of this trial, so far as Dr. Deville is concerned. Total of Messrs. Paley's account, £326 16s.; less to be paid by the Harrogate Commissioners, £182 9s. 6d.; leaving £144 6s. 6d. to be paid by Dr. Deville. This is exclusive of his personal costs in attending the trial, journeys to London, etc. Towards the payment of this sum I have received subscriptions to the amount of £69 12s. 6d.

I venture to think that, in prosecuting this action, Dr. Deville has done public service, for which he deserves the sympathy and assistance of the Public Health Service. By exposing himself to the risk of a loss of £500 or £600, and an actual loss of nearly £150, he has gained no personal advantage beyond the vindication of his character, but he has established an important principle which cannot fail to promote the independence of medical officers of health. I propose to keep the account open for a month, and in the meantime shall be glad to receive the subscriptions of those who, like myself, feel that Dr. Deville ought not personally to bear the cost of these proceedings. A balance sheet showing the subscriptions and payments will be forwarded to each subscriber.—I am, sir, yours faithfully, S. W. NORTH, President Yorkshire Association of Medical Officers of Health. Castlegate, York, Sept. 5th, 1877.

Subscriptions Received.

£ s. d.		£ s. d.	
Yorkshire Branch of the British Medical Association	5 5 0	Bell, J. H., M.D., Bradford	1 1 0
Philips, H., Manchester	10 0 0	Iliffe, F., Derby	1 1 0
Teale, T. P., F.R.C.S., Leeds	3 3 0	Symes, E. W., M.D., Skipton	1 1 0
Parsons, H. F., M.D., Goole	3 3 0	Scott, T. M.D., Ilkley	3 3 0
Britton, T., M.D., Halifax	1 1 0	Braithwaite, J., M.D., Leeds	1 1 0
Griffiths, F. T., M.D., Sheffield	5 5 0	Ratson, H., M.D., London	0 10 6
Hicks, E. B., Easingwold	2 2 0	Batesdale, W. M., F.R.C.S., Harrogate	1 1 0
Goldie, G., Leeds	1 1 0	Eastwood, J. W., M.D., Darlington	0 10 0
North, S. W., York	3 3 0	Goyder, D., M.D., Bradford	0 10 0
Jackson, A., Sheffield	2 2 0	Kenyon, G. A., M.D., Chester	1 1 0
Hartley, J. F., M.B., Harrogate	1 1 0	Davis, W. H., M.D., Tean	1 1 0
Husband, W. D., York	1 1 0	Stoke-upon-Trent	1 1 0
Marshall, J. F., York	1 1 0	Myrtle, A. S., M.D., Harrogate	2 2 0
Shann, G., M.D., York	1 1 0	Mauder, C. F., F.R.C.S., London	1 1 0
Burnie, W., M.D., Bradford	1 1 0	Barrett, W., Harrogate	1 1 0
Ball, A., York	0 10 6	Walker, J. H., Pickering	0 10 0
Vacher, F., Birkenhead	2 2 0	Harris, H., M.D., Redruth	0 10 0
Knaggs, S., Huddersfield	1 1 0	Plyth, A. W., Barnstaple	1 1 0
Procter, W., M.D., York	0 10 0	Wightman, W., M.D., Ackworth	1 1 0
Low, R. B., M.D., Helmsley	0 10 6	Bond, F. T., M.D., Gloucester	1 1 0
White, H. T., Harrogate	1 0 0	Anonymous	1 1 0
De Bartolomé, M., Martin, M.D., Sheffield	1 1 0		

A HINT TO CIGAR-SMOKERS.

The following hint to cigar-smokers is copied from the *Medical and Surgical Reporter*. Some smokers puncture the end of the cigar previously to lighting it; some bite off the end; others cut it smoothly with a knife. The latter is preferable, as may be judged from the case of a girl reported in a contemporary. She had an ugly chancre on her lip. Independent of the question as to how she became possessed of the sore, the interest of the case (and a melancholy one it is for smokers) centres in the occupation by means of which the girl got her living, for she had been pursuing it for a period of three weeks with this sore on her lip. She was employed in a cigar manufactory, where her work consisted in rolling the outer leaf round the bulk of the cigar, and when she came to finish off the end, which is put into the mouth, the custom was to bite the superfluous material off with her teeth, making the ends to "stick with a lick". The girl naively supposed that some poison had got from the tobacco into a small crack of the lip. But how much poison is it possible got from the lip among the tobacco? She estimated the number of cigars completed in one day at twenty dozen!

JAMAICA.

R. M. will feel obliged by any information as to the climate of Jamaica, near Kingston, as regards its salubrity or otherwise. Would a residence of five or six years or so, with ordinary precautions as to diet, catching cold, etc., be likely to be prejudicial to the health of a young married lady with average general health and an average constitution? He does not mean in specially favourably picked places in the hills, but anywhere within daily driving distance of Kingston—say four or five miles. There is at present an epidemic of yellow fever in Kingston. May this be looked upon as abnormal, and a danger avoidable in event of any similar recurrence by a short absence to the hills, etc.? or would there be much risk to a lady situated as described? Is the climate very enervating, or less so than many parts of India? Is not the climate of the hills on the Newcastle range considered particularly fine and healthy?

A QUESTION OF OBSTETRIC ETHICS.

ALPHA asks for an opinion in the following case. Mrs. C., aged 34, has had five children, of which two only are now living—one a boy much deformed by rickets, the other an infant about six months old, which is at the point of death almost, from impaired nutrition, the mother having been unable to suckle it. The other children have died early from the same cause. At her last confinement she flooded dangerously, necessitating the injection of perchloride of iron solution. She is of very relaxed habit, and subject to epileptiform attacks. For three months previously to her last parturition, she was confined to her bed in consequence of extreme debility. Immediately after her labour, she had several severe convulsions, attended with severe flooding, which was not entirely stopped by the perchloride. She was not out of danger for nearly a week. There is reason to believe that she is again pregnant. It appears probable that, if the pregnancy continue, the lives of both mother and child will be in great danger. Would it be justifiable to induce abortion?

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

WHOOPING-COUGH.

A MEMBER has presented a great many cases of this complaint under his care, and asks, lastly, if any of the usual remedies with very little or any satisfaction, he would be obliged should some reader of this JOURNAL favour him with the treatment he may have found most successful. The cases are principally club and parish, necessarily change of air or any other costly or elaborate mode of treatment would be out of the question.

M.R.C.S. and L.S.A.—A licentiate of the Society of Apothecaries has no legal right, as such, to call himself "surgeon"; but we know no means of preventing him from doing so, except the force of professional opinion.

THE LORD CHANCELLOR'S VISITOR IN LUNACY.

SIR,—Referring to Dr. Winn's letter on the above subject in the BRITISH MEDICAL JOURNAL of April 28th last, I beg to relate a circumstance which occurred in a provincial private asylum not many years ago, as a corroboration of his remarks on the subject. One Sunday afternoon about three o'clock, there was a ring at the bell, and the moment the door was opened a tall large man bounced into the hall, saying, "I want to see J. H.; show me her at once." However, the servant declined until he saw me; and as we had a Chancery patient by the name he mentioned, I said, "I presume you are a Chancery visitor", and took him at once to the patient, giving him a short description of her case on the way. We found the patient in bed, the nurse with her, under no restraint, the door open, the room on the same floor as the sitting-room, and everything clean and in good order. She was rather noisy and talkative; and when the visitor asked her if she had anything to complain of, told him to go away, as she did not want to see him. The nurse explained that the reason of her being in bed was, that she had taken aperient medicine the night previously; as it had acted rather freely, she felt languid after dinner, and asked the nurse to let her go to bed. The visitor asked me if she were entered in the book as secluded, which of course I answered in the negative, as I was not even aware that she was in bed. His only remark was, "You ought to have entered her into the book as secluded". He did not ask a single question as to her mental condition, or being visited by her friends. About a week after this visit, we received a notice from the relatives of this patient, expressing much regret that they had received an order from the Lord Chancellor for their relative's removal, as they were quite convinced that she had been well cared for. The poor patient herself declared she would not go unless carried out, and force was used to remove her. Now to this day I am not aware who this visitor was, whether medical or legal. He was quite a stranger, and neither sent in his card nor introduced himself. Former Chancery visitors always sent in their cards, and have always been courteous and just, if particular. In no previous instance in this asylum during my superintendency for a period of about six years had there been a visit on a Sunday from a Chancery visitor, and the proprietor had during a period of over twenty years only once had a Sunday visit, and then it was apologised for. In the above instance, the visitor neither sent in his card, introduced himself, nor asked to see either the proprietor or superintendent. I believe it was his first visit. If it were done as a surprise, he quite succeeded, as I certainly felt very much surprised, and something more, that any one in his position could act as he did; and he publicly boasted in a railway carriage of his clever Sunday visits to several asylums, which I am quite sure would have equally surprised the Lord Chancellor himself had it come to his knowledge.

I should not probably have taken the trouble to notice this affair had I not seen Dr. Winn's letter; and, on further consideration, I should like to ask whether I should not have been perfectly justified in refusing to allow this visitor to see the patient, or even to enter the house, unless he sent in his card. Another question arises: when a fresh visitor is appointed, should not the proprietors of asylums be in due courtesy apprised of it? else any stranger may be admitted if he call himself a visitor.—I am, sir, yours obediently,

August 1877.

RESIDENT PHYSICIAN AND SUPERINTENDENT.

PROFESSIONAL ADVERTISING.

A CORRESPONDENT at Southampton has sent us the following extract from a recent number of the *Hampshire Independent*.

"Another Case of Hydrophobia has occurred in the town within the last few days. It seems that on Monday, a youth aged 16, named Humby, living at New Buildings, Spa Road, was bitten on the buttock by a dog, and symptoms of hydrophobia presented themselves on Wednesday, the attack being, we are told, most violent in its character, and lasting four or five hours, during which the patient barked like a dog, bit at every one who came near, and it required three or four persons to hold him. It is stated that Mr. Pomery, surgeon, was then called in, and prescribed medicine, the first dose of which, owing to the spasms in the throat, was with difficulty administered; but after taking three doses, at an hour's interval between each, sleep was induced, and although at first of a fitful character, and disturbed by occasional paroxysms of snarling and biting, the lad remained quiet for several hours, awoke refreshed on Thursday morning, appeared pretty well, and was able to partake of slight nourishment. In the evening of the same day, about ten o'clock, another attack came on, but we are informed that some ten minutes after the medicine was again given he became tranquil. The patient has since gone on very favourably, and hopes are entertained of his complete recovery. The wound, it is stated, when seen after the first attack, was swollen and inflamed, as was also the scar of another dog-bite inflicted six years ago. Should the method of treatment in this case prove ultimately successful, we are informed that it is intended to be made known."

POISONED BREAD.

A CORRESPONDENT of a daily paper writes: "Two relatives of mine about to sail for the Cape were walking with their fellow-traveller—a favourite dog—in the Strand, when the latter picked up a piece of bread, ate it, and died in half-an-hour with all the symptoms of poisoning by strychnia. There will be no inquest in the case of poor 'Dot'; but suppose it had been a child! Can we hang anybody? How came the poisoned bread there? I hear it is not unusual."

THE ASTLEY COOPER PRIZE.

SIR,—I see that the Astley Cooper prize has been awarded, not to Dr. Eulenberg, but to Drs. Eulenberg and Guttmann. I venture to think that in thus awarding this valuable badge for distinctive personal merit, the Medical Staff of Guy's Hospital have failed to carry out in its integrity the especial statute of the late Sir Astley Cooper's munificent bequest, for the reason that if two gentlemen can edit the essay, why not four, or even twenty-four? I write quite disinterestedly, and I think it ought to be distinctly understood that, if Drs. Eulenberg and Guttmann

constitute an amalgamated *Ego* because their brains are in unity "On the Anatomy, Physiology, and Pathology of the Sympathetic Nervous System", for the future, the essay even of six united editors cannot be rejected. I have now before me the conditions of the testator in reference to this matter, which seem rather hard upon the staff of Guy's, for they are altogether excluded as competitors; yet nothing can be more legally clear than that Sir Astley Cooper never intended that the prize essay should be the outcome of more brains than one; and the wording runs thus: "That the essays or treatises to be written for such prize shall contain original experiments and observations which shall not have been previously published, and that each essay or treatise shall (as far as the subject shall admit of) be illustrated by preparations and by drawings, which preparations and drawings shall be added to the Museum of Guy's Hospital, and shall, together with the work itself, and the sole and exclusive interest therein, and the copyright thereof, become henceforth the property of that Institution and shall be relinquished and transferred as such by the successful candidate."—Your obedient servant,

THOMAS STRETCH DOWSE.

NESCIO asks where and on what terms a medical practitioner can procure a couple of tubes of pure vaccine lymph from time to time.

NITRATE OF FURFURINE.

SIR,—The late Professor Fownes was, I believe, the discoverer of furfurine; and its composition may be thus expressed: $C_{10}H_{12}N_2O_6$. It is only slightly soluble in cold water, but in boiling water it is more soluble. When wheat-bran is acted upon by diluted sulphuric acid in a chamber through which a current of steam is passed, a volatile oily body is produced called furfurol. Furfurol, in contact with solution of ammonia, becomes converted into furfurolamide. Furfurolamide, acted upon by caustic potash, is slowly dissolved, and the solution, on cooling, deposits small, white, needle-like crystals; these crystals are furfurine.

Furfurine is a powerful organic base, and forms with acids beautifully crystallisable salts. It has been recommended in neuralgia; and the dose—two to five grains—might, considering the source, be trebled. Sir J. Y. Simpson was wont to try many things, but, because he did so, is there any reason to believe he was always satisfied? I think not. I opine it was so with furfurine nitrate, as no experienced practitioner would dose a neuralgic patient for days and weeks with furfurine, when the neuralgia may depend upon carious teeth or other affection of the jaws or nerves distributed to the affected parts. We all know what confidence our patients place in Sir J. Y. Simpson, and how simple were some of his prescriptions. Nitrate of furfurine may act as a tonic, but there are a dozen other things in daily use more to be relied on, and it is only put among the list of "New Remedies" as a kind of bait. If practitioners would only look a little more deeply into the composition of many so-called panaceas, the good old and well-tried remedies of the *Pharmacopoeia* would not be so often neglected, to the detriment of the patient and chagrin of the practitioner. I hope I am not out of place in saying that the leaders of English practice, in many cases, order things the composition of which they are ignorant, and thus the system of proprietary medicine and newfangled introductions know no proper bounds. The acute practitioner can supply the remainder.—I am, etc.,

Northallerton, August 27th, 1877.

HENRY BROWN.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Macleod, Glasgow; Dr. Paget, Cambridge; Dr. Edis, London; Dr. George Johnson, London; Dr. A. Wahluch, Manchester; Dr. May, Cambridge; Dr. J. Milner Fothergill, London; Dr. T. Clifford Allbutt, Leeds; Dr. R. Farquharson, London; Mr. Arthur Jackson, Sheffield; Dr. Norman Moore, London; M.B.; Dr. Saundby, Birmingham; Mr. Simeon Snell, Sheffield; Mr. G. O. Mead, London; Nescio; Mr. Canley, Great Yarmouth; Dr. Bond, Gloucester; M.R.C.S.; Mr. T. E. Amoyt, Diss; Mr. James Fowler, Wakefield; Dr. H. M. Jay, Chippenham; The Secretary of Apothecaries' Hall; Mr. A. E. W. Fox, Bath; The Registrar-General of England; Mr. Eastes, London; The Registrar-General of Ireland; Dr. J. M. Moore, Dublin; Mr. J. N. Radcliffe, London; Dr. A. S. Taylor, London; Physician; Mr. T. Churton, Leeds; Mr. Vincent Jackson, Wolverhampton; Dr. Joseph Rogers, London; Mr. Richard Wood, Bromsgrove; Messrs. Lee and Nightingale, Liverpool; Mr. R. M. Simon, Manchester; Dr. J. Bell, Edinburgh; Surgeon-Major Porter, Netley; Mr. S. Osborn, London; Our Paris Correspondent; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. Thomas Trollope, St. Leonard's-on-Sea; Dr. G. N. Adams, Rippingale; Dr. George Renton, Blackhill; Our Edinburgh Correspondent; Dr. John Thomson, Kingswinford; Our Dublin Correspondent; Dr. Goodhart, London; Dr. Living, Cambridge; M.R.C.S. & L.S.A.; Dr. Buckley, New York; Dr. Francis Warner, London; Mr. R. B. Smith, Hinckley; Dr. David Foulis, Glasgow; Mr. S. M. Bradley, Manchester; Dr. J. W. Gillespie, London; Mr. T. Marshall, London; Mr. Talfourd Ely, London; Dr. R. S. Turner, Keith; Mr. Arthur W. Bateman, London; Dr. Procter, York; Mr. E. P. Hardey, Hull; Dr. Mackey, Birmingham; Dr. Heinemann, London; Mr. W. Peck, Ipswich; etc.

BOOKS, ETC., RECEIVED.

A System of Volumetric Analysis. By Dr. Emil Fleischer. London: Macmillan and Co. 1877.
The Morphology of the Skull. By W. K. Parker, F.R.S., and G. T. Bettany, M.A., B.Sc. London: Macmillan and Co. 1877.

THE
FOUR APOSTLES OF SURGERY:
 AN HISTORICAL SKETCH.

*Being the Address at the Annual Meeting of the Glasgow and West of Scotland Branch of the British Medical Association.**

By **GEORGE H. B. MACLEOD, F.R.S.E.,**

Surgeon in Ordinary to the Queen in Scotland; Regius Professor of Surgery, University of Glasgow; President of the Branch; etc.

At the end of the fifth century, worn out by sensuality and internal disintegration more than by age, paralysed by internal dissensions and the weakness of satiety, the Roman empire received her *coup de grace* from the vigorous Northmen. Degenerated and contemptible as Rome latterly became, still what there was of science dwelt within her walls, and was well-nigh extinguished as she was overthrown. In her colonies, and especially at Alexandria, some life still remained. Though the great heart was still, the limbs quivered. "The Dark Ages", however, descended like a pall when the mistress of the world disappeared, and continued till the thirteenth century. What knowledge existed was alone found among the Arabs or Saracens, who, securing the Greek authors in their conquests, translated them into their own language. They deserve our gratitude for thus preserving the ancient literature and keeping alight the sacred fire. Their writers—Rhazes, Geber, Avicenna, Avenzoar, Serapion, Haly-Abbas, Averroes, and, before all as regards surgery, Albucasis—were at best copyists, commentators, and occasionally mutilators of the Greek authors, and did almost nothing for the advancement of medicine—"when the Greek ceased to communicate the Saracen ceased to advance" either in philosophy or medicine.

Albucasis used the immovable apparatus in fractures, and did most things with that caution which we now again so much, but more legitimately, employ. The Arabs introduced senna and rhubarb as purgatives in place of hellebore, and they also first used musk, carbonate of soda and potash, the mineral acids, alum, corrosive sublimate, etc. The great popularity enjoyed for long by the Jews as physicians arose from their knowledge of Arabic, and hence of the Greek fathers.

Bagdad and the Saracen kingdom fell before the Turks in the thirteenth century, and we have to turn elsewhere for the centre of the learning of the time. That men, even in that dark and unfavourable period, parched for knowledge is well proved by the extraordinary enthusiasm with which some sought for it. Constantine, a native of Carthage, as the story is told, in the eleventh century, made the long and arduous journey to the Euphrates valley and further India, seeking from every source for medical information. After the sore travel of forty years, he was rejected as a sorcerer by his native city and cast out. Salerno received him, and in return he bestowed on her those treasures which he had acquired, re-translating into Greek the Arabian classics. Thus arose the first, and for long the most renowned, medical school in Europe, a school to which the returning Crusaders were wont to add their hard-earned experience. At Salerno, degrees in medicine were first bestowed, and the custom of the temples of crowning the student at the end of his curriculum with laurel was afterwards changed into the use of a cap, a practice which is followed, as you all know, in our own universities.

The early physicians had, in some respects, an advantage over our modern practitioners, as we find they took an oath to receive no fee from a poor man, and to take no part of the profit derived from the sale of drugs. Would it were so still!

As learning slowly awoke, the great universities became established. Bologna led in the twelfth century, and afterwards those of Italy, France, Spain, Great Britain, and Germany followed, for the most part, in rapid succession. Students crowded to learn, so that in some of the university towns the gownsmen exceeded in number the other inhabitants. Roger Bacon and Lanfranc, during the thirteenth century, did much for medicine in England and France.

The Church again associated itself closely with medicine. During the middle ages, the physicians were nearly all in holy orders. Popes and councils could not divorce the unnatural compact nor altogether hinder the priests from shedding blood. It was, however, in order to secure the services of laymen to bleed and do the lesser operations of surgery that the physicians introduced the barbers into the citadel—a traitorous step which exacted a heavy penalty. The short razor which

the barbers used both in their special craft and in surgical operations is represented by the straight bistoury which we all employ. In every country in Europe, they acted as a disturbing force in the upheaval of surgery; but, in France, during the fifteenth and sixteenth centuries, they occasioned most annoyance. There many a fierce fight, not with words alone, but also with enraged hands and lethal weapons, took place between the surgeons of the long and the short robe, as they were respectively called, and much discredit and scandal to surgery were thereby occasioned. I am not aware when the connection between the barbers and surgeons was dissolved in France, but in England it occurred in 1745, and in Scotland in 1722, while it subsisted in Spain up to 1863. I may say in passing that apothecaries and grocers were incorporated in England by James I, and pastrycooks had the sole right to sell drugs at one time in France and Germany, as the surgeons in Scotland had to vend "aqua vitæ".

One section of the barber-surgeons in France were called "cutters" or operators, and they alone undertook such operations as lithotomy, herniotomy, and the removal of cataract. Fractures and dislocations were assigned to a special sub-class. These cutters were as a body rough, ready, and somewhat reckless. They were a sort of surgical bagmen, who travelled about seeking employment. They carried various antidotes and appliances in their wallet, and were glad to engage themselves by the job or for a certain period to any individual or corporation who agreed to pay them. From them came the brass basin and striped pole which still often marks the shop of the barber. The colours on the pole, and also those red and blue bottles which distinguish the apothecaries' windows, were suggested by the colour of the blood, and the white stripe on the pole represented the bandage. From the ranks of this illiterate and almost degraded class, however, sprang some of the most distinguished men of the time—Frère Jacques and Frère Côme, Franco, and, before all, Ambroise Paré, were barber-surgeons and "cutters". Up to very recent times, the learning of the profession (which chiefly consisted in being able to read bad Latin and write worse) was credited to the physicians, and to them belonged the duty of teaching anatomy to the surgeons. I understand that the charter of the Royal College of Physicians of London gives to the Fellows of that learned body the right to perform surgical operations.

Just before the sixteenth century, surgery had reached the lowest depths. The priesthood had so shackled its limbs that it was powerless to advance. All the professors of medicine in the Italian universities were in orders, and priests alone were eligible for degrees. Nay, more; the possession of the tonsure was requisite to the mere study of medicine in many of the great schools. Some of the most celebrated physicians of the time held high Church preferments, and thus theology and medicine were so conjoined as to lead to endless difficulties in the progress of both departments of knowledge.

In the charter of the College of St. Côme, secured by Pitard's influence in the fifteenth century, it is expressly stated that the practice of surgery had fallen into the hands of "murderers, thieves, coiners, spies, deceivers, and usurers"; and, in Germany, an artisan would not take an apprentice who was related to a barber, bathman, or butcher.

In the enormous flood of evil which has flowed in on the profession during past ages from empirics and charlatans, it would be wonderful if no grain of good had occasionally been cast up. It cannot be denied that, at long intervals, real improvements and discoveries have been made by irregular practitioners. Thus it was that plastic surgery was advanced during the fifteenth century in Italy by the Brancas (father and son), who performed with wonderful address those remarkable operations which, being described during the following century by Taliacotius of Bologna, often go by his name. The Norsini, too, for several generations, were distinguished for their success in lithotomy and in radically curing hernia. This last named operation appears to have attracted much attention during these times, and such atrocious expedients as sewing the testicle into the canal, excising that gland and the cord, laying open the sac, and applying the cautery, were among the measures employed.

In the fourteenth century, and long afterwards, Montpellier was the leading school of medicine, and that partly because of the fostering care of the Popes while resident at Avignon, and perhaps mainly from the rich store of Arabian manuscripts the university had acquired, and which in these days, before printing was invented, was in itself a sufficient claim to distinction. It was there that the celebrated Guy de Chauliac taught. For two hundred years, his *Chirurgia Magna* was the text-book of the schools, and contained many important practical lessons. He used metallic sutures, united tendons as we are beginning again to do, compressed exuberant granulations by metallic plates, and cut subcutaneously various structures. His book is, however, far from being free from the ridiculous superstitions of the time in which he

* Continued from page 374 of last number.

lived. He tells us that, when he studied under Mundinus at Bologna (he who first systematically taught human anatomy), the whole subject was comprised in four demonstrations. In one was explained the nutritive organs, in another the spiritual, in a third the animal, and, lastly, the extremities.

I must pass over the names of many men of some mark, in both general and special surgery, who taught in Italy during the period of which I have been speaking, and my time will not allow of any reference to the institution, at that time, of examinations on entering the profession in France; but I must allude to the uprise of surgery in England, where now it began to make some head. The close connection which then existed between France and England caused English surgeons to study at the then celebrated French schools; and thus it came about that John of Gaddesden, John of Arden, and our own Peter Lowe received their professional instruction in France. The first two lived in the fourteenth and the last in the sixteenth century. From that date till Woodall, at the beginning, and Wiseman, at the end of the seventeenth century, appeared, there was no surgeon of any note in England. Wiseman was evidently both an able and polished man, but, like the rest, he believed in the Royal touch, used red-hot knives to amputate limbs, and the cautery to arrest bleeding.

Interspersed through the writings of various authors, in the fifteenth and sixteenth centuries, are some curious illustrations of the truth of the Preacher's lamentation: "Is there anything whereof it may be said, See, this is new." John de Vigo dressed his stumps with cotton, as Guérin is now advocating. Carpi used mercurial inunction, as Sigmund has strongly recommended. Paracelsus subcutaneously divided varicose veins, and tried to close them by the cautery. Arculanus ligatured the veins at two points in varicocele, and removed a portion of the vessels between. Sponge was administered in gótre. Paré, during the latter part of his career, treated wounds with alcohol to render them non-absorbent, as the French surgeons have again been doing these last few years. Montagnard recommended the head and shoulders of the patient to be lowered when the taxis was employed. Allarton's median operation is just the old Marian, with better means of dilating the wound; while, as regards acupressure, Archigenes of Apamea, as far back as the first century, put a needle below the blood-vessel and fixed it to the flesh—a plan revived by Guillemeau in the sixteenth century, and in our own day by the lamented Sir James Simpson.

Before the period usually described as the revival of letters, the ancient Greek and Latin authors were discovered in various quarters, and had come to be studied in their original language. The works of Celsus appeared before those of Hippocrates and Galen, and they gave a great impulse to medical education. The long dawn at last culminated in the full brilliancy of the sixteenth century. To this rehabilitation of the literary world, it is generally admitted that three chief forces contributed. The discovery of printing, before all; the reformation of religion, by which the rights of private judgment and criticism were secured; and the grand enterprise of Columbus confirmed the revival which, since the beginning of the thirteenth century, had been slowly advancing. The compass allowed long voyages, though it brought the penalty of a new disease. Men travelled further, and acquired greater information. The folly of the schoolmen was patent to many, and the views of the Church on science were seen to be in many essential points erroneous. A crisis came in the mental world, and a deeply pervading fermentation resulted. In medicine, many active agencies were at work. The great universities and schools had begun to influence men. Pathological anatomy was established. Many new diseases—several of them epidemic, others of a most striking nature—appeared. Syphilis was, for the first time, recognised as a widely diffused and Protean malady. Gun-shot wounds caused dismay, but stirred observation and ingenuity.

Germany, where almost no man of repute in surgery, except Gersdorff and Wirtz, had appeared, gave birth to a most eccentric genius in Paracelsus, whose example and writings did enormous service in exploding that blind and disastrous reliance on authority, which was then universal. He was no mean empiric, though, in his drunken humours, he gave forth much that was foolish and untenable. He was, in truth, the most erudite and original man of his time, and his views on medicine gave subject for thought and discussion in every university in Europe for a century after his miserable death in a poor's-house. He died at forty-eight, notwithstanding his infallible elixir. I have stood beside his grave in the cemetery of St. Sebastian at Salzburg; and there learned that, during the great cholera epidemic, the ignorant peasants crowded round his tomb to pray for succour, though his ashes had lain there for four hundred years, so great was the tradition of his skill. He it was who originated the maxim of Hahnemann: "Similia similibus curantur," and inaugurated that chemical treatment of dis-

ease which, in the hands of Van Helmont and others, became subsequently famous. Amidst his inebriate ravings, he gave utterance to many scintillations of wisdom and genius, and is said to have foreshadowed not a few of Hunter's discoveries.

In the sixteenth century, responsive to the call of an awakening intelligence and advancing knowledge, came the third great apostle of surgery, Ambrose Paré. The long shadows of the dark ages were nearly withdrawn. The authority and tyranny of the Church were broken; the true value of the ancient writers was more accurately understood; and many of the various medical corporations had been established, not only abroad, but in our own land. Born of poor parents, forced upward by no influence but that of his own genius and enterprise, Paré made, at nineteen, his first great discovery, when he accidentally found how injurious it was to employ the cautery and boiling oil in gun-shot wounds. The story of how this came about is too well known to require recital. He had the intelligence to comprehend the full import of the observation, and to work it out into new principles, which have been since the means of preventing much misery and saving innumerable lives. The old leaven of superstition, however, crops out in his use of the celebrated "oil of whelps", to concoct which live puppy dogs were immersed in boiling oil, and added to an infusion of earth-worms in white-wine, and which he substituted for the cautery. This he finally abandoned for alcohol, having turpentine and aromatics mixed with it, and this he used as an antiseptic during a terrible outbreak of hospital gangrene. His crowning discovery was, of course, the ligature in amputation, and so obviating the horrors of that ghastly plunge of the quivering flesh into boiling liquids, or the slow agony of the copperas button. These terrible cruelties unfortunately survived Paré's denunciations, and were in use for long after his time. It is obvious, from Paré's statement, that he was ignorant at the time he used the ligature in amputation that Celsus spoke of it at all, and that it was from meditating upon its use in recent wounds that he determined to employ it in amputation. He attributes the idea to the special inspiration of heaven, "for the good of mankind and the honour of surgery". He drew out the mouth of the bleeding vessel with forceps, and tied it in the first instance, and, if bleeding recurred, he passed a thread through the tissues from the skin, round the vessel and out again to the surface, so as to fix it to the flesh. Paré was the first also to tie a band round the limb, so as to command the bleeding during amputation. Before his time, the tape had been merely used to hold back the soft parts.

It is well that the gentleman of the household of the Prince de Rohan, whose limb was first amputated by the new method, should be immortalised. It was of him that Paré used the oft-quoted expression: "I dressed him and God healed him." Perhaps no single discovery has had so happy and wide-spread an influence on the progress of surgery. With it, a proper covering could be sought for the bone, and amputation performed in sound textures and not alone in mortified parts, and those terrible engines which had been suggested for the more rapid severance of the limb were no longer thought of.

Contemporary with Paré were Sylvius and Vesalius, or, to drop the conceit of their latinised names, Dubois (or De le Boë) and Wittings. The former taught in Paris, and the latter, though born in Brussels, professed at Padua. To them, anatomy owed much. Sylvius invented anatomical injections; and the great work of Vesalius, published when he was but twenty-nine, was the starting-point of the modern system. No stronger proof can be given of the influence of authority in these times than that, when Vesalius demonstrated the monstrous errors in human anatomy into which Galen had fallen, he was persecuted for his temerity, as men preferred to err with Galen than be corrected by Vesalius.

In Paris, at the same time, Vidus Vidius (Guido Guidi) of Florence did much for surgery by vulgarising its study, as he taught in the vernacular. In 1572, Paré published his great work on surgery. It marked an era in the history of the science, and was adopted throughout Christendom. No man could have a higher personal and professional reputation than Paré, whose worship, as was said, was after that of God, directed to science.

Other contemporaries of Paré, were Fabricius d'Aquapendente and the "cutter" or barber-surgeon Franco. The latter lived in an obscure provincial town of France. He was a very great operator and original genius. To him we owe the lateral operation for stone, as now practised, and also the suggestion of the suprapubic operation.

Just as Hippocrates was but one of a great fellowship of gifted men, so Paré lived contemporaneously or closely preceded many great thinkers, physicists, and writers on numerous subjects, which established that renaissance which seemed like a new creation of intelligence and vigour on the earth.

Anatomy, on which surgery intimately and necessarily leans, was advanced during the following centuries by a host of distinguished men. In Italy, Eustachius, Fallopius, Cæsalpinus, Fabricius, Asellini, Malpighi, Morgagni, and Scarpa followed close on one another. In Switzerland, Hildanus and Haller, "the father of physiology", brought renown to their country and credit to medicine. In France, appeared Bellose, Dionis, Le Dran, Winslow, Anel, Petit, and Desault; in Holland, Scultetus, Ruysch, Nuck, and Boerhaave; in Germany, Heister, Albinus, and Richter. In England, Lord Bacon explicated the laws which should govern observation and judgment; while Harvey immortalised his age by his great discovery; and Sydenham, "the modern Hippocrates", and others, practised and wrote. The French Academy of Surgery, founded in 1743, acquired the highest authority, and its *Memoirs* are replete with valuable observations and reflections.

Along with all this progress, there was, however, much gross quackery and ignorance. Sir Kenelm Digby, with his sympathetic powders; Crazy Sally, and others, with their unscrupulous pretensions; cancer-curers, witches, the Royal touch ("Rex tangit te, Deus sanat"), fasting-girls, and a host of other impostors, flourished in the sixteenth and seventeenth centuries. An account of their doings forms one of the most curious, as it is one of the most humiliating pages in the history of our country. The ridiculous dress and manners, too, of the regular practitioners of that time did not tend to exalt the profession in the eyes of the public, but called forth much satire and contempt. Morel made the first attempt to produce the tourniquet, which Petit completed, and thereby added a most important item to the surgeon's armamentarium.

If my time had allowed, I would very gladly have referred to the careers of two very different men who lived in the eighteenth century, and who, though not surgeons, had a great influence on the medical opinion of their day. I refer to Cullen and Brown. The former did admirable service, and, by establishing clinical teaching in Edinburgh, contributed largely to the early celebrity of that school. The latter, though said to have originated a system, and to have much interested the speculative theorists of his day, was in reality so crazy or eccentric as to have well merited the epithet of "the Paracelsus of Scotland".

[To be continued.]

USE OF THE ACTUAL CAUTERY IN PHARYNGEAL DISEASE.*

FOR the last six months, I have had in use at the Throat Dispensary the method recommended by Dr. Carl Michel (*Deutsche Zeitschrift für Chirurgie*, 1873) for granular and nodular thickenings of the mucous membrane of the pharynx. I can fully corroborate the statements made by him and others as to the admirable results of this mode of treatment in this usually intractable affection. Not only in thickenings of the mucous membrane, but also in enlarged tonsils (chronic), may a rapid and effectual change for the better be confidently anticipated from the use of the cautery.

For private practice, the galvano-cautery (a convenient form of which was supplied to me by Messrs. Mayer and Meltzer) is best suited; but, in dispensary practice, I have from the first used simple cautery-irons, which are heated in the fire and applied forthwith to the throats of the patients. These cautery-irons are made of thick wire with a tapering bulb at one end and a hook at the other end. The bulb is necessary to retain the heat, as a wire is soon cooled by the mucus, and the application thus deprived of its efficacy. The whole length of the iron is fifteen inches: the thickness of the bulb being about a quarter of an inch. The hook at the end facilitates the carrying of the iron when in a heated state. By arranging matters so that the patients sit with their backs towards the fireplace, the process of heating may be carried on without exciting any alarm; and if, as should always be the case, the iron be applied at a black or very dull red heat, the patients do not as a rule object to the use of the cautery. I have now treated eighty-three cases of chronic pharyngitis with thickening of the mucous membrane by various methods. Of these eighty-three cases, thirty-five have been treated by the actual cautery, and I have adopted it almost exclusively in the treatment of this disease.

It is important to notice that each thickened nodule should be separately cauterised. Dr. Riesenfeld uses a sort of knife-shaped cautery, with which he strokes the surface of the pharynx. This appears to be destructive of the sound as well as of the diseased mucous membrane, and therefore unnecessarily severe.

DAVID FOULIS, M.D.,
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CLINICAL LECTURES ON THE VARIETIES OF PHTHISIS.

Delivered at the Hospital for Consumption, &c.

By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.,
Physician to the Hospital.

LECTURE I.—PATHOLOGY AND CLASSIFICATION.

GENTLEMEN,—The disease which we are called upon to treat in this hospital on a large scale, phthisis pulmonalis, has been the subject of many attempts at classification in the hands of careful observers. Some have taken an anatomical basis for their arrangement, others a clinical one; others, again, have tried a compound of the two, and have made the classification partly clinical and partly pathological. A fourth set have declared that it is impossible to divide phthisis into any satisfactory classes at all, and have stated that the only safe arrangement would be, according to duration, into acute and chronic cases, all other distinctions being purely dogmatic and artificial, and the disease one and indivisible. While the difficulties of any definite arrangement are very great, it must be admitted that the attainment of this object is highly desirable simply for convenience sake; for we find ourselves talking about scrofulous phthisis, pneumonic phthisis, laryngeal phthisis, and so forth, without explaining what we really mean by those terms; and, if we could separate cases of consumption into groups, not necessarily sharply defined, but each presenting some leading anatomical or clinical feature, we should considerably improve our chance of securing good records and adding largely to our stock of well arranged knowledge. In order to do this, we must take a survey of the chief pathological elements of consumptive disease, as in the preponderating influence of each of these in different cases lies often the secret of the varied forms the disease assumes. In too many instances, the *post mortem* examination of a case of phthisis reveals little of the various morbid processes which have brought about death. In the mere shell of a lung that remains, we see that not only have normal structure and function been obliterated, but that the diseased products, the very destroyers themselves, have undergone disintegration and removal. From such specimens, we learn little or nothing; but, in those less advanced, we are able to recognise the principal actors in the tragedy, and to assign to each its proper part. The pathological appearances are briefly as follows.

1. The various kinds of pneumonia: croupous, catarrhal, and interstitial.
2. Tubercle: grey and white, discrete and aggregated.
3. Necrobiotic changes, *i.e.*, caseation, ulceration, and cretification.
4. Fibrosis.
5. Lung-pigmentation.
6. Various morbid changes in the bronchi, bronchial glands, and pleuræ.

Let us now briefly consider these processes in their relation to phthisis, beginning with the pneumonias.

1. *Croupous* pneumonia is the form of pulmonary inflammation where lobes, and not lobules, are primarily affected, and is characterised by its three well known stages:—1. Engorgement; 2. Red hepatisation, marked by exudation of fibrin and red corpuscles, and leucocytes, with occasional rupture of capillaries; 3. Grey hepatisation, where further emigration of leucocytes is accompanied by epithelial proliferation and followed by retrogressive changes in the exuded products. This form of pneumonia most commonly results in (1) resolution, through liquefaction of fibrin, fatty disintegration of epithelium, and subsequent absorption or expectoration of exuded materials. It may also end (2) in abscess, (3) in gangrene, and (4) in chronic pneumonia. We need not concern ourselves with any but the first and last forms of termination, as the others are not common in phthisis. It is as well to note that croupous pneumonia is to be found in phthisical lungs, as I have heard it stoutly maintained that such a product cannot exist under the circumstances, as consumptive patients do not possess that standard of health which would enable them to produce anything but catarrhal or caseous pneumonia.

You can easily convince yourselves of the accuracy of my statement by a visit to the *post mortem* room, where you will find plenty of examples of all the stages of croupous pneumonia, especially of red hepatisation in connection with cases of recently formed tubercle. Whole lobes are seen consolidated and impervious to air, and, on section, show aggregations of miliary tubercle, either grey or commencing

* Abstract of a paper read before the Medico-Chirurgical Society of Glasgow.

to caseate, scattered through them, standing out in bold relief against the deep red of the rest of the hepatised lung. Some of these masses of consolidation become absorbed, and we can trace the process during life by the accompanying physical signs. More frequently the lung does not clear up, the exudation remains, becomes organised with blood-vessels and lymphatics, and thickening of the alveolar wall takes place; in fact, the pneumonia becomes chronic, and may lead at a future time to further retrogressive changes.

Catarrhal pneumonia or broncho-pneumonia is commonly met with in phthisis, and is distinguished pathologically from croupous by its starting from the bronchi, by its involving not lobes, but lobules; by its being accompanied by pulmonary collapse; by its limited character and histological products. The colour of the points affected are greyish yellow, and they vary considerably in size from a pin's head to a cluster of lobules, giving to the lung a marbled appearance, from the admixture of pigment contained in the alveolar wall. The alveoli are blocked and stuffed to distension with large epithelial cells, which contain several nuclei. There are also leucocytes and fibrin exuded from the adjacent vessels.

This form is very difficult to resolve; the cells in time caseate and become expectorated, or are absorbed, and the absorption of this material appears to cause irritation and consequent hyperplasia of the lymphatics; but more will be said on this head when we discuss catarrhal phthisis.

Interstitial pneumonia is a chronic inflammatory process of the lung, in which thickening of the alveolar walls and of the interalveolar tissue takes place by means of a fibro-nucleated growth, and a gradual obliteration of the alveoli is the result. It is generally unilateral. The pleura and interlobular septa are largely thickened, the lung becomes shrunken, the alveolar structure destroyed, and the bronchi dilated. These latter are sometimes the seat of secondary inflammation, owing to the difficulty of expectoration and to the retention in them of irritating secretion. Ulceration takes place in their walls, and thus excavations are found in connection with the tubes.

Interstitial pneumonia generally follows one of the acute forms of pneumonia, and is identical with cirrhosis of the lung, and, moreover, is the main element of fibroid phthisis. Such are the pneumonias found in phthisical lungs, and we must take full note of them, as they are important landmarks in separating the different varieties of phthisis.

2. The forms of tubercle are *grey*, *white*, and *yellow*, and they vary considerably in size, from a pin's head to a hempseed, and are found singly or in groups. The grey tubercle or miliary tubercle histologically consists of two elements:—*a.* Large multinucleated cells with branching processes, containing much granular material and bright nucleoli; *b.* A reticulum of adenoid, or small-celled, tissue. This latter consists of delicate fibres interlacing, and containing in the meshes a number of small lymphoid cells. There are also a certain number of epithelial cells.

The white tubercles differ only from the grey in the fact that the epithelial element preponderates. The yellow tubercle, on the other hand, is grey or white variety undergoing caseation, and being gradually converted into fat or amorphous granules.

As regards the grey tubercle and its histological constituents, there is much discussion, especially as to the part played by each and its origin.

Klein affirms that, in some of the most rapid cases of acute tuberculosis, no adenoid growth is to be found, but only desquamative or catarrhal pneumonia; and states that, in some specimens examined by him, in the central or earlier portion of a tubercular nodule there was nothing but fibrinous exudation, and, at the peripheral or later portion, there was no fibrinous matter, but only spherical multinucleated cells; or, again, else the alveolus was filled by one large multinucleated or giant-cell. Klein considers that these different appearances represent different stages of the process. First comes the fibrinous exudation and fills up the alveoli, but is gradually absorbed by the surrounding tissue, which is in a state of increased activity, as is shown by its infiltration with fluid, and by the distended blood-vessels. The exudation disappears and is replaced by groups of cells or by one giant-cell. If the irritation last long enough, the small-celled tissue appears in the alveolar wall.

The nature of the giant-cell is much disputed. Hering says that it is simply a lymphatic cut across; Ziegler, that it originates from colourless blood-corpuscles; Klein and others maintain that it is the offspring of the alveolar epithelium; and this last theory, from the position of the cell, and the possibility of its isolation, seems most probable. Dr. Green, whose admirable drawings and specimens have done much to elucidate the pathology of phthisis, considers that the differences in the histological characters of tubercle depend on difference in the ages of nodules and the intensity of the tuberculous pro-

cesses. If the process be very intense, the nodules will consist almost exclusively of epithelial accumulations and fibrinous exudations within the alveoli, and they will undergo disintegration. If the process be less intense, nodules attain an advanced age, necrosis is less rapid and complete, and, therefore, there will be more time to develop adenoid tissue and multinucleated cells. Lastly, in the least severe and most chronic forms, the formation of multinucleated branched cells and adenoid tissue reaches its maximum.

This seems to me a very reasonable view, and one likely to reconcile the apparently conflicting views held by distinguished pathologists as to the nature of tubercle; for, while Rokitsansky and Dr. C. J. B. Williams maintained that tubercle was an exudation from the blood-vessels, the latter assigning a large part in the process to the leucocytes or *sarcophytes*, as he calls them, Drs. Sanderson and Wilson Fox conclude from their observations that it is entirely a lymphatic, or rather adenoid, growth; and that, in all specimens of tubercle, the small-celled tissue is present. Dr. Klein and Dr. Green's preparations show that all these processes may be present, and that their appearance or non-appearance are questions of time and of intensity of the tubercular process.

3. The *necrobiotic* changes in tubercle arise partly from its non-vascularity and partly from the adenoid growth invading the vascular walls and in time blocking up the vessels. Caseation takes place first in the grey and white tubercle, yellow tubercle being the result; the large aggregations become involved in the process, and we consequently get caseous masses of various sizes. In time, communication with a bronchus is established, and the caseous mass is removed by ulceration and expectoration, a cavity marking its site; or again, the caseous mass may remain quiescent in the lung and increase of the interlobular tissue may take place in its neighbourhood, finally encapsulating and isolating it. In this condition, the mass soon loses moisture and passes from caseation into cretification, and is converted first into material like mortar, and then into the calcareous material often expectorated by consumptives.

4. Another ending of tubercle is *fibrosis*. This in old cases is a very common transformation, the histological changes being as follows. The small-celled tissue and its reticulum exhibit a tendency to assume spindle-shaped forms, the nuclei become more and more elongated, and, in a short time, fibroid tissue has formed.

This tissue plays a very important part in the pathology of phthisis; for, whilst it is in many cases an agent of invasion, choking up alveoli by spreading along their walls, it is remarkably free from any tendency to break down, but remains firm and tough to the end of the chapter. Its chief function is to limit the area of the destructive processes, which it often does most effectually, isolating portions of the lung which are the seat of active tuberculation or of softening; and, by its tendency to shrink, it promotes the cicatrization of cavities.

5. *Lung-pigmentation* is common in cases of phthisis of long standing, and appeared to be the result of chronic inflammation; but I believe its exact causation is not yet known.

6. The changes in the *pleura* in phthisis are various. In most chronic cases, adhesions and thickening are found, and generally overlying the diseased portions of lung. At the apices, which are most commonly the earliest portions attacked, the pleura is often enormously thickened and of cartilaginous hardness, proving, in the case of cavities, a good bulwark against any chance of pneumothorax. At the base of the lung, the thickened pleura often undergoes that change which has been so well described and explained by Dr. Douglas Powell. The layers, each somewhat thickened, are separated by a striated jelly-like material, which is cedematous connective tissue, the fine striae of which pass vertically from one pleural surface to another. The explanation is, that the shrinking of the damaged portion of lung causes a considerable separation between the parietal and visceral layers of pleura, and this space is filled in by serous fluid effused into the meshes of the connective tissue of the stretched adhesions. In instances of phthisis arising from pleuropneumonia or pleurisy, we get the whole pleura adherent and thickened. The changes in the bronchi in phthisis partake, to a great extent, of the changes in the alveolar wall, and we find inflammatory and catarrhal products, ulceration, tuberculation, and fibrosis present in different cases. The bronchial glands undergo pigmentary change in some patients, becoming exceedingly dark in colour, and in others undergoing caseation and cretification.

Before quitting this part of the subject, let us bear in mind that the main histological changes in the lung of phthisis, as defined by Dr. Green, are: 1. Accumulation of epithelial cells within the alveolus; 2. Exudation of fibrin and leucocytes within the alveoli; 3. Thickening of walls of alveoli and of minute bronchioles by small-celled tissue; 4. Increase of interlobular connective tissue. And we must not forget that, in the formation of even the simplest form of lesion—*e.g.*, grey miliary tubercle—may

include the first three processes, so that we cannot regard any one growth or formation as a basis of tubercle; it is rather a combination of several processes—adenoid growth, epithelial proliferation, and exudation from the blood-vessels—each playing its part, and giving place in time to necrobiotic changes.

Having now before us the pathological agents concerned in a case of phthisis, let us inquire the conditions of their action. These are three:—1. Predisposition. The patient must be predisposed, not necessarily through hereditary or family taint, for this does not exist in more than half the number of consumptive patients, but there is generally some depressing cause, such as hard work, insufficient food, or great anxiety, which weakens him, and renders him more liable to the action of exciting causes of disease. 2. Irritation. This is generally manifested in the lungs, either on a portion or on the whole, by various exciting agents, such as bronchial catarrh or inflammatory attacks, involving the various pulmonary tissues, causing epithelial proliferation, exudation from vessels, followed by necrobiosis. 3. Infection; or, as Dr. Sanderson defines it, the property by which, if a chronic induration due to overcrowded corpusculature exist in any organ, it is apt to give rise to similar processes elsewhere. The process of infection varies in degree, and may be well studied in phthisical lungs. The simplest form of infection which we see is where a caseous mass is surrounded by a zone of miliary tubercle, the granulations being arranged in a circle around the caseous focus, or in lines radiating from it. In these cases, the infection has been traced to the lymphatics, sometimes those of the alveoli, and sometimes those of the bronchi.

Where only small areas are involved, and where the disease does not extend beyond the lungs, it is likely that infection takes place through the lymphatics; but, where both lungs, or where other organs are attacked, the vascular system is probably the path of infection.

Why, it may be asked, are some lesions infective and others not so? This is often the result of their position in the lung, and, therefore, to a certain degree, accidental. When a caseous mass is encapsulated in fibroid tissue, and thus shut out from the vascular and lymphatic systems, it is not likely to give rise to infection; but if, on the other hand, it be in connection with one of the numerous sets of pulmonary lymphatics, or, again, if it be surrounded by a zone of vascularity, it is very likely to become the focus of tubercular infection.

[To be concluded.]

ON URÆMIC ASTHMA.*

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THE affection upon which I venture to speak to-day is one of very great interest to us both as scientific and as practical physicians. Its phenomena are as striking and strange in themselves as they are inexplicable; and, on the other hand, the affection itself is one of the most agonising by which mortals are afflicted. I am not sure, indeed, from my own experience, whether the existence of a certain dyspnoea dependent directly upon uræmia, or connected directly, at any rate, with renal disease, is generally recognised by medical practitioners.† That persons having renal disease have therewith pulmo-cardiac and pleural affections, mostly of a secondary kind; and that such persons suffer from more or less dyspnoea is, of course, familiar lore. What I mean is, that I do not find it to be by any means familiarly known that the subjects of Bright's disease are liable to definite seizures, mainly consisting in intense dyspnoea, coming and going as ordinary asthma comes and goes, and depending as little as this does upon any permanent disease of the lungs.

First of all, then, I will describe the affection as I understand it, and, in doing so, I will keep to clinical facts as nearly as possible. Uræmic asthma is seen in its simplest and, I think, also in its worst form, in that kind of Bright's disease which is known as chronic granular kidney. It may be seen in any state of uræmia, whether this be dependent upon permanent or transient renal disorder; but, in the subjects of granular kidney, the affection is often very severe and very recurrent, and is often dissociated from pleuritic effusion, valvular disease of the heart, and other permanent causes of dyspnoea. How in-

sidiously granular renal disease, with the constitutional state which belongs to it, or to which it belongs, may creep on is well enough known. For months, or even years, it may betray itself only by some loss of flesh, by some fading of the skin, by unusual fatigue after exertion, and so forth. During this time, vascular tension and cardiac hypertrophy are slowly advancing and establishing themselves unknown, it may be, to anyone. One day may then come when such an one has an unpleasant interview with his solicitor, a warning from his doctor, or a quarrel in his home, and that night he is suddenly seized by a dyspnoea so terrible that he has to spring from his bed and strive for his very life, as it seems, for one, two, or three hours before peace brings sleep to his pillow, or rather to his pillows, for never again perhaps will he sleep with less than three or four pillows under his head and shoulders. Not that uræmic asthma always occurs at night any more than epilepsy does, but, like epilepsy, its first attacks are often nocturnal, and often seize the patient in his sleep. Indeed, throughout the malady, the asthma is more terrible at night, as cardiac dyspnoea generally is likewise; still, in its repetition, uræmic asthma becomes more and more irregular in its recurrence, and finally may not wholly disappear for one hour out of the twenty-four. What happens is something as follows. The patient, if awake, becomes aware that his respirations are quickening and are shallower. The distress increases, and a throbbing labouring action of the heart intensifies it. The countenance now becomes anxious, apprehensive, or even terrified, and a somewhat peculiar general muscular restlessness comes on, which seems to be something more than the mere striving for breath or air. Now, with this intense distress, which anon becomes more than this—an agonising, almost mortal conflict—the face is not puffed, congested, and blue, but nipped and pale, and the very lips themselves are blanched. This, in my experience, is always the case, and the observation is a very instructive one. Moreover, in many instances, though by no means in all, a more or less profuse sweat is of the essence of the attack, comes on, that is, with the primary phenomena, and not as a mere consequence of effort or fear. In two cases, I remember that an outbreak of perspiration upon the usually harsh skin was the very first symptom in the train of symptoms which constituted the attack. In other cases, sweating is unimportant in degree, or is even absent. To the ordinary observer, then, the patient is alarmed, and his aspect is apprehensive and pallid; he is extremely restless; he sits upright and breathes shallowly and rapidly; he speaks in gasps or makes rapid fretful signs, and not infrequently he is covered with profuse cold perspiration. To these observations the physician will add as follows. The temporal arteries stand out like pulsating cords, the radial and tracheal arteries are of tendinous rigidity, and the blood-stream is forced into these and other arteries under great pressure; the big overwrought heart heaves over a wide area of the left chest and seems to threaten to burst its bonds. There is as yet little or no cough, and but little sound of phlegm in the air-passages. The chest expands duly, and, on listening over the lungs, the air is heard to enter freely and rapidly over the whole of them, unless their capacity be lessened by some previous disease. After this contest has gone on for a longer or shorter time, the attack relaxes its hold, the respirations become easier, words and sentences are spoken, the face recovers some tranquillity, and there is usually some expectoration. This expectoration is frothy mucus, often tinged with blood; and, in one case under my care, every violent attack was followed by distinct pulmonary apoplexy in patches large enough to be mapped out by physical examination. In this case, the hæmoptysis was, of course, considerable. In all cases, the lungs fill with râles before the termination of the attack. Such are the characters of pure uræmic dyspnoea as seen apart from complications.

Let us now ask ourselves what explanation we can find as we sit watching this awful suffering. The first thing that strikes us is, that the condition is not one of cyanosis, but rather of pallor, shrinking, and incipient collapse; it so much resembles an attack of ordinary asthma in these respects, that the name uræmic asthma may properly be given to it. It is on listening to the chest that we find the most remarkable contrast with common asthma, in the perfect permeation of the pulmonary tissue by the inspired air. It is very strange to witness this strife for breath, as it seems, while, at the same time, we hear the air passing freely throughout the lungs. Indeed, the patient tells us, and we ourselves may see that he is not, as in asthma, unable to draw his breath, but that the drawn breath brings him no relief. It is clear that the air and the blood do not meet in the air-cells, but that the fault does not lie with the air. It must be the blood, then, which does not keep its appointment. Now, in an uncomplicated case, there is no permanent obstruction to the passage of the blood through the lungs; indeed, we know that, in a short time, the air and blood will come again together and the patient will find peace. How is this? Our thoughts now turn to asthma again, and we think of

* Read before the Yorkshire Branch.

† Not only in my own intercourse with my brethren do I find doubts or hesitation about this symptom of uræmia, but I find in medical literature that the true nature and importance of these attacks is only recognised in the latest works on the subject. Dr. George Johnson has recently described uræmic asthma in this Journal, and Dr. Dickinson describes it plainly in the new edition of his work. Uræmic asthma is, however, not mentioned in his first edition (1869); and it is referred to very doubtfully by Dr. Roberts in the chapter on Uræmia in his edition of 1872.

paroxysmal disorders in general, and analogy gradually leads us to suspect that, as in these so in uræmic asthma, the nervous system must in some way be concerned. We are confirmed in this suspicion by the undoubted fact that the paramount causes of the accessions of uræmic asthma—the determining causes, I mean, of the times of their recurrence—are almost wholly of the kind which influence the nervous system. Although locomotion is not without some effect in disturbing respirations, yet, as I have already hinted, perturbation of mind rather than of body is the potent antecedent. In one of the worst cases I ever saw, the attacks were always brought on or greatly aggravated by such kinds of excitement. The needful strain of making his will, the painful visits of dear friends, the annoying visits of business people, or even the reception of more than a very few persons of any kind during the day, were the efficient causes of renewed seizures. On the other hand, perfect tranquillity in one chamber, and the remission of all calls and messages postponed the attacks more or less completely. Again, one lady who had lost a friend in Bright's disease, and knew, therefore, but too well the meaning of albumen in the urine. She had her first asthma on the night of the day when I had unwittingly revealed to her the same terrible diagnosis of her own case also. In a third case, the first asthmatic seizure came upon a patient in the night of the day on which his partner had selfishly and rudely complained to him of his absence from business; and such instances I need not multiply.

How, then, can such irritations of the central nervous system determine the occurrence of this asthma? Before the Medical Section of this Association, at the meeting in Sheffield and on previous occasions, I expressed an opinion that mental distress or anxiety is a potent cause of chronic granular kidney.

Can, therefore, the cause which, when protracted, sets up granular kidney be, in its fluctuations, the cause of the asthmatic attacks? I think not. There seems to be a want of explaining hypothesis in this direction. It would seem rather to be some irritation descending directly upon the heart or pulmonary vessels and stopping or hindering the pulmonary circulation in such a manner that the air entering the air-cells finds no blood to meet it. This seems to me, on the whole, to offer a more likely explanation than the humoral hypothesis; namely, that these asthmatic attacks are evidences of efforts of nature to eliminate blood-poison by the pulmonary mucous membrane. We cannot well conceive of nature striving to push out an offensive tenant; the conception would rather be that, under conditions of osmosis, some ingredient of the blood was escaping upon the pulmonary tract. But the auscultatory phenomena do not support this view; they do not suggest asphyxia by infiltration of the air-cells, nor is the aspect of the patient the aspect of pulmonary congestion, with distribution of un-aerated blood in the systemic vessels. A more likely hypothesis is, that the transient hindrance to the arrival of the blood at the air-surfaces is in the pulmonary vessels themselves. As the bronchioles, by a spasmodic contraction, prevent, in ordinary asthma, the passage of air to the blood, so it may be imagined that like cramping up of the pulmonary arterioles, on the other hand, in uræmic asthma could prevent the passage of blood to the air, and thus the one disease would be a tolerably precise counterpart of the other.*

So far, the hypothesis runs on four legs; but some difficulties still remain. The chief of these is the occurrence of pulmonary hæmorrhage as an integral part of the seizure. This seems to point to a repletion of the pulmonary vessels, and of their relief by bursting or transudation. Moreover, the establishment of some mucous exudation in all cases points in the same direction. Another difficulty lies in the relief often obtained by the use of digitalis. If digitalis contract the blood-vessels, it might rather aggravate than diminish the distress; now it does the reverse. If Dr. Johnson's belief in the opposition between the arterioles and the heart be correct, it may be that the administration of digitalis confirms the heart more than it increases the vascular resistance. If, as some other physiologists believe, the heart and muscular arterioles are consentaneous, the good effects of digitalis would be more easy to comprehend; but the explanation of the attack would be discredited. From this discussion we may pass onward to treatment; for the effects of drugs upon the condition may help us to some assurance of the nature of the complaint.

As the good effects of digitalis are in some degree opposed to my hypothesis of a spasm of the pulmonary arterioles, so again, in its failure, nitrite of amyl offers a like opposition. When I had guessed that the attacks depended upon such spasm, I turned with much hope

to this drug and with slight hopes to aconite. From neither of them, however, have I found the least aid.* In large and increasing doses of digitalis, on the other hand, I have found a means of permanent alleviation of the condition. By large doses, I mean doses between ten and thirty drops of the tincture repeated under careful observation. The essentially neurotic origin of the attacks points to a like direction of the means of relief, and points correctly; for in nervine sedatives we have most potent means at hand. Unfortunately, it is in chronic nephritis of all diseases that sedatives are least admissible; and, although in this disease sedatives often pass away, leaving the patient unharmed, yet in other cases the lightest doses of them cause serious or even fatal lethargy. The patient who in one week has had a quarter of a grain of morphia injected under his skin without harm, in another week dies of an eighth of a grain in his cough-mixture. Nor have we, so far as I know, any trustworthy guide to the state which permits and the state which forbids the opiates. Strangely enough, opiates by the stomach, with the gradual absorption of which the damaged kidneys would seem more able to compete, appear more harmful than morphia suddenly introduced into the circulation by the skin. To my great surprise, I have repeatedly seen subcutaneous morphia used for the breast-pang sometimes seen in chronic nephritis, as well as in uræmic asthma, without ill effects and with ease so precious that I have not dared to forbid its repetition. In no such case have I happened to see it cause danger, though I have never myself dared to prescribe it. To chloral and the inhalation of chloroform a like objection exists, but these means I do venture carefully to prescribe, and with some success. Bromide of potassium is not strong enough to produce rapid effects, but, in full doses, is much safer than stronger sedatives, and is a valuable adjunct to these. Finally, a few leeches to the sternum are often efficacious in giving some relief to the labouring chest.

To sum up, then, we must use all those well known means which prevent or diminish uræmia; we must guard the patient from annoyance and even from pleasurable excitement. If, in spite of our care, the attacks recur, we must give a mixture containing, say, twenty minims of tincture of digitalis, thirty or forty grains of bromide of potassium, and ten grains of chloral, with a liberal addition of ether and cardamoms, and we must repeat this after a due interval. If, nevertheless, the attack hold on its course, we may administer a little chloroform upon a handkerchief, so as to relax the spasm and dull the *besoin de respirer*. Perhaps we ought, in extreme cases, to inject a little morphia under the skin; but this I dare not recommend.

THE MECHANICAL AND OPERATIVE TREATMENT OF PROLAPSE OF THE UTERUS.†

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In the present communication, I do not intend to attempt a full consideration of so important a subject as that indicated by its title, but only to give a short account of two cases of unusually severe character, and deduce from them some practical conclusions as to the treatment of the affection.

CASE I.—Ann M—, aged 36, was admitted into Guy's Hospital under my care on June 27th, 1874. She had been married four years, and had one child two years before. The menses were regular and profuse. She never suffered from prolapse until six months previously, when the womb came down during a severe fit of coughing. This had continued ever since, and latterly she had been unable to restore it. On admission, the vagina was completely inverted, and its mucous membrane converted into a dry skin-like substance, its circumference being more than twelve inches. The procident tumour was found to contain not only the whole of the uterus, but both ovaries, which were recognised by their size and position, and by the pain produced on manipulation. The fundus uteri was directed backward and downward, and the sound passed into it to scarcely more than the normal length. Posterior to the cervix was a large triangular ulcerated surface. The uterus was restored, but became prolapsed again on the slightest muscular effort. The perinæum was found to be very deficient. The patient was kept in bed, and astringent injections were used for about six weeks, at the end of which time the ulceration was completely healed. I then put the case into the hands of one of my surgical colleagues, and on August 7th, Mr. Bryant undertook a plastic operation. This was performed while the uterus was completely external. Two triangular pieces of mucous membrane were removed at the sides of the vagina,

* This hypothesis has been proposed by Dr. Dickenson in his edition of 1877 (p. 446), and also by Dr. George Johnson in his lectures recently published in this journal. Dr. Johnson pursues the comparison with other apnoeas, in a very complete and interesting way, as my readers already know. He also offers a likely explanation of my difficulty in understanding the occurrence of pulmonary hæmorrhage.

* It appears, as regards nitrite of amyl, others have been more fortunate than I.
† Read at the West Kent District Meeting, of the South Eastern Branch.

the apex of each being close to the os uteri, and the base two inches from the ostium vaginae. The denuded surfaces were then covered by bringing together the edges of mucous membrane by a continuous suture of carbolised gut, and the uterus was returned within the vagina. The circumference of the vagina was diminished in this way at least as much as from six to seven inches. The usual operation for the restoration of a ruptured perinæum was then performed, and the denuded surfaces were brought together by deep quilled sutures of fishing-gut. There had been considerable hæmorrhage during the removal of the vaginal mucous membrane, and bleeding recurred again in the evening, so that it was found necessary to plug the vagina. On the third day, bleeding again took place, and the vagina was again plugged, and ice applied. The sutures were removed from the perinæum at the end of seven days, when good union had taken place. From the fourteenth to the twenty-seventh day after the operation, the patient suffered from severe febrile symptoms, and the temperature rose as high as 104.5 deg. She was treated with five grains of quinine every four hours, and eventually recovered well. When she left the hospital, the uterus was in good place, and the vagina would with difficulty admit two fingers.

About a year afterwards, the same patient again made her appearance among my out-patients. The vagina had again dilated, and the uterus and both ovaries were again completely external to the vulva, notwithstanding that there still remained a ring of dense inflammatory deposit encircling the vagina near its outlet. The new perinæum, however, remained intact, and it was found that a modified Hodge's pessary, having its anterior limb bent upward, was retained within the vagina, and kept the uterus in good position.

The result of this case made strikingly manifest the fact, which has been noted by many observers, that, if the ligaments of the uterus have once become relaxed, even though a plastic operation is for the time most completely successful, there is a great liability to the recurrence of the prolapse, if the same causes be still in operation. This occurred in this instance, even though there was no enlargement of the uterus, and it is still more likely to happen if the uterus be elongated and increased in weight. It will be seen, however, that although not permanently successful by itself, yet the operation allowed mechanical means to be afterwards effectually used, which before were impossible.

CASE II.—Mary Ann H—, aged 38, was admitted into Guy's Hospital under my care on July 3rd, 1875. She had had three children, and one miscarriage seven months previously. She had suffered from prolapse since the birth of the last child, two years before, but had always been able to return the womb herself until recently. She was now suffering from extreme difficulty in micturition. The menses were regular and profuse. On admission, the vagina was completely inverted, the mucous membrane dry and resembling skin. The whole of the uterus was external to the vulva, the fundus sharply retroflexed. The os uteri was represented by a minute aperture, which at first would scarcely admit a small probe. This was dilated a little, and the sound was then found to pass four and a half inches, with its point curved backward. Posterior to the os was an extensive ulcerated surface. The uterus was returned with difficulty, and kept up as far as possible by sponges dipped in tannic acid lotion, the patient being kept in bed. She always, however, complained of pain when the womb was within the vagina, and was never happy except when it was external to the vulva. At the end of six weeks, the ulceration was nearly, although not entirely, healed, and I then performed a plastic operation. The uterus was first drawn down externally, and a triangular piece of mucous membrane, having its apex near the os uteri, was removed from the posterior wall of the vagina. A continuous suture of carbolised gut was then put in from the apex nearly to the base of the triangle, and the uterus was returned within the vagina. The mucous membrane was then pared, as is usual in the operation for restoration of the perinæum, so that the vivified surface was continuous with the base of the triangular piece already laid bare. The perinæum was brought together by deep quilled sutures of fishing-gut, and superficial sutures of carbolised gut. The perineal sutures were removed on the sixth day, those of carbolised gut within the vagina being left to dissolve out of their own accord. Both the vaginal and external incisions united well, and the vagina appeared to be well contracted. In this case, however, the patient was not allowed to leave the hospital until a moderate-sized Hodge's pessary had been introduced, with the view of obviating the tendency to a recurrence of the prolapse. The uterus was measured with the sound after the operation, and its length was found to be three inches, or an inch and a half less than it was when the patient first came under observation.

The point which I wish specially to bring before you in reference to these cases, is the advantage which may often be derived in prolapse from a special modification of Hodge's pessary. In the earlier stage

or in the milder form of this affection, a Hodge's pessary is often available in its ordinary form, namely, that in which it has a sigmoid shape when viewed laterally. Under such circumstances, its use is recommended by the most eminent authorities.

The action of the Hodge's pessary in the early stage of prolapse is readily understood; for just as, in following the curved axis of the pelvis, the foetal head becomes extended as it descends during parturition, so the uterus in most cases becomes retroverted as it is prolapsed. If, therefore, by the action of the lever-pessary, the uterus be maintained in a position of slight anteversion, and, therefore, nearly at right angles to the axis of the vagina, while at the same time the posterior vaginal *cul-de-sac* is stretched backwards and upwards, the tendency to prolapse is checked, and in favourable cases the uterus is kept in its natural position at the summit of the vagina. If, however, a Hodge's pessary of the ordinary form be introduced when the vagina has lost its elasticity and the uterus the support of its ligaments, its anterior limb falls below the arch of the pubes, and it is quickly expelled. I believe, however, that in many cases in which it cannot be retained by the tonicity of the vagina, without resting against bony supports, it will yet prove useful if the shape be modified. The kind of instrument which I am accustomed to use is broad and somewhat short, rather square below but rounded at the corners. Its anterior limb is bent upwards and not downwards, so that, viewed laterally, it forms a single curve, namely, a circular arc varying in extent from 90 deg. to nearly 180 deg. The object of this is, that the anterior limb may rest high up behind the pubes, pushing up before it the anterior vaginal *cul-de-sac*. The mode of action of the instrument may be observed by watching the effect of an expulsive effort. The posterior limb is acted on most by the downward force; and, by a leverage action, the broad centre of the pessary, being retained by the vulva, pushes the anterior limb still higher up behind the pubes. This springs back when the muscular effort is relaxed, and, in so doing, pushes the posterior limb up again. The form of instrument preferred by Professor Thomas of New York is one in which the anterior limb is somewhat pointed and curved very much downward, in order that it may fit in beneath the arch of the pubes, and so prevent any displacement by rotation. An approximation to this shape is recommended by Dr. Barnes for the ordinary Hodge's pessary. This projection downwards, however, of the anterior limb of the instrument into the vulva is a serious inconvenience to married women, and in the case of prolapse with a very relaxed vagina, I have found that the wedge-like action of the more pointed extremity greatly favours the escape of the instrument, and that the pessary is never retained unless its anterior limb be kept high up behind the pubes—the resistance of which prevents its escape—and not beneath the arch. In all cases, therefore, I prefer the more square form.

The form of pessary which I have described fails if the vagina be so relaxed and the perinæum so deficient that there is no grasp of the centre of the instrument, a condition which is essential to its action as a lever. Its widest part is then first expelled through the vulva. Various palliative measures are then possible, the best of which is probably the use of a cup-and-stem pessary. In many cases, this does good service, but there are serious drawbacks to the use of any instrument taking its support externally. I believe, therefore, that in most such cases, if the age of the patient be not too great, it is desirable to perform a plastic operation, as was done in the second case which I have related, not with the hope that it will by itself effect a permanent cure, but with the object of bringing the vagina into such a condition that a Hodge's pessary, either of the usual or the modified shape, may afterwards be easily retained. If the vaginal wall be only partially prolapsed, it is generally sufficient for this purpose to restore the ruptured perinæum. If, however, the vagina be completely inverted, and especially if this be the case at its posterior part, it seems to be desirable to lessen its circumference by removing a portion of the mucous membrane. Considering, as I do, that the chief object to be aimed at in the operation is to enable a Hodge's pessary to be afterwards easily retained, I should endeavour to narrow the lower rather than the upper or middle part of the vagina. Hence, of all the methods which have been proposed, I believe that one to be preferable in most instances which was adopted in the second case of which I have read notes, namely, to remove a piece of membrane at the posterior part continuous with that which is laid bare in the incisions for the restoration of the perinæum, and broader below than above. The proceeding recommended by Marion Sims and Enmett, namely, to operate on the anterior vaginal wall, seems to involve a greater risk of involving important structures by approaching too near to the urethra or bladder. Moreover, both this and the operation performed by Mr. Bryant in the first case which I have read, namely, the removal of two pieces at the sides of the vagina, have the effect of narrowing rather

the upper and middle than the lower portion of the canal. Hence, if the uterus once begin again to fall below its natural position and the contracted vagina to yield again, the efficacy of the operation is entirely lost.

In all these operations on the vaginal mucous membrane, the amount of venous hæmorrhage is apt to be very considerable at the time, and there is some danger that the recurrence of bleeding afterwards may require the employment of means which are apt to interfere with the prospect of union. In Case I, it seems probable that the febrile symptoms of septicæmic character, which commenced about a fortnight after the operation, are to be attributed in great measure to the effects of the considerable loss of blood which the patient had undergone. I think that in this respect the plan of removing a single piece of mucous membrane posteriorly has the advantage of effecting the greatest amount of contraction of the canal with the smallest extent of surface vivified.

It would seem that in bringing together the mucous membrane, there is a very great convenience in the use of carbolised gut sutures, which can be left to dissolve and come away of their own accord; for it is very important that the same operation should include the lessening of the vulval orifice by the restoration of the perinæum, and if this be done to a considerable extent, it is scarcely possible to remove sutures from the vagina without endangering the union of the newly formed perinæum.

Hitherto, I have not touched upon the division of cases of prolapse into those of a simple kind, in which there is little or no enlargement of the uterus, and those in which the main condition is that of hypertrophic elongation of the cervix. It is evident, however, that the latter are the more difficult to treat by the means which I have described. In some cases, it is the vaginal portion of the cervix which is mainly affected by hypertrophy. I believe that this is a primary and sometimes a congenital condition, and that the only satisfactory treatment for it is to remove the redundant portion of the cervix by knife, scissors, or *écraseur*. It is very different, however, with those cases, far more commonly met with, in which it is the supravaginal portion of the cervix which is lengthened; with reference to these, there arises the question of the formidable operation recommended by Huguier, namely, to dissect away the cervix from the peritoneum on the one side and the bladder on the other, and to remove by the knife a considerable portion of it. I believe that Huguier and some of his followers have much exaggerated the importance of this elongation of the cervix as a primary condition, and that it but rarely happens while the fundus uteri remains quite at its normal level; for in many cases the supravaginal cervix is not increased in circumference, but, if anything, thinned, and a perceptible diminution is effected in the length of the uterus, as measured by the sound, by merely returning it within the vagina. Engorgement and hypertrophy of the supravaginal cervix may supervene after delivery, and may then be a factor in the causation of prolapse; attenuation of the same part may result from the tension produced by primary prolapse of the anterior vaginal wall. But the most important mechanism by which elongation of the cervix is a secondary result of the displacement commences when the uterus begins to descend externally. During an expulsive effort, the swollen and hypertrophied cervix is forced suddenly through the vulva, and, while it is held strangulated in that position for a greater or less time, the elastic supports of the uterus, tending to lift it again to its normal position, have a direct influence in stretching the supravaginal portion. Many observers have noted how considerable is the diminution in the length of the uterus which may be obtained by strict confinement to bed, while the organ is maintained in its proper position. This was very manifest in Case II, in which the length of the uterus, as measured by the sound, was reduced after the operation on the perinæum from four and a half to three inches, or to two-thirds of its former magnitude. I think, therefore, that the operation for the abscission of the supravaginal cervix can very rarely be required, and that most observers will be disposed to agree with the opinion of Dr. Barnes, that the hope of relieving a condition not in itself entailing serious danger to life does not justify resort to surgical proceedings fraught with such danger of opening the peritoneal cavity or the bladder, of hæmorrhage, and of consequent pyæmia.

There is one instrument which might seem likely to be often available in the milder cases, or when there are reasons against the performance of a plastic operation. This is Blackbee's pessary, which is constructed of somewhat elastic steel wire covered with India-rubber tubing, and has an anterior limb to fit in front of the cervix, while its posterior limb rests behind it, and its lateral arches, convex downward, are intended to be supported, if necessary, against the ischia. It might at first sight be supposed that an elastic pressure, such as that exercised by this instrument, would be more readily borne than that of a rigid body; my experience, however, has been precisely the contrary, and I have

found that elastic pressure, unless transmitted by a very broad surface, such as that of an air-ball pessary, is much more likely to produce irritation or ulceration. Thus I have more than once found ulceration produced by Blackbee's pessary at the somewhat vulnerable spot in front of the cervix, a result which I have never seen from a lever-pessary of vulcanite or metal which in any degree fitted the vagina. It would seem that the elastic pressure of a bar which is at all narrow is destructive to the tissues, somewhat in the same way as an elastic ligature, while a rigid body obliges them to yield once for all, and does not afterwards exercise injurious pressure. This objection to the use of an elastic instrument applies to one which has been much used by some for prolapse, and especially in America, namely, a simple circular ring of watch-spring or elastic wire covered with India-rubber. This has also the disadvantage that it stretches the vagina, and, like Blackbee's pessary and many others, it has another drawback, namely, the nature of the material of which its surface is composed; for it appears that India-rubber after a time becomes so softened on the surface that it retains the secretions, and renders them offensive, the inevitable result of which is the production of irritation of the vaginal mucous membrane. This objection, therefore, applies to the India-rubber air-ball pessary, an instrument which in other respects has many recommendations for the treatment of prolapse, and which is not unfrequently used with benefit, notwithstanding this drawback.

Far more to be condemned than India-rubber on this score, is gutta-percha, the surface of which rapidly becomes roughened, is liable to be incrustated by secretions, and, in any case, produces increased vaginal discharge. Instruments covered with this material are only fit to be used as a temporary expedient, in order to ascertain what is the shape most suited to any particular case. I believe that it may be laid down as a rule without exception that, of the materials commonly used for the construction of pessaries, there are none which prove entirely satisfactory in the essential point of cleanliness, except vulcanite and metal. Of these, vulcanite seems to be best suited for ordinary use, for it is lighter than pewter, and somewhat less liable to become encrusted, while, in comparison with aluminium or platinum, it has the great advantage that it can be readily altered in shape to suit the changing requirements of a case.

AN ADDRESS ON MEDICAL TOPICS.

Delivered at the Annual Meeting of the Southern Branch.

By FREDERICK J. BUTLER, M.D., Winchester,
President of the Branch.

GENTLEMEN,—In entering on the office which your kindness has assigned to me, my first agreeable duty is, in the name of my professional brethren, to bid you all heartily welcome to this our ancient city, once the metropolis of England, the birthplace and residence, and where now rest the mortal remains of many mighty kings and mitred prelates, and to assure you of our anxious desire to render your visit as pleasant and interesting as we can.

My next duty is not of quite such a pleasing nature, but it is not my design to trespass long on your time and attention in the address, with which the customs of our Association require me to open our proceedings. To do so, would be an abuse of the privilege which my present position confers, and prove only an irksome delay of the far more interesting opportunities that will be afforded you of visiting some of the grand old monuments with which our city abounds; and that you may be the better able to appreciate them and refresh your memories with some of those great historical facts which this visit will call forth, we have fortunately secured the services of one of our most valued local archaeologists, the Rev. C. Collier, who has kindly consented to conduct us over the Cathedral and County Hall, which will consume most of the time at our disposal. But we have plenty more objects of almost equal interest in store for you, should the opportunity occur; in short, if your stay amongst us could be extended over as many days as there are hours now allotted to your visit, our time could be well spent; but, as this cannot be, we hope ere long another opportunity may occur for completing the peasant work which we this day only commence.

In a society like ours, consisting of so many members, it seldom happens that our meetings can be altogether unchequered and without alloy. Since our last meeting, two of our members have been taken from us. In the death of Mr. Mayo of this city, who died full of years and full of honour, we have lost an old and valued friend, who was scarcely ever absent from any of our social gatherings, and who ever felt a lively interest in all professional matters. His bright and cheery face will long remain in the memories of most of us; and, though for years he

appeared somewhat as the representative of a bygone age, his stirring zeal, untiring industry, and attention to his various duties were marvellous in a man of his years; these and many other virtues, independently of his professional reputation, which was considerable, must ever entitle the memory of Charles Mayo to our greatest admiration and respect. May we imitate his bright example, and strive to earn his honoured end! Our other friend was Mr. Lipscomb of Alresford; he may not have been so well known to many of you, but he was generous and kind hearted, genial to a fault, and ever ready to do a kindness. His death was somewhat sudden, from heart-disease, in the sixty-second year of his age. Let us not disregard the useful lesson which this sad story teaches.

Cultivated talent and moral worth, especially when combined, must ever receive the respect and regard of all who are capable of appreciating them. For both, our profession has ever been eminent; and, so long as we display a zealous and harmonious co-operation, we may be content to pursue the direct and even tenor of our way, whatever opposition we may chance to encounter; and cheered by the consciousness that, so far as our abilities extend, we are pursuing laudable objects from pure motives, may safely disregard objections such as only ignorance or misconception of our designs could urge against us.

The main objects for which we are associated are, the advancement of medical science, the promotion of harmony and good feeling amongst our members, and the collection and diffusion of facts which may serve to render medical science more signally beneficial to mankind, and the maintenance of the honour and respectability of the profession. These objects are intimately connected; for, unless science be diligently and effectively cultivated, the honour and respectability of the profession would rest on a very slight foundation; and, unless the honour and respectability of the profession were otherwise maintained on the high ground of moral integrity and liberal sentiment, no advance in science could vindicate its claim to that high estimation in which it has through ages been held, and which, I trust, it will ever with sensitive jealousy preserve; but we must remember that on the conduct of our individual members we must rely for preserving unsullied that reputation which the profession has hitherto maintained, and I would here impress one caution respecting those measures in which we may in our corporate capacity be called on to engage. Corporate proceedings are subject to the same laws, and are to be tried by the same test as individual conduct. All flow from motives more or less elevated or debased; and, where the higher motives can be brought to bear on any point, those of a lower class should be never suffered to prevail. The human mind is indued with various faculties, all suited to this our transient and probationary state of existence. We have various animal incitements to urge us to whatever is necessary for the continuance and enjoyment of life; but we have also moral faculties to control the lower propensities and judge those actions to which our animal nature may impel us. It too often happens that the dictates of the animal propensities assume the garb and exercise the authority of the moral sentiments, thus misleading into error many who, under the delusion, are scarcely conscious of doing wrong. But an honest scrutiny of motives, an ingenuous reference of each of these to the moral or animal feeling in which it originates can never fail to detect the deception and guide into the right path all who desire to pursue it. These comments would here be impertinent, but that they serve to indicate the criterion by which each corporate act of our Association should invariably be judged. Whenever the act is such as all the higher moral feelings of our nature clearly sanction and approve, let us fearlessly perform it, regardless of all that imperfect conception or timidity may urge against it. On the contrary, whenever an animal or selfish impulse can be traced among the influencing motives, however slight the degree in which this may be intermingled, let us ever pause until we deplete the moral motives from the dregs which vitiate them, and restore the higher sentiments to that supremacy with which the Creator has endowed them. I have assimilated corporate acts to individual in the motives which incite them and the tests by which they are to be tried. But there is one difference which deserves to be noticed as important in our present view of the subject. Corporate acts are less redeemable than individual, and, therefore, require to be still more carefully guarded from error. Hitherto, we have been guarded in our corporate measures, and to ensure a continuance of the same circumspection is the end to which the few remarks which I have now offered are directed.

With these, I now conclude my trespass on your time and patience, respectfully, yet earnestly, exhorting the several members of our excellent Association to apply the energy of their own minds to both the important topics to which I have referred. It will gratify me if what I have ventured thus cursorily to submit to you shall, on deliberate reflection, receive the sanction of your own judgment; and still more if, to the sentiments to which I have given utterance, your own feelings

should be found to respond—so far as my judgment and feelings are capable of guiding me, I would say.

In cultivating medical science, disdain not, through vain aspirations for profound theories or dazzling generalisations, that patient observation of nature and diligent collection of accurate facts, from which all true theory must be derived, all sound generalisation deduced; and, in upholding the honour and respectability of the profession, let the measures we collectively sanction ever bear the impress of that high-toned moral feeling which has so long distinguished our profession, and by which its true interests require us ever to abide.

SURGICAL MEMORANDA.

MR. ORMSBY'S ETHER-INHALER.

MR. LAMBERT ORMSBY, of the Meath Hospital, Dublin, having asked me to try his "ether-inhaler", made by Coxeter and Son of London, with some cases in Netley Hospital, having first kindly allowed me to see the method of administration, I have had great pleasure in doing so, and now beg to offer my experience with this instrument in seventeen cases.

The shortest time taken to place a patient under the influence of ether with this inhaler was one minute forty seconds, and the longest ten minutes; the delay in the latter being entirely due to want of attention to some details. The average time taken in the seventeen cases was four minutes ten seconds. The average quantity of ether used was one ounce four drachms, which included that expended during operative measures; one operation being that of ligature of the external iliac artery, which took nineteen minutes; and another, excision of the elbow-joint, twenty-five minutes. Both of these operations only required two ounces six drachms of ether. Mr. Ormsby's inhaler is simple in construction, and, if properly adjusted, acts more speedily and with a smaller quantity of ether than any I have seen or used. Considering the risk to life attendant on the administration of chloroform, while that of ether is so very small, one cannot but feel that, with such a safe and convenient means for mitigating the sufferings of man in surgical operations, a surgeon takes upon himself a grave responsibility when he uses chloroform as an anæsthetic in preference to ether (when a choice is available), unless circumstances do not admit of the latter being administered.

J. H. PORTER, Surgeon-Major,
Assistant Professor of Military Surgery, Army Medical School.

BORACIC ACID OINTMENT.

I SHOULD like to call attention to the value of Professor Lister's boracic acid ointment as a dressing for wounds in general. During the last two years, I have been in the habit of using it, and have concluded that it is preferable to either dry lint or other dry applications, and also to water-dressing. For wounds, when hæmorrhage has been stopped or can be caused to cease by the application of light pressure, it is very useful; for, owing to the smooth waxy consistency of the ointment, the dressing does not at all adhere to the edges of the wound, nor to the clot between its margin. The dressing can, therefore, be removed and replaced as often as is advisable for the examination of the wound, without disturbing the healing process. Any discharge that forms can also easily escape between the layers of ointment and the skin around the wound. The ointment is thus preferable to dry lint, except in those cases where there is a great amount of oozing, when the dry lint and blood may act beneficially by forming an artificial scab. Water-dressing may be regarded as an inefficient mode of poulticing, and wounds that do not require poulticing can be better treated with the ointment than with water-dressing; for prolonged water-dressing generally irritates the skin round the wound, which becomes sodden and sore; while the skin remains comparatively healthy under the ointment. The smooth surface of the ointment is less liable to destroy by friction or otherwise damage the surface of the granulations than is the lint. The ointment never sticks to the surface of the wound, and no pain or injury is caused on removal of the dressing. Another great advantage is that, owing to the antiseptic quality of the boracic acid, the dressing need only be removed every second or third day, unless the discharge be profuse. Thus time is saved with hospital patients. I have noticed that small lacerated wounds—for example, of the fingers—will keep perfectly sweet for twenty-four hours under the ointment even in tropical climates, and here they keep quite sweet for two days; whereas water-dressing generally requires to be reapplied every twenty-four hours. In applying the oint-

ment, the dressing should extend far beyond the edges of the wound on to the surface of the surrounding skin, so as to interpose a considerable antiseptic interval between the margin of the wound and the limits of the dressing. This is the more important in proportion to the amount of discharge.

ARTHUR W. BAILEMAN,
House-Surgeon, Royal Free Hospital.

DISLOCATION OF SHOULDER-JOINT, REDUCED BY MANIPULATION AFTER EXTENSION HAD FAILED.

THE patient, a man between fifty and sixty years of age, whilst ascending a stair on the evening of September 15th, fell and dislocated his right shoulder-joint downwards. He was seen about two hours after the injury. There could be no doubt about the dislocation, for the roundness of the shoulder was gone, the head of the humerus absent; the upper part of the deltoid was flat and drawn in, there were pain and immobility of the arm, and the head of the bone could be felt in the axilla. Reduction was first attempted by placing the knee, and then the heel, in the axilla, but without effect; and, as the man was rather excitable, he was placed fully under the influence of chloroform. Extension, with the heel in the axilla, was again employed, and continued for some time; but, although every effort was made to effect reduction, the head of the humerus remained fixed. The arm was now seized with one hand, and the other placed in the axilla, the man still lying on his back and under chloroform; and, whilst a combined movement of rotation and abduction was employed, the head of the bone being at the same time pressed outwards, it slipped back into its place with a comparatively loud snap. The only reason that can be given for the heel and extension failing to effect reduction is that the head of the bone must have become fixed beneath the lower margin of the glenoid cavity of the scapula.

G. R. GILRUTH, Edinburgh.

CONGENITAL HERNIA OF BOTH OVARIES.

A. E. C., AGED 23, came to the out-patient room on August 1st, complaining of dragging pains about her abdomen and a swelling in both labia. She was married and had one child. Ever since she could remember, when she stood up, a small lump descended into each labium, going back again on lying down. She had always suffered from pains in the abdomen; and, at her menstrual periods, the lumps themselves were painful. On examination, a small roundish tumour was found in each labium, feeling like a testicle, quite easily returnable into the abdomen through the inguinal canal. It was quite dull on percussion, and there was no impulse on coughing. Double ovarian hernia was at once diagnosed; and the diagnosis was confirmed on her coming the following week, during her catamenial period, with both tumours swollen and tender. An ordinary double inguinal truss was given her, which effectually prevented the descent of the tumours; and she reported herself last week as being quite well and entirely free from her abdominal pains.

The great interest of this case lies in its analogy to the descent of the testicle in the male, and in the fact that, notwithstanding the malposition of both ovaries, she had actually been impregnated and given birth to a living child.

W. MARSH, JONES,
House-Surgeon, Rotherham Hospital.

CONGENITAL ATRESIA OF THE VULVA.

CASES of congenital phimosis in the male calling for operative interference are not uncommon. They are of three degrees: 1. Cases in which there is merely a slight impediment to the discharge of urine; 2. Cases in which the impediment is so great as to cause the prepuce to be distended with urine at each time of emptying the bladder; 3. Cases in which the urethra itself and organs further back are similarly distended. A case of the last kind was admitted into the Clayton Hospital some time since; there was (as is usual in such cases) great redundancy of preputial tissue, which was removed by circumcision in the usual manner; but the boy died; and, on making a *post mortem* examination, the bladder was found greatly hypertrophied, the ureters permanently distended, and the pelvis of both kidneys also greatly enlarged and cortical portion very extensively atrophied.

The corresponding condition of atresia of the vulva in the female is not, at least here, so common. Cases do occur, however, which may be arranged in three classes similar to the preceding: 1. those in which there is closure of the outlet of the vagina from agglutination of the nymphæ during foetal life, a minute opening only being left in front for the discharge of urine; 2. those in which the opening is so small as to cause impediment to the discharge of urine; whilst 3. Ruysch and Delpech have

each related a case in which the abnormality, not having been remedied in childhood, was the cause of retention of the menses in adult life. The following is a fair example of the second class of cases. A. T., born on August 30th, 1876, was a fine healthy child, and nothing was noticed amiss with her until she was six months old. Her mother then observed she had a difficulty in passing urine, and that, instead of its escaping downward, it went forward and upward, wetting her clothes and causing great inconvenience. On examining the child, she at once saw that it was not made properly, and took it to her medical attendant, who advised it to be brought to the Clayton Hospital. It was admitted on August 22nd of the present year. The labia majora were well developed, but the nymphæ apparently entirely absent, there being, in place of them and of the normal opening, a prolongation, as it were, of the perinæum forward in the medial line, perfectly smooth and flat, up to just beneath the clitoris, where was an orifice only large enough to admit the point of a probe. A bent probe being passed in and turned towards the rectum, was found to bulge the perinæum about the ordinary position of the fourchette. The child being placed in lithotomy position, a fine director was inserted so as to reach the point indicated by the probe, and an incision then made from the opening in front backwards to that point in the median line. The vagina was thus opened out and found to be normal, the orifice of the urethra and the hymen appearing *in situ*. A strip of oiled lint was inserted to prevent the edges from reuniting. On the third day, as the wound had healed, the child left the hospital; and, at the end of a week, the nymphæ, before quite rudimentary and, in fact, invisible, had grown well out into the usual form; the child passed urine freely and naturally; and the parts were in every respect normal.

JAMES FOWLER, Surgeon to the Clayton Hospital
and Wakefield General Dispensary.

CLINICAL MEMORANDA.

CASE OF HYDROPHOBIA.

THE following is a detailed report of a case of hydrophobia occurring three years and three months after the bite, and fourteen days after vaccination.

A. B., aged 21, veterinary assistant, of this town, was bitten through the centre of the right hand on the evening of May 21st, 1874. Not thinking the dog rabid, he did not apply to have the bite cauterised until midday on the 22nd. I then freely applied nitrate of silver, and ordered poultices of salt and bread to be continued until the wound healed by granulation. Within a few days, his father telegraphed for the "Bedford remedy", and with the greatest persuasion he got him to take it. He remained in perfect health until Friday night, August 17th, 1877, when he complained of severe pain in the wound, which spread to the elbow, shoulder, and neck. In the morning, his landlady brought him a cup of coffee; and, on attempting to drink, he said it would choke him; and then followed a severe spasm. She sent directly for me; and I examined his throat, which appeared natural; ordered him to get up, and sent for his father, who took him home, a distance of three miles. On the way, he said the air was too much for him, and asked his father to drive quickly. I visited him that night, and gave a subcutaneous injection of half a grain of morphia. Towards morning, I was sent for, as he had a dreadful night of spasms, without sleep, etc. I found him in a severe spasm; pulse 120; breathing laborious; eyes red; skin clammy; and viscid saliva clinging to the sides of his mouth. I administered chloroform at intervals until the afternoon, when he seemed much better, cheerful, and passed two quarts of high-coloured urine. When left alone, he ate a piece of cold chicken and baked apple. He had great horror of anyone coming suddenly into his room, or looking at him, as it immediately produced a spasm. He was not alarmed at the house-dog running into the room or barking, nor at running fluids; but he said he could not drink or wash himself for the world. He was sure he would die if he had another spasm. I sent for Dr. Quennell of Brentwood, who recommended me to give a grain of morphia under the skin every four hours until it had effect. We then administered it, and left him quietly pacing up and down the room. On my return within four hours, I heard he had had a violent attack of vomiting and spasms, which ended in death exactly thirty-six hours after the first symptom.

I may add that he had no cerebral symptoms, and that he said his sufferings were beyond description, with the exception of being quite free from pain during the intervals and under the influence of chloroform, of which he spoke highly.

Query. Did vaccination so disturb the system as to bring on the hydrophobic phenomena?

P.S. Three men were bitten on the same evening by this dog. One went home without having the wound cauterised, and died within three weeks afterwards. The other two came directly, and were cauterised well with nitrate of silver and ordered salt poultices until the wounds healed; they are now at large in perfect health.

M. H. GRATTAN, L.K.Q.C.P., Chipping Ongar.

REVIEWS AND NOTICES.

DISEASES OF THE KIDNEY AND URINARY DERANGEMENTS. By W. H. DICKINSON, M.D., F.R.C.P., Physician to St. George's Hospital, etc. Part II: Albuminuria. London: Longmans, Green and Co. 1877.

THE reappearance of Dr. DICKINSON'S well known work on *Albuminuria* has been long looked for, and will now be welcomed by all those who, either from a scientific or a practical point of view, desire to make themselves acquainted with the most recent results in this branch of medical inquiry. The book is now published under two forms: as a second edition of the original treatise, and as the second part of the projected three-volume book on *Diseases of the Kidney and Urinary Derangements*, of which the first part treats on diabetes.

Although no material alteration has taken place in the author's leading views, yet the light of increased pathological and clinical experience has done much to make the work more worthy of its position as probably the best dissertation on the subject. The main points to be noticed are the more comprehensive treatment of the pathological aspect of granular kidney; the criticism of the various prevailing views regarding the morbid anatomy and causation of renal fibrosis; and the amplified study given of that disease on whose name lardaceous, as advised by the Pathological Society, we hope Dr. Dickinson has placed a lasting and authoritative stamp.

The clinical distinction of the two forms of chronic albuminuria, viz., that demonstrably due to tubal inflammation and that accompanied by granular kidney, is, doubtless, well sustained and exemplified by constantly recurring experience. It seems, moreover, clear now that, even in the earliest stages of the latter form, fibrosis is the only noticeable pathological event, the slight alteration in the tubal epithelium being no more than is often found in the healthy organ. Morbid anatomy alone, apart from inference and analogical argument, justifies the hypothesis of no antecedent structural defect. And this distinction is fairly satisfactory to the inquirer, coinciding as it does with the marked difference in the symptoms and immediate etiology of the maladies in question. Trusting only to what is known, we would at present maintain the author's position, in spite of the enticements to unification of causes presented by the study of this subject. The admission of Dr. Dickinson and other observers that intertubal change, frequently following on tubal inflammation, may so far advance that its results may be almost indistinguishable from primary fibrosis, supplies a stone to the sling of those who advocate similarity of origin on the principle of logical parsimony. Again, the absence of equally conclusive *post mortem* verification of the disease in its early stages from such as is possessed by tubal nephritis, which owns an acute form as well, may be quoted as weakening the theory of initial fibrotic change. Doubtless, a great gap in our knowledge of the etiology of this form of renal disease remains to be bridged over. The adherents of primary renal fibrosis have still to explain why, in certain cases and under varying conditions, the fibrous tissue of the kidney should take on a primary hyperplasia and be the first link in a long morbid chain; and this especially applies to that section of them who, with Dr. Dickinson, reject the fascinating but unproved theory of general systemic fibrosis as suggested by Sir W. Gull and Dr. Sutton. Some light is, however, thrown on the question by the admission of the tolerably certain fact that all the sources of this disease, multifarious as they seem to be, own as a common factor long-continued or oft-repeated hyperæmia. Here at least there is one common stage above the diverging point of these maladies; and it would seem that the fibrotic form is the result of those insidious and gradual hyperæmiæ whose immediate origin is lost in obscurity, so well exemplified by the many clearly marked hereditary cases of granular kidney, while the disease accompanied by tubal change can be referred generally to a more obvious source and shorter course of irritation. Whether or not a step of epithelial change is taken in common by these two forms of renal disease prior to the occurrence of the fibrous overgrowth, may not yet be regarded as settled, but the accurate observations and sound deductions put for-

ward now by Dr. Dickinson have a great claim to be considered decisive of the negative view.

Another instance of the author's refusal to sacrifice observation to simplicity of theory is his adherence to the view of the generally renal origin of granular kidney, although allowing that, when valvular cardiac disease and renal granulation concur, the latter is more often the result than the antecedent of the former.

In his criticism of the arterio-capillary fibrosis theory, Dr. Dickinson calls attention to the fact of the arterial thickening occurring secondarily to tubal nephritis as well as in primary renal fibrosis; and also to the important fact that, in this latter disease, other organs, notably the liver, frequently fail to share in the fibrotic change. In the same chapter, the author dissents from the theory of a struggle between the protecting arteries and the poison-propelling heart, put forward by Dr. George Johnson as an explanation of the observed cardio-vascular changes in renal cirrhosis, and Bright's original theory of capillary obstruction is espoused and amplified. In the section on lardaceous disease, the two causes, supuration and syphilis, are upheld; a connecting link between them, dissociated as they apparently are by the absence in the latter of an exhausting discharge, being found in the defective assimilation which accompanies it: a deficiency of income may be similar in its effects to an increase of expenditure. In syphilis, there is probably some special impairment of the blood-making process.

The chapters on the ophthalmology of the subject, on the part played by alcohol in the causation of renal disease, and on climate in relation to it, are worthy of attention. Lastly, we cannot omit to notice the clear style and very readable English of the author. One error which runs through the book calls for remedy; viz., the adherence to the paging of the separate work on *Albuminuria* in all the references contained in the volume just published as the second part of the series mentioned above.

PUBLIC HEALTH: being a Concise Sketch of the Sanitary Considerations connected with the Land, with Cities, Villages, Houses, and Individuals. By the late E. A. PARKES, M.D., F.R.S. Revised by WILLIAM AITKEN, M.D., F.R.S. Pp. 80. London: J. and A. Churchill. 1876.

THE size of this little work, which will be practically indicated by the number of its pages, will be a sufficient indication of its general nature and object, since it is obvious that the numerous matters embraced under the title of Public Health could not be discussed in any detail within the scope here allotted to them. The work is, indeed, nothing more than a sort of elaborated index—what our French neighbours call a *catalogue raisonné*—of the larger and more complete treatise of which Dr. PARKES was the author, and with which his name and reputation are widely associated. As such, it has an unmistakable value in presenting, in a clear and concise manner, what may be called a bird's-eye view of the whole subject, and will be found especially useful to those persons who wish to obtain a general elementary knowledge of the various subjects with which the official organisation, which has recently been established for the protection of the public health, is called upon to deal. Indeed, we know of nothing of the kind in print which would be more useful to put into the hands of members of sanitary authorities, country clergymen, and others in a similar position, by way of leading them to take an intelligent interest in their duties in this direction, and of giving them such a general insight into the subject as may lead them to the perusal of the larger and more comprehensive treatises, to which this will serve as a fitting introduction.

The work itself was evidently written before the passing of the Public Health Act of 1875, and all the references in it are to the various Acts which this last enactment summarised and superseded. Under these circumstances, we cannot but think it an unfortunate oversight that the revision of the text, which has been undertaken after Dr. Parkes's lamented decease, by his friend and colleague Professor Aitken, did not include the substitution of references to the clauses of the Public Health Act, instead of the numerous Acts which it has replaced. Had this been the case, and we really cannot understand why it was not done, the value of the work would have been very materially increased.

We had marked a few other points in which modification, by some one who possessed a technical acquaintance with sanitary work, might have avoided errors into which the able author has fallen, either by oversight or from his not having had before him the provisions of the Act of 1875. Thus, the statement in the chapter on the Hygienic Condition of Villages, that "all powers possessed by urban authorities as to trades, sale of unwholesome food, removal of nuisances, providing mortuaries and hospitals for infectious diseases, are now also possessed by the Poor-law unions", is not correct; some of the most

important powers for the regulation of offensive trades, which urban authorities can exercise, not having as yet been conferred on rural authorities at all. So, too, in regard to the statement that proceedings to abate overcrowding can be taken if the inhabitants of a house consist of "more than one family"; our readers are aware that this limitation no longer exists. These defects, and some others of the same kind, might have been easily avoided; and we think it a pity that the utility of the work is diminished by their existence. Fortunately, it will be easy to correct these shortcomings in a new edition, which the public will not, we apprehend, be slow in demanding.

The contents of the work fall under five heads. The first deals with matters of a general nature, such as an outline of sanitary legislation in England; the regulation of land-drainage and water-courses; and the powers and duties of sanitary authorities. The next three sections treat of the conditions of habitations, considered in their relation to cities and towns, villages, and individual houses. The subdivisions into which these sections are divided give the author the opportunity of travelling over the whole of the ground covered by the Public Health Act, though, as we have before indicated, the references are not to the Act itself. The last portion of the work is devoted to the subject of vital statistics, and contains some very useful hints as to the true value of statistics and the fallacies connected with them.

A very interesting part of the treatise is a short appendix, containing some suggestions which Dr. Parkes made, for the purpose of utilising the expedition to the Arctic regions as a means for scientific inquiry into questions connected with diet and temperature, which are still *sub judice*. The points to which he particularly directs attention, as worthy of investigation, are: the comparative sustaining power of hot and cold food in sledge-travelling; the comparative effects of fatty and starchy food in Arctic labour; as to the quantity of fatty food which can be taken, and the kinds of fat best suited for the purpose; the comparative effects of tea and wine; and, lastly, the effects of alcohol on the temperature of the body, and endurance of fatigue. All these questions involve matters of the greatest interest, not only in a purely scientific point of view, but in regard to numerous important practical applications. It is rather singular that these instructions contain not a word of reference to the subject of scurvy; from which we can only infer that their author looked upon the occurrence of this inflection as so unlikely, under the observance of proper and well-defined sanitary conditions, that he saw no necessity for referring to it.

THE COTTAGE HOSPITAL, ITS ORIGIN, PROGRESS, MANAGEMENT, AND WORK: with an Alphabetical List of every Cottage Hospital, and a Chapter on Hospitalism in Cottage Hospital Practice. By HENRY C. BURDETT. London: 1877.

FEW of the changes which have been introduced of late years into medical practice have become so popular as the institution of cottage hospitals, and, we would add, so deservedly popular. Cottage hospitals supply an invaluable resource, even as they exist at present, for the reception of accidents which can hardly be moved to the distant town hospital without great pain and danger to the patient, and for the treatment of many cases which would hardly be received in hospitals with much pressure on their space, and would certainly not be kept as long as their cure would require. Still more important is the bond which they supply between the rich and the poor of the district; and, if their hold on the support of the medical profession and the poor should become stronger in the future, we can hardly doubt that a much more important function will be assigned to them—viz., that of promptly isolating the cases of contagious fever, which, at the commencement of an epidemic, could so easily be removed from the healthy population, and which often give rise (in the utterly neglected state of many of our small towns and villages) to such disastrous consequences. This latter, however, is a question of the future. We may allow that cottage hospitals have done good service already, and will probably do more. Hence a sensible, handy, and complete work on their organisation and management cannot be otherwise than useful; and, as far as we can judge, Mr. BURDETT'S work contains all the information which could be required by any one who undertakes to found or to manage a cottage hospital, and will, no doubt, be both popular and useful.

The present reviewer, having taken a deep interest in the question of "hospitalism" as first mooted by Sir James Simpson, and having been connected with some cottage hospitals, in which, as far as his observation extended, the healthiness of the cottage hospital was certainly not superior to that of the metropolitan hospitals, turned with peculiar interest to the concluding chapter of Mr. Burdett's work. He was greatly disappointed to find the very question at issue misstated

in the introduction to the chapter. The author says that "the accuracy of Sir J. Simpson's statistics has been impugned chiefly on the ground of the impossibility of proving the reliability of the sources from which they were derived". Now, of all the numerous sources of fallacy which were pointed out in Simpson's figures, the above was the least important and the one least dwelt upon. The great objection to Simpson's figures was, that they were figures only. They were unaccompanied by any facts, any particulars of the cases, and were, therefore, susceptible of any number of different interpretations besides the one which Simpson chose to select—viz., that there is an inherent unhealthiness in large hospitals, which he described by the term "hospitalism".

The same objection applies to Mr. Burdett's figures, and must apply to all similar collections of figures when divorced from facts. For instance, Mr. Burdett has collected from sixty-one cottage hospitals the death-rate of three hundred and six amputations of the limbs, and the cause of death of most of the fatal cases, but no other particulars; and these he compares with three hundred and seven amputations at University College Hospital recorded by Mr. Erichsen. The result shows that the mortality at the cottage hospitals was 18 per cent.; at University College, 25 per cent.: a difference which may as easily have depended on difference in the surgical practice as on difference in the healthiness of the hospital, or on difference in the vitality (from age, state of health, etc.) of the patients, or on the previous conditions of disease or injury, or, in fact, on any conceivable combination of these and very possibly other causes. Mr. Burdett's figures, therefore, are quite as useless as Simpson's for the purpose of a comparison between the healthiness of different classes of hospitals.

One thing, however, comes out very clearly from this array of figures; viz., that the difference between the intrinsic danger of operations in cottage and in large hospitals cannot be great. Simpson wished to make us believe that amputations in large metropolitan hospitals were four times as fatal as in isolated country practice. Mr. Burdett claims for cottage hospitals (which approach very nearly to the conditions of isolated houses in the country) only a difference between 18 and 25 per cent.: a difference far more likely to be due to greater surgical boldness (*i. e.*, amputating in more cases which otherwise would be allowed to die without amputation) than to any greater healthiness in the hospital atmosphere. In fact, the more Simpson's figures are judged by the light of experience, the more clear it is that either his statements or his deductions, or more probably both, were entirely untrustworthy.

It is a pity, again, that Mr. Burdett has followed here Simpson's method of dividing amputations into "those which were primary or for injury and those which were secondary or for disease". But this is a minor matter. Among the causes of death, pyæmia figures largely. Of course, as cottage hospitals deal so much with accidents, many of the fatal cases die of "shock". In the others, pyæmia, "enteritis", and "inflammation of the lungs" (which we may conclude, in the absence of anything said to the contrary, to be only manifestations of pyæmia), have their fair share of victims—showing how unfounded is the notion that pyæmia is peculiar to large town hospitals.

One great defect which we have noticed in this work is the absence of any attempt to estimate the real sanitary condition of these institutions, of which, perhaps, the prevalence and spread of erysipelas are as good a test as any other. The public rashly assume that cottage hospitals must be healthier than town hospitals, partly because "the air is so much better", but chiefly because Miss Nightingale, Dr. Farr, Sir J. Simpson, and others, have often asserted it. But this has never been proved, or even rendered probable. Every one knows by this time how successfully the inhabitants of country places have laboured to poison the air of their dwellings, and how inferior the arrangements for nursing, cleanliness, and ventilation in cottage hospitals are to those of our great city hospitals. It is true that the small number and the generally trivial nature of the cases received in cottage hospitals render the prevalence of such affections much less than in hospitals more seriously occupied; and also that the absence of any records might render it difficult to collect information. Still an attempt to investigate these questions would surely have been better worth the trouble than a mere statement of the death-rate of amputations, though this is, perhaps, of some value for the collateral object of showing once more that the effect of mere hospital arrangements (such as the size of the wards, country or town air, number of storeys, etc.) on the result of operations is really imperceptible.

The death-rates, indeed, of the cottage hospitals are given, and an attempt has been made to estimate the nature of the cases by tabulating them according to the official nomenclature; but the results are obviously untrustworthy. Thus, under "rheumatism" we find one hundred and eleven cases—one hundred of "acute", one of "subacute", and ten

of "chronic" rheumatism. Are we really intended to conclude that in all these one hundred cases the general symptoms of rheumatic fever were present, and that only eleven cases were admitted without fever? We think this would show a large measure of faith, especially as immediately afterwards Mr. Burdett complains of the want of precision in diagnosis too frequently met with; patients being entered as "run over", "railway accident", "bad cough", etc. The fact, then, that the death-rate in cottage hospitals is 5.4, and in London hospitals 10.2, is one of no definite significance at all. It cannot be too often repeated, that the death-rate of a hospital will, in ordinary cases, be found to depend not on the healthiness of the hospital nearly so much as on the nature of the cases admitted. In fact, many instances have been observed in which the death-rate of a hospital has been below its normal average during the prevalence of severe hospital disease, such as erysipelas or phagedæna.

The reader will see, therefore, that we regard the statistical or sanitary part of Mr. Burdett's book as of much less value than the practical directions which he gives for the institutions he describes. In fact, these institutions do not require any such dubious recommendation as is afforded by an attempt to show that they are more successful in the treatment of the cases they undertake than our larger hospitals are. This has certainly never been shown; it is not probable, and, we believe, not true. But cottage hospitals answer their own purpose, and that an admirable one, without in any way interfering with the functions of large general hospitals. We wish them success most heartily, and we hope Mr. Burdett's work will promote it.

ROYLE'S MANUAL OF MATERIA MEDICA AND THERAPEUTICS.

Edited by JOHN HARLEY, M.D., F.R.C.P., Assistant-Physician to St. Thomas's Hospital, etc. Sixth edition, pp. 840. London: J. and A. Churchill. 1876.

SINCE the appearance of the last edition of this well known handbook, one of its editors has been removed by death. Dr. Headland's comparatively early demise left a gap in the ranks of those who make therapeutics a subject of special study. Through his death, the revision of the sixth edition of this work has fallen into the hands of Dr. JOHN HARLEY, who is also well known for his researches on the action of medicines, and especially of the vegetable neurotics. The work is in some parts rewritten, while in others it is revised. Many additions have been made to the text, and yet somehow the impression left upon the mind of the reader is, that this work gives but an imperfect representation of what has been done at home and abroad, especially during the last few years, when research into the action of remedies has been very active. For instance, no allusion is made to the observations of Max Schuler on the effects of ergotin upon the intracranial blood-vessels, nor to the experience of Mann and others as to its utility in cases of cerebral hyperæmia. It is also exceedingly doubtful whether nitrite of amyl relieves cardiac spasm in angina: we venture to think that the effect is brought about by relaxing the peripheral arterioles. In speaking of the action of opium, no reference is made to the work of Gscheidlen and others; indeed, it is stated that what is written there is taken from another work of the editor, namely, the *Old Vegetable Neurotics*, apparently without any additions. In the consideration of the hydrate of chloral, nothing whatever is said as to its effect upon the body-temperature, which is notably lowered by its use.

These are not mere captious criticisms; they indicate omissions which militate seriously against the value of a modern work of this character. *The Old Vegetable Neurotics* is a notable book, and there is much to be learned from its pages; nevertheless, it is now somewhat behind the times, and we venture to think that Dr. Harley would have done well to intersperse some more recent information into the text taken from it.

The most remarkable passage in the whole work is to be found in its preface. The first sentence of it is to this effect: "A large space, occupied in previous editions by details which are to be found in elementary works on botany, has been appropriated to an account of the actions of medicines, and in effecting this the editor has embodied the results of his own observations." To some readers it will appear that this space might have with advantage been less fully occupied with the editor's own observations and somewhat more fully with what has been done by others; and that this treatment of it has not materially added to the value of the work. The second sentence is still more remarkable. It stands as follows: "Those who look for the results of experiments on mutilated animals in the following pages will not find them; for the editor is satisfied that this is not legitimate therapeutical inquiry, and that nothing short of a patient survey of the operation of a drug in the entire body in health, and under the variable influence of disease, can furnish the data upon which we may build a proper theory of its

action." This is a somewhat extraordinary statement to make in the present day. It is not merely that the taste is questionable in the selection of the expression "mutilated animals" in referring to the elaborate experiments by which so much has been learned of the action of belladonna, for instance. Information of an important character is wanting in consequence of this decision, as is exhibited when speaking of belladonna. Such a sentence as this—"The more or less complete arrest of the secretion in the mouth during the action of a moderate dose of belladonna is a local and exceptional effect, and one that does not extend to the glandular system generally"—would surely have made way for something more definite, if the writer had given the results of the experiments of Schiff and Heidenhain. The pursuit of research into the physiological action of different agents by experimentation upon animals is not likely to be much affected by this expression of opinion; and a large class of the profession will prefer a treatise on therapeutics which will give an epitome of what is being done by the most advanced workers, and an illustration of the extent to which physiological research can guide and direct the practice of medicine.

NUTRITION IN HEALTH AND DISEASE: a contribution to Hygiene and to Clinical Medicine. By JAMES HENRY BENNET, M.D. Second Edition. Pp. 248. London: J. and A. Churchill. 1876.

WE take it that the present volume of Dr. HENRY BENNET, a second edition of a work published twenty years ago, is addressed to a public beyond that of the author's own profession. The illustrations are written in a popular style, and are not so severely exact as might be looked for in a strictly professional treatise. Nor is the physiology fully up to the knowledge of the present day; nevertheless, we think the work an admirable one to place in the hands of the young practitioner, who, fresh from the schools, and bristling with new remedies and especial treatments, yet lacks that most difficult of all things to gain—medical common sense. And many an older man may be tempted by a pleasingly readable style to peruse the book and to find in it thoughts and suggestions that come fresh to him, although they may not be quite new. The latter half of the book, including the chapter on food requirements in health and ill-health, dyspepsia, etc., we think the best. An important remark concludes the chapter on food requirements of ill-health. Dr. Bennet observes: "Man is more frugivorous and herbivorous than carnivorous. From three to five ounces of flesh-formers or nitrogenous compounds suffice in the twenty-four hours for his nutrition, whereas from ten to twenty ounces of heat- and force-producers or carbonaceous compounds are required. In ill-health this should never be forgotten." We fancy it often is forgotten. On what may be called one of the questions of the day—viz., the use and abuse of alcohol—we, so far as practical deductions are concerned, should agree with Dr. Bennet. Men and women will always have recourse to stimulation of some kind, but many take too much, and with many more a very little is too much. But we think that Dr. Bennet ignores the important work of Parkes and others, when he regards alcohol as so valuable in preserving against the effects of cold and other atmospheric vicissitudes. He speaks of the dram-drinking of the inhabitants of northern and temperate latitudes as merely the exaggeration of an instinctive want of the economy, *i.e.*, a necessity for hydrocarbonaceous food. Alas, the same instinctive want is soon developed in the tropical savage, if he gain access to the supply! Dr. Bennet seems to have been misled by the fact that alcohol is a hydrocarbon; for this is surely the least important reason for which it is either given or taken. The action of alcohol in restoring the temperature when it has become reduced by exposure or faintness is not by virtue of the warmth generated by its combustion, but from its acting as a direct stimulant to the heart, and so restoring the circulation through peripheral parts. It has, again, been thoroughly ascertained by experiment that alcohol in considerable doses reduces the temperature of health to below the normal and that of fevers by some few degrees, its action in these respects being chiefly upon the vascular through the nervous system, and being but little influenced by any warmth generated in the process of its own combustion.

Some knowing "cabbies" have been heard to assert that cold beer is a better preservative against cold than hot grog. Experience has taught them that the more stable nutritious and carbonaceous elements in beer are more sustaining than the rapidly consumed and more stimulating purer alcohol.

It is in truth, as Dr. Bennet observes in a later paragraph, as a stimulant to the nervous system, that alcohol is more or less cherished even by the temperate, and, if not alcohol, then some other equivalent in the non-alcoholic series—coffee, tea, *maté*, tobacco, opium, etc. Dr. Bennet is eloquent on the evils primarily and principally affecting

the digestion that arise from an excessive employment of stimulants, whether alcoholic or non-alcoholic. He draws attention to turbidity of urine as a common immediate consequence of excess in alcohol, arising more decidedly from this cause than from excess in food. In discussing the digestibility of foods, the administration of raw in preference to well cooked meat is referred to at page 167 as an erroneous practice, the well cooked being, Dr. Bennet maintains, the more digestible. We do not think this statement will be generally accepted, especially by those physicians who are in the habit of prescribing raw meat to infants. The space at our disposal will not allow us further to discuss this book, which, like all suggestive works, is open to some criticism, but to much approval. The author's appendix on the premature death of medical men reads mournfully; but probably, after all, those are happiest who die in harness. The "crowded hour of glorious life" comes late in our profession; it is better worth living for than a few extra years of sound digestion.

THE TREATMENT OF SPINA BIFIDA BY A NEW METHOD. By JAMES MORTON, M.D., etc. Glasgow: J. MacLehose. 1877.

DR. MORTON, Surgeon to the Glasgow Royal Infirmary, is the inventor and chief advocate of a plan of treating spina bifida, which he describes here as "a new method", but which seems to us only a more or less important modification of the plan of iodine-injection which was previously in use. This modification consists simply in substituting glycerine for water as the fluid in which the iodine and iodide of potassium are to be dissolved; Dr. Morton's formula being ten grains of iodine and thirty grains of iodide of potassium dissolved in an ounce of glycerine. Of this fluid, a small quantity (about half a drachm in one case reported here, p. 18) is to be injected through a medium sized cannula into the sac, after the latter has been about half-emptied. In favourable cases, the injection produces no symptoms; the tumour becomes gradually harder and smaller, and finally shrivels away after one or two repetitions of this injection. The only novelty in this method of treatment is the use of glycerine in place of water, and this medium was selected by Dr. Morton in consequence of its slower diffusibility. Thus there is little new in the method. Nevertheless, the change may be of very great practical importance, if greater safety against fatal inflammation can be ensured with this than with the watery injection. On this head, Dr. Morton's experience hitherto has been very encouraging. In this little work he gives notes of fifteen cases, twelve of which were successful and three fatal. This is a very gratifying amount of success, especially as Dr. Morton is able to add that, in his own practice, all the lumbar cases (which are, of course, the most common) have been successfully treated. Dr. Morton seems to regard the presence of a pedicle to the tumour as unimportant; in fact, he remarks truly enough that lumbar spina bifida, which is by far the commonest form, is hardly ever pedunculated.

From this experience, it seems evident that the trial of the iodo-glycerine injection is justifiable in cases of spina bifida which are increasing—at any rate, after one or two trials of simple puncture; and we hope the publication of this book will lead surgeons to give a fair trial to a method which has already proved so far successful, and that thus the materials for a correct estimate of its value may be speedily collected.

CHIRURGIE ANTISEPTIQUE: PRINCIPES, MODES D'APPLICATION ET RÉSULTATS DU PANSEMENT DE LISTER. Par le Docteur JUST LUCAS-CHAMPONNIÈRE, Chirurgien des Hôpitaux, etc. Pp. 153. Paris: J. B. Baillière et fils. 1876.

ANTISEPTIC SURGERY: THE PRINCIPLES, MODES OF APPLICATION, AND RESULTS OF LISTER'S DRESSING. By Dr. JUST LUCAS-CHAMPONNIÈRE. Paris: 1876.

ANTISEPTIC surgery has been received with so much favour during the last few years, both on the Continent and in America, that the author has been induced to collect all the available facts relating to this new mode of treating wounds into the manual now before us.

The theory of antiseptics is shortly stated in one of the first chapters, so that, in carrying out the following details, the guiding principle of the methods adopted may be understood. The antiseptic method is too often considered as synonymous with the use of carbolic acid, and is, we fear, often looked upon as an accidental discovery; but those who have watched the method from the first, and know the many phases through which it has passed, are well aware that it is the grand result of a long series of experiments, commenced years before antiseptics were heard of, and carried on ever since by one of the ablest physiologists of our times. Thus it is that men who, like Hunter, are more than mere mechanical surgeons, appreciate the method, and see

in it something that will help to place surgery on a more scientific basis.

Knowing, then, that the antiseptic method does not mean the discovery or the introduction of carbolic acid or any of the other appliances used, but that it rather means the introduction of a method which endeavours, by any means it can command, to place an open wound as nearly as possible in the position of a simple fracture, and acting on the theory, be it correct or not, that wounds may be kept from healing and led to putrefy because of the presence of solid particles in the air, the surgeon, by following the instructions given in this little manual, may expect fair success in any or all of the cases he may treat according to the antiseptic method.

This treatise, while thus presenting to the surgeon and the student all the more important facts that it is advisable to know in order to conduct antiseptic cases with a fair chance of success, does not pretend to any originality.

It carefully describes the use of the spray, of drainage-tubes, of the antiseptic gauze and other dressings, and incidentally mentions here and there the results of the treatment, both on the general condition of the patient and on the condition of the wound itself. Especial attention is given to the effects of the tension caused by pent-up discharges, and the febrile condition and suppuration which result from this tension. The use of the invaluable catgut-ligature is carefully described, and the use of superficial and deep sutures is also mentioned; and an accompanying woodcut shows the position of the "artificial finger-tips" and the silver wire connecting them, as well as the small superficial sutures keeping the edges of the wound in contact.

The interesting question of the antiseptic blood-clot and its relation to the healing process is discussed at some length, also the absence of inflammation around the edges of the wound, and of the general febrile condition and pain which are more or less present under ordinary circumstances when the usual treatment is adopted.

The special rules to be observed in the opening of joints, ligaturing of vessels, cutting into the serous cavities, and opening abscesses, are given in detail, and their after-treatment indicated.

In another chapter, a useful mode of treating old ulcers and other granulating wounds is described, which, by means of chloride of zinc and other solutions, completely removes the very disagreeable odour that so often accompanies them.

We can confidently recommend the book to both surgeons and students, believing that its careful perusal will more thoroughly convince them of the great care necessary in order to obtain good results from the antiseptic treatment of wounds; and we think that the descriptions of the different processes are sufficiently clear to be easily understood and put into practice.

To assistants in hospitals and students having the especial charge of antiseptic cases, the book will be invaluable. Success or failure in great part depends on them; and this book, by explaining the different methods employed in a simple and practical way, will be found an useful guide in almost all the cases that come under their care.

At the end of the work will be found a complete list of the solutions and of the different kinds of dressings required, and in each case the formula for preparation.

ANALYSIS OF SEVEN HUNDRED AND SEVENTY-FOUR CASES OF SKIN-DISEASE, WITH CASES AND REMARKS ON TREATMENT. By L. DUNCAN BULKLEY, A.M., M.D. New York. (Reprint.)

THE nature and relative frequency of skin-diseases as they are seen in New York do not seem to be characterised by any remarkable peculiarities. It is worth noting that, of thirty-eight cases of the different forms of tinea, seven were instances of parasitic sycosis. Dr. BULKLEY has found good results from the treatment of purpura with fluid extract of ergot.

THE STUDENT'S HANDBOOK OF FORENSIC MEDICINE. By H. AUBREY HUSBAND, M.B. Edinburgh: E. and H. Livingstone. 1877.

WE regret to be unable to speak favourably of this book. It is a mere compilation of forensic medicine and medical police. It points out to the student the subjects to which he should give attention, but it renders him much less assistance than is needed in practice. The attractive points of the volume are the extensive range of subjects which it professes to bring before the reader, and its cheapness. It is made up mainly of extracts more or less paraphrased from the best known works of legal medicine by Casper, Tardieu, Christison, Orfila, Guy, and Taylor. We cannot find that the author has any claim to originality; and the book belongs, as a whole, to a class which should, we think, be discouraged.

BRITISH MEDICAL ASSOCIATION :
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 22ND, 1877.

ST. THOMAS'S HOSPITAL.

So much progress has been made of late years by improving the system of management in the hospitals of this country, that it will not be surprising if the vacancy in the office of treasurer to St. Thomas's Hospital should induce those most interested in the proper administration of our medical charities to make an effort to procure many much needed reforms at that institution. There can be no question that the best managed hospitals in England are those which have been placed under the immediate management of a paid resident officer, who has had experience in administration and control, and who is proved to possess ability and character. Such an official is responsible to the Treasurer, as at Guy's, or to an active Committee of Management, as at the London Hospital, for the good order and government of the household affairs of the hospital; he makes a daily inspection of the wards and other departments; exercises a general superintendence over all persons employed within the establishment, and over all the hospital stores, etc.; and is the medium of communication between the authorities of the hospital and other persons in all matters relating to the management. The superintendent or house-governor is, in fact, the responsible and chief resident official who has the strings of all the departments in his hands, and who is responsible for the general good management of every department of the hospital. Under this system, Guy's Hospital has become a creditably and crisply managed institution throughout. It must be within the remembrance of many that such was not always the case, and it is noteworthy that at the present time, although the Governors of Guy's Hospital expend £2,000 a year more in salaries than either St. Bartholomew's or St. Thomas's, the total expenditure is considerably less at Guy's than at the latter institutions, although the amount of relief afforded is in each case about equal. According to Fry's *Guide to the London Charities*, just published, if we omit the out-patients from consideration, it appears that at St. Bartholomew's Hospital each in-patient costs about £7; at St. Thomas's, £12; and at Guy's, only £5; in other words, in 1876, St. Thomas's Hospital maintained 460 beds and relieved 3,245 in-patients and 73,000 out-patients at a cost of £37,918; whereas at Guy's Hospital, in the same year, 710 beds were maintained and 5,722 in-patients and 76,061 out-patients were relieved for an expenditure of less than £30,000. Indeed, it is an admitted fact, that the expenditure at St. Thomas's Hospital, at the present time, is excessive. If we turn to the London Hospital, although the present debt of £13,000 on current account proves that the Committee have made a serious mistake in aiming at having the largest hospital in London, we find, nevertheless, that nearly 800 beds were maintained and 6,846 in-patients with 45,681 out-patients were relieved last year at a total cost of £30,062. On the ground of economy, then, there can be no question that the present system at St. Thomas's Hospital is comparatively a failure. If we turn to the provincial hospitals, the same facts are apparent.

The Birmingham and Glasgow Hospitals, managed as they are on a similar system to Guy's and the London, are the most efficiently conducted of any out of London. If testimony be needed, we have a

striking proof of the truth of this assertion in the fact that the authorities of the Royal Infirmary, Edinburgh, have, during the last few years, introduced a new system based upon the same principles, in order to insure that they shall not only secure a new infirmary, but have it under the best possible management.

The system of management in force at St. Thomas's Hospital, at the present time, is thus accurately described by a correspondent in the *Times* of the 13th instant. "The governors of St. Thomas's Hospital act through a grand committee, which acts through a subcommittee, which acts through the treasurer as managing governor; and, since the treasurer virtually settles who shall act with him in committee and subcommittee, and as the present governors at large take almost no interest in the administration, the treasurer is, as nearly as may be, the absolute master of the concern." If the treasurer were compelled, as at Guy's and St. Bartholomew's, to reside at the hospital, such a plan might possibly work; but, as this is optional under the existing regulations, we are not surprised to hear that practically the hospital is controlled by a system of espionage. That this is so seems clear, for each officer, from the senior physician to the porter, is instructed, should "he perceive or know anything done or left undone, by any officer or other person of this house, which may cause disorder or prove injurious, etc., he shall forthwith declare it to the treasurer, or, in his absence, to the almoner, or to some one else in authority, and no further meddle therein". How good order, good feeling, or even fair discipline, can be maintained under such conditions—conditions which must create between the officials an amount of ill feeling at times, and a suspicious mistrust, always most detrimental to the successful management of the hospital—it is difficult to imagine. There can be no question that, to insure the smooth and successful working of all the departments of a great institution like St. Thomas's Hospital, it is necessary that each official should stand on his own merits, and be directly responsible to one chief general officer, whose residence and constant presence in the building renders all such reports, as those suggested by the instructions we have referred to, quite unnecessary. Such an official will make the successful working, and the economical management of the organisation under his guidance, the ambition of his life; and, by exercising an intelligent and wise control over every department, will produce, as at the institutions we have quoted, good government throughout the establishment, and a creditable balance-sheet in addition. Both these features appear to be absent from St. Thomas's Hospital just now; and if the governors are really anxious to work their hospital "at high pressure", and to clear off speedily the heavy debt with which the institution is at present hampered, they will be wise to carefully consider, whether it is not the right course to follow in the steps of those institutions where a change in the system of management has brought just that measure of reform which this hospital appears to need. They will never have a better opportunity to thoroughly overhaul the government of the hospital; and we are convinced that they will fail in their duty to the public, and to the great trust which has been committed to their charge, if they do not seriously consider the present position of affairs in relation to the internal economy and general management of St. Thomas's Hospital.

THE EFFECTS OF VARNISHING THE SKIN.

DR. SENATOR of Berlin (*Virchow's Archiv*, June 1877), in an article on the effect of varnishing the human skin, speaks of the time-consecrated doctrines of the importance of the perspiratory function of the skin in a way calculated to hurt the feelings of believers in porous plasters. He denies that the inferences from varnishing dogs are applicable to human pathology, and asserts that the human skin is often covered with impermeable materials without ill effects. He refers to the case of the gilded boy, a child who was covered with gold-leaf in order to play the character of an angel in a miracle play, as one which

might be quoted in support of the popular view; but he points out that he died so soon that it is more probable that there was something poisonous in the gilding material used. At least, his death presented no analogy with that which occurs in varnished animals; in these, the rapidity of the event is in exact proportion to their size, that is, in the ratio of their surfaces to their total mass, and takes place in from a half to four days, or even longer, large dogs living nine weeks, horses still greater periods; so that if the gilding acted as the varnish does on these animals, relatively to size, a boy ought to live at least as long as a middle-sized dog. On the other hand, he refers to the numerous instances of "tarring and feathering" which have occurred in America with no ill effects—or, at least, without causing death—and in these the entire skin was covered, which, according to Valentin, produces in animals very rapid diminution of temperature and complete prostration. Dr. Senator tried varnishing the skin of patients in the hope of reducing their temperature. In five cases of typhoid fever, he came to the conclusion that it remained without any influence; but, as it might be objected that the conditions were exceptional, the parts varnished not sufficiently extensive, or the time during which the application was retained on the skin not sufficiently long, he has made further investigations.

He experimented on three rabbits, subjecting these animals to the different operations of, in the first, painting with collodion and castor-oil; in the second, coating with sticking-plaster and collodion; and, in the third, covering with tar. The three methods agreed in producing lowering of the temperature, albuminous urine, and death. He then subjected a patient suffering from subacute rheumatism to a gradual envelopment, until both legs from the tips of the toes to the hips, both arms from the tips of the fingers to the shoulders, were encased in sticking-plaster, and his back, abdomen, and breast, painted with collodion, which was daily repeated, only the head, neck, buttocks and genitals being free. In this condition he remained a week without reduction of temperature or albuminuria. A second case remained under similar conditions for three days, when the patient considered himself well and left the hospital. A third case of chronic pemphigus was tarred over the feet, legs, thighs, trunk, arms, neck and face, while a thinner mixture of oil, tar, and alcohol, was applied over the scalp. The woman remained in this condition a week, and presented no abnormality except blackening of the urine, which was shown to be due to the presence of carbolic acid. These facts speak for themselves.

"A Bulgarian", writing to the *Times* of Thursday, August 23rd, ridicules the story that the Russians and their Bulgarian allies coated a Turk with pitch, who, after enduring for three whole days the most horrible pains, succeeded in escaping to tell his tale. He says, if the English public can be made to believe this, they will believe anything. For his part, he confesses that this story of a man being coated with pitch and surviving the operation, beats everything he has read of in the legends of the mythology of Greeks or Hindoos. Without wishing to form any opinion on the truth of the story, it appears from Herr Senator's article that such treatment of a Turk can hardly be called an atrocity, but rather a useful means of curing very possible cutaneous disorders; on the other hand, we are compelled to admit, that there is no intrinsic improbability in the account.

ALLEGED DEATHS FROM POISON: REGISTRATION OF DEATHS.

IF we are to place confidence in the Registrar-General's returns of mortality, it will be absolutely necessary to put some additional checks on the mode in which the causes of death are registered. There is no proper officer to control these returns; and, from the ignorance or indifference of those who now perform this duty, the causes of death are in many instances most incorrectly recorded. At coroners' inquests, *post mortem* examinations are, it is well known, frequently dispensed with; the fees payable for these, as well as for an analysis of the viscera being

thus saved to the county or borough. In a recent number of this JOURNAL, we had occasion to comment on a case which occurred at Devonport, in which poisoning by opium was first alleged as the probable cause of the death of an infant; but, on a *post mortem* examination of the body, it was found that intussusception of the bowels was the actual cause. A mere accident prevented this case from appearing in the registration returns as one of death from narcotic poisoning; but there are numerous instances of daily occurrence in which no *post mortem* inspection is required by the coroner, and serious errors are thus liable to occur.

In addition to the mistakes arising from a neglect of *post mortem* inspections, we may notice another source of error, which, we hope, is not very common; namely, cases in which death arises from the administration of powerful medicines, but the cause is assigned to disease. A case lately occurred in the north of England, in which atropia was administered to a young child convalescent from scarlet fever, in unusual doses too frequently repeated. The ordinary symptoms of poisoning with atropia set in; namely, dilated pupils, convulsions, etc.; and the child died clearly from the effects of this poison. No inquest was held, although it was a case urgently calling for inquiry. A friend of the prescriber, who was called to see the child just before death, entered the cause in the certificate as death from "convulsions". He omitted to state that the convulsions were owing to overdoses of atropia prescribed by his friend, and that there was no other cause to account for them; for this might have led to an inquest and some unpleasant inquiries. Convulsions figure in the returns as a frequent cause of death in young children. The Registrar-General records these as if they had occurred from disease. It is out of his power to sift such cases and to assign the proper cause, and it is generally easy for any one so disposed, to evade inquiry by the use of such vague terms as that above mentioned.

On other occasions, death from poison may be wrongly assigned in the certificate. Of this we have an instance in a case which has lately occurred and has been the subject of an inquest at Combe-Down in Somersetshire. A man was charged with poisoning his wife with a salt of copper (verdigris). The woman suffered from vomiting and diarrhoea, and died in less than a week, apparently from exhaustion. On inspection, it was stated that there was congestion of the mucous membrane of the stomach and intestines; and a medical analyst reported that he found small quantities of copper in the liver and intestines. A mixture which had been supplied to the accused some months before, for veterinary purposes, was found to contain verdigris; and it was suggested that he had administered some of this mixture to his wife, and had thus caused her death. The evidence that verdigris or any poison had been administered by the husband to the wife utterly failed, and the man was discharged both by the coroner and the magistrates, who had made an independent inquiry. They, however, relying on the chemical analysis, concluded that the woman had been poisoned by copper; and her death will, no doubt, be registered in the returns as one of poisoning.

In our view, after examining the elaborate scientific report of the medical analyst, the presence of copper was not satisfactorily proved. It would have required a very large dose of verdigris to cause death as an irritant poison in a few days, even if it caused death at all, as the cases in which it has proved fatal are very rare. There was evidence that the bottle had not been used, and that the illness had commenced before any poison could have been administered. Copper would have been found, not in minute fractional proportions, but in large quantities, in the vomited matters during life, and in the stomach and intestines after death. Here the analyst relied upon a few hundredths of a grain in some ounces of liver, fæces, etc.; and in no instance, so far as we can find, did he obtain copper in the metallic state. The evidence of death from copper-poisoning is, to say the least, most unsatisfactory; while the symptoms and appearances are more consistent with disease than with those of such poisoning.

Until we have the appointment of an officer well skilled in *post*

mortem inspections and in chemical analysis, to whom all cases of suspicious death are referred before a certificate of death is signed or received, we must be prepared for incorrect returns. Poisoning may be passed off as disease, and disease registered as poisoning.

POISONING WITH TOBACCO.

A SINGULAR case of narcotic poisoning in a child has been the subject of an inquest during the last week. A boy, aged three or four years, was playing with other children who were blowing soap-bubbles. The father of the child gave him an old wooden pipe, which had been lying by on a shelf for more than a year. The deceased was quite well at the time, but, an hour after using this pipe, he became sick and drowsy. A medical man was called in, and he found the child labouring under the usual symptoms of narcotic poisoning. He was in a comatose state, and the pupils were slightly dilated. He could be roused to answer questions, but showed no sign of rallying. He died on the fourth day after using the pipe.

The medical witness attributed death to the nicotine which the wooden pipe had imbibed and retained. The deceased, while blowing soap-bubbles with it, had sucked in a sufficient quantity of this powerful poison to cause the symptoms observed and to prove fatal.

There can be no doubt that a very small quantity of nicotine would suffice to destroy the life of a child of this age; but it is rather remarkable that the child should have survived so long. There was, however, no other cause for the symptoms and death; and it is well known that children of this tender age are highly susceptible of the effects of narcotic poisons.

THE Turkish Staff-Surgeon-General Stephan Pacha has been recently in Vienna engaging medical officers for the Turkish army.

LADY BURROWS, widow of Sir John Cordy Burrows, died in Brighton on the 11th instant.

A BUTCHER named Hellwig, at Pforten, in Germany, has been condemned to a year's imprisonment for selling trichinised meat, by the use of which two persons were injured.

M. PROUST reports, in the *Union Médicale*, a case of athetosis. These cases are still interesting, although M. Charcot has probably correctly classed them as being only a variety of post-hemiplegic hemichorea.

MR. J. R. DOWMAN, surgeon, of Hartland, North Devon, has lately died from an overdose of opium taken by accident. The deceased was about 35 years of age.

IT is reported (according to the *Guy's Hospital Gazette*) that Mr. Stocker, the well-known apothecary to the Hospital, has resigned his office, which he has held for many years.

THE East End Tradesmen Association in Aid of the London Hospital have just created another life-governorship, this being the third donation by the Society since July last.

AN attempt is about to be made to convert Sheffield parish churchyard, which occupies about three acres in the heart of the town, into an ornamental garden.

AT a recent sitting, the Municipal Council of Paris formally accepted the legacy of M. Moiana, who has bequeathed to the city of Paris a million of francs for the foundation of a hospital to bear his name, and in which sick and indigent women should be received.

IT has been decided to hold a Hospital Sunday in Cornwall on the last Sunday in September. The collections in West Cornwall will generally be sent to the Royal Cornwall Infirmary or to the Infirmary at Penzance or Redruth, the East Cornwall collections going to the hospital at Plymouth.

THE amount collected in the boxes placed in the streets and large establishments of London on Hospital Saturday was £835, being a slight increase on the sum realised in the same way last year.

WE are pleased to notice that the road at Hyde Park Corner surrounding the north and east sides of St. George's Hospital is being paved with wood. The freedom from noise which will be thus produced cannot fail to be a great boon to the inmates of that institution.

E. VALLENDER has successfully employed the hypodermic injection of apomorphia solution (containing one-sixteenth of a grain) at the beginning of the epileptic aura, in cases where the attack was preceded by a feeling of gastric heat and pain.

TWENTY-THREE persons were charged at the Hull Police Court on the 14th instant with having neglected to have their children vaccinated. One case was adjourned for fourteen days; the remaining defendants were fined sums varying from twenty to five shillings, with costs.

BEFORE these pages are published, we believe the election of Dr. Matthews Duncan to the post vacated by Dr. Greenhalgh at St. Bartholomew's Hospital will be a *fait accompli*. As will be seen in our column of intelligence from Scotland, the departure of Dr. Duncan for the South is deeply deplored in Edinburgh.

THE President and Treasurer of Guy's Hospital have issued invitations to a *conversazione* which will be held on the evening of Monday, October 1st. The medals, scholarships, and prizes awarded at the end of the last session will then be distributed. Ladies have been invited.

A CHEMIST named Greensmith was convicted at Rugeley Petty Sessions last week for selling a small quantity of arsenic without having a witness. The detection was made by a policeman in plain clothes, against whom a summons has been taken out for giving false information to defendant when purchasing the poison.

THE meeting of the International Medical Congress has been held in Geneva, commencing on September 9th. The President was Professor Vogt; the Vice-Presidents, Critchett (England), Esmarch (Germany), Schnitzler (Austria), Hardy (France), Warlomont (Belgium), Palasciano (Italy), and Sims (America).

THE *Andaluza*, of Glasgow, Captain Anderson, arrived on September 17th at Falmouth from the West Coast of Africa, with most of the crew sick from scurvy. The vessel left Rotterdam for the outward voyage on March 11th. At Oporto, several of the men suffered from ague, and scurvy broke out in the beginning of July. One man died at sea on August 20th. The captain put into Terceira for medical advice on September 4th.

WE regret to hear of the death of Mr. Richard Apjohn, third son of Dr. Apjohn, Professor of Chemistry in the University of Dublin. Mr. Apjohn had been for some time resident in Cambridge, holding the office of Prælector in Chemistry at Gonville and Caius College. He was also public analyst for the counties of Cambridge and Huntingdon. His death, which took place at the Midland Hotel, London, on September 12th, is said to have been the result of an injury received in bicycling.

AN important addition is being made to the means of practical teaching in the University of Berlin, in the form of a pharmacological institution, under the direction of Professor Oscar Liebreich. It contains two departments, one physiological and the other chemical, in which pharmacological, physiological, and chemical researches on medicines and their action will be carried on. The Prussian Government is about to erect a building for the laboratory. The example will probably be followed in the other German universities.

MADLE. TIETJENS.

MADLE. TIETJENS, since her return from Worthing, has remained without improvement. Her state causes considerable anxiety to her family and numerous friends; and Dr. Wilson Fox joined Mr. Spencer Wells and Dr. Howell in consultation on Tuesday.

COUNTER-PRACTICE.

A GOOD deal of quite unnecessary reproach is being cast upon the Pharmaceutical Society for the resolution arrived at recently by the Council to authorise their solicitor to defend, *at his discretion*, a member threatened with prosecution under the Apothecaries' Act for counter-prescribing. In the first place, the resolution is very cautiously worded, for the solicitor is likely to have enough discretion not to waste the Society's funds in defending any man if he have clearly infringed the law. If he have not, then the Society can hardly do less than protect the rights of its members. We remember, indeed, to have seen in past days some very decided expressions on the part of the representative chiefs of the Society on the subject, and a couple of years since most high-class chemists would have felt grossly insulted at being suspected of countenancing counter-practice; but times have altered with the Pharmaceutical Society, and not altogether for the better. The Rubicon was crossed when the Council cast aside its duty of protecting the public a couple of years since against accidental poisoning, and yielded up to a trade clamour interests which, in a profession, would have been sacred. Since then, a sort of trade protection society has been organised outside of the Pharmaceutical Society, which affords an organised means of putting pressure on the Council for trade purposes. A sort of downward competition is thus established, to which the Council of the Pharmaceutical Society, which consists wholly of direct representatives, is only too prone, by its unstable composition, to yield. Under the circumstances, we are not at all surprised that the Pharmaceutical Council has given thus much of material and moral support to counter-prescribing, but rather that it has hurried so slowly to the rescue, and that it has so sagely limited its action to the discretion of the solicitor.

MEDICAL CLUBS.

THE Rev. S. A. Barnett, of St. Jude's Vicarage, writes to the *Times*, *à propos* of the medical club in Suffolk, the formation of which was noticed in this JOURNAL for September Ist.

"Your interesting description of the work of the medical club in Suffolk assures us of your sympathy with an effort some of us have been making to establish a like club in Whitechapel and St. George's-in-the-East. Last year we drew up rules and a scale of fees (similar to those to be used in Suffolk). The doctors best known in the neighbourhood agreed to be on the staff, and a collector has been employed. Everyone has worked well, but as yet the scheme is not a success. The cause of failure is the facility with which the working people can get attendance at the London Hospital and Free Dispensaries. It is hopeless to expect that they will put aside even a penny a week for medicine and a doctor's attendance when they can obtain as much for the mere asking. As long, therefore, as hospitals give their relief so freely and indiscriminately we must expect that the people will use 'this stepping-stone to pauperism,' and be deprived of that 'happiest of results, the healthy feeling of self-help and independence' which belongs to those who do their duty in providing for the necessities of life."

We may add that we believe that the disastrously indiscriminate charity of the London Hospital is loading it with debt, while it injures the surrounding population.

BABY-FARMING.

A WOMAN, named Johnson, living in the Andover Road, Upper Holloway, has been committed for trial on the coroner's warrant, for the manslaughter of a child named William Onslow, aged 5 months, who had been placed under her care. From the evidence given at the inquest, it appears that on August 27th the child was visited, and was found to be greatly emaciated and lying on a dirty bed covered with rags. It was removed to the workhouse and attended to, but died in five days.

A PROBABLE NECESSITY.

OUR able contemporary the *Mouvement Médical* criticises the elaborate ventilating arrangements of the new Hôtel Dieu. It is especially afraid that in summer, under certain contingencies, "there will arise the very probable necessity of opening the windows to supply the want of air". We hardly ever remember to have gone through a Paris hospital, or indeed any public room in Paris, in summer, without feeling that this "probable necessity" had arisen, and longing to open all the windows.

POLICE DIAGNOSIS.

AN inquest was held last week at Mount Street, Grosvenor Square, on a man named J. G. Hopcroft, aged 39, who met with his death under the following circumstances. According to the evidence of the police, he was found on the pavement, apparently drunk. In answer to their inquiries, he said he had taken some ale and gin, and that it had overcome him. When lifted, he could not stand, and was conveyed to the police-station on a stretcher. He vomited twice. A brother of the deceased came to see him in the police-cell at Molyneux Street, and at once said there was something more serious the matter than simple drunkenness, as his left arm and leg were paralysed. He asked that a doctor might be sent for; this the sergeant of police refused, but he allowed the deceased to be bailed out and taken home in a cab. When at home, the man told his wife that he was sitting on a door-step, when two policemen came along and took hold of his arms, lifted him up, and then kicked him about the legs. The patient is said to have been sensible when he made this statement. It further appeared that a month previously the man had had some kind of fit, from which he recovered; and that a week later, he fell across the handrail of a staircase. Dr. F. T. Coates of Westmoreland Street was called in to see the patient at his home, and found him paralysed on his left side. At the *post mortem* examination, a large effusion of blood was found in the brain, and the body presented no signs of alcoholism. The coroner, in summing up the case, expressed his opinion that in such a case the police should have called in a medical man. This case is another of the many examples of culpable want of discretion on the part of the police in attempting to distinguish between cases "drunk or dying"; and in refusing to send for a doctor at the request of the brother, the sergeant was clearly to blame. Such disasters, which are discreditably to our police system, will occur from time to time, as long as medical attendance is not called to all cases of people found in the streets in a state of unconsciousness. In the present case, signs of paralysis were observed by the brother while the man was in the cell, which shows that no sufficient care was exercised by the police to ascertain the real condition of the poor man.

MISUSE OF MEDICAL CHARITY.

AT a recent special meeting of the governors and subscribers of the Warrington Infirmary and Dispensary, held for the purpose of considering new rules and other business, Mr. J. H. Gornall called attention to what he rightly regarded as a misapplication of the charity. It appears that the trustees of the Blue Coat School have been accustomed to pay a yearly subscription of three guineas to the Infirmary; and for this they have claimed the gratuitous attendance of the house-surgeon and honorary medical officers of the Infirmary, with medicine, whenever any of the children in the School required such attendance. Mr. Gornall argued that this arrangement was unfair both to the members of the profession in the town and to the house-surgeon, and moved the following resolution:

"That the trustees of the Warrington Blue Coat School, being in receipt of a sufficient income for the education and maintenance of the children of the charity, cannot, with a due regard to the interest of the Warrington Infirmary and Dispensary, be considered eligible to receive the benefits of charitable medical relief as subscribers."

In the discussion which followed, no attempt was made to justify the custom; but several of the speakers alleged that Mr. Gornall's proposal had taken them by surprise. It was urged that the matter should be left with the Committee of the Blue Coat School; and their legal

representative stated that he had no doubt that, if the matter were brought before the trustees, it would be adjusted in a manner satisfactory to every one. Mr. Gornall's proposal was ultimately withdrawn; and a rule was passed to the effect that the representatives of public institutions subscribing five guineas annually should have the privileges of annual subscribers of that amount, subject to the control of the board of management. Mr. Gornall acted rightly in bringing the matter under notice, although he occasioned surprise to some of his audience, who apparently were not aware of the injustice they were inflicting. It is certainly by no means creditable that an institution well provided with funds, as the Warrington Blue Coat School is said to be, should condescend to sue for medical advice for the annual consideration of three guineas. We have hopes, however, that the gentlemen who have the management of its affairs will see that matters are put in a proper condition.

THE WAR.

At a late meeting of the Stafford House Committee, appeals were received from Mr. Barrington Kennett for further assistance for the constantly increasing number of wounded, owing to the continued desperate fighting in Turkey. It was consequently resolved to despatch at once five more surgeons and ten dressers to the seat of war, making up the staff of surgeons maintained by the committee to twenty-one, with ten dressers; while it also assists with stores Lord Blantyre's ten surgeons and others. The strain on the resources of the fund has reduced it to a very low ebb. In order, therefore, to be able to keep up their medical staff, and, if possible, to further increase it, the committee appeal for further assistance to those of the public who sympathise with a people fighting for their homes against enormous odds.

SICKNESS IN THE RUSSIAN CAMP.

We learn from a reliable source (says *Vanity Fair*) that the Russian armies in Turkey have suffered and are suffering from sickness to an extent quite unparalleled. We are informed that "in addition to those killed in action, the armies have already lost no less than 62,000 men by diseases of various kinds, and they are dying like flies."

THE SPREAD OF SMALL-POX.

The Fulham District Board of Works, at a meeting held last week, resolved "to put themselves in communication with the Home Secretary with a view to the Government providing in the proposed new Public Health Bill a clause making it compulsory upon medical men to give notice to local authorities of the occurrence of cases of infectious or contagious diseases". Mr. Brown, in seconding the resolution, observed that it hardly went far enough, as other persons besides medical men should be compelled to give the information.

SMALL-POX.

DR. TRIPE, Medical Officer of Health for Hackney, in his report for the past seven weeks, states that during that period only seven new cases of small-pox in that district were reported to the sanitary authorities, against seventy-five new cases reported during the previous seven weeks; and there had been only one death of an inhabitant of Hackney registered during that time. There is now hope that the epidemic will shortly disappear from Hackney, which has suffered from the disease more than any other metropolitan parish.

HOMŒOPATHY AND THE MEDICAL PROFESSION.

ON Thursday week, a congress of medical practitioners who belong to the homœopathic school of medicine was held at the Adelphi Hotel, Liverpool. There was a large attendance of medical men from all parts of the country. The President was Dr. Alfred C. Pope of London, who opened the proceedings by delivering a long address on "The cause of Professional Opposition to Homœopathy", in which he reviewed the past history and present position of that branch of medical science represented by the gentlemen assembled. He mentioned that this was the jubilee year of homœopathy in England, and now,

after fifty years of bitter hostility on the part of the majority of the profession, they had, during the present year, heard for the first time a public expression of a desire that the exclusion of homœopathic practitioners should no longer be demanded. But important as it was that the feeling in favour of closing the breach between physicians who practised homœopathically and those who did not admit that they did so should be encouraged, it was of equal if not far more importance that no misunderstanding should exist as to the therapeutic views which homœopaths entertained or as to the cause of the estrangement which they had always deplored. The opposition which had been persistently launched against homœopathy in this country had not, in his opinion, had anything whatever to do with the alleged intolerance either of Hahnemann or his early disciples, as some practitioners believed; but it had been due wholly and solely to the ignorance of the profession regarding well-nigh all concerning homœopathy, to the persistency with which, by the publication of palpable caricatures of it, as though they were genuine representations, the medical Press has sustained, and indeed almost compelled, the ignorance. Its history was full of evidence that an almost entire absence of knowledge respecting homœopathy, combined with many utterly erroneous and not a few equally absurd notions concerning it, lay at the bottom of all the opposition it had met with. Hence it was to the removal of that ignorance, to the substitution of facts regarding homœopathy for the assumptions which had been entertained respecting it, that they must look for the reunion which had been sought, for the peace which was to bear fruit in mutual respect, and in a mutual anxiety to discover and follow truth.

AN INFECTIOUS DISEASES' HOSPITAL FOR ROCHESTER.

THE subject of the refusal of the War Department to grant the Corporation of Rochester a suitable site in the outskirts of the city on which to erect a hospital for the reception of patients suffering from infectious diseases, gave rise to some strong animadversions on the part of members of the Corporation, at the meeting of that body. The Government holds all the land in Chatham and Rochester suitable as a site for such a hospital; but although repeated applications have been made to the War Department by the Corporation to grant a suitable site no attention has been paid to the subject. It was stated that, in the event of the Government still not heeding the request made, the compulsory powers of the Corporation would be put in operation.

REPORT OF THE LUNACY COMMISSIONERS.

THE Commissioners in Lunacy in their thirty-first report state that the returns made to their office show the total number of lunatics, idiots, and persons of unsound mind, registered as such in England and Wales on the 1st of January last, to have been 66,636, an increase of 1,720 upon that of the 1st of January, 1876. These numbers do not include 252 lunatics so found by inquisition, who reside in charge of their committees. The Commissioners give the following analysis, showing the increase and decrease under the various heads of distribution, as compared with the 1st of January, 1876: The private patients have increased in county and borough asylums by 3; in registered hospitals by 56; in licensed houses by 37; in the naval, military, and Indian asylums by 4; and as "single patients" in private charge by 19; while there has been a decrease of 31 in the number of patients maintained by the State at Broadmoor Asylum, and who, as already stated, are included in the private class. The pauper patients have increased in county and borough asylums by 1,366; in licensed houses by 55; at the Broadmoor Criminal Asylum by 17; and in workhouses by 529. There has been, on the other hand, a decrease in this class of 121 in registered hospitals, and of 214 in the number of outdoor paupers. The increase (88) in the number of registered patients of the private class on the 1st January last, as compared with the returns of the preceding year, is below the average annual increase of past years. This is, no doubt, in a measure due to the fact that male convicts becoming insane whilst undergoing sentence are no longer

sent to the Broadmoor Asylum, but are retained in convict prisons. Returns of such cases are not made to our office, nor are these patients visited by us. The decrease in this year's return of 31 in the patients classed as "private" in Broadmoor Asylum is likewise, to a certain extent, accounted for by this change of system, though it is also partly due to deaths of convict patients there, and to removals thence to county asylums of those whose sentences of penal servitude have expired, as well as to the return to convict prisons of those who have become sane, but whose sentences were still running. The decrease of 121 in the pauper patients in registered hospitals is almost exclusively due to the removal from Northampton Hospital to the new county asylum of all the remaining pauper lunatics. The hospital now contains, and will in future receive, private patients only. The insane and imbecile in the metropolitan district asylums at Leavesden, Caterham, and Clapton (considered as workhouses within the meaning of the Lunacy Acts) were, on the 1st January last, 4,519, an increase of 314 upon the number in these institutions on the 1st January, 1876. In the ordinary workhouses of the country the increase in the insane and imbecile residents as regards the corresponding period was 215.

PHYSIOLOGICAL APPARATUS.

A TEMPORARY "loan collection" has been opened at South Kensington which will, it is hoped, be a nucleus of a permanent collection of scientific apparatus. Among the apparatus are included the following: Professor Owsiannikov, of the University of St. Petersburg, has contributed collections of preparations of the nervous system of molluscs, and of the embryology of the sterlet, which, besides their intrinsic value, are interesting illustrations of the present state of scientific work in Russia. Mr. H. Griesbach has added some instruments illustrating the phenomena of sound, and the Geneva Association for Constructing Scientific Apparatus has presented a great cathetometer. There are a large number of other presents. The purchases include a collection of acoustic apparatus by Appun; Du Bois-Reymond's astatic magnet; Lippmann's capillary electrometer; Voit's apparatus for investigating the gases given off in the respiration of small animals; Geissler's tubes; models of the development of trout; Professor Cohn's germinating apparatus for the cultivation of microscopic organisms at a constant degree of temperature and moisture, and his apparatus for demonstrating Knight's experiment on the influence of gravity on the direction of the growth of roots and stems of budding plants, an apparatus in which the plants attached to spokes of a wheel slowly rotate; Stöhrer's apparatus for registering the growth of plants; together with theodolites and other instruments of measure.

THE MADRAS FAMINE.

THE official reports for the month of May, the latest that have been published in a complete form, give the mortality in the entire Madras Presidency for those thirty-one days at 212,564; and the births at 48,056, out of a population taken in 1871 at 31,281,177. In the city of Madras, which in 1871 contained 397,552 inhabitants, during the week ending the 10th August there were 1,030 deaths and 369 births—a considerable portion of the latter being premature. In Calcutta, with its population of 429,535 souls, the mortality for the whole month of July did not exceed 859, while the births are put down at 647. The disproportion speaks for itself. Since May, the mortality has increased at a frightful rate, and as the people grow weaker and weaker, deaths will inevitably become more numerous. During the past week, the relief works furnished a pretence of employment for 983,502 individuals, being an increase of 26,115 on the previous week, while no fewer than 1,001,589 human beings—being an increase of 162,803—were entirely dependent on State relief. In addition to these numbers must be counted 45,124 on relief works in Mysore, and 164,439 receiving gratuitous relief, the former being less by 2,294, and the latter 13,003 more than during the preceding week. A telegram received this week by the Lord Mayor gives the following death-rates in July in some municipal towns in the famine districts compared with

the average of three previous years:—Mellore, 74 per 1000 *per annum* against 22; Madras, 139 against 36; Conjeveram, 188 against 26; Tuticorin, 70 against 46; Kurnool, 211 against 31; Bellary, 74 against 23; Adoni, 110 against 47; Vellore, 119 against 41; Wallajpet, 130 against 31; Salem, 55 against 30; Coimbatore, 97 against 14; Errode, 611 against 41; Coonoor, 223 against 39; Bangalore, 120 against 20.

HEALTH OF THE CITY OF LONDON.

DR. W. SEDGWICK SAUNDERS, Medical Officer of Health, reported that the general health of the City is at present very satisfactory, the deaths being below the average of the last four years. The usual summer diseases have been fewer in number than usual, and of a favourable type. The number of cases of small-pox has been steadily decreasing, and none have been reported for upwards of a fortnight.

SUICIDAL STRANGULATION IN THE SITTING POSTURE.

AT an inquest held near Faversham during the last week, a man was found dead in a sitting position on the floor of a barn. When the body was first seen, it was supposed to be a wayfarer who had taken shelter in the barn and had fallen asleep. It was soon found, however, that he was quite dead, and that he must have strangled himself by means of a cord passing round his neck and attached to a nail. It is probable that, while thus sitting on the floor, he had leaned forward so as to compress the trachea and to cause death by asphyxia. The case is of some medico-legal interest, as it shows that a person may commit suicide under circumstances in which murder might be suspected. Some years since, it was seriously doubted whether a person could die in such a position; but this, among other cases, proves that it is quite compatible with suicide.

POISONING WITH PHOSPHORUS, FOLLOWED BY ABORTION.

IT is rare that we hear of phosphorus-poison being used for the purpose of procuring abortion; but a case has recently occurred in the Isle of Man which proves that, like other irritants, phosphorus may lead to the expulsion of the contents of the uterus. A young woman, who was in the seventh month of pregnancy, procured some phosphor-paste and took a small quantity of it on two or three occasions. The symptoms were, as usual, slow in appearing. She suffered from severe pain and vomiting, and died in about forty-eight hours, having been previously delivered of a still-born child. The appearances on the body, as described at the inquest by the medical witness, were very characteristic of phosphorus-poisoning. The stomach contained about half a pint of a dark liquid like coffee-grounds (altered blood). There were large purple patches on the mucous surface, arising from the infiltration of blood. The contents and inner surface of the stomach were luminous in the dark, thus clearly indicating the presence of phosphorus. The upper portion of the small intestines was much congested; and the liver was undergoing fatty degeneration: another well-marked effect of phosphorus. The medical witness properly stated that the phosphorus did not act on the uterus as an abortive, but affected this organ indirectly by setting up irritation in the stomach and bowels. The evidence at the inquest showed that the father of the deceased had procured for her the poison on a false representation. A companion of the deceased has been committed for trial on the charge of being accessory to the felony. It appears that she knew for what purpose deceased had procured the poison, and was present when she took a portion of it.

IS LUNACY AN ILLNESS?

AN important legal question has been raised by the Shoreditch Board of Guardians on the following case. A lunatic had been kept for some time in an asylum, at an expense to the parish of 19s. per week, when it was discovered that he was a member of the Hearts of Oak Benefit Society, and entitled to the receipt of 18s. per week when disabled by illness. According to a rule of the Society, sanctioned by the recent Friendly Societies' Act, the allowance to a sick member who becomes a pauper is reduced to 2s. a week. The guardians

made a claim upon the Society before a magistrate for the payment of 18s. weekly. The case was argued by counsel, and two questions were raised: Is the member of a benefit society, when incapacitated by lunacy, entitled to the usual sick-allowance? If such a patient be taken charge of in a Poor-law asylum, does he become a pauper and thereby become entitled only to the reduced allowance? As this is the first case of the kind which has occurred, and many others are involved in the question, it was resolved to carry the case to the Court of Queen's Bench.

POISONING BY CARBOLIC ACID.

AN inquest was held last Friday at the London Hospital on a child eighteen months old. It appeared that the father of the child was lying dead at home; the mother purchased some carbolic acid for the purpose of disinfecting the body, and placed the bottle on the mantelpiece. Shortly afterwards, she found the child lying on the stairs drinking some of the contents of the bottle. She took him to the London Hospital, where he was seen by the house-physician, who found him insensible and breathing with a loud laryngeal stridor, evidently due to the corrosive action of the acid about the larynx. Tracheotomy was at once performed, but the child died shortly afterwards. This case shows the care that should be exercised in the use of carbolic acid, which is a poison; and also the importance of the more frequent use of public mortuaries in poor localities.

HOW TO DESTROY CONDEMNED MEAT.

A LARGE quantity of meat unfit for food is daily condemned at the Foreign Cattle Market, Deptford, and other places; and the Sanitary Committee of Commissioners of Sewers have to make arrangements for its disposal. Dr. Saunders has given much consideration to the subject of the destruction of this meat, and has decided upon a bath which will be always available for dealing with the bad meat condemned in the immediate vicinity of the meat-markets. The first essential requirement is, that the meat shall be thoroughly deodorised; a second requirement is, that the meat shall be made so disgusting to the taste as to render it an utter impossibility for any portion of it ever to be used as food; and the third and most difficult undertaking is to dye the meat of such a colour as to be offensive to the eye. This can now be effected in a bath at a moderate cost. In an apartment used for the purpose, four tons of meat have been immersed in such a bath, with the result, at the end of a fortnight, that the meat smells perfectly sweet, while not the slightest nuisance has arisen to the surrounding district. The meat has been dyed a deep yellow colour, and rendered disgusting to the taste. Horses and carts for the conveyance of condemned meat will be provided by the Commission. After the meat has been thus treated, it will be used for manure.

POISONED TREACLE.

AT the last meeting of the Lewisham Board of Works, the public analyst reported that a large quantity of treacle, which had become accidentally poisoned with arsenic, had found its way into the market and was being extensively sold. It was stated that two families had already been poisoned by this treacle, and the analyst advised the Board to have samples taken from every grocer in the district. It was ordered that two samples should be taken from each parish for the purpose of immediate analysis. This would necessitate the examination of about a hundred samples.

HOME FOR INEBRIATES AT KENNINGTON.

ON account of representations having been made to the Home Secretary with respect to the Home for Inebriates at Kennington, Dr. W. T. Iliff, Medical Officer of Health for Newington, made a thorough investigation of the home by the direction of Mr. Cross. He found it scrupulously clean, and every attention paid to its sanitary condition, except overcrowding. Ventilation, etc., appeared to have been carefully attended to, and thus any serious harm has been prevented. The necessity of reducing the present overcrowded condition of the institu-

tion was pointed out to the lady-superintendent, who promised to attend to the suggestions made. Dr. Iliff reported to the Newington Vestry that the institution appeared to be carrying on a valuable work, and was deserving of every possible assistance.

DEATH OF A CHILD AFTER TAKING A "SOOTHING POWDER".

AN inquest was held at Liverpool on a child five months old. She had been taken ill in the night with vomiting; and the mother, thinking that the child was teething, gave it half a "Steedman's Soothing Powder". The child became worse, and was taken to the Children's Infirmary, where she died the same evening. When received at the infirmary, the child was in a very drowsy state; the skin was blue, and the pupils were contracted. The child was evidently dying. A *post mortem* examination showed that all the organs were healthy except the brain, which was congested. Dr. Campbell Brown analysed the contents of the stomach and the portion of the powder which had not been given. The powder contained, when entire, from one to twelve grains of calomel, together with a little sugar and a few minute particles of some organic substance which was not morphia. A strong opinion was expressed that chemists should not be allowed to prescribe powders containing poison simply because they were sold under a Government stamp. An open verdict was returned.

HYDROPHOBIA.

A NUMBER of deaths from hydrophobia have been lately reported to have occurred. Of one, which took place at Ongar, an account is given in this week's JOURNAL by Dr. Grattan. In a case at Wooburn, near Beaconsfield, a boy aged 12 was bitten in the forehead by a dog on May 12th, and in the last week of August was seized with hydrophobia, which caused death in two days. In Devonshire, where the disease is said to have been unknown for many years, three cases have been recorded, two of which occurred in the north of the county. In one of these cases, at Barnstaple, the victim was a boy aged 5, who was bitten a month previously by a retriever dog, which inflicted several wounds. Another case occurred at Ashburton, the patient being a lad aged 17, named Joint, who was bitten by a lurcher bitch on July 7th, on the left thumb. The wounds were cauterised by Mr. Adams, surgeon. On September 10th, symptoms of hydrophobia set in, and he died on the evening of the 12th. In Hertfordshire, it is reported that a donkey, about three weeks after having been bitten by a large dog, showed symptoms of madness, becoming quite unmanageable and ferocious, in which state it bit the hand of its owner, an old man aged nearly 80, named Pearce. The wound in the man's hand was cauterised.

THE PUBLIC HEALTH.

THE Registrar-General's weekly return states that during last week 5,497 births and 3,109 deaths were registered in London and twenty-two other large towns of the United Kingdom. The natural increase of population was 2,388. The mortality from all causes was at the average rate of 20 deaths annually in every 1,000 persons living. The annual death-rate was 18 per 1,000 in Edinburgh, 24 in Glasgow, and 20 in Dublin. The annual death-rate from the seven principal zymotic diseases averaged 4.1 per 1,000 in the twenty towns, and ranged from 2.2 in Newcastle-upon-Tyne, to 8.6 in Liverpool, and 10.7 in Wolverhampton. Diarrhoea and fever caused a high zymotic death-rate in Hull, and 9 more fatal cases of scarlet fever were returned in Wolverhampton. Small-pox caused but 12 deaths in the twenty towns, of which 10 occurred in London and 2 in Liverpool. In London, 2,368 births and 1,261 deaths were registered. Allowing for increase of population, the births exceeded by 63, whereas the deaths were 104 below the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the four preceding weeks had steadily declined from 19.3 to 17.4 per 1,000, was last week 18.6. During the past eleven weeks of the current quarter, the death-rate has averaged but 19.6 per 1,000, against 21.7 and 22.3 in the corresponding periods of 1875 and 1876. The 1,261 deaths in-

cluded 10 from small-pox, 23 from measles, 38 from scarlet fever, 7 from diphtheria, 32 from whooping-cough, 30 from different forms of fever, and 86 from diarrhoea; thus, to the seven principal diseases of the zymotic class 226 deaths were referred, against numbers declining steadily from 346 to 182 in the four preceding weeks. These 226 deaths were 103 below the corrected average number from the same diseases in the corresponding week of the last ten years, and were equal to an annual rate of 3.3 per 1,000. Five of the fatal small-pox cases were certified as unvaccinated, and in the five other cases the medical certificates did not give any information as to vaccination. The number of small-pox patients in the Metropolitan Asylum Hospitals, which in the sixteen preceding weeks had declined from 964 to 206, further fell last week to 181; 35 new cases were, however, admitted during the week, against 24 in the previous week. The number of patients in the Highgate Small-pox Hospital, which had been 26 and 19 at the end of the two preceding weeks, was 18 on Saturday last. In Greater London, 2,864 births and 1,496 deaths were registered, equal to annual rates of 34.2 and 17.9 per 1,000 of the population. In the Outer Ring, 4 deaths from small-pox were recorded in West Ham, and 5 deaths were referred to fever.

HOME HOSPITALS FOR THE WELL-TO-DO.

WE extract the following paragraph from the preface to the fifteenth edition of the *Royal Guide to the London Charities*, by Herbert Fry.

"The excellent proposal recently made by Mr. Henry C. Burdett, secretary to the Seamen's Hospital Society, for the establishment of a hospital for the well-to-do, reminds me that, twenty years ago, when I happened to go to the Brompton Hospital for Consumption, it was pointed out to me by the resident officer that the poor had in such a house what the wealthier classes could not obtain, because such hospitals were not accessible to them. He wondered how long the richer classes would be content to remain so unprovided. The proposition of Mr. Burdett has been so successful that the question of my friend of twenty years ago will probably be soon answered. Such a want must now be met and satisfied."

The Homes for Invalids (Home Hospital) Association is progressing satisfactorily with the work it has undertaken, and we are informed that already a fourth of the £20,000 required has been obtained. It will, however, be necessary for all who are interested in the success of this movement to help the committee to raise the necessary funds, as the counter-attractions of Relief, Famine and Compassionate Funds, threaten to direct the contributions of the charitable, for this year, at least, from all home charities, whether new or old. The Duke of Northumberland is chairman of the Provisional Committee, and it has been decided not to issue any general appeal to the public until after the recess, when there ought to be no difficulty in raising the £15,000 still required. We hope that all members of the profession who have felt the need of a middle-class hospital will co-operate with the Committee in raising the necessary funds, by commending the scheme to the favourable support of their immediate circles.

HEALTH OF FOREIGN CITIES.

A SUMMARY of the weekly returns with which the Registrar-General is favoured by various local authorities abroad shows that the average annual death-rate during the second quarter of 1877, in twenty-nine Indian and Foreign cities, was 31.9 per 1,000; or, excluding Madras, where the rate was so exceptionally high, the average rate was 28.9, against 23.4 in twenty of the largest English towns. The population of these twenty-nine Foreign cities is estimated at rather more than 11,000,000 of persons. The lowest death-rates in these cities were 17.8 and 19.5 in Boston and Philadelphia; whereas the rate was equal to 41.3 in Buda-Pesth, 44.5 in Alexandria, 65.0 in Bombay, and 121.6 in Madras. Cannot more be done for Madras? Its hygienic condition has been for some months deplorable. In the thirteen weeks taken to represent the quarter, cholera caused 1,765 and small-pox 3,186 of the 12,044 deaths registered in Madras. In Calcutta and Bombay 328 and 1,241 deaths were respectively referred to cholera. In Paris, 212 deaths resulted from typhoid fever, against 386 in the

preceding quarter; the annual death-rate from this disease in Paris was equal to .43 per 1,000, while in London it did not exceed .18 per 1,000. Small-pox was prevalent in Bombay, Madras, Brussels, and Vienna, though in the Indian cities the mortality from this disease considerably declined towards the end of the quarter. Scarlet fever and diphtheria were fatally prevalent in Berlin, New York, and Brooklyn; and whooping-cough caused 133 deaths in Alexandria.

PROSECUTION UNDER THE VACCINATION ACTS.

MR. JOHN S. WALTON of Northallerton, Coroner for the North Riding of Yorkshire, was fined at the Petty Sessions held at Northallerton on the 19th instant in the sum of ten shillings and costs, for failing to comply with the Vaccination Acts. It was brought out in evidence that the coroner, although not a qualified medical man, keeps a surgery and practises medicine in all its branches. Mr. Unthank, a surgeon of Appleton Wiske, was called for the defence; but the magistrates did not accept his statement that the child was vaccinated five times. It is stated that Mr. Unthank gave his certificate on the word of Mr. Walton, and at his request.

INVALIDS IN EGYPT.

WE are informed that Messrs. Cook and Son, the enterprising tourist and excursion agents, are making arrangements which, if well carried out, will no doubt add much to the comfort of invalids travelling in Egypt. They are opening an establishment at Luxor in Upper Egypt, for the special purpose of providing accommodation for invalids, for whom hitherto there has been no accommodation in that region beyond that to be obtained on board the *dahabeahs*. Arrangements are being made with an European medical man to reside in the establishment during the whole of the winter. The invalids will be conveyed by the Nile steamers, each of which has a surgeon on board.

DEATH FROM AN ACCIDENT IN DRIVING.

WE regret to learn that a member of our Association, Mr. James H. Lakin, M.B., of Sutton Coldfield, has lately died in consequence of injuries received through an accident. It appears, from the evidence given at the coroner's inquest, that Mr. Lakin was driving in a gig towards Sutton on the evening of August 31st, when his vehicle came into collision with a gig driven by Mr. Quinsey, a traveller. The latter was thrown out and stunned; and Mr. Lakin was also thrown out and received injuries of the head, from which he died on September 2nd. The deceased was fifty-three years of age; he was a Bachelor of Medicine of the University of London. He was much beloved, and is deeply regretted in the locality where he practised.

SCOTLAND.

THE outbreak of typhoid fever at the West End of Edinburgh, which we noticed last week, has now been checked, no new cases having been reported for more than a week past. The prompt action taken by the sanitary authorities of the city to put a stop to the spread of the contagion has been mainly instrumental in producing this happy result.

It is to be observed that, at the recent competitive examination of candidates for commissions in Her Majesty's Indian Service, four out of the six who have obtained the highest number of marks were graduates in medicine of the University of Edinburgh, the name of Alexander Thom, Crieff, being at the top of the list. The other successful Edinburgh graduates were E. S. Brander, R. Neil Campbell, and G. A. Emerson.

UNSANITARY BAKEHOUSES.

MUCH activity has been shown lately by the sanitary authorities in Edinburgh in the exercise of their powers under the Bakehouse Regulation Act. At the instance of the inspectors, fourteen bakers were summoned for failing to keep their bakehouses clean, whereby they became liable to a fine of £5. From evidence given in court, it

appeared that some of the defaulters never cleaned their bakehouses except when compelled to do so. In each case, a fine with costs was inflicted.

THE HEALTH OF SCOTLAND.

THE Registrar-General for Scotland gives the following cheerful account of the month of August from records of the eight principal towns: "August 1877 has been cold, damp, cloudy, but more particularly wet exceedingly, both the depth of rain and the number of rainy days having been greater than for any previously recorded month of August. The barometric pressure was below the average, but only very slightly so, while the variations were rather less than usual. The chief feature, indeed, of causation for the rain was the large amount of east wind, verging rather from south than north; and this circumstance, perhaps, gave the maximum of all the rains to Edinburgh, with 9.64 inches of depth of rain falling in twenty-seven days; while Paisley, with 6.80 inches falling in eleven days, was, perhaps, the minimum."—The mean temperature was about 56 deg. Notwithstanding the inclemency of the weather, the total number of deaths were more than 20 per cent. below the average, while the deaths from zymotic diseases constituted only 15.9 per cent. of the whole mortality, being both the smallest number and the smallest proportion of deaths from that class of diseases since August 1855.

SMALL POX AT FORT GEORGE.

A YOUNG woman suffering from small-pox was taken to Inverness one day last week from Campbeltown, but was sent back to that place. It appears that the disease had spread to the village from the military station at Fort George, where a newly arrived recruit from London died of the malady a few days previously. The cases are now in the military hospital.

DR. MATTHEWS DUNCAN.

IT is now, we understand, definitely settled that Dr. Matthews Duncan will leave Edinburgh and settle in London, having been elected to the office of Obstetric Physician at St. Bartholomew's Hospital, on the resignation of Dr. Greenbalgh. There is in all circles in Edinburgh a general feeling of regret at losing one who has for long held a leading position in the medical profession there, and whose advice on matters of public business was much sought and highly valued, as being that of a clear-headed, thoroughgoing, and independent man. By the Medical School the loss will be particularly felt, as he is recognised on all hands as being one of the most able and successful of teachers. It is the intention, we are informed, of his medical brethren and others to entertain Dr. Duncan at a banquet before he leaves. His resignation will throw open the offices of Physician for Diseases of Women at the Royal Infirmary, and that of Ordinary Physician to the Royal Maternity Hospital, for each of which appointments more than one candidate is already in the field.

POISONING ON BOARD SHIP.

AT the Glasgow Circuit Court last week, Captain Cochrane, of the ship *Crown Prince* of St. John, New Brunswick, was charged with culpable homicide; the allegation being that, on the homeward voyage of the ship from Peru, he had caused a quantity of putrid pork to be served out to the crew, the consequence being that six of the men died from blood-poisoning, and several others were seriously ill. It was maintained, in defence, that the poisoning was probably caused by the existence of arsenic in the sugar used on board. The steward gave evidence to the effect that the crew had shown no signs of indisposition until the homeward voyage commenced. A cask of pork was opened on November 18th, 1876; the contents smelt very bad, but appeared to be in good condition. On the 20th, he cooked a piece of the meat for dinner, and it was served to the men at 10.30 A.M. A number of the men became ill next day, and six died, seven others being in a dangerous condition. The symptoms were vomiting, pain across the stomach, headache, and slight purging. He took none of the pork,

but he was very ill. On a relief-crew being obtained, they also became ill after a brief residence on the vessel; they received no pork. In cross-examination, he stated that, in addition to the sugar which they carried at sailing, they purchased sugar at two different places on the Peruvian coast. It was suggested that the sugar was mixed with arsenic. It was further shown that the pork had a nasty putrefying smell when the cask was opened, and that several of the men who had been sent away to hospital, and had much improved, became ill again as soon as they came back to the ship. One witness said his legs were paralysed for awhile after the illness, and that he had not yet fully recovered power in his feet. For the defence, Professor Ferguson of Glasgow stated that he had made a chemical examination of the sugar on board, and found it to contain 1.65 grains of arsenic to the pound weight. Professor MacLagan of Edinburgh thought the symptoms corresponded more with the theory of arsenical poisoning than with the supposition that the illness had been caused by eating unsound pork. Drs. Moore, Dunlop, and Johnstone of Glasgow were of opinion that the men had been poisoned by partaking of the putrid pork. At the conclusion of Dr. MacLagan's evidence, the judge stopped the case, and directed the jury to find a verdict of not guilty. The captain was accordingly liberated.

IRELAND.

DR. MOLLAN died at his residence in Fitzwilliam Square, Dublin, on last Monday, at an advanced age. He was a Fellow of the College of Physicians, and was elected President in 1855.

AT a recent meeting of the Guardians of Donoughmore Union, a resolution was adopted that all officers should, for the future, when taking leave, pay their substitutes. It is evident that a resolution of this kind is principally intended to work against the medical officers of the union; but a feeling prevailed at the meeting that, in case of illness, the substitute should invariably be paid out of the rates.

PLEURO-PNEUMONIA.

THE Public Health Committee of the Corporation of Dublin have forwarded queries to the medical practitioners in that city, requesting information on two points: first, whether the flesh of oxen killed whilst suffering from contagious pleuropneumonia is fit for food for man; and secondly, if it be considered that such flesh may be used under certain circumstances, whether it is fit for food in the second stage of the disease, in which the lungs are usually much increased in size, partially hepatised, and sometimes more or less infiltrated with pus.

THE ACTION OF ALCOHOL.

A LECTURE was delivered in Dublin last week by Dr. B. W. Richardson of London, who chose for his subject "The Science of Temperance". The lecturer referred to the late Dr. Cheyne of Dublin, who, fifty years ago, had taken a prominent position in the great temperance movement. Dr. Richardson observed that it would be his duty to make reference to certain physiological inquiries about the human body, and stated that alcohol was not to be taken as though it were food. When the living organism, which was composed chiefly of fluid, was considered, it was found that there was no provision made for the use of alcohol; and perhaps, with the exception of milk to the child, water was the only fluid necessary. To a man unused to alcohol, and weighing one hundred and twenty pounds, fifteen ounces would be a fatal dose. The first signs caused by a dose of two-and-a-half ounces consisted in a fulness all over the body, especially in the head, a flush on the face, a rise of temperature, and an increased action of the heart. In this stage, the amount of work done in twenty-four hours by the heart, in propelling blood through the body, was as if one hundred and twenty-two tons had been raised one foot. If five ounces were taken, the second stage would be shown by a fall of temperature, the pulse would begin to flag, and the connection between the nervous power and muscular action would be slightly imperfect. In the third stage

where seven ounces were taken, these phenomena increased, and the brain lost all power, except the portions which govern the functions of the respiratory organs. In the fourth stage, respiration ceased, and death took place. The lecturer remarked that there were three sections among us, the first of which took alcohol to produce the first stage, and by doing so limited the duration of their life; the second, who were inebriated, and in whom it gradually produced organic disease; and the third, who were the insane drunkards in asylums, stricken with general paralysis. A vote of thanks to the lecturer terminated the proceedings.

ORMEAN ROAD DRAINAGE, BELFAST.

A SPECIAL meeting of the Belfast Town Council was held last Monday, for the purpose of considering any objections that might be made to the carrying out of this drainage scheme. Some months since, the residents on Ormean Road complained of the insanitary condition of the district; and the matter having been brought before the Sanitary Committee of the Corporation, the surveyor reported on the subject, and prepared plans for a permanent and lasting remedy at a cost of £20,000. This estimate being found too high, a modification of the plans was approved of at a cost of £4,000, which, if necessary, can be embraced in any larger drainage scheme which may be constructed in the same district. No objections were urged against the scheme, which, it was shown, was urgently required; and the cost will be defrayed partly out of the general purposes rates of the borough, by the owners of property abutting on the streets along which the main sewer will run, and by a district sewer-rate to be levied on the occupiers of all lands and buildings within the drainage district.

THE ANNUAL MUSEUM.

II.

CLASS III.—*Surgical, Medical, and Obstetrical Instruments and Appliances.*—The instrument department occupied the whole of the large dissecting-room, and upwards of one thousand instruments were entered in the catalogue. Messrs. Weiss and Son exhibited a variety of amputating and resection instruments, several batteries, and improved aspirators; and, as usual, distinguished themselves by the beautiful finish of their articles. Messrs. Maw, Son, and Thompson displayed a very large variety of instruments, amongst which we may mention Dr. Roussel's instrument for the treatment of stumps after amputation, etc.; also his transfuser and his instrument for the treatment of strangulated hernia. They also showed several aspirators, and a number of throat, lithotomy and midwifery instruments, and also their well-known inhalers. Messrs. Salt and Son, as usual, exhibited a variety of beautiful aluminium instruments, amongst which we may particularly notice their telescopic stethoscope, catheters, and pocket urinary tests. They also showed a stomach-pump and aspirator combined, several varieties of ether-inhalers, toughened glass specula vaginae, and several nickel-plated instruments. Messrs. Arnold and Sons exhibited, amongst a large variety of other instruments, Callender's operating cabinet, Morant Baker's empyema-tube, Murchison's trocar and syringe for tapping the chest, and Hicks's pessaries with hard metal case. Messrs. Gale and Co. showed Marsh's improved aspirator, Stevenson's splint for fractured patella, and various instruments. Messrs. Wood of Manchester considerably restricted themselves mainly to the exhibition of instruments invented by local medical men, and they also kindly took charge of the rare collection of obstetric instruments lent by the Board of Management of St. Mary's Hospital from the Radford Museum. Mr. Archibald Young showed a series of the instruments used in carrying out Professor Lister's antiseptic treatment, and several other instruments invented by Mr. Lister, Dr. Matthews Duncan, Dr. P. H. Watson, etc. A good display was made by Messrs. Aitken and Co., their cases of pocket instruments being particularly admired. Messrs. Mayer and Meltzer maintained their old reputation. Amongst their other instruments, they showed Dr. Sayre's apparatus for extension in cases of Pott's disease of the spine in connection with the application of the plaster of Paris bandage, and also Dr. Sayre's new hip-splint. In addition, they had Teevan's urethrotome with Lund's improvement, and a portable case, weighing only 3 lbs. 4 oz., containing amputating instruments and all necessary instruments for attending the wounded in the field. Coxeter and Son exhibited a very good form of constant current battery, which they have patented. The merit claimed of

this battery is, that it is very simple in construction; that from the polarisation being very slight, the sustained flow of electricity from a given number of cells is assured; that it is very portable, and is manufactured at a very low cost. From each cell of the series projects a rod of zinc, any two of which may form the poles for the direct attachment of the conducting cords to the patient. They also exhibited a cautery battery of novel construction, and a small induction apparatus of new design; Paquelin's thermo-cautère; Mr. Berkeley Hill's and Mr. Lund's stricture instruments; Mr. Ormsby's ether inhaler; a double action rectum-pipe for the relief of internal piles by the continuous injection of cold water; various forms of "poroplastic" splints, cut into shapes for moulding, styled as "cheap splints"; a syringe-aspirator, so contrived that the principle of "the syphon" may be brought into operation at will; a model invalid bedstead, etc. Messrs. Mottershead and Co. of Manchester exhibited their constant-current batteries, provided with shunts for cutting off the first or middle part of the series of cells, so that the practitioner need not always use the first few cells of his battery when a weak current only is required, and the strength of all the cells can in this way be kept uniform. They also exhibited a variety of improved electrodes, sponge-holders, needles with movable holders, and other electro-therapeutical apparatus; Dr. Dixon Mann's medical galvanometer for showing the actual amount of current passing through the patient; the set of urine-tests and revolving stand recommended by Dr. William Roberts, etc. An ingenious invalid bedstead—the Samaritan—was also shown by the Patent Bedstead Company. Messrs. Holderness and Co. of Manchester exhibited a large variety of trusses, abdominal and other belts, and improved suspensory bandages. Professor Simon's instruments for removing growths from the female bladder, and for diagnosing diseases of the kidneys, together with the latest improvements in catheters, urethrotomes, cardiographs, and sphymographs, were exhibited by Messrs. Krohne and Sesemann. Several medical men sent instruments for exhibition: amongst these, we may mention an ingenious cabinet, invented by Mr. Alfred H. Young, for the safe storage and dispensing of poisons. Mr. W. Ashton of Warrington exhibited a model of his patent invalid perambulator.

CLASS IV.—*New Drugs and their Preparations, New Articles of Diet, and Chemical Apparatus.*—Messrs. Gale and Co. of London displayed fine specimens of drugs, coated pills, and some surgical instruments. Messrs. T. and H. Smith of Edinburgh sent several beautiful specimens of rare alkaloids, amongst which was the tartrate of morphia, a salt lately introduced by them as being specially adapted for hypodermic injection. We understand that Messrs. Smith presented these alkaloids to the Owens College Museum. Messrs. Harvey and Reynolds of Leeds showed a variety of their well known clinical thermometers, American ether-inhalers, a new French induction-apparatus, besides a variety of newly introduced drugs. Messrs. Ferris and Co. of Bristol exhibited a large collection of drugs, including the fluid extracts of the *United States Pharmacopœia*, and also surgical instruments. Messrs. Symes and Co. of Liverpool showed a large variety of elegant preparations of drugs. Messrs. Richardson of Leicester showed their well known pearl-coated pills and very useful pocket pharmacy cases for country and colonial surgeons. Messrs. Leslie and Co. of London exhibited tape-plasters. Mr. J. W. King of London showed several preparations of phosphorus and its salts. Messrs. Corbyn, Stacey, and Co. of London shewed a large collection of drugs, replete with novelties of a promising character as regards their value in medicine. Perhaps the most important was a syrup of chloral prepared under the direction of, and guaranteed by, the signature of Professor Oscar Liebreich, whose researches have shown to what extent it is unfortunately possible for chloral and its preparations to be impure, and how important it is to dispensers and prescribers to be able to avail themselves of a solution of unassailable purity and efficiency. It is probable that, in future dispensing and prescribing, medical men will ensure themselves and their patients against disappointment and accidents by prescribing the "syrupus chloralis (Liebreich)". The flavour is well covered, and one teaspoonful is a dose of thirteen grains. Another novelty was an ingenious and inexpensive press for closing the *cachets de pain*, or wafer capsules; it is known as Corbyn's cachet closer, and ought to make the use of cachets popular. Vaseline, which was introduced by this firm, was, of course, present in their exhibit; and it may be mentioned, as an indication of the hold obtained by it, that, almost without exception, it was to be found on the stalls of the exhibitors. Among a large number of drugs and preparations, all deserving of especial notice, we may mention the beautifully smooth and soft calamina preparata; carbolated iodine for inhalation in bronchitis and asthma, a colourless liquid; chrysophanic acid, of which Corbyn and Co. are large producers; coca-leaves specially imported in hermetically closed tins by this firm; damiana, an aphrodisiac; eriodictyon, of ascertained value in chronic bronchitis;

extractum pini sylvestris, for baths in acute rheumatism; grindelia robusta, for asthma; dialysed iron; Thompson's solution of phosphorus; oil of erigeum, for gonorrhœa; sandal-wood oil and other perles; oil of stavesacre; various compounds of salicylic acid; eucalyptus lozenges; and animal vaccine obtained from Dr. Wilson's establishment at Alton. Corbyn, Stacey, and Co. also exhibited their sprays for the eye and throat. Brady and Martin of Newcastle-upon-Tyne exhibited an interesting series of new remedies and of pharmaceutical preparations. The collection comprised a number of medicaments better known on the Continent and in the United States than in this country, novel forms for the administration of old medicines, and remedies recently introduced, of which there are as yet no officially recognised preparations. Of the first section were the extractum ergotæ fluidum of the *United States Pharmacopœia* (1860), the extractum spigeliæ et sennæ fluidum (vermifuge and aperient), and the syrupus senegæ of the last edition of that work; syrupus codeiæ and vinum coca derived from French, and tinctura colocynthis from German, pharmacy. A syrupus hyoscyaminæ prepared from Merck's extractiform alkaloid deserves comment. The uncertainty of hyoscyamus as a sedative is a source of constant disappointment, and it is manifest that it is to the isolated active principle we must look for preparations of greater uniformity. This is especially the case at the present time, with a failure in the supply of reliable home-grown leaves. Such a syrup should, therefore, be more than ordinarily welcome. Indigenous medicinal plants were represented by preparations of burdock (liquor lappæ minoris) and goose-grass (liquor galii aparinis), both popular domestic medicines; and of recent introductions from abroad the series furnished preparations of coto, hydrastis, sanguinaria, and boldo. A case of the suppositories, medicated pessaries, and soluble bougies made with various bases, upheld the reputation of the firm. In the Physiological Room, Messrs. Brady and Martin exhibited a series of chemicals and accessory appliances used in experimental physiology. Amongst these were a fine clean specimen of curari, various reagents employed in staining animal tissues (hæmatoxyline, Sittels' blue, osmic acid, etc.), mounting mediums, and the like. A number of little appliances devised by Professor M. Foster and others for the manipulation of microscopical specimens, together with microscopes by Zeiss of Jena and Hartnack of Paris, together with Zeiss's microtome, completed this display. Messrs. James Woolley, Sons, and Co. of Manchester exhibited an extensive collection of their products, a conspicuous place in which was occupied by an assortment of tasteless coated pills. In addition to remedies of comparatively recent introduction, such as chrysophanic acid, salicylic acid, apomorphia, bromated camphor, etc., the specialties of the firm included preparations of assayed opium, cinchona, and scammony; nitrous ether, nitrite of amyl and atropia sulphate, the latter being enclosed in hermetically sealed tubes, each containing a certain weight for preparing small quantities of solution as required. The Galenical preparations shown by Messrs. Woolley comprised liquor ergotæ, prepared by a modification of the process of the *United States Pharmacopœia*, and watercress-juice, possessing the valuable antiscorbutic properties of the fresh plant. There were also a new preparation of pepsine, the glycerole, various syrups of the lactophosphates, syrupus tonicus similar to Easton's syrup in composition, but differing in flavour, and possessing the advantage of great stability; the popular German aperient for children, pulvis liquiritiæ compositus, or brust-pulver, and cinchona wine prepared with Malaga. Topical applications for skin-diseases were represented by the glyceroles of bismuth and lead, oleates of mercury, and ointments of chrysophanic acid, styrax, etc.; amongst the latter may be mentioned Pagenstecher's ointment, composed of cold cream, with 6½ per cent. of amorphous oxide of mercury, chiefly used in ophthalmic affections. Messrs. Woolley also exhibited specimens of the products of the North British Chemical Company, a collection of opium alkaloids, and an assortment of the medical batteries of the India-rubber and Gutta-percha Company.

CLASS V. *Microscopes and Microscopical Specimens and Apparatus.*—Mr. Dancer, the well known Manchester optician, exhibited a number of microscopes and the latest improvements in medical batteries. Messrs. Ferris and Co. of Bristol, who were among the largest exhibitors, showed a number of Wasserlein's microscopes, for which they are the agents in this country. The advantages claimed for them are, that the objectives are equal in every respect to Hartnack's, while they are cheaper. They also exhibited a number of other instruments used in microscopical research. A notice of the exhibition of microscopes and microscopic drawings was given in last week's JOURNAL.

CLASS VI. *Photographs, Drawings, etc.*—One of the most interesting and instructive features of the whole museum was the beautiful water-colour drawings of skin-diseases contributed by Dr. Tilbury Fox. All of them are the work of an accomplished artist, and are said to be faithful representations of the diseases they are intended to portray.

Some of the drawings illustrate new points in clinical dermatology. Equally excellent and interesting were the drawings of various diseased conditions sent by Mr. Jonathan Hutchinson. All of these were so beautifully finished, and of such high order of excellence, that it would be invidious to single out any of them for special mention. Dr. Braidwood of Birkenhead also contributed some water-colour drawings of various diseases. Dr. T. Clifford Allbutt of Leeds kindly lent a series of photographs illustrative of American field-ambulance and field-hospital plant, and Dr. Shuttleworth photographs illustrating types of idiocy, being portraits of patients in the Royal Albert Idiot Asylum, Lancaster. Photographs illustrative of some ophthalmic operations were exhibited by Dr. Bell Taylor of Nottingham: one of chancre of the eyelid and one of the lip, by Mr. Walter Whitehead; and drawings of various diseased conditions by Dr. Stephen Mackenzie and Mr. Pugin Thornton of London. Mr. Ley of the Prestwich Lunatic Asylum contributed one hundred and twenty photographs of various types and phases of insanity. These were arranged and framed in groups of a dozen, and all of them were not only faithful portraits, but works of high art. Dr. Macnaughten Jones of Cork shewed fifty original water-colour drawings representing many of the most important and rarest morbid conditions of the membrana tympani. One of special interest showed a cystic tumour in the cavity of the tympanum, the parts having been drawn both before and after removal of the tumour. There were also some good drawings of exostoses in the meatus. The drawings were made by Miss M. Boole, clinical assistant in the Aural Hospital, Cork, and may be characterised as highly successful.

THE SICK AND WOUNDED IN THE RUSSO-TURKISH WAR.

THE terrible carnage which has characterised the recent battles at Plevna and in the Schipka Pass has taxed to the utmost the medical officers who are present with the contending hosts. The scenes of cruelty and slaughter which each day now witnesses would not, however, be so manifestly objectionable were they less useless. But, indeed, the wholesale sacrifice of life has brought no adequate gain to either combatant, and has appeared to be simply the result of incapacity on the part of those high in command on either side. As a correspondent lately wrote:

"The blunders of both Turks and Russians in this campaign are unequalled in the history of warfare. A success by either side is certain to be followed by some suicidal attempt which more than neutralises all that has been previously gained with heavy expenditure of blood. The brilliant success of Lovatz was followed by a series of ill-designed disjointed assaults upon redoubts at Plevna, which should have been taken by semi-siege approaches. Brute force was substituted for the intelligent use of artillery, spade, and rifle, judiciously combined to insure success at the smallest cost of human life, and a holocaust of mangled humanity was offered up to the inefficient helplessness of the General Staff Departments of the Russian Army. The Turks have done no better. Not content with their successful resistance to the ill-planned Russian attack, they have senselessly dashed their brave soldiers against the great redoubt until they have left one-sixth of their army against its bloodstained parapets. The foolishness of this Turkish manoeuvre will be better understood when I state that the Turks had already such a dominating fire upon the great redoubt from an adjoining work that the garrison could not show their heads above the parapets, and the wounded inside the work were lying unattended to on account of the difficulty of getting them to the rear, the Moslem fire was so hot. It is a barbarous state of affairs when a flag of truce cannot be sent to the Turkish lines to propose a brief immunity from fire, while fatigue parties gather up the wounded lying in helpless agony in front of the works they have so bravely attempted to capture. The Turks not only refuse to receive flags of truce, but fire upon the parties bearing the white flag and the Geneva Cross gathering up the wounded in parts of the field not then under dispute. It is a misnomer to call this conflict warfare; it is simply a gigantic massacre, where the brave fellows on both sides who carry the rifle are entangled in a hopeless slaughter by chiefs who can only succeed in getting them together where blood flows like water, but are utterly incapable of directing in an intelligent, much less scientific manner the human forces mangling each other in frenzied confusion. In these circumstances, all calculations and forecasts are simply waste of time. We have no data upon which to base our estimates of probabilities."

Nor has the incompetence of the commanders on each side been

more conspicuous from their inability to lead their hosts to victory than from their utter inattention to all sanitary precautions on behalf of their men. The consequence is that the camps and neighbourhoods of the various battle-fields form such scenes of misery and filth as fortunately fall rarely to the newspaper correspondents to describe. Probably in their neglect of sanitary measures the Turkish generals excel their adversaries. At any rate, nothing can well exceed in wretchedness the state of things in the rear of the Turkish position at the Schipka Pass, as it is carefully detailed in the despatches of the *Times* correspondent with the army of Suleiman Pasha. He says:

"I have before touched on the bad sanitary condition of the Turkish camps, but I had then had no experience of what these camps can become when the ground is not shifted for ten or twelve days. The details are too disgusting to go into, and the most powerful word-painting would fail to give a proper idea. Suffice it to say that there is no pretence of decency or cleanliness, and that even the dead are so slightly covered that a kick on the earth uncovers them, while in many cases limbs are left protruding. The refuse of the slaughtered animals is left within a few yards of the bivouacs of the men (tents they have none), and the plague of flies which come from these festering heaps and settle drowsily on your face, whence no shaking of the head will dislodge them, is almost past endurance. Moreover, it is a distinctly recognised fact that this kind of fly is quite distinct from the ordinary harmless creature of civilisation. He is armed with an extremely sharp sting, which pierces even linen, and raises on many people large lumps, which become full of virus and turn purple. If I remember right, the same kind of fly made its appearance in the Russian army of invasion in Turkey in 1828, on the occasion of the plague breaking out which carried off so many thousands. It seems to me not at all improbable that blood-poisoning may be effected through the agency of these flies, while a state of feverish restlessness is produced which predisposes one to any of the insidious diseases that are lurking about. The dirt, heat, and stench, the want of vegetable diet and of proper rest, must shortly produce some epidemic among the troops. I have seen a few isolated cases of scurvy already, and a great many of fever, while diarrhoea and dysentery are not uncommon. Fortunately for the Turkish soldier, it is his custom to wear innumerable flannels and cloths twisted round his waist and loins, and to this I attribute, in a great measure, his immunity from those many maladies which arise from checked perspiration in that dangerous region. As most of them have no blankets and very few overcoats, they sleep entirely exposed to the sudden chill which comes on in the early morning before the sun rises; and, were they not thus well protected, it is impossible they could escape inflammation. As it is, though, I find the strongest complaining of a gradual but sensible loss of muscular energy and general enervation; and anyone the least conversant with medicine is aware how well prepared are large bodies of men in that condition to receive the seed of any epidemic which may make its appearance. The General in command is almost wholly and solely responsible for this state of affairs. If any General were left his choice of a camping-ground where he might feel tolerably safe as regards the health of his troops, he would probably select the upper part of the Valley of the Tunja, near the Schipka, before the advent of the Bashi-Bazouk. In most respects, with a little knowledge of campaigning, the spot where the necessities of the war compel Suleiman to keep his army might be rendered perfectly wholesome. A valley 2,000 feet above the sea, intersected by countless streams of fairly good water, with the most abundant choice of slope whereon to camp; villages at every three or four miles, with gardens round every house stocked with vegetables, and the houses untenanted, among which the men might be distributed in the event of wet weather; plums ripe, grapes fast ripening in the utmost profusion, and the whole plain dotted with unclaimed cattle—to the most uninformed on such matters it must be obvious that this should be a paradise for soldiering. What is it? One vast wilderness. Not a house left to shelter the wounded; not a garden not trampled; plum trees scathed with fire; vines serving only to pasture the oxen of the wagons; the streams polluted with dead bodies of men and cattle, and serving very ill the purpose of a sewer; the men lying on the lowest ground nearest to the swamps, surrounded by offal in every stage of decay; and the fine well-fed cattle who covered the plains below on their way to the Adrianople Jews, with Circassian and Bashi-Bazouk goads in their rear. I have described a condition of affairs which I challenge anybody to deny. The strategy and tactics of a general are matters for controversy; the disorder of his camp is not.

"I find I have hitherto been very considerably below the mark in my estimate of the killed and wounded of these few days' fighting. As for the killed, it is hopeless ever to expect to get an approximation to the truth, but the wounded are not so easily misrepresented. I have now ascertained that there were between 4,000 and 5,000 wounded at

one time in Kezanlik on or about the 29th or 30th of August. At the same time, there were 2,000 wounded at Philippopolis, and already 1,350 had passed through Adrianople. This makes a total of 8,350 wounded alone. It is impossible to form more than a rough estimate of the dead. On the battle-fields, I saw innumerable graves; and, from the accounts of the troops, I heard of whole battalions having been annihilated. I should think that the dead cannot be taken at a lower figure than 3,000 or 4,000."

"After this, one is quite prepared to find from a later report that fever has broken out in the camp, and every house in Kezanlik is a hospital. The place reeks with fever stench. I have 4,000 wounded to pass under my own eyes. All the country from Schipka to Yeni Saghra can only be ridden over with camphor in the mouth. Dead bodies line the road, the fields, and gardens. At Yeni Saghra, within a hundred yards of our tents, were from four to six hundred unburied dead, relics of the battle there some weeks ago."

As to the Turkish forces in Plevna, we fear their condition must be as sanitarily bad as that of their brethren on the South of the Balkans. Detailed reports from the correspondents with Osman Pasha's army have not arrived since the series of battles which took place last week around Plevna. The communications with Osman's bases of supply at Sophia and Widdin are not unthreatened by the enemy; hence, probably, the delay in the receipt of the correspondents' reports.

Upon the Russian side, the wounded are being sent back with all possible despatch across the Danube, to Bucharest and other Roumanian towns. Any exact computation of their numbers is at present impossible. We read that even in Odessa, far removed as that city is from the actual scene of hostilities, there were last week about 1,000 sick and wounded soldiers. Many had been sent on to Kherson and Nicolaieff to make room for new comers. Five hundred arrived from the front last week, 360 in one day, and 200 more were expected shortly. Some of them were in the temporary hospitals, some in the town one, and 200 beds had been prepared for others in the old buildings at the Quarantine.

Meanwhile, the autumn draws on apace, and the nights in Bulgaria are cold. Another *Times* correspondent writes that the Russians are tough, but this lengthened wet bivouac, after the almost tropical sun of the 7th and 8th, must tell in fever and dysentery hereafter. They are patient and cheery to the last degree, and plentifully fed with coarse black rusk (*Saccaria*), not half bad when properly soaked, and abundant beef made into capital soup with oatmeal. The horses are literally in clover. They stand up to their necks in maize, corn in the ear, cut and stacked, but not carried in, and grapes, melons, vegetable marrow, etc., in abundance.

To meet the medical and surgical requirements of this vast body of suffering men, great efforts have been made by the Russians; but the Turks seem to have left their sick and wounded either untended, or in the charge of officers of the various foreign benevolent bodies which have been willing to send them assistance. The Russians have hitherto declined the services of surgeons of other nationalities, unless they came armed with a Russian diploma; but now that the work of the surgical staff is so vastly increased, it is possible the Government may be willing to relax somewhat the stringency of their former rule, and permit surgeons of other nations to enter their service for a short period. Although they decline the *personnel* which the Aid Societies offered, they have gladly taken the *matériel* which was placed at their disposal. Two Societies at least exist in England for assisting the sick and wounded on the Russian side; and the members of one of them, the Sick and Wounded Russian Soldiers' Relief Fund, at a meeting held at its offices, 14, Cockspur Street, on Wednesday, the 19th, were informed that the Empress of Russia acknowledged, with her best thanks, the receipt of 20,000 roubles, half of which would be appropriated in relieving the wounded, whilst the other half would be distributed among the widows of the combatants who had fallen in battle, and would be also employed in educating some of the orphans. This Society, on the same day, despatched a further sum of £1,000 to the Russian side.

The relief agencies which are at work in this country on behalf of the Turks have already sent thousands of pounds to the seat of war, and keep up a large staff of English surgeons close to the Turkish armies both in Europe and Asia. These bodies accept gifts of money or surgical requisites, such as lint, bandages, quinine, chloroform, etc. The Duke of Sutherland writes thus respecting the Stafford House Committee: "There are now in Turkey (European and Asiatic) forty surgeons busied in alleviating the miseries of the sick and wounded Turkish soldiers, in pursuance of the directions of the Committee. Those first sent out were engaged for six months. Half of that time has expired. The Committee will, they fear, lose the services of the experienced and able medical officers who have been carrying on the

good work with such zeal and devotion, unless they are enabled by further subscriptions to maintain their staff and supply them with means for continuing the labours which have obtained grateful recognition from the highest quarters and from the gallant soldiery of our ancient ally. The rigours of winter will soon come to aggravate the sufferings of the sick and wounded in a country devastated by such hostilities. It must be remembered that, even if peace were proclaimed to-morrow, the legacy of war will long remain; and that wounds and disease will still need all the care and skill we can command. I confidently believe the work we have done has been creditable to our faith and to our civilisation, and I ask the public most earnestly to enable us to continue it."

The Society for Aid to the Sick and Wounded in War also has twelve surgeons at work on the Turkish side, and Lord Blantyre still maintains the ten surgeons whom he sent out at his own expense. Lady Strangford is further working amongst the distressed inhabitants of Roumelia, and Lady Burdett Courts's fund in London continues to grow apace. But, in spite of the efforts already made to stem the torrent of misery let loose by this devastating war, it is certain that for a long time yet to come there will be more sick and wounded than they can possibly alleviate. The following letter from Dr. John Weller, dated Philippopolis, September 1st, well illustrates the urgency of the work still required to be done. "I am engaged in transport service for the army of Suleiman Pacha. The work is very hard. We brought 213 men from Kezanlik, and found over 3,000 wounded there. I am working with a Dr. Stoker, who speaks Turkish well. The wounded at the Pass are in a fearful state. Kezanlik is full of dead and dying. We are treated very well by the Turks. I start for Kezanlik to-morrow for more wounded. We get no help from the people. Everyone is ready to cheat you in the matter of buying horses, etc. I believe the losses of the Russians at the Pass are very great, and they are short of ammunition. There is, I believe, an idea that the war will not live another six weeks. Anyhow, as yet there is a mass of work, and an English surgeon 'is worth his weight in gold'. The men are not only neglected as regards food and medicine, but their wounds are alive with worms. They are fine fellows and splendid patients."

THE WAR AMBULANCES AND THE TURKISH SICK AND WOUNDED.

THE *Times* of September 14th publishes the following communication from Major-General H. Green, Honorary Treasurer of the Stafford House Committee, with reference to a letter lately published in that paper, and of which an extract appeared in the *BRITISH MEDICAL JOURNAL* for September 1st, page 321.

"Since the appearance of your Correspondent's letter from Armenia in the *Times* of August 23rd, stating 'that not a shilling of the money so nobly subscribed by the British public had been received at Kars nor at Erzeroum', and further that the 'English residents at Constantinople had to make subscriptions in order that these gentlemen (Drs. Casson and Fetherstonhaugh) should have funds in hand to enable them to commence their labours on arrival at Erzeroum', the Stafford House Committee have placed themselves in communication with their Commissioner in Turkey, Mr. Barrington Kennett, with a view to ascertaining the truth of the above statements, and I shall feel obliged if you will permit the following telegram and extracts from the official report of Dr. Casson to appear in your paper at an early date. I may add that I also hold a receipt in French for stores received at Batoum in June last, and bearing the signature, among others, of Dr. William Temple. These latter stores were forwarded through Ahmed Vefyk Pasha. The last report received from Mr. Kennett on the working of the Stafford House Committee will shortly be published in full, when the public will themselves be able to judge whether the money they have subscribed for the sick and wounded Turkish soldiers has been judiciously spent or otherwise. Telegram from Mr. Barrington Kennett, dated Pera, September 6th: 'Statement made in the *Times* of August 23rd about Casson and Fetherstonhaugh quite untrue. They have received £300 in money and £400 worth of stores, besides Lord Blantyre's and Lady Kembal's. No subscription was ever opened for them at Constantinople.' Extracts from letters from Casson, dated Trebizond, July 4th, and Erzeroum, July 22nd: 'I gave Emin Pasha, the head of the hospital, twelve pots of Liebig out of my own store. I think, on the whole, whatever you can send will be conscientiously administered here. The Stafford House boxes will not be of much use here, as it is so far from any field work.' And then from Erzeroum: 'I got your things at Trebi-

zond and brought them on here. I don't know how quite to distribute them, as the people here at the hospital say they have got all the supplies they want; but I have not a doubt that in time they will apply to me for them.'" Lieutenant Malcolm Drummond, R.N., writes on the same subject under date, Hôtel Royal, Constantinople, September 5th: "My attention has been called to a statement in your Correspondent's letter from Asia Minor, dated, 'Camp, on the Heights above Sarbatan, August 2nd,' to the effect that the English surgeons at Erzeroum—Drs. Casson and Fetherstonhaugh—had not received assistance from the Stafford House Committee, and thereby reflecting on the administration of the funds. I beg to state that not only was Dr. Casson furnished with £300 Turkish in cash on his leaving Constantinople, on the 29th June, but also took with him some £80 Turkish worth of stores of his own selection. Drs. Casson and Fetherstonhaugh arrived at Erzeroum about the middle of July. A further supply of medical stores to the value of £300 Turkish was despatched from Constantinople on the 23rd of July, under my charge, reaching Erzeroum on the 6th of August. These stores were all purchased from the Stafford House Fund, and the sums were supplied by their Commissioner. The stores mentioned as purchased by Ahmed Vefyk Pasha were forwarded by him to Batoum, between which place and Erzeroum the route at that time was impracticable, in consequence of military operations. That the subscribers to the fund should know that their money is being well expended, and that no pains are spared in the endeavour to meet all requests for stores and medical assistance wherever required by the Commissioner for the Fund here, whose untiring energy has already done so much, must be my excuse for trespassing so far on your valuable space. P.S.—Since writing the above, I have ascertained that a third supply of Stafford House stores has been forwarded to Erzeroum from here, on the 31st of August." The Duke of Portland, in sending his fourth donation of £1,000 to the Stafford House Committee, has accompanied it by a letter in which he says: "I venture to mention the only difficulty that seems to me to have arisen, and which has not been authoritatively met; viz., the case of a wounded soldier coming in and asking for his refugee wife and family to be provided for, or of one killed in action and his family seeking relief. I feel sure that now these will be provided for in preference, to a certain extent, to all other claimants by those who have the direction of the funds so munificently contributed by Lady Burdett-Coutts. I have always understood that the operations of the Stafford House Committee were strictly confined to the relief of the sick and wounded fighting men, and I had certainly always myself wished and expected this would be so. The funds are limited and likely to continue to be with the Indian Famine and so many other calls in competition on the charity of the public, as well as from the total eclipse of the old patriotic and national feeling between England and Turkey, as against the deadly enemy of both alike in all time past and for all time to come. I fear the strength of the Stafford House Committee is about to be severely tried, and I can only hope that they will maintain their ground, notwithstanding the tremendous demands likely to be made upon them."

MEDICO-LEGAL CASES.

CHARGE OF ASSAULT AGAINST A SURGEON'S ASSISTANT.

AT the Birmingham Police Court, on September 14th, before Mr. Kynnersly, George Howard, assistant to Mr. Badger, surgeon, was charged with a felonious assault on Fanny Harriet Child, the wife of a clerk. Mr. Cheston prosecuted, and Mr. Bickley was for the prisoner. It appeared that, on September 6th, the prosecutrix went to Mr. Badger to consult him about having some teeth extracted. She there saw the prisoner, and informed him of the nature of her visit, and asked whether it would be necessary to be put under the influence of laughing-gas. The prisoner suggested chloroform, and arranged that she should call on the following Monday evening. On that evening, she went to the surgery with her husband, who remained outside. She saw the prisoner in the surgery, and he administered chloroform, but it did not take effect. On a subsequent evening, she returned, accompanied by a Miss Fellows. Prisoner said he had procured stronger chloroform, and proceeded to administer it. Miss Fellows then left, and remained absent about a quarter of an hour. Soon after Miss Fellows had gone, and while the prosecutrix was in a semi-conscious and helpless state, the prisoner, it was alleged, committed the offence with which he was charged. When Miss Fellows returned, the prosecutrix was sitting on a chair in the surgery in a half-conscious state, and was unable to speak. Some brandy was given to her, and she was then accompanied to her home by Miss Fellows and the prisoner. The following morning, she

communicated to her husband what the prisoner had done to her. Mr. Child went to Mr. Badger's surgery and saw the prisoner, when he strongly denied having committed the offence, and said that the prosecutrix had been labouring under a delusion. The prisoner (Mr. Child alleged) admitted his guilt, and he was then given into custody, and, upon being charged, he said he had been led to understand that, if he apologised, acknowledged the offence, and left the town, the matter would be hushed up; but he averred that he was not guilty. Mr. Bickley said he could produce medical testimony that, when persons were under the influence of chloroform, they often said things that were not true, and, from other effects which chloroform produced, it was utterly impossible that the offence could have been committed. Mr. Kynnersly said he had been told by a gentleman who had been under the influence of chloroform that during the time he remembered everything that took place, although speechless and powerless. The prisoner was then committed for trial at the assizes, bail being refused. Whether the man is guilty or not, it is impossible as yet to decide; but it must be remembered that charges of the same kind have been before now made by females who had been under the influence of chloroform; and that such charges have been found to have no foundation except in the imagination of the patients.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 10th day of October next, at Two o'clock in the afternoon.

FRANCIS FOWKE,
General Secretary.

36, Great Queen Street, London, W.C., September 15th, 1877.

NORTH OF ENGLAND BRANCH.

THE autumnal meeting will be held at the Council Chamber, Town Hall, Stockton-on-Tees, on Tuesday, September 25th, at 3 o'clock P.M.: S. W. BROADBENT, Esq., President.

The following papers and communications have been promised.

1. Mr. Broadbent: Short Report of Case of Sudden Death from Embolism of Superior Vena Cava; with Specimen.
2. Mr. Laidler: Short account of a Case of Extraction of a Foreign Body (pen-case) from the Left Bronchus by a new invention.
3. Mr. Laidler will exhibit and explain the "Bronchial Plummet" which he has invented.
4. Dr. Murphy will exhibit and explain a "Retractor" for keeping open the Incision after Tracheotomy, while a tube is being introduced or a foreign body extracted.
5. Dr. Murphy: On Uterine Catarrh.
6. Dr. Philipson: Report of a Case of Ovarian Cancer.
7. Dr. Eastwood: On the importance of giving Early Information to Sanitary Authorities in Cases of Zymotic Diseases.
8. Dr. Anderson: Report of a Case of Intestinal Paralysis, successfully treated by the Constant Electrical Current and Strychnine.

Dinner at the Black Lion Hotel, Stockton, at 5 o'clock P.M. Charge, exclusive of wine, 6s. 6d.

Gentlemen who intend being present at the dinner are requested kindly to give notice at once to Dr. Foss, Stockton.

The Chairman of the Committee of the Stockton Hospital, and Dr. Foss, will be happy to see as many of the members as can attend, at the Stockton Hospital, at 12 o'clock, and will conduct them over the Hospital.

G. H. PHILIPSON, M.D., *Honorary Secretary.*
Newcastle-upon-Tyne, September 11th, 1877.

SOUTH EASTERN BRANCH: EAST SUSSEX DISTRICT MEETINGS.

THE next meeting of the above District will take place at the Castle Hotel, Hastings, on Friday, September 28th, at 3 P.M.: DR. BAGSHAW of St. Leonard's in the Chair.

Dinner at 5 o'clock.

Notice of intended communications is requested at once, in order that they may be inserted in the usual circular.

THOMAS TROLLOPE, M.D., *Honorary Secretary.*
9, Maze Hill, St. Leonard's-on-Sea, September 11th, 1877.

SOUTH MIDLAND BRANCH.

THE autumnal meeting of the above Branch will be held at the Infirmary, Aylesbury, on Thursday, September 27th, at One o'clock.

Luncheon will be provided in the Board Room.

The Secretary will feel obliged if those members who intend to be present at the luncheon will give notice of their intention to Dr. Dickson, at the Infirmary.

G. F. KIRBY SMITH, *Honorary Secretary.*
Northampton, September 18th, 1877.

YORKSHIRE AND EAST YORK AND NORTH LINCOLN BRANCHES.

A CONJOINT meeting of these Branches will be held in the Infirmary, Hull, on Wednesday, October 3rd, 1877, at 1.30 P.M. President of the Yorkshire Branch, W. Burnie, M.D.; President of the East York and North Lincoln Branch, R. H. B. Nicholson, Esq.

Members intending to read papers are requested to forward the titles to either of the Secretaries before the 22nd instant.

After the meeting, the members will dine together at 5.30 P.M., at the Station Hotel. Tickets (exclusive of wine), 7s. 6d. each.

W. PROCTER, M.D., York, } *Hon. Secretaries.*
E. P. HARDEY, Hull, }
September 7th, 1877.

BORDER COUNTIES BRANCH.

THE autumnal meeting of this Branch will be held at Thornhill, on Friday, October 12th.

Gentlemen intending to read papers, or be present at the dinner, are requested to give notice to the Secretaries.

RODERICK MACLAREN, M.D. } *Honorary Secretaries.*
JOHN SMITH, M.D. }
Carlisle, September 18th, 1877.

WEST SOMERSET BRANCH.

THE autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, October 18th, at 5 P.M.

The following question has been settled by the Council for discussion after dinner:—"What in your opinion is the best way of managing the Third Stage of Labour so as to diminish the risk of *Post Partum Hæmorrhage*?"

W. M. KELLY, M.D., *Honorary Secretary.*
Taunton, September 15th, 1877.

PUBLIC HEALTH

AND POOR-LAW MEDICAL SERVICES.

THE Weston-super-Mare Urban Sanitary Authority have determined to apply to Parliament for an Act to empower them to purchase the local Water Works for £2000 *per annum* in perpetuity, to be secured on the rates.

THE Walker Local Board, at a recent meeting, had under consideration a letter from the Local Government Board, proposing to supersede the present Tyne Port Sanitary Authority by appointing—1. The Corporation of Newcastle-upon-Tyne; 2. Representatives of all the Riparian Authorities; 3. Representatives of the four principal Riparian Authorities, viz., Newcastle, Tynemouth, South Shields, and Gateshead. After some discussion, a resolution in favour of the second proposition was passed.

AT a recent meeting of the Birmingham Board of Guardians, letters were read from the Local Government Board, censuring Mr. Kenny, Medical Officer, for his conduct in connection with the death of Louisa Hailing, a pauper; and calling upon Mr. Simpson, Medical Officer at the Workhouse, to resign in consequence of his having seriously neglected his duty in treating the cases of W. H. Bencks and George Washbrook, now deceased.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

*MANSON, Richard T., L.R.C.P.Ed., appointed Medical Officer of Health to No. 1 District of the Bishop Auckland Union Rural Sanitary Authority, *vice* *G. O. McKane, L.R.C.P.Ed.

MILITARY AND NAVAL MEDICAL SERVICES.

THE minimum height of recruits for the Army Hospital Corps has been reduced from 5 feet 7 inches to 5 feet 5 inches.

THE ARMY HOSPITAL CORPS WARRANT.

THE following is a copy of the new Warrant to which reference was made in last week's JOURNAL (page 386). It is dated August 14th, and was issued on September 1st.

1. The Director-General of the Army Medical Department shall be vested with the administrative charge of our Army Hospital Corps. 2. An officer of our Army Hospital Corps shall be selected by our Commander-in-Chief, on the recommendation of the Director-General of the Army Medical Department, as staff officer, who shall perform all such duties, including those of quartermaster, as are necessarily required at headquarters. 3. The officers of the Army Medical Department shall, subject to the local military commanding officer, have authority to command the medical officers, and the officers, the non-commissioned officers, and the privates of our Army Hospital Corps, and also all patients in military hospitals, as well as such non-commissioned officers and privates as may be attached thereto, without their own officers, for hospital duty. 4. The principal medical officer, subject to the general officer commanding the district, shall have supreme authority in matters of discipline affecting the Army Medical Department, including the Army Hospital Corps in his district. 5. The medical officer in charge of each general, station, and field hospital, shall have disciplinary control over the medical officers, and the officers, non-commissioned officers, and privates of our Army Hospital Corps, and all soldiers in or attached to the hospital, but shall refer to the local military authority such cases as require to be dealt with by court-martial. 6. The officers and non-commissioned officers of our Army Hospital Corps shall have authority, under the medical officers, to command not only the men of their own corps, but also the patients in military hospitals, and such non-commissioned officers and men as may be attached thereto, without their own officers, for hospital duty. 7. The officers and non-commissioned officers of our Army Hospital Corps shall take rank with the officers and non-commissioned officers of other corps of our army, and wear the ordinary distinctions and badges of such rank on their uniforms, with such other distinguishing badges as may be special to the corps; but it is to be understood that this privilege gives them no command whatever, except over patients in hospital and officers or men immediately attached to hospital establishments. 8. The pay and clothing duties of the corps, such as are ordinarily performed by captains in Line regiments, shall be performed by the officers of our Army Hospital Corps. 9. On active service, the bearer companies shall be under the command of the senior medical officer present with each of them, who shall be responsible to the principal medical officer of the force to which he may be attached. 10. The officers of our Army Hospital Corps attached to bearer companies and field hospitals shall act as quartermasters thereof, and shall take over, and be responsible for, the field equipment under the superintendence and control of the medical officer. 11. The officer of orderlies shall take command of a detachment of our Army Hospital Corps, or any soldiers in or attached to hospitals or bearer companies only in the event of the absence of a medical officer.

Secretary of State's Instructions on the Foregoing Warrant.—1. The records of the Army Hospital Corps will be in the charge of the Director-General of the Army Medical Department. 2. Should any matters of discipline seem to require the decision of a court-martial, as pointed out in Article 5 of the foregoing Warrant, the medical officer in charge of a station or field hospital will report such cases, in the first instance, to the principal medical officer, who will either deal with them himself, or should he consider a court-martial necessary, refer them to the general officer commanding. 3. The medical officer exercising disciplinary control over a detachment of the Army Hospital Corps will retain in his possession the defaulter sheets and the copies of the records of service of the non-commissioned officers and men of the detachment. 4. The duties connected with the equipment and dieting of hospitals, and all duties formerly performed by the Purveyor's Department, will in future be conducted by the officers of the Army Hospital Corps, under the supervision and control of the medical officers.

VACCINATION.—The Local Government Board has awarded £16 Is. to Dr. Clegg of Bacup for efficient vaccination.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, September 13th, 1877.

Low, Charles Arthur, 233, New Cross Road, S.E.
Pickup, William James, Bacup, Lancashire

The following gentlemen also on the same day passed their primary professional examination.

Nicod, Louis Charles Napoleon, St. Mary's Hospital
Wells, Charles, Middlesex Hospital
Wolfe, James Lovett de, Charing Cross Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

AMERSHAM UNION—Medical Officer. Salary, £50 per annum, and fees. Applications on or before the 27th instant.
BEDFORD GENERAL INFIRMARY—Resident Surgeon. Salary, £100 per annum, with board and lodging. Applications on or before the 27th instant.
CHINA—Medical Missionary. Salary to commence at £350 per annum, and residence. Immediate application.
EDINBURGH SCHOOL OF MEDICINE—Lectureship on Physiology. Applications on or before October 18th.
NORTH DEVON INFIRMARY, Barnstaple—House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to be made on or before the 22nd instant.
ST. MARY'S HOSPITAL MEDICAL SCHOOL—Pathologist and Medical Tutor. Salary, £100 per annum. Applications on or before the 24th instant.
ST. MATTHEW, Bethnal Green—Resident Medical Officer. Salary, £200 per annum, with board and residence. Applications on or before the 27th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BARR, James, M.B., appointed Visiting Surgeon to the Kirkdale County Prison, Liverpool, *vice* *W. Mitchell Banks, F.R.C.S. Eng., resigned.
KAY, Walter Smith, M.B., C.M., appointed a Medical Officer to the South Yorkshire County Lunatic Asylum at Wadsley, near Sheffield.
*MILLER, Hugh, M.D., appointed Medical Officer to the Glasgow Training College, *vice* J. R. Dickson, M.D., deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

DOUGLAS.—On September 14th, at Wootton Bank, Bournemouth, the wife of *Justyn G. Douglas, M.D. Edin., of a son.
GALTON.—On September 13th, at Woodside, Anerley Road, Upper Norwood, the wife of John H. Galton, M.D. Lond., of a daughter.

MARRIAGE.

LAWRENCE—WOOD.—On September 18th, at Old Widcombe Church, Bath, by the Rev. J. W. Sproule, M.A., Vicar of St. Mark's, assisted by the Rev. Wm. Jones, B.A., Curate of Widcombe, George Edgar Lawrence, L.R.C.P. Lond., of Claverton Street, eldest surviving son of the late Joseph Lawrence, Surgeon, of Bath, to Rosalind, second daughter of Bennett Wood, Esq., of Abbey View House, Bath.—No cards.

BEQUEST.—Mr. Powell, of the Hotwells, Bristol, has left £40,000 to the Royal Infirmary and to the General Hospital of that city.

DR. MULVILLE THOMSON has been appointed a Certifying Factory Surgeon for the Newport (Salop) District.

The literature of vegetarianism has received a somewhat notable addition in the shape of an English translation, just published in New York, of Gustav Schlickeheyson's *Obst und Brod*. The author argues in favour of fruit and bread from a Darwinian point of view. He holds very strongly that man's place in nature is among the highest apes, which are pure frugivora, and gives an interesting table of comparisons between the carnivora, anthropoid ape, man, and the omnivora. Hence—*homo sapiens vegetus*.

LADY DOCTORS.—In addition to the names already entered in the *Medical Register*, the following ladies have recently been added to the number; viz., Louisa Catherine Fanny Atkins, of St. John's Wood; Sophia Jex-Blake, of Bernard Street; Eliza Louisa Walker Dunbar, Clifton, Bristol; and Frances Elizabeth Hoggan, of Rutland Gate.

ROYAL COLLEGE OF SURGEONS.—During the present month, three hundred and seventy-eight candidates for the diplomas of fellowship and membership of this institution have undergone their preliminary or Arts examination, by the College of Preceptors, at Burlington House. Of this number, one hundred and twelve were for the fellowship, and two hundred and sixty-six for the membership of the College.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY.....	Guy's, 1 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS
TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

POLYGAMY EXPLAINED.

The universality of polygamy among savages may be explained, according to a writer in the *Revue Scientifique*, by an adequate, although not necessarily the only, cause. After the weaning of children, milk remains for a long time the important and necessary part of their food. We supply the want by cow's milk; but among people who have no domestic animals this cannot be so: thus children are not weaned until they are two, three, or four years old. During this time the man and woman ordinarily remain apart: thus, unless a man have several wives, he has no longer any at all. Thus at Viti, the relatives of a woman consider the birth of a fresh child before three or four years have passed a public insult, and they consider it their duty to avenge it in a public manner.

QUIS CUSTODIET?

WITH reference to the paragraph under this heading in last week's JOURNAL, Dr. Eytton Lloyd writes:—A gentleman removed his family from an infected house in Rhyll, knowing it to be so, into a healthy district. Was he justified? Should he not have taken every precaution to keep his family isolated until all possibility of infection was past?

JAMAICA.

IN answer to "R. M.," "Experientia" writes:—The climate of Jamaica is naturally healthy. From neglect of sanitary observances, Kingston is not so; however, the surrounding country is not thereby contaminated, being dry and free from swamps, which give rise to intermittent fever. Newcastle is the perfection of climate, as is, in fact, the whole range almost to the top of the Blue Mountains. Yellow fever is a synonym for tropical filth-fever, and is only to be found in towns, or badly drained houses, just as typhoid in England. The heat of Jamaica is not very enervating, and is tempered by a splendid sea-breeze, termed "the doctor".

THE RECOGNITION OF HOMŒOPATHS.

F.R.C.S. requests us to state that the concluding paragraph of his letter in the JOURNAL does not fully express his meaning. It should run thus: "Before we sign Dr. Wyld's resolution, let us have a distinct understanding in regard to the concessions which the homœopath is prepared to make, in order to assimilate his ethical relationship to the great body of the profession and the public with that adopted by the leading practitioners of the old school."

THE M.D. BRUSSELS.

SIR,—May I beg a small space in your JOURNAL to ask any of my brother practitioners who may be in possession of the degree of "M.D. Brussels" how and when it may be obtained? I want particularly to know the following, 1. Is the examination in English? 2. What are the subjects required to be taken up? 3. When are the examinations held? 4. To whom do you apply at Brussels for the purpose of entering your name as a candidate? 5. What is the fee?—I remain, sir, yours faithfully,
L.R.C.P.

LUX.—Mr. Macnamara's *Manual of Diseases of the Eye* (third edition, with seven coloured plates and fifty-two wood-engravings, published by Churchill, price 12s. 6d.) would probably meet our correspondent's view.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

TREATMENT OF WHOOPING-COUGH.

SIR,—In answer to a "Member" who wishes to know some successful treatment of whooping-cough, I may state that, having some short time since been engaged in a large Poor-law district where an extensive epidemic had broken out among the children of the poorer classes, I found the following combination very effectual. \mathcal{R} Ammonii bromidi \mathfrak{ss} ; potassii bromidi \mathfrak{ss} ; tincture belladonnæ $\mathfrak{m}\mathfrak{ss}$; tincture camphoræ comp. \mathfrak{ss} ; aque q.s. ad \mathfrak{ss} : one teaspoonful every three hours. Belladonna acts doubtless on the neuropathic element of the affection, and the bromides prevent the convulsive movements which arise from the cerebral congestion caused by venous obstruction. The tincture camphoræ comp. assuages the bronchitis, which often seems the most important pathological element in this affection. I hope these few lines may induce some of our members to try the remedy.—Yours truly,
L. HERBERT JONES.

SIR,—If the member who inquired for a remedy for this affection will try the following plan, his patients will frequently derive benefit—that is, if the acute stage of the affection have been passed. Take the child to the gas-works, and go into the refining room for ten to fifteen minutes. This must be done twice in the week; and it will not often need be done for more than two weeks: frequently two visits will suffice. There is some gas or vapour given off in the process of refining that has a sedative effect on whooping-cough. I do not know what it is, nor how it acts; but I have seen cases get well after two or three visits which have resisted all other treatment. This plan was recommended to me by an old member of the profession lately deceased, and he assured me that he has seldom known it fail. Only two or three days ago, I was informed by a colleague that he had at my suggestion tried it on his own grandchild with perfect success. I wish some member with plenty of time would take up the matter, and ascertain what gas it is that impregnates the atmosphere of the refining room, so that there might be less difficulty in trying the treatment. I am, etc.,
X.

ENGLISH PRACTITIONERS IN SWITZERLAND.

SIR,—Could you or any of your readers kindly inform me if an English medical man may practise (among his own countrymen) in Switzerland? In France, a French diploma is necessary, but perhaps not so in Switzerland.—Your obedient servant,
September 17th, 1877.
F.R.C.S.

MR. G. J. CONGDON.—Dr. Braidwood and Mr. Vacher's papers on the Life-History of Contagium were published with the BRITISH MEDICAL JOURNAL of December 11th, 1875, May 27th, June 24th, November 4th, and December 2nd, 1876, and February 10th, March 3rd and 31st, and May 3rd, 1877; and the plates in the numbers for May 27th, 1876, and March 17th, 1877.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; etc.

** We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Wilson Fox, London; Mr. Stamford, Tunbridge Wells; Dr. Foulis, Glasgow; Dr. Burney Yeo, London; Dr. Macleod, Glasgow; Dr. J. Milner Fothergill, London; Dr. Kelly, Taunton; Dr. Tripe, Hackney; Dr. Balthazar Foster, Birmingham; Dr. Edis, London; Dr. W. Hinds, Birmingham; Dr. James Murphy, Sunderland; X.; Mr. J. C. Laing, Manchester; Dr. R. T. Manson, Bishop Auckland; Dr. Mackey, Birmingham; The Secretary of Apothecaries' Hall; Dr. Galabin, London; The Secretary of the Quekett Microscopical Club; Dr. W. F. Clarke, Southborough; The Librarian of the Westminster Hospital; Our Paris Correspondent; Dr. Joseph Rogers, London; Dr. A. S. Taylor, London; M.D.; Forewarned Forearmed; Mr. R. J. Boyton, London; The Registrar-General of England; Mr. Eastes, London; F.R.C.S.; Dr. Francis Warner, London; Dr. F. J. Butler, Winchester; L.R.C.P.; The Registrar-General of Ireland; W. W.; F.R.C.S., Leamington; Student; Our Edinburgh Correspondent; M.D. Edin.; Mr. E. Hardey, Hull; Dr. Horatio Donkin, London; Our Dublin Correspondent Dr. Eytton Lloyd, Rhyll; Dr. James Barr, Liverpool; Dr. J. G. Douglas, Edinburgh; Dr. J. B. Kenny, Killeshandra; Dr. Hugh Miller, Glasgow; A. M. D.; Dr. De Chaumont, Netley; M. M.; Mr. L. H. Jones, London; Experientia; Dr. J. Lightburne, Newry; Mr. H. C. Burdett, Greenwich; Dr. J. M. Winn, London; Mr. J. W. Howie, Liverpool; Mr. W. Clegg, Bacup; Mr. W. Vick, Ipswich; Dr. A. W. Fox, Bath; Dr. J. W. Moore, Dublin; Dr. J. W. Gillespie, London; Sigma; etc.

BOOKS, ETC., RECEIVED.

Elements of Chemistry, Theoretical and Practical. By William Allen Miller, M.D., D.C.L., LL.D. Revised by Herbert McLeod, F.C.S. Part I: Chemical Physics. Sixth edition. London: Longmans, Green, and Co. 1877.

THE FOUR APOSTLES OF SURGERY: AN HISTORICAL SKETCH.

*Being the Address at the Annual Meeting of the Glasgow and West of Scotland Branch of the British Medical Association.**

By GEORGE H. B. MACLEOD, F.R.S.E.,

Surgeon in Ordinary to the Queen in Scotland; Regius Professor of Surgery, University of Glasgow; President of the Branch; etc.

FROM the time of Paré, there was much activity in the medical world down to the eighteenth century; but it was in a measure without system and cohesion. Many labourers had striven to perfect special portions of the machinery; but a combining master mind was needed to give unity and consolidation to the whole. Such a man was John Hunter. In him was found that "transcendent capacity for taking trouble", which we are told constitutes genius. An extraordinary devotion to details, with a wide and clear grasp of the whole bearing and teaching to be derived therefrom, were combined in him in a remarkable degree. Born, as you know, near this city in 1728, his origin was humble and his education scanty. It is impossible for me here to enter with any detail into a record of his career, though abundant materials exist in the biographies and numerous criticisms which have appeared on his life and writings; but it is requisite for my present theme to allude shortly to the remarkable influence he exercised on surgical science. Malgaigne well describes that influence when he said that, "in the Middle Ages surgery was only a trade, Paré and Petit made it an art, but Hunter raised it to the position of a science". He it was who allied anatomy, both human and comparative, physiology, and pathology, and welded them into one concrete system, and established "principles" to guide future practice. With unequalled power, he took a grasp of the whole subject, and worked out its fundamental doctrines with unique enthusiasm. He traced out and reduced to law and order the manifestations of life in every grade of creation, and showed how true practice could alone be founded on such an attentive observation of nature's ways as he himself ever exercised. Her modes of acting are often difficult to unravel; but, with true scientific spirit, Hunter tried to seize "the idea which lay hidden beneath these shifting phenomena, and bind it in such fetters that it may increase the pleasure and profit of endless generations of men". From Hunter's teaching came that true spirit of investigation which has been so fruitful of good in later times. Unconsciously, men have been guided by the influence which his work created. To him, constant, arduous, and thorough work was a passion. He sacrificed sleep and pleasure, and even fortune (for he died poor, notwithstanding his lucrative practice) to accomplish his scientific projects. Fourteen thousand pathological specimens are said to have been studied and prepared by himself. His published works betray long years of thought, and it is known that Sir E. Home destroyed a whole cart-load of manuscripts; and yet all this was accomplished in a comparatively short life-time. Fergusson has well designated John Hunter's Museum as "the heart and soul of British surgery". He and his brother spent £170,000 on their collections; and it is through the parsimony of the Government of the day, as is now known, that we in Glasgow have inherited £100,000 worth of these unique accumulations. John is the only man who ever gave £500 for a single skeleton. His great operation for aneurism, which established a far-reaching principle, was the result of study and meditation, and not chance; and was founded on his trust in the development of the collateral circulation, the deposit and organisation of fibrine, and the action of the absorbents. It revolutionised the whole pathology and practice regarding blood-vessels. It is now well known how nearly his early experiments failed; and how, by a curious accident, he was led to erroneous views regarding the nature of venereal disease.

William Hunter established a great school of anatomy in England; John Hunter founded the modern school of comparative anatomy and surgery; and of the many countrymen of whom we have reason to be proud, in all departments of science, there are none more worthy of a nation's regard than these brothers, and none perhaps whose work was a greater gain to humanity.

John Hunter was a pupil of Cheselden and Pott, and the master and inspirer of Abernethy, Cline, Astley Cooper, Jenner, Blizard, Carlisle,

Macartney, Everard Home, and Physick; all good men and true, into whose labours we have entered. Hunter's influence will increase with time, as science advances and accurate knowledge extends. His immediate successors were placed too near him to estimate aright his great proportions. His life marks an important epoch in surgery. To us he has left an inestimable legacy, not merely in what he accomplished, but in the spirit and accuracy with which he worked.

Just before Hunter's time, anatomical schools were opened in London; but we may form a notion of how little progress was made in teaching, when we learn from him (as related by Chevalier) that he was instructed how to perform surgical operations on a dog—the only "subject" to be had. Bromfield's syllabus shows anatomy and surgery to have been taught in thirty-eight lectures; Nicol instructed his pupils in anatomy, physiology, pathology, and midwifery in thirty-nine; and Nourse, in 1748, taught "totam rem anatomicam complectens" in twenty-three. Antecedent and contemporary with Hunter, there were many very able practical surgeons in London. Cheselden was a great anatomist and operator. Pott was a most polished, amiable, and accomplished man, who, beyond doubt, was the greatest practical surgeon of the day, and stood unrivalled as a clinical teacher. His writings on injuries of the head, hernia, fractures and dislocations, spinal disease and fistula, are important and classical contributions to our literature. He did much to simplify and render less cruel the practice of surgery. In his earlier days, the actual cautery was prepared, as a matter of course, before every visit; but this, and many other such atrocities, he was able to do away with. Samuel Sharpe and Sir Cæsar Hawkins were also good practical surgeons in the metropolis in Hunter's day; but they were merely men of experience like the rest, and lacked that scientific mind and mode of working which Hunter possessed.

Hunter's teaching was most fruitful of results in English surgery, especially as regards the surgery of the vascular system. The more exact knowledge of anatomy, and the improved physiological views which arose from his instruction, gave his pupils confidence to undertake operations not before thought of. In 1796, Abernethy tied the external iliac for aneurism, and shortly afterwards Sir Astley Cooper the common carotid and the subclavian in its third part, while Colley before long ligatured the latter vessel proximal to the scalenus. In 1812, Stevens delegated the internal iliac, and Gibson of America the common iliac; while the acme of boldness was reached, in 1817, when Sir A. Cooper put a ligature on the abdominal aorta; and Mott, the following year, tied the innominate artery. All these brilliant feats followed on Hunter's example. The pathology of the blood-vessels was, at the same time in England, greatly advanced by the labours of Jones, Lawrence, Travers, and Hodgson.

An accelerated progress has marked the last seventy-five years. Almost every department of surgery has benefited by the light reflected from the collateral branches of medical and other sciences. Our methods of investigation and means of securing accuracy have been enormously improved, and, in the multitude of "scopes", we have mechanical aids of high value. From the microscope, experimental physiology, physiological chemistry, and pathology, a flood of light has shone on almost every dark corner, and hygienic science has already begun to influence for good the entire community. In 1832, the Anatomy Act rendered legal the means of acquiring knowledge which, before then, could only be got with much risk and difficulty, and its effect on medical education has been good beyond expression.

Operative methods have been within this century vastly improved. Amputation by the various kinds of flap has been introduced and greatly perfected, but has, in not a few instances, given way to that excellent device of excision, which, having begun with White of Manchester as late as 1768, has now attained a first place in our means of removing disease. White, as is known, operated on the head of the humerus, and Park of Liverpool in 1781 on the knee, after having, by experiment on the lower animals, satisfied himself of its feasibility. The Moreaus extended the practice still further; and Dupuytren, by his excision of the lower and afterwards of the upper jaw, in 1812, showed how much could be done to save life even in the most desperate circumstances. Autoplastic operations have, since the beginning of this century, been greatly improved, as they are now founded on true anatomical and physiological principles. Orthopædic surgery, founded on the observations of Hunter and first practised by Delpech, has been perfected in this century. The surgery of the genito-urinary organs, especially as regards the management of calculous disorders and stricture, has been much advanced. Torsion, though described by Galen and used by Avicenna, was rendered serviceable by Amussat. Herniotomy, the radical cure of rupture, staphyloraphy, the treatment of aneurism by compression, galvano-puncture, and otherwise, have all been worked out. All mechanical appliances have been simplified and rendered more effective. The proper and legitimate use of cautery and the chloro-

cautery has been a means of healing. Ligation, galvanism, electrolysis, drainage-tubes, pneumatic aspiration, the *écraseur*, are all additions which, in our day, have been made to the appliances of the surgeon. Ovariectomy, first performed in 1809 by McDowel in America, has now reached a perfection beyond any expectation; and the securing of early adhesion—that triumph of British surgery—has been rendered almost certain by modern dressings. The experiments of the early part of this century with catgut and silk-worm gut, tendon and metallic ligatures, to promote the healing of wounds, failed, but has now succeeded by more scientific employment. Of all the improvements or discoveries made, however, none can compare to anaesthetics and antiseptics, which have done more to diminish suffering and save human life than the united inventions of two thousand years. They, of themselves, will for ever render conspicuous this century in which we live. Finally, the thermometer promises to do as much for surgery as it has already achieved for medicine, and to materially increase our control over disease.

Before closing, it is requisite that I retrace the steps of my narrative somewhat to glance at the uprise of the great school of surgery in France, at the end of the last and beginning of this century, and which powerfully affected the history of our science. The old Academy of Surgery, founded, as was already said, in 1743, had done noble work in its day, and had concentrated and given its "imprimatur" to the labours of many distinguished men. Of these, J. L. Petit and Louis were perhaps the most celebrated. Petit did much for surgery; and, if nothing more noteworthy had come from his hands than perfecting the tourniquet, which he first described in 1718, his career would be an era in surgery. Up to his time, the best means for arresting bleeding during amputation was a mere band—the fillet or bleeding tape—tied firmly or twisted up by means of a stick; but when Petit provided the tourniquet, operators could, for the first time, leisurely arrange the coverings which were requisite for securing a good stump, and ligature the vessels which were divided. This was a great advance towards that early healing which was yet, however, far off, as Hunter had still to prove its innocency and advisability.

In 1793, the Academy became extinct. It had passed into its dotage and was effete. Then medical education in France was a mere farce. The "annus medicus" was reduced to three months, with lectures twice weekly.

At that time, a great clinical teacher appeared in Paris in the person of Desault, whose extraordinary practical talents exercised an influence on the whole profession in France, and stirred the dead bones with marvellous life. He left no writings whatever, but his teaching and example established a great school. It was in the many camps scattered over Europe that we have chiefly to seek for the surgery of the early part of this century, and there it was enthusiastically cultivated, but at a terrible cost, as no fewer than six hundred medical men perished in the French armies alone in eighteen months of that fearful war. To Percy and Larrey especially we owe many lessons of wide application, learned by them in the scenes of carnage which they were called on to witness. Forced by necessity to simplify every appliance, and dispense with all but the most essential apparatus, the military surgeons carried boldness in operation to the verge of temerity, and reduced their dressings to the most primitive simplicity. By them, "water-dressing" was chiefly introduced, or at least promoted. They came to employ it almost exclusively as a substitute for camphorated spirit and oil; and the "vulneraries", defensives, restrictives, etc., necessary to secure the digestion, mundification, carnification, and cicatrisation of wounds departed for ever. They eliminated setons and compresses and styptics from practice, and gave confidence in the use of the ligature, sutures, and incisions to secure drainage and relieve tension. It was on the battlefield, too, that amputation and excision were tested and improved, and the value of early operation fully recognised. The din of battle, however, was unable wholly to drown the voice of scientific discussion; and the teaching of Bichat did for the French school to some extent what Hunter accomplished for the world. Bichat died at thirty-one. He was little known at twenty-nine, and yet, before his death, he attained to undying renown. Extensive, accurate, and original works on physiology, anatomy, and pathology flowed from his pen; and he indoctrinated a host of men who, culminating in Dupuytren, made the French school famous.

Between 1814 and 1826, Boyer published the best work on general surgery which had appeared since Ambrose Paré, and many distinguished men in France wrought well to advance surgical science: Chopart, Pelletan, Sebatier, Deschamps, Dubois, Lombard, and Delaporte, all occupied prominent places in surgery; while Lavoisier reformed chemistry, and Laennec, working out the ideas of Avenbrugger and Corvisart, added auscultation and percussion to our means of investigation. Magendie, too, in France, contributed greatly by his

experimental physiology to extend and give accuracy to our knowledge. My time will not allow me to do more than refer to these and to Broussais, whose doctrines threatened at that epoch to overturn the received views on medical science, but he survived their acceptance.

There cannot be a doubt that Dupuytren, whose career as surgeon on the Hôtel Dieu extended from 1808 to 1835, was the leading foreign practical surgeon of this century. Selfish, austere, and self-reliant, he concentrated in himself the renown of the French school of surgery. Five hours daily he spent in the hospital wards, and at one time he conducted courses of lectures on three different subjects. He sacrificed his constitution to his ambition. The concourse by which he seized the highest place from Roux and Marjolin, and which occupied the attention of the profession in France for forty days, is still an inspiring tradition of the French school. He is said to have left a fortune of seven million *francs*. He had an unsurpassed reputation, but hardly any contributions to surgical literature, except what were collected by his admiring pupils, remain to testify to his skill and learning. Contemporaneously with or subsequently to Dupuytren, there were many very distinguished surgeons in the French school: Roux, Marjolin, Riche-land, Cloquet, Delpech, Lisfranc, Sanson, Lallemand in the earlier time; and after them, Velpeau, Malgaigne, Blandin, Nélaton, Langier, Vidal de Cassis, Follin, Jarjavay, Jobert, Lenoir, Morel-Lavallée. I know that some of my audience remember with pride several of the older teachers I have mentioned; I, and many more, think with gratitude on the information and guidance we received from the last-named group.

In our own country, during later years, death has been busy in our ranks. In Liston, Syme, and Fergusson, practical surgery had representatives who have never been excelled in any age or country, and it is with just pride that Scotland claims them as her sons. I may be allowed to pay my personal homage to the memory of Sir William Fergusson, who honoured me with his friendship during my whole professional life, and for whose scientific and personal acquirements I had the deepest respect. He was beyond question the greatest practical surgeon of our time, and united, in indissoluble bonds, the "science" and the "art" of surgery. Brodie, Lawrence, Travers, Crampton, Colles, Cusack, and many more have helped to exalt the prestige of our art and the reputation of British surgery. My time will not permit any reference to the labours of these later contributors to surgical science, and it would be invidious to speak of the work of those who still remain among us; though I may venture to say there still exist in Germany, France, and Great Britain men as highly endowed, and as able to advance the cause we all have at heart, as have appeared at any former period of history. We live in the age of "conservative" surgery, when it is the aim and ambition of surgeons to preserve and not to mutilate; and that desirable end is to be secured by following the path which Hunter defined: to watch Nature, and to act in accordance with her dictates. The rapid communication which has been of late years established throughout the world places all the members of our profession *en rapport*, and so allows them to work together for the one great end: the good of their fellow-men.

I end my task with the humiliating reflection that, from lack of time and knowledge, I have omitted much that, in such a review, demanded record; but I submit it to you as an endeavour to trace the path by which our profession has travelled and the chief pioneers who have directed its advance.

We are the true ancients, and, though we are but in the morning of the times, we have already succeeded to a great inheritance won by the toil of a long line of noble men. Much still remains to be accomplished; for truly we cannot say, with Alexander: "Our fathers have left us nothing to do." Each of us, even the most humble, has the power so to employ the talent committed to him, and so to exercise the skill to which he may have attained, as that no loss may accrue to that grand art whose boast it is to have "lessened age after age the stripes wherewith humanity is stricken". So I would conclude, in the words of Cicero: "Licet omnibus, licet etiam mihi, dignitatem medicæ artis tueri."

ST. ANDREW'S.—The deaths were 127 in 1876, against 169 in 1875; the death-rate for the former year being only 14.78, against 19.56 per 1,000 in the latter year. There were 39 deaths under five years of age, or 30.7 per cent. of the whole number; and there were as many as 12 deaths above ninety, and 1 over one hundred years of age. There were 10 deaths from whooping-cough, 14 from phthisis, 13 from cardiac disease, 15 from disease of the brain, and only 15 from pneumonia and bronchitis. There was not any death from small-pox, and but 2 from scarlatina. Dr. Archibald, however, reminds the commissioners of police, as the local authority, of the duty of providing a hospital for the reception of cases of infectious disease.

CLINICAL LECTURES

ON

THE VARIETIES OF PHTHISIS.

Delivered at the Hospital for Consumption, Brompton.

By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.,
Physician to the Hospital.

LECTURE I.—PATHOLOGY AND CLASSIFICATION (*concluded*).

AND now to classify phthisis, which I propose to do partly pathologically and partly clinically, as follows.

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| 1. Acute varieties..... | (1) Scrofulous pneumonia, or acute phthisis. |
| " | (2) Acute tuberculo-pneumonic phthisis. |
| " | (3) Acute tuberculosis. |
| 2. Chronic..... | (4) Catarrhal phthisis of tubercular origin. |
| " | (5) Catarrhal phthisis of haemorrhagic origin. |
| " | (6) Scrofulous phthisis. |
| " | (7) Haemorrhagic phthisis. |
| " | (8) Laryngeal phthisis. |
| " | (9) Chronic tubercular phthisis. |

Let us first take the acute varieties, and it will be well to remember that Dr. Pollock has pointed out two principal features about them:—1. Their hereditary character; for, out of one hundred and seventy-six patients, only thirty-four could state positively that there was no family taint; 2. The absence of hæmoptysis, which may account for their rapid progress, as the result of a free hæmorrhage is temporary relief to the lung, provided the blood, in passing into the alveoli, does not induce catarrhal pneumonia.

We will now proceed to consider the first variety—*acute phthisis, scrofulous pneumonia, or galloping consumption*, as it is termed. Acute phthisis or scrofulous pneumonia is characterised by a well known group of pyrexial and *consuming* symptoms, graphically described by Dr. C. J. B. Williams and others. The patient—generally a young man—may or may not have had cough or hæmoptysis previously. He is then attacked with what appears to be pneumonia of one or both lungs. The pulse becomes rapid, from 120 to 140, hard at first; the temperature rises to 100 deg., 101 deg., 103 deg., and 104 deg. Fahr., and even higher; the skin is pungent and burning to the touch, and especially to the ear of the auscultator; but, nevertheless, there are chills and sweats at night. The tongue becomes red and beefy in appearance. There is marked anorexia, with nausea, vomiting, diarrhoea, and thirst. The wasting is rapid and progressive; the cough is continuous and distressing; the expectoration abundant, opaque, shreddy, and purulent, and, on microscopic examination, is found to contain lung-tissue in large quantities. The flesh wastes and the strength ebbs away. On examination of the chest, we sometimes find nothing at first; then appears crepitation under one or both clavicles, followed by dulness, which soon extends over the whole of one or both sides, varied occasionally with spots of cracked-pot sound.

Auscultation reveals coarse crepitation, with gurgling in parts. Bronchophony is general at first, but gives way to islets of pectoriloquy, or to cavernous whispering sounds, and the physical evidence is soon complete that the lung is quite disorganised. In many cases, the wasting continues, though the temperature may fall and the appetite improve; and, in these patients, the duration of the disease is a short one, often not exceeding a few weeks. Where, on the other hand, the appetite improves, it not uncommonly happens that, after the destructive lung-processes have abated, leaving those organs mere wrecks, the temperature falls, and even assumes the collapse type; the pulse also falls and becomes weak, though it rarely assumes the normal standard. In this weak state, with the greater part of his lungs excavated or infiltrated with caseous and tuberculous masses, and his body worn to a skeleton, the patient may even fatten and gain strength, if the appetite be good. The temperature may fall to the normal in the morning, though there is generally an indication of an afternoon rise; the pulse generally remains quick, and the respiration somewhat hurried. In this precarious condition, cases of acute phthisis sometimes last on for a considerable time, though as mere shadows of their former selves, and liable at any time to be carried off by the various accidents, as they are termed, of the disease; viz., hæmoptysis, diarrhoea, or pneumothorax. Generally, however, the duration is a short one, and the patient sinks, worn out by the cough and febrile process.

On *post mortem* examination, we find the lungs to be the principal seat of the morbid changes, and these are for the most part of an in-

flammatory nature. Whole lobes are infiltrated with caseous pneumonia having a greyish white appearance, some portions caseating and others undergoing excavation, and thus are formed those large thin-walled cavities which often end in pneumothorax.

Sometimes the greater part of one or both lungs is in a state of croupous pneumonia, with caseating centres scattered throughout, showing a strong tendency to coalesce and to reach the pleural surface, where they are often to be detected before breaking down has taken place. Often miliary tubercle is entirely absent, as also fibrosis; though the former, if the case be prolonged at all, is pretty sure to appear through secondary infective processes. In the most rapid cases, the pleura is non-adherent, and hence the tendency to pneumothorax.

Let us now take a typical case of scrofulous pneumonia. Mary Ann M., aged 23, single, a servant, born in Gloucestershire, was admitted into the Brompton Hospital on June 29th, 1871. Her sister had died of phthisis. She had enjoyed tolerable health till six months before admission, when cough came, accompanied for the last three months by muco-purulent expectoration, slight loss of flesh and appetite, and by night-sweats. Lately, she had had pain in the left side and some dyspnoea on exertion; no hæmoptysis. Appetite bad; tongue very red, slightly furred in the centre. Catamenia absent for six months; bowels regular; pulse 133, weak; respirations, 31, weak. Temperature (morning) 100.4 deg. Fahr. Physical signs *nil*.

At the end of a week, I examined her chest with Dr. Tatham, and we discovered nothing. The temperature was taken twice a day, and varied between 100 deg. Fahr. and 103 deg. Fahr.; the pulse was 140, the tongue remained red, and the patient wasted visibly. Cough very troublesome.

July 13th. Patient still very feverish. Crepitation audible under the right clavicle.

August 1st. Cough very troublesome; expectoration scanty; temperature 103 deg. Fahr.; pulse 132; respirations 48. Crepitation heard now under both clavicles and at the base of the left lung. Tongue beefy.

August 21st. In the last fourteen days, the temperature had fallen somewhat, and had ranged from 100 deg. to 102 deg. Fahr. Pulse from 116 to 128; respirations from 36 to 48. Considerable emaciation; gurgle, and cracked-pot sound was detected under the left clavicle. Crepitation was audible under the right.

A week later, cavernous sounds were detected under the right clavicle, and scattered crepitation over the lower portions of that lung. By degrees, the cavity on the left side appeared to enlarge, the patient assumed all the appearance of advanced disease: night-sweats became profuse and wasting well marked. Nourishment, in the form of beef-tea, egg-flip, and milk, was taken regularly, and there was entire absence of diarrhoea.

On October 1st, she complained of sharp pain under the left mamma, which was relieved by no local applications, and, on examination, signs of pneumothorax were detected. The tongue became apthous; she showed inability to take food, and she gradually sank and died on the 11th, having survived the supervention of the pneumothorax ten days.

Mr. Rose, at present assistant-surgeon to King's College Hospital, was my clinical assistant at the time, and kept a regular and careful record of the pulse, respiration, and temperature for two months; and the result was, that the pulse varied from 104 to 140, the average being 120,* the respirations from 32 to 48, the temperature (taken always twice daily, and sometimes oftener) from 99 deg. to 103.4 deg. Fahr., the former point being only recorded once, when death was at hand; as a rule, the range was between 100 deg. and 103 deg. Fahr., the evening being slightly higher than the morning.

The treatment was chiefly directed to subdue the fever and support the patient. For the first purpose, various drugs were tried; viz., salines, quinine, digitalis, and sulphurous acid; but, though narrowly watched, no depression of temperature was detected under their administration. The patient's appetite continued good till apthæ set in, and large quantities of nourishment were taken with apparently no effect on the emaciation.

The necropsy was made by Mr. Rose forty-six hours after death. The body was greatly emaciated; rigor mortis was slight. The left pleura was adherent at the upper third; the lower two-thirds contained about a pint of offensive purulent fluid. The left lung communicated with the pleural cavity by two openings on its anterior surface, one an inch in diameter and very ragged, and the other somewhat smaller. The pleura also contained several loose bands of adhesion. The lung itself was in a state of caseous pneumonia, riddled

* I have not recorded the temperature at the time of death, as it was not taken. I have, however, recorded the temperature at the time of death, as it was not taken. I have, however, recorded the temperature at the time of death, as it was not taken.

lobe was full of caseous pneumonia, and contained a small cavity at the top. Caseous masses were found in the middle lobe, along its upper border, extending seemingly from certain centres. The lower lobe was much congested, and contained a few miliary tubercles. The heart weighed seven ounces and was fatty, but the valves were healthy. The liver was enlarged, of nutmeggy consistence, and weighed three pounds. The spleen was amyloid. The kidneys and other organs were healthy.

This was a fair instance of scrofulous pneumonia, and exemplified the striking features of this variety of consumption, which may be summed up as follows.

1. The intensity of the pyrexia and rapid emaciation.
2. The acuteness of the disorganising processes, excavation quickly succeeding consolidation.
3. The inflammatory nature of the processes, and the rarity of miliary tubercle.
4. The absence of fibrosis.
5. The occurrence of pneumothorax, owing to two causes:—1. The size of the cavities formed; 2. The absence of pleural adhesions.
6. The tendency of the disease to localise itself in the lungs, and the freedom of other organs, such as the intestines and the serous membranes, from secondary products.

ON DRAINAGE IN OVARIOTOMY.*

By GEORGE GRANVILLE BANTOCK, M.D., F.R.C.S. Ed.,
Surgeon to the Samaritan Free Hospital for Women and Children.

WITH the exhaustive works of Spencer Wells and Peaslee in our hands, it might be thought that there remained nothing new to be said on the subject of ovariectomy. There is one point, however, to which attention may be profitably drawn, and on which you will look in vain for any information in these works. I refer to the subject of drainage of the peritoneal cavity as one of the steps of the operation.

It may be said that most of the early operations in which the ends of the ligature were left hanging from the wound were examples. This arose from the erroneous ideas then prevailing as to the behaviour of a portion of ligatured tissue. It was universally believed up to a late period, and it is even now a matter of extensive belief, that sloughing of the distal portion must ensue; and it is only within the last few years that it has been shown, both by direct experiment and by *post mortem* examination of persons who have been subjected to ovariectomy, that, if the ligature be cut off short and guarded against the putrefactive process, such a result is almost unknown.

In 1872-3, Dr. Marion Sims published a paper in the *New York Medical Journal*, in which he showed, from an analysis of a large number of *post mortem* examinations, that, in the great majority of cases, death was due to the absorption of septic matter from the peritoneal cavity. The conditions were found so similar, and the symptoms preceding death presented such uniformity, that no other conclusion was possible. He further showed that, as in Mr. Spencer Wells's hands, this usually fatal train of symptoms had been checked by the evacuation, through the vagina, of a quantity of highly irritating and often offensive fluid. Hence, he argued, that if we could only prevent this accumulation, we should obviate a considerable number of deaths. To this end, he ventured on the heroic proposition "to puncture the *cul-de-sac* of the vagina behind the cervix uteri, and to pass a tube of some sort into the peritoneal cavity to drain off any effusion that may take place in the said cavity", and "to do this in every instance, whether there are adhesions or not". In illustration, he quotes five cases in which this proposition was acted on, and of which three were successful. On perusing these cases, one cannot be favourably impressed with the results, which are far from justifying the universal adoption of this procedure.

At a recent meeting of the Royal Medical and Chirurgical Society of London, Mr. Spencer Wells gave an analysis of "three hundred additional cases of ovariectomy", in which he did little more than allude to the subject of drainage. Nowhere, as I have said, will you find any detailed information on this subject, and we are thrown back on a few isolated cases which are difficult to find.

It will be my duty, then, to speak, first, of the cases that would appear to demand the application of this principle, with illustrative ex-

amples; secondly, of the modes of effecting the object in view; and thirdly, to endeavour to indicate the most effective and least troublesome method.

First, as to the cases which appear to demand this proceeding:—I may at once say that the idea of draining the peritoneal cavity after a simple uncomplicated case, *i.e.*, without adhesions and with a good pedicle, is not to be entertained. Speaking generally, I would say that whenever, in the course of operation, it becomes evident or probable that oozing of blood or serum, or both, must go on after closure of the wound, and especially when there has been an escape of ovarian fluid into the peritoneal cavity, then drainage will be demanded. This general proposition will be best enforced by illustrative cases. It has probably occurred to those who are in the habit of seeing, or have seen, much of ovariectomy, to regret that means had not been used to avoid that which has been revealed by a *post mortem* examination. This, at least, is my experience; and I cannot but regret the omission in the first case which proved fatal in my hands. The operation was performed under very unfavourable conditions. I had tapped the patient a week before. I removed twenty-three pints. This was followed by inflammation of the cyst. On the morning of the operation, the patient's temperature was 101 deg. She died in four days of septicæmia. There was about a pint of very acid serum with broken down blood in the peritoneal cavity. The clamp was used. In some cases, the pedicle has served as a drain, as in a similar case which I saw under Mr. Wells's care. Had I used the drainage-tube, it is probable the result would have been different.

CASE I.—J. S., aged 25, was admitted into the Samaritan Free Hospital in February 1876, under the care of Mr. Spencer Wells. A week afterwards, she was tapped. Inflammatory symptoms followed, but she recovered within three weeks, when she went to a convalescent home. She returned again on July 6th. The patient had lost much flesh; tumour very multilocular; adhesions evident; uterus drawn up almost out of the pelvis; altogether an unpromising case. Mr. Wells kindly offered me one of his cases, and I selected this as the most urgently demanding operation. I had arranged to operate at 9.30 A.M. on July 21st, 1876. On my arrival, a little before that time, I found that the patient had been seized some hours before with severe abdominal pain. She was then too tender for examination, but the tumour had lost some of its prominence; there was more fluctuation (superficial). Pulse 130; temperature, 100.4 deg. It was believed that rupture had taken place; yet I decided to proceed with the operation as a forlorn hope.

Operation.—On opening the peritoneum, a considerable quantity of ovarian fluid and thin colloid matter escaped. The tumour was first tapped and then broken up with the hand. As the mass was drawn out, the adherent mesentery was ligatured as it came into view, as well as one of the fimbriæ of the left Fallopian tube. Abundant, but not very firm, pelvic adhesions were then broken down, liberating the mass, which sprang from the right side by a pedicle about an inch long and two inches broad. The pedicle was transfixed and secured by a double ligature, of which the ends were cut off short. A long tail of omentum was found adhering to the pedicle close to the uterus. Two ligatures were applied, and division effected between. A portion of omentum adhering to the abdominal wall close to the incision was not interfered with. It required a great deal of sponging to clear away the serum and colloid matter from the pelvic cavity and from amongst the intestines, and considerable oozing of bloody serum went on. Under these circumstances, I deemed it advisable to put a glass tube through the bottom of the wound, reaching to the bottom of the utero-rectal *cul-de-sac* before closing the wound with seven sutures in the usual way.

An hour after the operation, the temperature was 100.8 deg., and the pulse 146. Eight hours afterwards, the temperature was 102 deg., and the iced water cap was applied. Bloody serum escaped, and was drawn off from the tube for four days—in all, about a pint; in the course of the fourth day, a piece of India-rubber tubing was substituted for the glass; and on the next day, the discharge having ceased, this was removed and the opening forthwith closed up. The patient left her room on the eleventh day, and the hospital on the twenty-fourth day.

CASE II.—M. H., aged 48, mother of four children, was admitted into St. Bartholomew's Hospital in August 1875, under the care of Dr. Greenhalgh. A few days afterwards, the tumour burst; the fluid was absorbed; and, at the end of three weeks, the patient left the hospital very much reduced in size. She re-entered the hospital in June 1876, and on the 26th Mr. Thomas Smith removed twenty-one pints of fluid by tapping. The case was considered too unfavourable for operation; and on August 14th she entered the Samaritan Hospital, where I tapped her for Mr. Wells, removing twenty-two pints, and leaving a larger mass than before. The hospital was about to be closed for the

* Read at the Annual Meeting of the British Medical Association, 1876.

annual cleaning, and the patient was sent home. At the reopening of the hospital on October 1st, the patient returned, urgently requiring relief, and Mr. Wells kindly allowed me to keep the case. On October 4th, she measured 42 inches in circumference at the umbilicus, 9½ inches from the ensiform cartilage to the umbilicus, 10½ inches from the umbilicus to the symphysis pubis, 11½ inches from the umbilicus to the right anterior superior spine of the ilium, and 12 inches to the left. I tapped her of nineteen pints and a half of fluid, to relieve the dyspnoea and pain of distension. There remained a larger mass than before firmly adherent on the left side (groin); the uterus was drawn up above the pubes, behind which the os could just be felt, and the roof of the vagina was much stretched and funnel-shaped. It was impossible to make out the outline of the uterus, which appeared to be merged in the tumour. After consultation with Mr. Wells and Drs. Savage and Greenhalgh, it was decided to give the patient the benefit of the doubt—a doubtful benefit. Apart from the vaginal condition, the difference in the external measurements indicated extensive adhesions.

On October 11th, in the presence of Drs. Greenhalgh, Junker, and several others, my colleague Mr. Thornton assisting me, and Dr. Champneys administering bichloride of methylene, I made an incision five inches long in the usual situation. The tumour was found universally adherent anteriorly, and some difficulty was experienced in separating the peritoneum and cyst-wall. After breaking down the adhesions and setting the tumour free, the uterus was seen to be embedded in the mass, and raised above the level of the pubes. Three ligatures were applied to as many pieces of adhering omentum, and the tip of the appendix caeci was secured in the same way. The broken up tumour was drawn out as much as possible, but it obstinately remained adherent deep down in Douglas's pouch, and I was in doubt as to the possibility of separating it. While holding the mass on the stretch with the right hand, I pressed the tips of the fingers of the left on what appeared to be the line of union. It began to give way, and I went on peeling off the tumour from the posterior aspect of the broad ligaments and uterus until I reached the fundus uteri. Here the uterine tissues proper were torn, and free bleeding ensued. Having passed beyond the fundus, I broke through the cyst-wall where it was thin and non-vascular, and, having applied a ligature to each cornu, I cut the mass away. There now remained a flap of cyst-wall on each side, about the size of the palm of the hand. A deep fissure in the fundus, from which there was rather free bleeding, was brought together by a continuous suture of fine silk, and several small bleeding points were secured by fine ligatures. The left flap was cut away so as to fit on the back of the uterus, to which it was fixed by sutures along the fundus, small bleeding points having been secured as they appeared in the cut edge. The right flap was likewise cut away as low as possible, care being taken to secure some small vessels as they appeared. The peritoneal cavity was now cleared out, and there being no active bleeding, though considerable oozing, I passed a glass tube into Douglas's pouch and closed the wound. The operation lasted an hour and a half; and, from the loss of blood and the severe character of the operation generally, it was the universal opinion that the patient had only a few hours to live.

Five hours afterwards, the bandage and dressings were found saturated with dark bloody serum, and about an ounce of almost pure blood was drawn from the tube. Temperature 100.7 deg.; pulse 104; respirations 30. Next morning, in addition to the contents of the sponge, which was saturated, I drew from the tube about two drachms of dark bloody serum. At the end of two days and a half, I obtained a small blood-clot. Temperature 103 deg. The iced water cap was put on. For the next hour, the temperature continued to rise, until it reached 103.6 deg. In fourteen hours, it stood at 99.8 deg., and the cap was removed. The temperature again rising, it was reapplied; and, with several changes, it was finally removed on the fifth day. The discharge from the tube continued, though in gradually diminishing quantity; portions of clot were obtained on the fourth and fifth days; on the sixth day, only about a drachm of pale red serum was obtained at each dressing, and the glass tube was withdrawn, its place being taken by a piece of India-rubber tubing of about half the diameter. This was removed the next day. On the eighth day, the opening was closed; on the eleventh day, the patient was outside the bed; and on the seventeenth day, she went to a convalescent home. She is now in excellent health.

CASE III.—Mrs. C., aged 27, mother of four children, the youngest of whom was under two years, was admitted into the Samaritan Free Hospital on October 31st, 1876, under my care, with a very large multilocular tumour. She measured 44½ inches in circumference at the umbilicus, 13½ inches from the ensiform cartilage to the umbilicus, 14 inches from the umbilicus to the pubes, and 11 inches from the umbilicus to the anterior superior spine of the ilium. (I may here again call attention

to these differences of measurement as a sure indication of parietal adhesions.) The tumour was exposed by an incision five inches long, afterwards extended upwards to about eight inches. Adhesions were very firm over the whole anterior and lateral aspects of the tumour, from a little above the pubes to the ensiform cartilage. They were broken down with difficulty. On the right side, near the brim of the pelvis, there was a band of adhesion about an inch and a half broad, which I could not break through. It was ligatured. Four ligatures were applied to as many portions of adherent mesentery; and the pedicle, which was from two to three inches long, was treated in the same way. The tumour weighed fifty pounds, and the operation occupied about an hour. In consequence of the very extensive adhesions and the continuance of oozing, I deemed it advisable to use a drainage-tube. About thirty ounces of serum, at first bloody, finally becoming colourless, were obtained; the tube was removed after four days and three quarters; the wound healed well; the opening closed within thirty-six hours after the removal of the tube, and the bowels acted on the eighth day. Her convalescence was retarded by the appearance of a large induration above and to the left of the umbilicus, threatening an abscess in the abdominal walls. It, however, gradually disappeared under treatment, and the patient left the hospital at the end of a month. She is now quite well.

CASE IV.—Miss C. U., aged 27, was admitted into the Samaritan Free Hospital on January 1st, 1877, with a multilocular ovarian tumour of about two years' growth. On the night of January 5th-6th, the cyst ruptured. This was followed by symptoms of peritonitis. On the 8th, the temperature was 104 deg., and pulse 142 at 9 A.M. For a fortnight, the patient was so ill that death was feared; the abdomen became very tympanitic, tongue dry, red, and glazed, with troublesome sickness and obstinate constipation; and she lived on small quantities of milk, beef-tea, chicken-broth, gruel, and latterly a little bread and butter as the most solid food.

On the eighteenth day, her morning temperature was 98.6 deg., but the evening temperature rose to 102 deg.; and at 9 P.M., it stood at 101 deg.; pulse 120; the tongue had become a little moist; the bowels had been well moved by frequent small doses of colocynth and henbane; but the tympanites remained. A line drawn from the right hypochondrium to the inner end of the left Poupart's ligament, pretty nearly straight, divided the abdomen into two parts, of which the left was very tympanitic, and the right wholly dull on percussion. I determined to give her the chance afforded by an operation, as otherwise her death could not be far off. The patient readily assented to my proposition.

Nineteenth day, 9 A.M. Temperature, 99.4; pulse 112. Noon temperature, 100 deg. The operation was begun at 2.45, in the presence of Drs. Gage Brown and Baxter Forman, who were interested in the case, and several other gentlemen. My colleague Mr. Thornton assisted me, and Dr. Champneys administered the anæsthetic. On dividing the abdominal wall, I found the peritoneum and cyst-wall intimately adherent, and I had to open the tumour at once, giving exit to a dark brown viscid fluid. Having then enlarged the opening and evacuated the greater portion of the fluid contents, I succeeded in separating the cyst-wall from the peritoneum for about an inch in breadth on each side. On these flaps, I fixed a pair of vulsellum-forceps, by which I was able to steady the tumour while I introduced my hand and broke up the mass. This done, I then proceeded to break down the parietal adhesions, which were universal, recent, and very vascular. A small piece of omentum was secured by ligature as soon as it came into view. I now passed my hand behind and around the tumour, rupturing adhesions to the intestines until it was set free. The pedicle, about two inches long and rounded, cord-like, about the thickness of a medium sized finger, was secured by a single ligature, and the mass was cut away. The transverse and descending colon, considerably distended, was now seen to be adherent to the abdominal wall, in a diagonal direction from right to left downwards, and close to the umbilicus and the top of the wound. From this down to the pelvis, an unbroken surface was presented, like the inside of a coconut-shell, formed by the adhesion of coils of small intestine to one another and to the colon, where they lay in contact with the left posterior aspect of the tumour; and the floor of the cavity was formed by the adhesion of the uterus and right broad ligament to the adjacent structures. Out of the floor of the cavity thus formed, I took a handful of firm colloidal matter, having a very peculiar odour. High up on the right side, I could get amongst the intestines, which, although adhering to the tumour, were free from one another. To a less extent, I could get down into the left iliac fossa. Douglas's pouch was obliterated. There was free oozing from the surfaces of the intestines where the adhesions were ruptured, and one point near the bottom of the cavity required a fine ligature. A glass tube was finally inserted, and the

wound closed in the usual way with seven sutures. The tumour weighed eleven pounds.

Two hours after the operation, the temperature was 101.4 deg., and pulse 120. In six hours, the temperature had risen to 102.8 deg., pulse 144, respirations 24; and the iced water cap was put on. The bandage and dressings were saturated with red serum, of which I obtained about an ounce and a half from the tube and sponge. In twelve hours, the dressings had to be changed again, but the discharge was less free. Temperature 101.6 deg.

Suffice it to say that the discharge rapidly diminished, becoming paler; flatus passed in about thirty hours; the tube was removed after sixty-five hours; two stitches were removed on the third day, and all were out on the sixth, the wound quite healed. The iced cap was kept on continuously for about fifty hours, when the temperature had fallen to 99.2 deg., pulse 103; it was resorted to for short periods for four days more, and was finally removed with the temperature at 98.6 deg. The bowels acted on the seventh day, after taking pills of a grain of compound extract of colocynth and one-sixth of a grain of extract of belladonna, and having an enema of soapy water. The patient was out of bed on the fourteenth day, and left the hospital on the twenty-sixth day, walking as sprightly as if nothing had happened.

CASE V.—M. A. W., aged 15, was sent from the camp at Aldershot by Staff-Surgeons A. F. Churchill and Alcock to the Samaritan Free Hospital on January 12th, 1877. Her temperature at 5 P.M. was 101.6 deg.; pulse 136. She looked much under age, and was greatly emaciated. There was great tenderness in the tumour, which felt very solid, and moved freely in a considerable amount of ascitic fluid. The circumference at the umbilicus was twenty-eight inches. The skin was harsh and dry; the urine pale and free. On the third day, I gave her five minims of tincture of perchloride of iron three times daily; and, after some days, I increased the dose to ten minims. The urine became much more free, from three to four pints daily, very pale; specific gravity 1008; no albumen. At the end of a fortnight, the ascitic fluid had disappeared; the tumour was but slightly tender; the maximum daily temperature exceeded 100 deg.; and on the eighteenth day, at 9 P.M., it was 100.6 deg.; pulse 140. It was now evident that no more improvement could be expected, and that since the disappearance of the ascitic fluid, the tumour was becoming adherent to the parietes. I, therefore, decided to operate next day.

January 31st, 9.30 A.M. Bichloride of methylene was administered by Dr. Percy Boulton, and Mr. Thornton assisted me, in the presence of several visitors. As I anticipated, the tumour was found universally adherent to the parietes and adjacent structures. The adhesions were evidently recent, as shown by their friability and excessive vascularity. The trocar thrust into the tumour drew no fluid, and I had to enlarge the incision to about five inches. The tumour was now turned out entire, bringing into view a thick pedicle about two inches broad and three inches long. The pedicle passed into the tumour half way up its left face, and appeared as a broad thick band, non-adherent, though in close apposition. A double ligature was applied, and the mass was cut away. A coil of small intestine adhered to the abdominal parietes just above the level of the left iliac crest. There was considerable sanguineous oozing from the ruptured adhesions in Douglas's pouch. The insertion of a drainage-tube and the closure of the wound by ten silk sutures completed the operation. The tumour was dermoid, and from it I obtained these specimens of bone. (The specimens of bone were shown.) There had been hæmorrhage into one or more of the larger cysts situated at the back of the tumour; and this was, no doubt, the cause of the inflammatory action set up.

Half-an-hour before the operation, the temperature was 99.6 deg. (pulse 140); and an hour after, it was 99 deg. In six hours, I removed the dressings, which were saturated with red serum, and three drachms of dark bloody fluid were obtained from the tube. The temperature had then risen to 102 deg., and the iced water cap was put on. An hour later, the temperature was 102.4 deg., and the pulse was 172, and respirations only 16. For eight hours, the temperature stood steady at 102.6 deg.; but in two hours later it had fallen to 101.8 deg., and it continued to fall until at midnight (thirty-two hours) it stood at 100 deg., and the pulse had fallen to 132. The temperature again rose gradually in the next ten hours up to 102.3 deg., with a pulse of 148; and during eleven hours it fell as slowly to 100 deg. From this time, it gave no more anxiety, but the pulse would not fall below 130, and often ran up to 144. The iced water cap was finally removed on the fifth day. In all, about half-a-pint of serum escaped; the tube was removed after sixty-seven hours, when the serum was of a pale brown colour and inædorous. None escaped after this, and the opening closed in a few hours. Several small clots were removed from the tube in the process of emptying it. On the third day, she passed six pints and a half of urine of specific gravity 1008, of alkaline reaction, and containing

one-fourth albumen. The subsequent history of the case does not bear on the question under consideration; and I have only to say that, in consequence of the formation of an abscess in the wound and the condition of the urine, the patient was not able to leave the hospital till the forty-first day. She is now in very fair health.

These five cases, presenting such varying and unpromising conditions, abundantly prove the great service rendered by the drainage-tube. I do not hesitate to say that, but for this, the result must have been different. I call particular attention to Case II, in which the whole posterior surface of the uterus was in a raw state, with not less than a dozen ligatures, large and small, in its immediate neighbourhood. It was the general impression in the room that this patient had only a few hours to live; but we have seen that, by the early removal of the blood and serum, she was able to make an excellent recovery. But the most remarkable recovery was that of Case IV, in which the intestines were glued together by recent peritonitis.

It is now time to speak of the mode by which the drainage is effected. Dr. Marion Sims recommended that the drainage should be effected through the recto-uterine *cul-de-sac* and vagina; but the perusal of his cases will not impress one favourably. The difficulty of keeping the tube pervious and of preventing putrefaction is almost insuperable. If we could contrive a method by which we could convert the recto-uterine pouch into the form of a funnel, no doubt this would prove the most efficient. But at present I am unable to see my way to this. Dr. Marion Sims's cases are not encouraging, for they show us the great difficulties attending it, even in his skilful hands. He figures an instrument, like a bivalve speculum, which he recommends, but which he had not then submitted to the test of experiment. Kœberle was, I believe, the first to employ a glass tube communicating through the lower end of the wound with Douglas's pouch. This tube was closed at the lower extremity, which in shape was rounded and pointed, and it was pierced throughout its length with a number of small holes. The latter I always regarded as a mistake, as it was not only inconvenient for removing the fluid collected in the tube, but admitted air too freely, and did not confine the fluid. It is to Dr. Keith that we are indebted for the form of tube which I now show you, and which appears to me to answer every purpose. It is made of various sizes as to length and diameter, and its peculiarities are that it is pierced for about an inch only of its lower end, that this is open, and that at the other end it has a shoulder to prevent its slipping into the peritoneal cavity. The fluid is thus drawn from the lowest part of the peritoneal cavity, and the air comes into contact only with the surface of the fluid in the tube.

To my mind, this tube is at once the most simple and efficient method yet attempted. It is managed in this way. After all actively bleeding points are secured and the sutures are all passed, Douglas's pouch is finally cleaned out, and, while with one hand the intestines are kept out of the way and the fingers serve to guide the tube, it is passed down to the bottom of the pouch between two of the sutures. Care must be taken that the tube maintains a perpendicular position. The sutures are now tied, a cap-shaped sponge wrung out of a solution of carbolic acid (one to twenty), is placed over the tube, and the dressing is completed. It is important to perform pressure uniformly over the abdomen, so that the fluid as fast as it is poured out is forced into the tube. Sickness soon after the operation is rather desirable than otherwise, as it prevents partial collections which are very apt to form from the union of raw surfaces which is inevitable in the case of torn adhesions. Immediately on the appearance of any discharge in the dressings, these should be changed. Under any circumstances, the first dressing should be done within from four to six hours. The sponge is well washed out and recharged with carbolic acid, and the contents of the tube are removed by means of a glass syringe, over the nozzle of which is drawn a piece of India-rubber tubing a little longer than the glass tube. The frequency of the dressing after this will depend on the amount of discharge; but it will be well to repeat it at intervals of six or eight hours. At first, the serum contains more or less blood; but gradually becomes paler and paler, and diminishes in quantity. As soon as the discharge becomes of a pale colour and is so far reduced in quantity that not more than half a drachm or a drachm can be obtained from the tube and none has overflowed into the sponge, the tube may be removed. This usually happens about the fourth or fifth day. It is a good precaution to substitute a piece of India-rubber tubing for a few hours. If no fluid be obtained, or only a few drops, this also may be removed. The opening now closes in a few hours. Should, however, the general condition of the patient be in any degree unsatisfactory, it will be well to wait until the symptoms have subsided. The longest period to which the drainage was carried on in these cases was five days. This contrasts very favourably with Dr. Marion Sims's cases. In his first case, the drainage was continued for a fortnight; in the second, for six weeks; in the third, the drainage was a failure, chiefly

from the mode adopted ; in the fourth, for about a month ; and in the fifth, it again failed.

One great difficulty in drainage through the vagina will be that of preventing putrefaction. In not one of my cases was there even an approach to this.

It is thus an easy matter to insure drainage of the utero-rectal pouch ; but the difficulty is to prevent partial accumulations. Since the above was written, I have had another case in which a collection of bloody serum took place between the liver and the parietes. The case was one of suppurating ovarian tumour intimately adhering to the parietes extending high up between the liver and the ribs. There was no sickness after the operation. On the third and fourth days, the temperature was normal, and the tube was removed on the third day. On the fifth day, the temperature began to rise ; and she died within twenty hours, with all the symptoms of septicæmia. The *post mortem* examination showed that the drainage of Douglas's pouch was perfect, and there was no indication that the tube had been used. The liver was adherent to the raw surface in apposition, and behind this there was collected a small quantity of decomposed bloody serum, under two ounces, which had produced death. But for this small collection, the result would have been perfect, as shown by the examination.

How to prevent these partial accumulations is the only remaining difficulty ; but this paper has already attained such a length, that I must not further detain you.

ON SOME POINTS IN THE ART OF PRESCRIBING FOR CHILDREN.*

By ROBERT FARQUHARSON, M.D., F.R.C.P.,

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I VENTURE to put before you a few practical observations on some points in the art of prescribing for children, because the subject is one which has hardly yet been treated on a sufficiently comprehensive basis. Much valuable but scattered information may be gleaned from the pages of contemporary literature, and much of what I am about to say has been said before ; but it seems to me that some little service may be rendered by weaving these threads of knowledge into something of a more connected whole, and obtaining the opinion of some of those experienced physicians who have devoted themselves to the diseases of the very young.

Time, however, will not permit me to do more than touch, and that briefly, upon one point in connection with a subject which is really a large one, and to lay before you some facts and ideas on dosage ; and here, again, I must once more subdivide, and take only a small section of a great therapeutical question, whose importance has only very recently begun to acquire that general appreciation which it eminently deserves. I might well be tempted to invite you to join with me in some reflections as to the comparative efficacy of the occasional large or the oft-repeated minute dose—a question which must before long become one of the most pressing in the materia medica ; or it might be interesting to inquire as to the desirability or otherwise of inducing the physiological effects of drugs for the relief of pathological conditions ; but at this time I mean to restrict myself simply to this proposition—the difference between children and adults in respect of the quantities of various drugs which may be taken, not only with actual impunity, but with absolute benefit.

Now, systematic works have too often not only ignored the teachings of Ringer, Fuller, and other modern investigators, but have done much to hamper and confuse our knowledge in this direction by laying down the law that children necessarily require much smaller doses of most of our more active drugs than adults ; and we, therefore, see in books on materia medica, as well as on children's diseases, elaborate tables setting forth the quantities to be prescribed with safety at different periods of early life. Some years ago, and possibly even now, a student would run a good chance of being afforded the opportunity of continuing his studies, were he to tell his examiners that a child can take a dose of belladonna with impunity which would probably induce physiological symptoms in the adult ; and, as a natural consequence of this mode of teaching, great timidity in practice has resulted ; and that this may be a positive evil requires but little reflection to show. If a dose of a particular remedy be too small to effect the purpose for which it is ordered, it is much more likely to do harm than good. Thus an insufficient purgative merely irritates the patient's bowels without giving relief ; too small an opiate excites the nervous

system and banishes that sleep which it was intended to attract ; and numerous other instances will readily occur in illustration of a statement which hardly requires such confirmation.

Granted, then, the importance of administering our remedy in doses sufficient to produce their full remedial effect, I shall lay down, as my first and only proposition, that children require doses of many medicines quite as large as those which are commonly ordered for persons of mature age. Now, when I speak of children, I shall not refer to mere infants, whose tender organisation and sensitive organs and functions require special consideration from a therapeutical point of view. Thus the yielding nature of their skulls, admitting as it must of wide differences in the proportion of cerebral blood, no less than the natural tendency to sleep at that early age, plainly indicate caution in the use of narcotics. Purgatives and various other remedies must then be used with caution, or we may initiate an irritable condition of stomach and bowels which all our skill may not readily remove. In dealing with general principles, therefore, let it be understood that I refer to children over one year in age ; and, perhaps, before beginning the consideration of special instances in favour of my views, I may briefly touch upon the explanations which most naturally suggest themselves of the peculiarity which forms the excuse for my remarks. In prescribing for adults, we are frequently annoyed by the very various results obtained in different persons from a precisely identical quantity of a particular drug. Thus, one patient will develop a copious crop of acne from a few grains of bromide of potassium, whilst another can take ounces without such effect. Another will be salivated by a small quantity of mercury, or be unable to swallow quinine without uncomfortable nervous symptoms or a specially irritable rash. Children, however, do not present in anything like the same degree these special peculiarities of idiosyncrasy ; the effects of medicines are pretty constant in their case, and we may generally anticipate the satisfaction of finding that our remedy has acted as we wished, and without any of that excess or eccentricity of action which too often brings undeserved discredit on the medical man. The reason which tells us why young children bear heavy doses of potent medicines must also cover this difference from their elders, and we might at once shut up further inquiry by concealing ourselves behind the dense cloak of ignorance implied in the assumed fact of an ultimate difference of constitution. But, true as this may be as an abstract proposition, we must look a little deeper, and ask, in the first place, whether some peculiarity of digestion may not come to our aid, and whether infants may not emulate some of the lower animals in the power which they possess of neutralising or destroying poisonous principles, as rabbits harmlessly browse on belladonna, and pigeons baffle the deadly action of strychnia, etc. But of such powers in the human being, at any period of life, we have no shadow of proof, presumptive or otherwise ; and it is probable that remedies reach the blood of children in the regular way, and through the same chain of physiological processes as in the case of adults. So we must again go forth in search of our explanation ; and I think we may find some approach to it, at all events, in the view that, in consequence of the rapid growth taking place in the body during early life, the blood and tissues are in a condition of specially active destruction and renovation. Drugs, such as the metals, which probably combine with the albumen of the circulating fluid, are here rapidly cast out of the system. Other remedies, which act more particularly on the nervous system, are cast out with effete matters before they have had full time to produce their physiological effects, or, at all events, before these effects have attained to anything like completeness. Thus we do not often find developed in children that accumulation which occasionally, if rarely, is observed in patients of older growth, because the drug is removed before it can produce that continuous and ever-intensifying influence on the nervous system which eventually finds expression in what we may call a discharge.

So much, therefore, for my explanation, such as it is, of the facts which I shall now proceed briefly to lay before you.

Now, in the first place, I am bound, of course, to confirm the usual opinion of the dangers of opium in very early childhood ; and it is not long since I saw an infant of eight months nearly narcotised to death by six two-minim doses spread over two days. But those within the period of life which I have selected for consideration can bear moderate quantities, and chloral seems always well borne. For instance, I have lately had under treatment a little rickety girl suffering from recurring attacks of laryngismus stridulus, to whom three and a half grains were given with benefit thrice daily. The same patient took ten, and finally fifteen, grains of bromide of potassium, before any beneficial effect was attained ; and I have always observed that this drug is well taken by children. Twenty and thirty grains have been no uncommon dose to reach in patients of from eight to ten suffering from epileptic seizures, and in them I have never observed any symptoms of bromism.

* Read before the Medical Section at the Annual Meeting of the British Medical Association in Manchester, August 1877.

The opposite seems to hold good of iodide of potassium, so far as my limited experience goes; for I have three times seen papular and petechial eruptions produced by one-grain doses of this drug, and I should specially like to ask whether this corresponds with the observation of others.

Arsenic is usually well taken. I should have no hesitation in ordering five minims of Fowler's solution for a child six years old. Ten minims have been occasionally ordered; and I had recently under care a little girl aged ten, whose somewhat obstinate psoriasis only began to yield when the dose was pushed up to sixteen minims. When physiological symptoms present themselves, as they sometimes do, it is important to know that they do not assume the usually described type, and that vomiting is the most usual symptom. I have seen this follow a single one-minim dose; and more rarely we meet with a red and irritable tongue, dry lips, injected eyes, and abdominal pain; girls being, in my experience, contrary to the statement of Ringer, more susceptible to the overaction of the drug than boys.

Prussic acid may be pretty freely prescribed, and I have given nearly two minims to a child of two years, with some slight benefit, for pertussis; and, at the age of seven, I have given nearly three minims for the successful arrest of sickness.

We know that emetics must be given in very full doses. The intestinal canal of young children seems strangely insusceptible to the action of purgatives, and large quantities of Gregory's and compound jalap powders must be given before satisfactory action is attained.

I have by no means exhausted the instances to be gleaned from my own experience or that of others in support of my main proposition; but time presses, and I will conclude with a reference to belladonna, whose comparative harmlessness to young children has been most amply confirmed since Fuller first pointed out the fact some years ago. I have very commonly prescribed from 20 to 30 minims of the tincture for children of from fifteen months to five years, and have invariably found that the younger the child the less likely was the dose to be followed by physiological symptoms. I have on several occasions pushed the quantity up to one and a half and even two drachms of the tincture three times a day in children of from ten to twelve, with only a very tardy development of uncomfortable results; but, in my experience a few ten-minim doses are usually sufficient to cause uncomfortable dryness of the throat in adults. In children, however, we seldom have complaints of this, nor do we observe dilatation of the pupil; general languor, want of appetite, troublesome diarrhoea, perspiration about the head, and rapidity of pulse, being in them usually obscured.

I have ventured to bring these few remarks before you, as the outcome of some little observation and experience, and in the hopes of stimulating discussion on a subject which seems to afford a promising field for future investigation.

A TYPICAL CASE OF ONE OF THE FORMS OF SENSORIAL IDIOCY.*

By B. SEGUIN, M.D., New York.

THE present paper is the study of a living case of what was named, in 1843, *Superficial Idiocy*.† Dearth of observation has since prevented the further elucidation of this interesting subdivision of our subject.

Geo. C. P., now fourteen years old, was born in Boston during the American Civil War. His mother, when pregnant, felt some anxiety for friends in the field, but does not think it had any influence on the child, who was born healthy, and considered the most promising of her three children till two years old. Then, the first anomaly she noticed was an oscillation of both eyes. Previously, he seemed to have heard well, but not since. He was beginning to speak; then he stopped quite suddenly. At that time, too, he was beginning to walk quite steadily; but, as he could not see things unless very near, he would stumble over, and on going out hurt himself against the door-posts, etc. Once he had a fall down a flight of stairs, bruising his right shoulder and the right side of his face. The bruise was not open, nor the top or the back of the head apparently hurt. After a few minutes, he did not complain, and was not laid up with it at all. The mother is quite sure that this injury preceded the abnormal symptoms she soon afterwards noticed. About this time, he became restless at night; would get out of bed, and play about the room or in the next with his hobby-horse in the dark.

During this winter, he had an eruption on the face, looking like feversores, after which he became much better, so that in the spring he became fat and healthy-looking, not so restless at night, and finally not at all. He seemed to become anxious to learn, but his hearing and eyesight continued defective. He used to call things by names of his own, calling a chair a sit-down, etc., as a little friend of mine, when seventeen months old, called her collar her neck, a cat a mieau, and, when twenty, a hen coco-egg, a cow dada-milk, etc., by two infantile processes of nomination found at the origin of all languages. Therefore, the use of such words by Geo., when about four years old, shows him to have been at least two years backward.

Though he improved physically, he was at times puny, at times healthy; in the cold weather, his condition was better. He had no difficulty with his urine or bowels until four or six years of age. From six to eight, he had nocturnal incontinence of urine; but this disappeared under treatment. During this time, Geo. had pain in his head. His mother says his forehead was contracted at times, as if he were suffering from headache. As he grew, he became slim, with a long narrow head.

At the age of five, he went to a Kindergarten, where he learned to draw, and he has continued ever since, amusing himself principally in drawing on the black-board, but not on paper, his eyes forbidding. During this time, if at all startled, his head would rotate from side to side and his eyes would oscillate in their sockets.

He was always under the most watchful care. Attempts were made to use a deaf-and-dumb alphabet at the time when it was found he was making no progress in learning to speak. In this organographic alphabet, all words commencing with certain letters were indicated by certain signs, as M, by putting the finger in the closed mouth; N, on the side of the nose; L, near the eye. Otherwise he could not distinguish, by the little he heard, the sound of these three letters, nor had G and K from D and T, for which some mnemotechnic indication was given him by touching the parts whence the vocals had to come, as the nose for the nasal sounds, or the chest for the aspirate, etc.

All the teaching has been at home, except during four or five years in Germany, where a lady taught him to write, the common rules of arithmetic, something in grammar and geography, and general information. There he was under the care of Niemyer of Tübingen, who recommended to do nothing until his general health was restored and his intellect developed. Fiölich gave no opinion, but was anxious to try some experiments on him for a month: the mother declined. She had already begun to educate Geo. on a plan of her own. As he could neither read nor be read to extensively, nor ask many explanations, nor hear much, nor see distinctly and afar, she determined to bring near him the world of facts and knowledge which his mediate senses could not grasp. She chose to do it in two ways: one by travels, transporting him where he could perceive what she wanted him to know and understand; the other, by substituting in his training the exercise of the immediate senses for that of the mediate senses.

Seeing him separated from the world—as by two veils—by the dulness of his vision and audition, yet in contact with the two most immediate senses, the tact and the smell, which afford great and many valuable certitudes, his mother took him literally by the hand, in order to make him feel and smell what he could not hear and see: in Germany, to breathe the atmosphere of a tranquil life; in Italy and France, to touch the monuments of art and the produces of industry; in Switzerland, to comprehend the Alps by the smell of the glaciers; here, again, to feel the home of his birth and the caresses of relatives.

But other obstacles came athwart these undertakings. If it was difficult to reach the mind of Geo. through the imperfection of the two most intellectual senses, it was fully as difficult to ascertain what his ideas were, if they were correct even if he had any, since he expressed himself almost incomprehensively with his unmanageable voice and unconscious articulations. This latter difficulty became in some manner aggravated during the course of education, when, passing from one country to another, he had to forget his English for German, and to learn his mother tongue again of late. I know this feat is not impossible to ordinary idiots, because, if their mind is narrow their ears are wide open, and there is much more of automatism than of true intelligence in what is called the faculty of language limited to the wants. But the incapacity of Geo. was of the inverse order: he would have comprehended and retained words enough, if he could have heard and articulated; and a mother's perseverance was much needed to thrice teach him to speak through defective and unfeeling organs.

Barring these difficulties of perception and of expression, Geo. was making progress on all other points. His health had become really good; his head and bladder did not trouble him; his complexion was clear; his face was bland and sweet, expectant or inquiring. His movement, somewhat jerky and tumultuous when he wanted to show

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eagerness, was rather hesitating and slow at other times. His hands, remarkably long and well shaped, were not ordinarily awkward, but searching, and, if searching with a desire, tremulous. When at work, one of them usually helped the action of the other by throwing its feelers around the object of his intended operation or study. His neck was large; his body very tall of his age, so much so that, partly from hasty growth, from having to speak to people smaller than himself, and from the necessity of looking very close at things to see them, his body had already contracted a stooping bend.

Such were the reports kindly prepared for my perusal by Dr. Saterthwaite, and such appeared to me the condition of Geo. when his mother consulted me. It was in the middle of 1876. His general health, appetite, and activity were good. He was fond of drawing; used tools; made things about the house, coarsely indeed, but carefully, as mending chairs, putting on bolts, also attending to flower-beds, shovelling snow, sawing and splitting all the wood used in the house, etc. He was swift on the tricycle velocipede, an amateur of games; kind to his playmates, who in return were considerate to him, instead of bantering him on his infirmity and his bad English, as children usually do.

Taking charge of him, I did not forget that he had, and has yet, the best of teachers; one whose intelligence of his case is equal to her tenderness. With her, it was easy to carry out the plan originally traced by Niemeyer; the more so since, in the management of idiots, I always study the signs of vitality first, and later measure on them my demands on the activity. Therefore, I simply advised the mother to continue to educate her boy as she had begun under the great master of Tübingen, watching, in the meanwhile, any opportunities of introducing such physiological means of education as observation would warrant.

The anomalies of function were evident enough in Geo.; their beginning could be traced to or soon after a fall; their period of aggravation from two to five years, when his head became narrowed and elongated. But how far was the sensorium commune affected by this pathological alteration of form? Did it become deficient *per se* in the ready and judicious use of stored impressions, or from the effects of the paucity and vagueness of the impressions transmitted? In other words: Were the hemispheres simultaneously affected with the sensory ganglia? This could easily be ascertained on the cadaver; but on the living, the road to such an analysis is more circuitous, though perhaps no less sure.

Externally, his head is of good average size, but narrow, from ear to ear elongated in its antero-posterior diameter, with a sort of protuberance rising between the brows, as seen on infants whose frontal suture undergoes a pathological growth. The base is, on the contrary, depressed; the parietals developed mainly upward; the forehead, without basic force, tends rapidly backward, and merges into the vault-line of the skull, which constitutes, with the face-line, a profile Egyptian in type, if not in purity. This form, sphynx-like in more than one sense, gives, however, a clue to lesions which the scalpel alone could uncover, but which induction can prelocate at the middle and anterior part of the base of the brain, where lie the centres and leaders of intellectual perceptions.

On the other hand, three-parts of the head of Geo. are, externally viewed, free from deficiencies of form; the frontal and nasal sinuses, the crown of the head, and the occiput, allowing ample room for their reputed functions—the olfactory, the intellectual, and the co-ordinated movements. At any rate, other heads which do good intellectual service present less harmony in these parts than the one under consideration.

Now, let us test this head by the two tests which are in our power: physiological education and experimental physiology.

Our case gave many opportunities of testing the perfection of some organs and the imperfections of others during operations which give, for primary product, impressions; for secondary, ideas; for tertiary, the embodiment of ideal in creations. For example: A solid model being given to Geo., say the cast of an animal, which he will have to reproduce in trait (its portrait!), he tries to see it, but cannot by his poor sight alone form any other idea of it than that of a vague image. This general impression making him certain of the reality of the object (but of no more), he wraps it in the ample and delicate circumscription of his left hand, as in a net-work of feelings; and from this tactile survey, he derives a general notion of its forms, and of the relation of these forms to an ideal animal. (At this stage can be seen on the features a notable pose of the mind, as in the act of storing and crediting that impression in the form of an idea.) His next move is to survey the lines which circumscribe or delineate the ideal, commencing by the highest ones. In this third operation, he does not use his eyes at all, nor his hand as a whole, nor its palm as before; but the pulp of his fingers, of one, two, or three, according to the size and contour of the

object to be surveyed, adding the pulp of the thumb in apposition, so as to make a *compas-d'épaisseur* whenever he wants to measure thicknesses.

This whole survey is made by the left hand quite rapidly for a boy who is slow at almost everything else, at the same time that his right hand elaborately draws the line as it is perceived by his left. Then comes a pose, during which he tries to see if the work of the right correspond to the ideal transmitted to the cerebrum by the left. It generally does correspond so far as the trait is concerned, and oftener it does not in regard to the direction from which will depend the relation of the parts and the attitude of the figure, showing conclusively that the mental operation was correct, but the means of execution, sensory and muscular, defective. Moreover, as soon as and as far as he can see the mistake, he defaces the trait, and retraces another in accordance, not to the last localised feeling, but to the first notion he acquired from the ensemble or unity of his model.

Thus, as he progresses in his work, whenever Geo. wants to trace a line, he uses first his left fingers to feel its strength and form, and, whenever he wants to co-ordinate several lines, or a new one to some previous ones, he spreads again over the model his whole left hand, to study their direction and *ajutage*. This conception is executed by his right hand, through his intellect, with a will and intent to be accurate; and he succeeds so far that, whatever can be the coarseness of the execution, it always bears the intellectual likeness of the ideal.

I beg to note also that in all this his left hand, capable of surveying the lines of a solid body or a cast, was powerless to follow the lines traced by the right on a plan on the black-board. He, therefore, was obliged to use his very imperfect sight to control the doings of his right hand, at the same time that he had to rely on his sense of tact for the comparison of his ideal with his solid model, thence for its execution.

This multiplicity of instruments, and complexity of sensory and mental procedures, added to the natural imperfection of the former and to the consequent inferiority of the latter; this alternate use of the eye and hands, of the left as a feeler and of the right as an executant; of the eye again as a judge of plane images, though it could not estimate the contours of solid objects, beset the boy with difficulties of observation and of execution, such that his mind must be declared unimpaired, while progressing in spite of so many obstacles thrown on its way by its natural helpers.

Nevertheless, Geo. continues to improve. He hears and sees better every year; but worse idiots than him learn to see and hear better than he does. Is it to be said that the signs and symptoms of idiocy are futile, unreliable, as not corresponding to the gravity of the affection? Not exactly; but that the best guides to diagnosis and prognosis, in idiocy, are not so much in the gravity of the incapacity as in the importance of the organs whose affection is indicated by the wreck of definite functions. In the case of Geo., the atrophy of the organs of two senses, and the partial paralysis of those of speech, are demonstrated by the imperfections of sight, hearing, and language, as the sanity of his intellectual centres is demonstrated by the accuracy of their functions, whenever they are set in action by the operation of the senses which have remained unimpaired.

The distinction resulting from the study of this case is important, since it throws a light on the condition of many children who are, in turn, refused admission in institutions for idiots because they are considered practically blind or deaf-mute; and are ejected from the blind or deaf-mute schools as idiots. M. Magnat, Principal of the Pereire School of Paris, recently rescued two such children from this form of sensorial idiocy.

Let us now pass to the evidences furnished in support of this possible causation of this form of idiocy by physiological experiments, mainly by those of B. Gudden, Director of the Insane Asylum at Munich, described in his *Researches on the Development of the Cranium*.

These evidences are of three orders.

1. *Influence of the Organs of the Senses on the Growth of the Cranium.*

a. If the functions of the olfactory nerve on one side in a new-born rabbit are arrested by the stoppage of a current of air, its corresponding bulb becomes atrophied, and the opposite nerve and bulb become excessively developed. Correspondingly, the cranium will have thickened around the atrophied nerve and thinned around the hypertrophied one. Persons early deprived of one eye show a similar result, the thinning of the corresponding orbital bone, which causes a bulging out of the same side of the face.

b. By taking away one of the eyes of a new-born pigeon, the corresponding nerve and optic lobe become atrophied; and when the animal is afterwards sacrificed, the part of the cranium contiguous to the atrophied part is double the thickness of the opposite side.

c. Enucleation of one eye produces analogous effects on the arch

of the orbit (arcade orbitaire), which thereby deviates below and inside.

II.—*Action of the Lobes on the Cranium.*

a. Two or three days after the birth of a rabbit, the superior part of the left hemisphere was taken out; the bones were brought together and united closely; the brain began to grow up from its lower lobes in the space thus left empty, and the base of the cranium of that side took part in that upheaving, at the same time that the vault of the cranium lowered itself to join and close in with the diminished brain. Many cranial depressions may be referred to a similar process of repair and adaptation.

b. More remarkable yet is the result of extirpation, not merely of a part of a hemisphere, but of the whole. After four or more weeks, the animal being killed, the depression of the cranium is more marked than in the partial operation; and the space or vacuum, instead of being filled by a *poussée* of cerebral matter from below, is occupied by a mass of serosity.

III.—*Action of the Cranium on the Brain.*

a. In some American Indian tribes, among the more civilised Peruvians and Mexicans, in some departments of France, even to this day, the head of the new-born is compressed between boards, or by bandages, manipulations, and other practices. Happily, the brain, receding to some extent before the local pressure, undergoes in another direction compensatory expansions which prevent the atrophy of the brain and its worse psycho-physiological consequences.

b. On the other hand, the abnormal enlargement of the cranium, consequent on excessive training or straining of the brain, and its sequels of acute meningitis in the young and of softening in the adult subject, are too familiar to delay the conclusion of our main idea, which may be summed up, without concession to a hypothetical phrenology, in these terms: The brain and the cranium are from the beginning modelled upon each other, and subsequently the form of the cranium continues to influence that of the brain, and the *poussées* or the *collapses* of the brain continue to influence the form of the cranium.

From these three sets of experimental evidences, and from the previous physiological observation of our subject, we cannot hesitate to conclude that the lesions are located behind the basic and lateral depression witnessed by his mother; that the corresponding ganglia and nerve-expansion of audition and vision are affected; that the other parts of the brain are sound; and that his idiocy or isolation is of sensory origin.

I brought this case to your appreciation, Mr. President, not because it is unique, or even rare; on the contrary, because it is typical of a large class of sufferers from a wrong diagnosis. I choose to call this *isolation of the mind from the world by lack of intervention of the senses, or sensorial idiocy*; because—1. It distinguishes well the effects of sensory isolation from those of defective hemispheres or *mental idiocy*; 2. It opens the way for a subdivision of sensorial idiocy: (a) by *organic defects* of some of the sensory apparatus, of which I present Geo. as the type; (b) by the *functional incapacity* of some sensory apparatus (dormant function), of which Robert (*Obs. xlviii, on Idiocy, etc.*, page 422) is a good example; (c) by *restraint*, inflicted previously to the acquisition of the sum of perceptions sufficient to constitute the minimum stock in trade of knowledge of an ordinary mind, of which Caspar Hauser was the most conspicuous martyr.

POISONING BY YEW LEAVES.

By T. WHITEHEAD REID, L.R.C.P. Lond., etc., Canterbury.

I HAVE read with interest "The fatal case of poisoning by Irish yew", recorded in the JOURNALS of September 1st and 8th. A case of poisoning from the same shrub has occurred in my practice this year.

H. E., a widow, aged 24, on April 9th, at 7 A.M., deliberately champed up and swallowed three large mouthfuls (representing three small sprigs) of Irish yew (*Taxus fastigiata*), which she had gathered at 8 P.M. the previous day, having gone supperless to bed. At 7.30 A.M., she drank a cup of tea. At 8 A.M., she began to feel sick, and drank a second cup of tea. At 8.30 A.M., she vomited for the first time. Between 9 and 10 A.M., she fainted, vomited three or four times, became insensible, and was finally found on the floor in a state of collapse. Salt and water were administered as a domestic emetic.

At 1.15 P.M. (six hours after eating the leaves), I first saw her. The symptoms were those of syncope: pallor of face, lividity of lips and eyelids; vomiting from time to time; partial unconsciousness; very marked irregularity and depression of the heart's action, with a small thready pulse, at times imperceptible, at times frequent, of short duration, small volume, and diminished power; the heart's action was very feeble and undulating, its sounds indistinct, yet the ventricular

systole not interrupted enough to cause a dicrotous pulse. The pupils were widely dilated, though they acted slightly to light. The tongue was moist and tremulous, stained of an uniform brown colour. The respirations were shallow, irregular, often sighing. The skin was cold and bathed in perspiration. She was able to be roused, and could answer questions sensibly at intervals, but eventually coma ensued. There were no spasms nor convulsions, though twice I noticed a slight tremor come over her frame. She was restless at times, turning from side to side in the bed. There was no headache, tenderness of stomach, nor diarrhoea; no paralysees, nor any rash on the body.

At 2 P.M., the stomach was washed out by means of a pump until the washings were colourless; portions of leaves and stalks, but no food, appeared. By 3 P.M., she had considerably roused from her collapse; a mustard poultice, hot bottle, warm clothing, sal volatile, and brandy did still more for her.

By 6 P.M., an intense thirst had arisen. She took three large cups of hot tea with milk, which produced copious vomiting, more portions of leaves and stalks appearing.

At 9.30 P.M. (fourteen hours and a half since the poison and seven since the stomach-pump), a great improvement had taken place in her condition. The skin was warm and moist; the temperature 98.3 deg.; and the pulse regular as to rhythm, though not to frequency, the beats varying between 80 and 96 per minute. There were headache and thirst. The vomited matters had become duodenal in character, being more tenacious, and containing bile and food as well as leaves, the sharp points of which were well embedded in mucus; she had vomited four times since 6 P.M. The patient's memory was a blank from 10 A.M. to 4 P.M.; she did not even recollect the stomach-pump.

Her catamenia commenced in the morning prior to eating the leaves. She held her urine all day and until 6 the next morning. Milk and brandy were frequently administered. She slept lightly during the night. The case progressed to a favourable termination. The pulse remained very irregular in frequency (accompanied by sensations of "heart-stopping") for three days, varying between 55 and 92; its rise was quick and volume diminished. The temperature never exceeded 99.9 deg. The headache disappeared on the 10th at 1.15 P.M. The thirst continued till the evening of the 11th, and the staining of the tongue lasted four days. The bowels (which had been confined for two days previously to taking the leaves), by means of castor-oil, acted on the 10th, at 6 A.M. and 2 P.M., the stools containing portions of leaves and stalks, as also on the 11th, at 4 A.M., when some oily matter of a greenish hue and a small blood clot were noticeable. The urine, which measured four pints in the twenty-four hours on the 12th, varied in specific gravity from 1011 to 1017, contained uric acid in abundance, with large crystals resembling cystine in appearance, as well as lozenge and halbert-shaped ones of all sizes; there were variable amounts of albumen and phosphates during the eight days that it was examined. By the 18th, she had returned to her usual state of health. One of the mustard poultices applied to the nape of the neck slipped down to the posterior border of her left scapula, and made a raw surface of the size of the palm of a hand, which was very slow in healing.

In conclusion, I may add my conviction that this woman would have died but for timely treatment. There was a very marked improvement in her condition after the stomach was washed out, though even then she was prone to relapse into her former lethargic condition; and the necessity arose for more active measures to keep her awake, though these again were soon able to be discontinued. The vomited matter was neutral to test paper.

The cases on record of poisoning by yew leaves are few. Putting aside the suicide of Cativolcus, related by Cæsar (*Comment.*, lib. vi, sec. 31), Dr. Percival, in *Medical Commentaries* (vol. vi, page 33), relates the death of three children in 1774, who were killed by the fresh leaves, the dried ones having no effect; but he did not see them till after death. Dr. Mollan brought before the Dublin Pathological Society's meeting, on March 22nd, 1845, the case of a lunatic who died in fourteen hours, at the Richmond Asylum, after chewing this plant. (*Dublin Hospital Gazette*, No. 7, May 15th, 1845, page 108). A death, ascribed to an infusion of the leaves, is registered between 1838 and 1839; and one is mentioned in the *Edinburgh Annual Register* (vol. vii, page 162). Metzger mentions (page 397) two cases of death from the leaves and berries. Though an alkaloid, "taxin", has been extracted, it must not be forgotten that there are probably other active principles as well; neither must we overlook the physical features of the little leaves, which give them irritant properties and cause them to adhere tenaciously. Peretti analysed the leaves in 1828 (*Journal de Pharmacie*, tome xiv, page 537). Orfila classifies yew as a narcotic poison (vol. ii, chapter iv, page 165, edition ii, 1821). Pereira calls it acro-narcotic, and says it holds an intermediate position between savin and foxglove. Schroff has pointed out the analogy between poisoning

by yew and juniper. Kohler says, in necropsies after juniper poisoning, the brain, as well as the abdominal organs, has been found very much congested. Huscman gives congestion and ecchymoses in stomach, fulness of abdominal vessels, and, in the case of pregnant women, inflammation of the uterus, as revealed *post mortem*, but no theory of its physiological action.

The treatment, beyond emptying the stomach, has not altered since Nicander wrote his *Alexipharmica*, where, at lines 611 to 615 (if I may make a literal translation), he says: "Do not take the poisonous yew, the Cician pine, giver of mournful death; which, however, an unusually strong full draught of (unmixed) wine can conquer at once, when it is stuffing up the throat and narrow windpipe of the man."

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

ROYAL SURREY COUNTY HOSPITAL, GUILDFORD.

Fracture of both Clavicles in an Old Man. (Mr. TAYLOR.)—An old man fell from a scaffold thirty feet and fractured both his clavicles, but sustained no other injury. A thick elongated pad was passed under each arm and embraced the shoulders; the ends of both pads, being united behind, forcibly retracted the shoulders and retained them in position; the fractured ends of the clavicles were thus brought into apposition. The arms were then bandaged to the body, with the elbows drawn well backwards, and the man was placed on a water-bed in the supine position. The water-bed proved very useful as a means of keeping the man quiet by preventing him from turning on his side and so displacing the bandages. He has been kept thus for three weeks: the right clavicle has united without deformity, and is quite firm; the left has produced a considerable amount of callus at the seat of fracture. He has suffered no pain.

Suppuration of the Bursa Patellæ. (Mr. TAYLOR.)—A woman, a month after confinement, had, without apparent cause, been attacked with inflammation and subsequent suppuration of the bursa patellæ. She had continued to get about as long as possible; but, after three weeks' illness, was obliged to seek medical relief, and was admitted to the hospital. It was then found that not only had the bursa suppurated, but that suppuration had extended to the cellular tissue around the joint, and the skin and cellular tissue around were involved to a considerable extent. At first glance, the joint appeared to be involved; but, on careful examination, and from the history of the case, it appeared probable that the synovial sac might be free from injury. Free incisions were made in various directions into the suppurating cellular tissue, a poultice was applied, and the joint was kept at rest by tying it up in a pillow. There were no signs of inflammation of the veins of the leg. The incisions are now nearly all healed up, and the joint is found to be free of disease.

In another case of inflammation of the bursa patellæ following a blow, the sac was opened freely as soon as an increase of heat and redness, with a rise of the temperature to 102 deg. Fahr., indicated suppuration. The patient was thus saved from the complications met with in the former case from neglect of surgical treatment.

Ovariectomy. (Mr. CHARLES SELLS.)—A woman aged 28, of highly nervous temperament, tall and slightly built, was attacked with abdominal pain, for which she came under treatment. She had been married three months, and, a few weeks previous to this illness, had noticed some enlargement of her abdomen. When seen by Mr. Sells, senior, the diagnosis was made of a small ovarian tumour, with acute peritonitis. She was bled from the arm with great relief of the symptoms, and soon recovered. From this time, the tumour rapidly increased in size; and, when she was admitted to the hospital five months later, the abdomen was found uniformly distended and globular, with slight enlargement of the superficial veins; the umbilicus was prominent. A small rounded tumour was left distinctly fluctuating and moving with the respiratory movements. On auscultation, a rubbing sound was heard over the tumour on deep inspiration. The region occupied by the tumour was dull, the flanks were resonant. Internal examination showed that the uterus was not enlarged. The tumour was aspirated, and four ounces of turbid and highly albuminous fluid were drawn off; much abdominal pain followed. A week later, forty ounces of fluid were drawn off, and the patient left the hospital, but

was soon readmitted, the cyst having filled again. Ovariectomy was then determined on. The patient being under chloroform, Mr. Sells made a median incision three inches and a half in length; the tumour was found free from adhesions, and about a pint of turbid fluid was drawn off. It was then found that a large portion of the tumour was solid; the incision was slightly enlarged, and the tumour withdrawn from the abdomen. The pedicle was transfixed with an aneurism-needle carrying a stout hempen ligature; it was tied in two halves, and returned to the abdomen after the tumour had been removed, the ligature being cut short. The pelvis was carefully sponged out. The abdominal incision was closed with deep sutures of carbolised catgut, the peritoneum being included in the sutures. The patient made a rapid convalescence, without any bad symptoms, and was discharged a month after the operation. The tumour weighed fifteen pounds, of which four consisted of solid matter.

Pneumonia Treated by Venesection.—A strong and healthy man, aged 19, was suddenly attacked with the usual symptoms of the onset of acute pneumonia. He was seen the first day of the disease, and then complained of great pain in the left side of his chest, with much difficulty in breathing, and was very restless. His tongue was dry and the urine scanty; respirations 50; pulse 108; temperature 104 deg. Fahr. The fourth day of illness, he was still unrelieved, the pain in the chest and general distress had prevented any rest for three nights, but he was able to take plenty of fluid nourishment. The physical signs of extensive hepatisation of the left lung were fully established, and it appeared probable that pleurisy extended to the diaphragmatic surfaces, as upward pressure through the abdominal walls much increased the pain. He had been treated with a mixture of diffusible stimulants, and had taken frequent small doses of champagne. Mr. Sells now bled him from the arm to eight ounces; this was followed by almost immediate relief of the symptoms; the pain and sense of oppression in the chest were removed, profuse perspiration followed; by night the temperature was 100.9 deg., a fall of three degrees from the morning; pulse 96; respirations 42. He slept that night for five hours, the first rest obtained during his illness. The next morning, *i.e.*, the fifth day of illness, the temperature was 101 deg., respirations 40, pulse 98. The patient was nearly free from pain, and was able to lie down. On the sixth day of illness, the temperature was 99 deg. Fahr., and the patient was convalescent as regarded his symptoms.

Valvular Disease of the Heart, with Dilatation of the Aorta. (Mr. BUTLER.)—An old-looking man, a farm-labourer, aged 54, complained of troublesome cough and great difficulty in breathing, coming on in attacks if he moved about, and especially if he went up hill. He complained of no pain, dysphagia, or other sign of intrathoracic pressure. He had been able to continue his work till a month before admission to the hospital. He had never had rheumatic fever, and the only illness he remembered was an attack of dropsy in the legs twelve years ago. Physical examination showed a locomotor pulse, well seen in each radial artery and at the bend of the elbow; the pulses were equal and regular. The heart's impulse was heaving and forcible; evidently the heart was much hypertrophied, and the apex-beat was displaced outwards and downwards. The area of cardiac dulness was no: enlarged, though the shock of the cardiac impulse was felt over a large area; this appeared to be due to the hypertrophied heart being overlapped by an emphysematous lung. The carotids were not seen to throb; but, in the suprasternal notch between the sterno-mastoids, a large blood-vessel was distinctly seen pulsating as it rose out of the thorax at each systole, and the finger placed over it appreciated a distinct and prolonged thrill. There were also signs of disease of the aortic valves and mitral regurgitation. On listening over the vertebra prominens, loud tracheal breathing was heard as if from the windpipe being pressed backwards by a tumour in front; the voice also at this spot was very tubular. The aorta appeared to be dilated without the formation of any sacculated aneurism.

Strangulated Hernia.—A case of strangulated hernia threatened to defy all means of reduction short of operation. It was then suggested that the gaseous contents of the sac might be condensed by the application of cold; ether-spray was accordingly played on to the tumour; the tissues were thus cooled down and the tumour contracted, but the skin was not frozen. The hernia then slipped up spontaneously.

Umbilical Tumour in a Young Girl.—A child, aged 11, sustained an injury to the abdomen by a fall. This produced considerable pain, and caused her to seek relief. A large firm tumour, giving an indistinct sense of fluctuation, was found in the umbilical region, extending over to the right side. It was evidently independent of the liver, and could be moved laterally. The age of the girl rendered a vaginal examination inexpedient. The tumour was aspirated at its most prominent part, and a few drachms of blood-stained serous fluid were drawn off. After this, there was no more pain, and the tumour appeared to

diminish in size, but left a mass five inches in diameter. Its nature was considered doubtful; the history of the case afforded some evidence that a blood-cyst might have resulted from the injury, and the differential diagnosis seemed to lie between that and an ovarian tumour. The girl's general health and nutrition were good, and she suffered no pain.

Amputation of the Leg, for a Chronic Painful Ulcer. A blacksmith aged 58 had been the subject of varicose ulcers of both legs for forty years, but had not been much troubled by them till the last ten years. His health had been good; but, during the last few years, the ulcer on the left leg had become very painful and intractable to all remedial measures, so that he was quite unable to continue his work, and requested amputation of the limb. The leg was accordingly amputated in the upper third through healthy tissues; but both veins and arteries were found much thickened, some of the superficial veins being scarcely pervious.

Osteo-arthritis and Rheumatic Fever. (Dr. MORTON.)—A man, aged 37, presented the characteristic features of chronic osteo-arthritis; the fingers and wrists of both hands were much swollen at all the joints with the adducted position of the digits; the temporo-maxillary joints were much affected, so that the man could hardly open his mouth beyond half an inch. The man was admitted on account of recent pericarditis, accompanied by much sweating and a copious deposit of lithates in the urine; there were also signs of old standing mitral and aortic valvular disease. His first attack of rheumatic fever was in boyhood, the second at the age of 21, and, after this attack, he began to suffer from cardiac symptoms. Rheumatic fever and chronic osteo-arthritis were combined in this case.

REGULATIONS TO BE OBSERVED BY CANDIDATES FOR ADMISSION INTO THE ARMY AND NAVAL MEDICAL SERVICES.

ARMY MEDICAL SERVICE.

1. EVERY candidate desirous of presenting himself to compete for a commission in the Army Medical Department must be twenty-one years of age and not over thirty-two years at the date of commencement of the competitive examination. He must produce an extract from the register of his birth, or, in default, a declaration made before a magistrate by one of his parents or guardians, giving his exact age. He must also produce a recommendation from some person of standing in society—not a member of his own family—to the effect that he is of regular and steady habits, and likely in every respect to prove creditable to the department if a commission be granted; and also a certificate of moral character, from the parochial clergyman if possible. 2. The candidate must sign a declaration upon honour that both his parents are of unmixed European blood, and that he labours under no mental or constitutional disease, nor has any hereditary tendency thereto, nor any imperfection or disability that can interfere with the efficient discharge of the duties of a medical officer in any climate; also that he does not hold, and has never held, any commission or appointment in the public services. His physical fitness will be determined by a Board of Medical Officers, who are required to certify that the candidate's vision is sufficiently good to enable him to perform any surgical operation without the aid of glasses. A moderate degree of myopia will not be considered a disqualification, provided it does not necessitate the use of glasses during the performance of operations, and that no organic disease of the eyes exists. The Board must also certify that he is free from organic or other disease, and from constitutional weakness, or tendency thereto, or other disability of any kind likely to unfit him for military service in any climate. 3. Certificates of age, registration of diplomas, etc., and of character, must accompany the declaration when signed and returned. 4. Candidates will be examined by the Examining Board in the following compulsory subjects, and the highest number of marks attainable will be distributed as follows:—*a.* Anatomy and Physiology, 1,000 marks; *b.* Surgery, 1,000; *c.* Medicine, including Therapeutics, the Diseases of Women and Children, 1,000; *d.* Chemistry and Pharmacy, and a practical knowledge of drugs, 100 marks. N.B.—The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside. The eligibility of each candidate for the Army Medical Service will be determined by the result of the examinations in these subjects only. Examinations will also be held in the following voluntary subjects, for which the maximum number of marks will be—French and German (150 each), 300 marks; Natural Sciences, 300 marks. The knowledge of modern languages being considered of great importance, all intending competitors are urged to qualify in French and German.

The natural sciences will include Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to *Materia Medica*. The number of marks gained in both the voluntary subjects will be added to the total number of marks obtained by those who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of modern languages and natural sciences. 5. After passing the examination, every candidate will be required to attend one entire course of practical instruction at the Army Medical School on—(1) Hygiene; (2) Clinical and Military Medicine; (3) Clinical and Medical Surgery; (4) Pathology of Diseases and Injuries incident to Military Service. At the conclusion of the course, he must undergo an examination on the subjects taught in the school. During residence at Netley, up to the time of passing his final examination, he receives 5s. a day. Every candidate must possess two diplomas, one to practise Medicine, and the other Surgery, in Great Britain or Ireland, and must be registered under the Medical Act in force at the time of his appointment.

NAVAL MEDICAL SERVICE.

1. Every candidate desirous of presenting himself for admission to the Naval Medical Service must be not under twenty-one nor over twenty-eight years of age. He must produce a certificate from the District Registrar, in which the date of birth is stated; or, if this cannot be obtained, an affidavit from one of the parents or other near relative, who can attest the date of birth, will be accepted. He must produce also a certificate of moral character, signed by a clergyman or a magistrate to whom he has been for some years personally known, or by the president or senior professor of the college at which he was educated. 2. He must be free from organic disease, and will be required to make a declaration that he labours under no mental or constitutional disease or weakness, nor any other imperfection or disability that can interfere with the most efficient discharge of the duties of a medical officer in any climate. His physical fitness will be determined by a Board of Medical Officers, who are to certify that his vision comes up to the required standard, which will be ascertained by the use of Snellen's test-types. He must also attest his readiness to engage for general service, and to proceed on foreign service when required to do so. 3. He must be registered under the Medical Act in force at the time of his appointment as licensed to practise Medicine and Surgery in Great Britain or Ireland. 4. Certificates of registration, character, and age must accompany the schedule when filled up and returned. 5. Candidates will be examined by the Examining Board in the following subjects:—Anatomy and Physiology; Surgery; Medicine, including Therapeutics and the Diseases of Women and Children; Chemistry and Pharmacy, and a practical knowledge of drugs. (The examination in Medicine and Surgery will be in part practical, and will include operations on the dead body, the application of surgical apparatus, and the examination of medical and surgical patients at the bedside.) The eligibility of each candidate for the Naval Medical Service will be determined by the result of the examination in these subjects only. Candidates who desire it will be examined in Comparative Anatomy, Zoology, Natural Philosophy, Physical Geography, and Botany, with special reference to *Materia Medica*, also in French and German; and the number of marks gained in these subjects will be added to the total number of marks obtained in the obligatory part of the examination by candidates who shall have been found qualified for admission, and whose position on the list of successful competitors will thus be improved in proportion to their knowledge of these branches of science. 6. After passing this examination, every candidate will be required to attend one entire course of practical instruction in the Medical School at Netley on—(1) Hygiene, (2) Clinical and Naval and Military Medicine, (3) Clinical and Naval and Military Surgery, (4) Pathology of Diseases and Injuries incident to Naval and Military Service. 7. At its conclusion, the candidate will be required to pass an examination on the subjects taught in the school. If he give satisfactory evidence of being qualified for the practical duties of a naval medical officer, he will be eligible for a commission as surgeon. 8. During the period of his residence at the Netley Medical School, each candidate will receive an allowance of 5s. *per diem* with quarters, or 7s. *per diem* without quarters, to cover all costs of maintenance; and he will be required to provide himself with uniform (*viz.*, the Regulation undress uniform of a Surgeon, but without the sword). 9. All candidates will be required while at Netley to conform to such rules of discipline as the Senate may from time to time exact. 10. After completing three years' full-pay service, Surgeons will be allowed to be examined for the rank of Staff-Surgeon, but no Surgeon can be promoted to the rank of Staff-Surgeon until he shall have served five years, two of which must have been in a ship actually employed at sea.

MEDICAL SCHOOLS AND HOSPITALS IN IRELAND.

SCHOOL OF PHYSIC IN IRELAND.—This school is formed by an amalgamation of the medical schools of Trinity College and of the King and Queen's College of Physicians; the King's Professors of Institutes of Medicine, Practice of Medicine, Materia Medica, and Midwifery, and the Professor of Medical Jurisprudence, being appointed by the latter. The staff is as follows: Regius Professor of Physic, Dr. W. Stokes, D.C.L., F.R.S.; Regius Professor of Surgery, Dr. W. Colles; University Professor of Anatomy and Surgery, Dr. B. G. M'Dowel; University Professor of Chemistry, Dr. J. E. Reynolds; University Professor of Botany, Dr. E. P. Wright; Professor of Surgery in Trinity College, Dr. E. H. Bennett; University Anatomist, Dr. T. Evelyn Little; Professor of Comparative Anatomy, Dr. A. Macalister; Erasmus Smith's Professor of Natural Philosophy, Rev. John Leslie, M.A.; University Lecturer in Operative Surgery, Dr. R. G. Butcher; King's Professor of Institutes of Medicine, Dr. J. M. Purser; King's Professor of Practice of Medicine, Dr. W. Moore; King's Professor of Materia Medica and Pharmacy, Dr. Aquilla Smith; King's Professor of Midwifery, Dr. E. B. Sinclair; Professor of Medical Jurisprudence, Dr. R. Travers. Demonstrators, Dr. W. G. Smith, Dr. J. M. Finny, Dr. E. W. Collins, Dr. J. Barton.

The Winter Session commences on October 1st by the opening of the Dissecting Room. Lectures will commence on November 1st. The Winter Courses consist of fifty-six Lectures each. Attendance on at least forty-two lectures in each Course is required. The Summer Session commences April 1st. The Courses (Botany, Institutes of Medicine, Comparative Anatomy, Materia Medica, and Medical Jurisprudence), consist of forty Lectures each, attendance on at least thirty of which is required. Two Medical Scholars are elected annually by the Board of Trinity College, at an examination held at the end of June. Each Scholarship is worth £20 *per annum*, and is tenable for two years. The Professors of the School of Physic give three exhibitions annually, amounting altogether in value to £40.

Classes for Private Instruction meet under the direction of Dr. Finny, Dr. Collins, and Dr. Barton. Instruction is given in Anatomy, Physiology, Surgery (including Ophthalmic and Operative Surgery), Medicine, Institutes of Medicine, Medical Jurisprudence, and Midwifery. Students are prepared for the Examinations of the University of Dublin, the Queen's University, the Royal Colleges of Surgeons in England and Ireland, and the King and Queen's College of Physicians in Ireland. Special attention is given to Candidates for the Prize Examinations in the School of Physic. Special instruction in Operative Surgery on the Dead Subject will be given by Dr. Collins before each Surgical Examination.—Fees: For whole period of study, £15 15s.; Session (October to July), £7 7s.; part of Session, £5 5s.; one month, £3 3s.

ROYAL COLLEGE OF SURGEONS IN IRELAND: SCHOOL OF SURGERY.—*Winter Session:* Anatomy and Physiology, Dr. Mapother; Descriptive Anatomy, Dr. Bevan and Mr. Thorneley Stoker; Surgery, Mr. J. Stannus Hughes and Mr. Stokes; Practice of Medicine, Dr. James Little; Chemistry, Dr. Cameron; Midwifery, Dr. Roe. A public course of lectures on Comparative Anatomy will be delivered by the Professor of Anatomy and Physiology. Practical instruction in Operative Surgery will be given by the Professors of Surgery. The Professor of Chemistry receives operating pupils. The dissections are under the direction of the Professors of Anatomy assisted by the Demonstrators—Dr. Stoney, Dr. Ormsby, Dr. Wheeler, Dr. W. Stoker, Dr. Peele, Dr. Franks, Dr. Roe, and Mr. Knott—who will daily attend. *Summer Session:* Materia Medica, Mr. Macnamara; Medical Jurisprudence, Dr. Davy; Botany, Dr. Minchin; Practical Chemistry, Dr. Cameron; Midwifery, Dr. Roe; Hygiene, Dr. Cameron; Ophthalmic and Aural Surgery, Mr. Swanzy. The fee for each Course of Lectures is £3 3s., excepting Descriptive Anatomy, which is £8 8s., Practical Chemistry, which is £5 5s., and Ophthalmic and Aural Surgery and Hygiene, which are free. A composition fee for all lectures and dissections required for the Diploma in Surgery, £56 17s. 6d. A Junior Exhibition of £15, a Senior Exhibition of £25, and honorary certificates, will be awarded at the end of each winter session.

ADELAIDE HOSPITAL.—Consulting Physician, Dr. James F. Duncan. Consulting Obstetric Physician, Dr. Lombe Atthill. Physicians, Dr. Henry H. Head and Dr. James Little. Surgeons, Dr. A. J. Walsh, Dr. John K. Barton, and Mr. B. Wills Richardson. Obstetric Surgeon, Dr. R. D. Purefoy. Ophthalmic Surgeon, Dr. R. Rainsford. Assistant-Physician, Dr. Walter G. Smith. Assistant-Surgeon, Dr. Montgomery A. Ward. The hospital contains 100 beds.

CARMICHAEL SCHOOL OF MEDICINE.—The following are the courses of lectures.—Winter Session, commencing Monday, October 1st. Surgery, Mr. Anthony H. Corley, Tu., Th., and S., 11; Practice of Medicine, Dr. Samuel Gordon and Dr. J. W. Moore, M., W., and F., 11; Anatomy, Dr. Gunn and Dr. Wright, daily, except Sat., 1; Physiology, Dr. Keuben J. Harvey, daily, except Sat., 12; Midwifery, Dr. W. B. Jennings, M., W., and F., 2; Chemistry, Dr. C. R. C. Tichborne, Tu., Th., and S., 2; Ophthalmic Surgery, Dr. Fitzgerald, M., F., 1. Summer Session, 1878.—Institutes of Medicine, Dr. S. Woodhouse, Tu., Th., and S., 11; Materia Medica, Dr. Duffey, Tu., Th., and S., 12; Botany, Mr. E. B. Blakeley, M., W., and F., 12; Practical Chemistry, Dr. Tichborne, Tu., Th., and S., 1; Forensic Medicine, Mr. Auchinleck, M., W., and F., 1; Practical Physiology, Dr. Harvey, M., W., and F., 11; Institutes of Medicine, Dr. Woodhouse, Tu., Th., and S., 11. The Carmichael School of Medicine is in the immediate vicinity of the Richmond, Whitworth, and Hardwicke Hospitals. During the session, the lecturer on Surgery will give special courses of demonstrations and illustrations in Operative Surgery. The Museum of the School comprises a valuable collection of Anatomical and Pathological preparations. There is also an extensive Museum of Materia Medica.—Fees, for each course of lectures, £3 3s.; for each course of Practical Instruction, £5 5s. A second practical course can be attended for £2 2s., if no certificate be required. Perpetual Pupils, paying £56 3s. 6d. in two instalments, can attend all the lectures required by the Royal College of Surgeons of Ireland. Carmichael class prizes are awarded as follows: senior class, three prizes, £10, £5, and £3; second class, £7, £4, and £2; junior class, £4 and £2; also special (Carmichael) prizes of £3 each in other subjects than Anatomy, Physiology, and Surgery. The Mayne scholarship; value £15, is awarded for proficiency in Practical Medicine, Surgery, Anatomy, and Physiology. For further information, apply to Dr. Harvey at the School, or at No. 7, Upper Merion Street.

CATHOLIC UNIVERSITY SCHOOL OF MEDICINE.—Anatomy and Physiology, Dr. T. Hayden and Dr. R. Cryan; Chemistry, Dr. John Campbell; Surgery, Mr. Tyrell; Medicine, Dr. R. D. Lyons; Midwifery, Dr. J. A. Byrne; Demonstrations in Dissecting Room, Mr. P. J. Hayes, Dr. C. J. Nixon, Mr. C. Coppinger, Dr. M. Kilgariff; and Mr. Carroll. *Summer Session:* Practical Chemistry, Dr. Campbell; Materia Medica, Dr. Quinlan; Medical Jurisprudence, Dr. MacSwiney; Pathology, Dr. Lyons; Botany, Dr. Sigerson; Natural Philosophy, Rev. Dr. Molloy. *Prizes:* At the end of the Winter Session, the University Gold Medal, value £7, after examination; at the end of the Summer Session, the University Exhibition, value £20. Prizes in each class at end of each session. *Fees:* Each course, £3 3s.; except Dissections and Practical Chemistry, £5 5s. A reduction of one-sixth is made to Perpetual Pupils paying the entire fees in advance, or in two instalments at the commencement of the first and of the second years. The School is within a few minutes' walk of the principal hospitals. It includes a well supplied Reading Room, also a Laboratory, in which students can pursue the study of Practical Chemistry, Materia Medica, and Toxicology. Further particulars may be learned from the Medical Registrar, Dr. Hayes, 29, Westland Row; or on application at the School.

JERVIS STREET HOSPITAL.—Physicians: Dr. S. M. MacSwiney, Dr. W. Martin. Surgeons: Mr. M. H. Stapleton, Dr. J. Stannus Hughes, Dr. J. K. Forrest, Dr. Austin Meldon, Mr. J. E. Kelly, Mr. M. J. Kilgariff, Dr. E. W. Collins. Clinical instruction will commence on October 1st. This hospital is in the immediate vicinity of the Catholic University and Carmichael Medical Schools. Instruction is given by the physicians and surgeons on duty, on alternate days, from 9 to 11 o'clock. Two clinical lectures are delivered in each week. Operations are performed on Saturday mornings at 10. Practical Pharmacy is taught under the superintendence of the apothecary to the hospital. Resident pupils and dressers are selected from among the most attentive of the advanced students, without payment of any additional fee. Two interns are appointed each half year, and are provided with apartments, fuel, etc., free of expense. Special certificates are given to the resident pupils and dressers who have performed their respective duties to the satisfaction of the physicians and surgeons.

LEDWICH SCHOOL OF SURGERY AND MEDICINE.—The lectures will be delivered by the following teachers. Anatomy, Surgical and Descriptive: Mr. Edward Ledwich, Mr. T. P. Mason, Mr. A. R. Clunville, Mr. C. Robinson, and Mr. Porter. Anatomy, Physiological and Pathological: Mr. T. P. Mason, Mr. Edward Ledwich, and Mr. J. E. Kelly. Surgery: Mr. I. H. Wharton and Dr. J. K. Patton. Med-

cine: Dr. Arthur W. Foot. Midwifery: Dr. S. R. Mason. Chemistry and Natural Philosophy: Mr. W. H. Griffiths. Practical Chemistry: Mr. Griffiths. Materia Medica: Dr. B. F. MacDowell. Botany: Dr. W. R. McNab. Forensic Medicine and Hygiene: Dr. R. Travers. Fee for each course, £3 3s. A course of operations to be performed by the student, under the superintendence of the Lecturer (subjects, etc., included), £5 5s. The Dissecting Rooms open on October 1st. There are endowments in favour of students, subject to the conditions prescribed by the founder, in the following departments: Anatomy and Physiology, Minute Anatomy, Practical Anatomy, and Surgery. The usual prizes in the other departments will be awarded at the termination of each session.

Further particulars may be obtained from Mr. Edward Ledwich, 7, Harcourt Street, Dublin, or from any of the lecturers.

MEATH HOSPITAL AND COUNTY DUBLIN INFIRMARY.—Physicians: Dr. A. W. Foot, Dr. J. W. Moore. Surgeons: Dr. G. H. Porter, Mr. J. H. Wharton, Mr. P. C. Smyly, Mr. R. Macnamara, Mr. R. P. White, Mr. L. H. Ormsby. The winter session will commence on October 1st, and the clinical lectures on the first Monday in November. Four clinical lectures are given weekly, on alternate days. The physicians and surgeons visit the hospital at 9 A.M. Fees: nine months, £12 12s.; winter six months, £8 8s.; summer three months, £5 5s. The hospital contains 120 beds; it has a dispensary, lending library, and physiological laboratory attached, and is within a few minutes' walk of the University, the College of Surgeons, and the Ledwich School of Medicine. It contains a ward for diseases of children. Prizes are given at the end of the winter course. The office of resident pupil is open to pupils as well as to apprentices. Further information may be obtained of Mr. L. H. Ormsby, 12, Lower Fitzwilliam Street, or at the Hospital.

MERCER'S HOSPITAL, DUBLIN.—Physicians: Dr. T. P. Mason, Dr. G. F. Duffey. Surgeons: Mr. E. Ledwich, Mr. E. S. O'Grady, and Dr. Benjamin F. McDowell. The hospital is visited daily at 9 A.M. Clinical Lectures on Medicine and Surgery are given weekly, and bedside instruction is given daily. Resident pupils are appointed each half-year, and dressers and clinical clerks are selected each quarter from the pupils. The hospital is in the close vicinity of two of the principal Medical Schools. Fees: winter six months, £8 8s.; summer three months, £5 5s.; nine months, £12 12s. Further information can be obtained from any of the physicians or surgeons of the hospital, or from the Registrar, Mr. James Shaw.

QUEEN'S COLLEGE, BELFAST.—Anatomy and Physiology, Dr. Peter Redfern. Theory and Practice of Medicine, Dr. J. Cuming. Practice of Surgery, Dr. A. Gordon. Materia Medica, Dr. J. S. Reid. Midwifery, Dr. R. F. Dill. Medical Jurisprudence, Dr. J. F. Hodges. Chemistry, Dr. T. Andrews. Zoology and Botany, Dr. Cunningham. Fees for course for Medical Jurisprudence, Chemistry, Materia Medica, Medicine, Surgery, Midwifery, and Botany, each £2; reattendance on same course, half fee; Practical Chemistry and Practical Anatomy, each course, £3; Anatomy and Physiology, first course, £3; each subsequent course, £2. Eight scholarships of the value of £24 each are awarded to students of the Faculty of Medicine, two being awarded for each of the first, second, third, and fourth years.—Belfast and General Hospital: Clinical instruction, perpetual fee, £10 10s. in one sum, or two instalments of £5 5s. each at beginning of first and second years; Hospital fee for each session, 10s. 6d.—Belfast Lying-in Hospital, session, £3 3s.

QUEEN'S COLLEGE, CORK.—Anatomy and Physiology, Dr. J. J. Charles. Practice of Medicine, Dr. D. C. O'Connor. Surgery, Dr. W. K. Tanner. Materia Medica, Dr. M. O'Keefe. Midwifery, Dr. J. R. Harvey. Medical Jurisprudence, Mr. M. O'Shaughnessy and Dr. O'Keefe. Chemistry, Dr. M. Simpson. Zoology and Botany, Mr. R. Harkness. The fees are the same as at Belfast. Eight scholarships are awarded in the Faculty of Medicine. Clinical instruction is given at the North and South Infirmaries and at the Lying-in Hospital.

QUEEN'S COLLEGE, GALWAY.—Anatomy and Physiology, and Practical Anatomy, Dr. Cleland. Practice of Medicine, Dr. N. Colahan. Practice of Surgery, Dr. J. V. Browne. Materia Medica, Dr. J. P. Pye. Medical Jurisprudence, Dr. J. P. Pye. Midwifery and Diseases of Women and Children, Dr. R. J. Kinkead. Chemistry, Dr. T. H. Rowney. Natural Philosophy, Dr. A. H. Curtis. Botany and Zoology, Dr. A. G. Melville. The County Galway Infirmary, Town,

and Fever Hospitals, are in the immediate vicinity of the Queen's College.

Eight scholarships of the value of £25 each, and exhibitions varying in value from £12 to £16, are appropriated to students pursuing the course for the degree of M.D.

Fees.—Anatomy and Physiology, £3 first session; afterwards, £2. Practical Anatomy or Practical Chemistry, £3 each session; Operative Surgery, £3; other classes, £1 for each course extending over one term only; £2 for each course extending over more than one term; and £1 for each reattendance on the same.

RICHMOND, WHITWORTH, AND HARDWICKE HOSPITALS.—These Hospitals contain 312 beds; the Richmond, 110 for surgical cases; the Whitworth, 82 for non-infectious medical cases; and the Hardwicke, 120 for fever and other epidemic diseases. A Dispensary for out-door patients is attached to the Medical and Surgical Hospitals. There is an extensive Pathological Museum, containing above 4,000 drawings, casts, and preparations, and a Medical and Surgical Lending Library. Two Clinical Lectures are delivered in each week, in addition to Bedside Instruction given daily by the Physicians and Surgeons. There will be a distinct course of Lectures and Clinical Instruction in Fevers. A course of Practical Instruction in Ophthalmic Surgery will be given. The Hospitals are visited at 9 A.M. by the Physicians and Surgeons. Operations are performed on Wednesday mornings. Eight resident Clinical Clerks are appointed each half-year, and provided with furnished apartments, etc. The Dressers are selected from among the best qualified of the pupils, without additional fee. At the termination of the Session, prizes will be awarded in Clinical Medicine and Surgery. The Richmond Institution for the Insane, containing over 1,000 patients, adjoins these Hospitals. The Carmichael School of Medicine is also in the immediate vicinity of these Hospitals. Consulting-Physician, Sir D. J. Corrigan, Bart., M.D. Physicians, Dr. J. T. Banks, Dr. B. G. M'Dowel, Dr. S. Gordon, Dr. R. D. Lyons. Assistant-Physician, Dr. R. J. Harvey. Consulting Obstetric Surgeon, Dr. G. H. Kidd. Surgeons, Mr. W. Stokes, Mr. W. Thomson, Dr. W. T. Stoker, Dr. A. H. Corley. Ophthalmic Surgeon, Mr. C. E. Fitzgerald. Dental Surgeon, Mr. W. B. Pearsall. *Fees.*—Winter and summer session (nine months), £12 12s.; six winter months, £8 8s.; three summer months, £5 5s. Resident Clinical Clerks, winter session, £21; summer session, £15 15s., including certificate of attendance.

Applications for further information should be made to Dr. Gordon, 13, Hume Street; or Mr. W. Stokes, 5, Merrion Square North, Dublin.

ST. VINCENT'S HOSPITAL AND DISPENSARY.—This hospital is visited daily at 9 A.M. It is connected (by its medical officers) with three leading medical schools in its immediate vicinity. Medical and Surgical Clinical Lectures will be given three times weekly; operations on Fridays, at 10.30 A.M. At the beginning of each winter and summer session, two resident pupils will be selected by competitive examination. At the end of the winter session, an examination will be held in Clinical Medicine and Surgery, at which a senior and junior prize will be awarded. A portion of all these examinations will be conducted at the bedside. Physicians, Dr. F. J. B. Quinlan, Dr. R. Cryan. Surgeons, Dr. E. D. Mapother, Dr. W. H. O'Leary, M.P. Gynaecologist, Dr. J. A. Byrne. Surgeon-Dentist, Mr. W. J. Doherty. Terms of attendance: Winter and summer sessions, £12 12s.; winter session, £8 8s.; summer session, £5 5s.

SIR PATRICK DUN'S HOSPITAL.—Consulting-Physician, Dr. W. Stokes, D.C.L., F.R.S. Consulting-Surgeon, Dr. W. Colles. Clinical Physicians, Dr. J. M. Purser, Dr. W. Moore, Dr. Aquilla Smith. Midwifery Physician, Dr. E. B. Sinclair. Clinical Surgeons, Dr. B. G. M'Dowel, Dr. E. H. Bennett, Dr. T. E. Little. University Lecturer in Operative Surgery, Dr. R. G. Butcher.

The Physician on duty visits the wards at 9 A.M. on Mondays, Wednesdays, and Fridays; and the Surgeon on duty at the same hour on Tuesdays, Thursdays, and Saturdays.

The payment of £3 3s. to the hospital entitles the student to attend the clinic of the hospital for twelve months, and the lectures delivered by Dr. Butcher. Students who have taken out the degrees of Bachelor in Medicine or Master in Surgery, in Trinity College, are entitled to attend the hospital as perpetual free pupils. Clinical lectures are delivered at 10 o'clock, on Mondays, by the clinical physician on duty; and on Tuesdays by the clinical surgeon on duty. In addition to the hospital fee, the payment of a fee of £6 6s. is required for these lectures. Total fee for hospital and lectures for twelve months, £9 9s. Students of Trinity College desirous of entering for six months' instruction in Practical Midwifery pay a fee of £3 3s. Other students pay, in ad-

dition, £3 3s. to the King's Professor, for six months' practical instruction. The Governors of the hospital award Silver Clinical Medals in Medicine and in Surgery to the students who shall pass the best examinations on the medical and surgical cases treated in the hospital during the year. Ophthalmic Lectures are delivered at St. Mark's Hospital: Fee for three months, £3.

DR. STEEVENS' HOSPITAL AND MEDICAL COLLEGE.—The hospital contains 250 beds, and is provided with special wards for the treatment of fever, syphilis, and diseases of females. Visiting Physician, Dr. W. M. Burke; Visiting Surgeons, Mr. S. G. Wilmot and Mr. C. Fleming; Physicians, Dr. H. Freke and Dr. T. W. Grimshaw; Physician-Accoucheur, Dr. J. Isdell; Surgeons, Mr. W. Colles, Dr. E. Hamilton, Dr. R. M'Donnell; Surgeon-Oculist, Mr. Swanzy; Surgeon-Dentist, Mr. Baker. The hospital is visited at 8.30 P.M. and clinical instruction is given as follows: The physicians and surgeons, Saturdays at 10; and Dr. Freke, Monday; Mr. M'Donnell, Tuesday; Mr. Hamilton, Wednesday; Mr. Colles, Thursday; Dr. Grimshaw, Friday; Dr. Isdell, Saturday—each at 9 A.M. Operations are performed on Saturdays at 10. Pathological Demonstrations are given by the Lecturers as opportunity offers. The following lectures are given in the Medical School. Anatomy, Physiology, and Morbid Anatomy, Mr. Hamilton; Practice of Medicine, Dr. Freke; Surgery, Mr. Colles; Midwifery and Diseases of Women and Children, Dr. Isdell; Chemistry, Mr. McHugh; Descriptive Anatomy, Dr. Bookey, Dr. Warren, Mr. Fox, Mr. Johnston, Dr. McVittie; Materia Medica, Dr. T. W. Grimshaw; Medical Jurisprudence, Dr. Tweedy; Dissections superintended by the Lecturers on Anatomy and the Demonstrators. Practical Anatomy and Clinical Instruction commence on October 1st. The Sessional Lectures commence on the first Monday in November. The summer session will include Clinical Medicine and Surgery, Ophthalmic Surgery, Materia Medica, Midwifery and Practical Midwifery, Botany, Chemistry, Medical Jurisprudence, Pathology, and Practice in Surgical Operations. The Reading-Room and Museum are open daily. There is also a Lending Library. Fees: Hospital Practice, nine months, £12 12s.; six months, £8 8s. Practical Anatomy, £5 5s. Lectures, each course, £3 3s.

Further particulars may be learned from any of the Lecturers; from the Resident Surgeon, at the hospital; or from Dr. E. Hamilton, 120, Stephen's Green West.

PUBLIC HEALTH OR STATE MEDICINE.

SUBJOINED are the regulations of the Examining Bodies which grant degrees or certificates on Public Health or State Medicine.

UNIVERSITY OF CAMBRIDGE.—An examination in so much of State Medicine as is comprised in the functions of Officers of Health will be held in Cambridge in October.

Any person whose name is on the *Medical Register* of the United Kingdom may present himself for this examination, provided he is twenty-four years of age. The examination will be in two parts.

Part I will comprise: Physics and Chemistry. The Principles of Chemistry, and methods of Analysis with especial reference to analyses of Air and Water. Applications of the Microscope. The Laws of Heat, and the Principles of Pneumatics, Hydrostatics, and Hydraulics, with especial reference to Ventilation, Water-Supply, Drainage, Construction of Dwellings, and Sanitary Engineering in general.

Part II will comprise: Laws of the Realm relating to Public Health, Sanitary statistics; Origin, Propagation, Pathology, and Prevention of Epidemic and Infectious Diseases; Effects of Overcrowding, Vitiated Air, Impure Water, and Bad or Insufficient Food; Unhealthy Occupations, and the Diseases to which they give rise; Water-Supply, and Drainage in reference to Health; Nuisances injurious to Health; Distribution of Diseases within the United Kingdom, and effects of Soil, Season, and Climate.

Candidates may present themselves for either part separately, or for both together, at their option. Every candidate must pay a fee of £4 4s. before admission to each part of the examination. Every candidate who has passed both parts of the examination to the satisfaction of the examiners will receive a certificate, testifying to his competent knowledge of what is required for the duties of an Officer of Health. All applications for admission to this examination, or for information respecting it, should be addressed to Professor Living, Cambridge.

UNIVERSITY OF EDINBURGH.—This University gives the Degrees of Bachelor and Doctor of Science in several departments, among which is that of Public Health.

BACHELOR OF SCIENCE IN THE DEPARTMENT OF PUBLIC HEALTH.—1. Candidates for Graduation must be Graduates in Medicine of a British University, or of such Foreign or Colonial Universities as may be specially recognised by the University Court. 2. Candidates who have not passed an *annus medicus* in the University of Edinburgh must, before presenting themselves for examination, have attended as matriculated students in the University at least two courses of instruction, scientific or professional, bearing on the subjects of the Examinations. 3. There are two examinations for the Degree of Bachelor of Science in the Department of Public Health. Candidates who have passed in the first examination may proceed to the second immediately, or at any subsequent Medical or Science Examination. 4. Candidates must produce evidence that, either during their medical studies or subsequently, they have attended a course of lectures in which instruction was given on Public Health, and that they have studied Analytical Chemistry practically for three months with a recognised teacher. 5. The examinations are written, oral, and practical, and are conducted by University Examiners selected by the University Court. 6. The subjects of the examinations for the Degree of Bachelor of Science in the Department of Public Health are as follows:

First Examination. 1. *Chemistry.*—The Analysis of Air, Detection of Gaseous Emanations and other Impurities in the Atmosphere; Analysis of Waters for Domestic Use, and Determination of the Nature and Amount of their Mineral and Organic Constituents; Detection, Chemical and Microscopical, of Adulteration in Articles of Food and Drink, and in Drugs; Practical Examination, including at least two analytical researches. 2. *Physics.*—Hydraulics and Hydrostatics, in reference to Water-Supply, Drainage, and Sewerage; Pneumatics, in reference to Warming and Ventilation; Meteorology, and methods of making Meteorological Observations; Mensuration, in reference to the Plans and Sections of Public and Private Buildings, Mines, Water-works, and Sewers. 3. *Sanitary Law.*—Knowledge of the leading Sanitary Acts of Parliament. 4. *Vital Statistics.*—Knowledge of statistical methods and data in reference to Population, Births, Marriages, and Deaths.

Second Examination. 1. *Medicine.*—Origin, Nature, and Propagation of Epidemic and Contagious Diseases; Prevention of Contagion and Infection; Endemic Diseases, and the Geographical distribution of Disease; Insalubrious Trades; Overcrowding; Epizootics, including Pathological Changes. 2. *Practical Sanitation.*—Duties of a Health Officer in reference to—Water-Supply; Insalubrious Dwellings and Public Buildings; Removal and Disposal of Sewage and other Refuse and Impurities; Cemeteries; Nuisances from Manufactories, etc.; Bad or Insufficient Supplies of Food; Outbreaks of Zymotic Diseases; Quarantine; Disinfectants and Deodorisers; Construction of permanent and temporary Hospitals.

The written examinations will take place on October 19th and 20th, 1877, and April 1st and 2nd, 1878, at eleven o'clock each day.

Candidates who intend to present themselves for examination in October are required to lodge with the Clerk of the University proof of their being eligible, and to pay the fee on or before October 1st, and for the examination in April on or before March 1st.

DOCTOR OF SCIENCE.—Bachelors of Science in the Department of Public Health may, after the lapse of one year, proceed to the Degree of Doctor in the same Department, on producing evidence that they have been engaged in Practical Sanitation since they received the Degree of Bachelor of Science, and on presenting a Thesis on some subject embraced in the Department of Public Health. Every such Thesis must be certified by the candidate to have been composed by himself, and must be approved of by the Examiners.

Candidates for the Degree of D.Sc. must lodge their Theses with the Dean of the Medical Faculty on or before January 31st in the year in which they propose to graduate. No Thesis will be approved which does not contain either the results of original observations on some subject embraced in the examination for B.Sc., or else a full digest and critical exposition of the opinions and researches of others on the subject selected by the candidate, accompanied by precise references to the publications quoted.

The fees for the Degrees in Science in the Department of Public Health are: for the first B.Sc., in Public Health Examination, £5 5s.; for the second B.Sc. in Public Health Examination, £5 5s.; for the Degree of B.Sc. in Public Health, £5 5s.; in all, £15 15s.

The following are recommended as books to be studied in preparation for the above Examinations: Parkes, E., *Practical Hygiene*; Wilson, George, *Hand-Book of Hygiene*; Smith, Edw., *Manual for Public Officers of Health*, and *Hand-Book for Inspectors of Nuisances*; Michael, Corfield, and Wanklyn, *Manual of Public Health*, edited by E. Hart; Latham, Baldwin, *Sanitary Engineering*; Law, Henry, *Rudiments of*

Civil Engineering; Monro, Geo., *The Public Health (Scotland) Act*; Buchan, Alex., *Introductory Text-Book of Meteorology*.

UNIVERSITY OF DUBLIN.—Doctors of Medicine of Dublin, Oxford, or Cambridge, who wish to obtain from this University a Certificate of Qualification in State Medicine, can do so on passing an Examination in a limited course of the following subjects: 1. Law; 2. Engineering; 3. Pathology; 4. Vital and Sanitary Statistics; 5. Chemistry; 6. Meteorology; 7. Medical Jurisprudence.

The following text-books are recommended:—Parker's *Practical Hygiene*; J. O. Byrne's *Compendium of Irish Sanitary Law*; E. Powell's *Principles and Practice of the Law of Evidence*; Taylor's *Manual of Medical Jurisprudence*; Buchan's *Handybook of Meteorology*; Roscoe's *Lessons in Elementary Chemistry*.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.—Candidates must be on the *Medical Register* and possess a qualification in Medicine. They are not, in the meantime, required to attend any special courses of instruction; but their attention is directed particularly to courses of lectures on State Medicine, and to the practice of Analytical Chemistry. Candidates are subjected to two examinations, which may be taken simultaneously, or with an interval not exceeding twelve months. The examinations are written, oral, and practical.

Examinations.—The First Examination embraces—1. Physics: especially Pneumatics, Hydrostatics, Hydraulics, and Engineering in relation to Sanitary Operations, including a knowledge of Architectural and other Plans, Sections, etc. 2. Chemistry: especially Analysis of Air, Water, Food, including the Biology of Putrefaction and allied processes. 3. Meteorology: including Climate, Topographical and Seasonal Influences in relation to Health and Disease.

The Second Examination embraces—1. Epidemiology and Endemology, including the corresponding departments in the Diseases of Animals and Plants; Contagious Diseases; Diseases of Periods of Life, Professions, Trades, Seasons, and Climates. 2. Practical Hygiene: Duties of a Health Officer; Food; Water-supply; Sewerage and Drainage; Construction of Hospitals, Public Buildings, Dwellings; Manufactories; Cemeteries; Nuisances. 3. Sanitary Law and Vital Statistics.

Meetings for both examinations will be held annually in April and October. The first examination will be held on the second Tuesday of the month, and will occupy two days; the second examination on the immediately succeeding Thursday of the same week, and will occupy two days. Candidates may enter for both examinations in the same week, or for one only. The examinations must be passed in their order. Candidates must appear for the second examination not later than twelve months after having passed the first. A candidate re-mitted at his second examination will be allowed to come up again after a further period of six months; but if he then fail to pass, he will be required again to undergo the first as well as the second examination before obtaining the certificate.

The fees for examinations must be paid at least a week before the day of examination. The fee for the first examination is £3 3s.; the fee for the second examination is £3 3s.; the fee payable before receiving the certificate is £4 4s. Candidates forfeit the fee for the examination which they have been unsuccessful in passing. If a candidate who has offered himself for both examinations fail to pass the first, he shall not be allowed to present himself for the second, and his fee for the second shall be returned to him.

SELECTIONS FROM JOURNALS.

SURGERY.

THE FUNCTION OF LYMPH IN CICATRISATION.—Dr. Kœberlé (*Gazette Médicale de Strasbourg*, 1877, No. 7) discusses this subject. So long as the flow of blood lasts, that of lymph passes unperceived. It is, however, recognised that, when the lymphatic vessels are wounded, the lymph continues to flow in spite of the compression used to arrest the hæmorrhage. This escape is only stopped after the complete occlusion of the lymphatic vessels. At the end of a certain time, this liquid, at first fluid, becomes plastic; it includes fibrine, which coagulates, as is often seen on the surface left by a blister. The lymph, easily becoming puriform, gives rise then to sanies, which, infiltrating into the tissues, may occasion erysipelas, secondary hæmorrhages, and other consecutive accidents of wounds. This stagnation of the sanies reveals itself by redness and pain on the point of the cicatricial line. An opening must then be made for its escape. Observation demonstrates that on the median line of the body, where there are few lymphatics, good

immediate union is frequently obtained. On the other hand, longitudinal incisions, which affect the lymphatics less, heal better than transverse ones. From these facts may be drawn indications useful for operating; it is to make the incision parallel to the direction of the lymphatics, and to avoid these as much as possible in transverse sections. For the same reasons, it is desirable to seek to spare the areolar fatty tissue which lines the skin when it is dissected, either in removing tumours or in cutting flaps in amputating. If this protective lining be not respected, the lymphatics are slashed and give rise to a flow of the lymph, which is incompatible with immediate union.

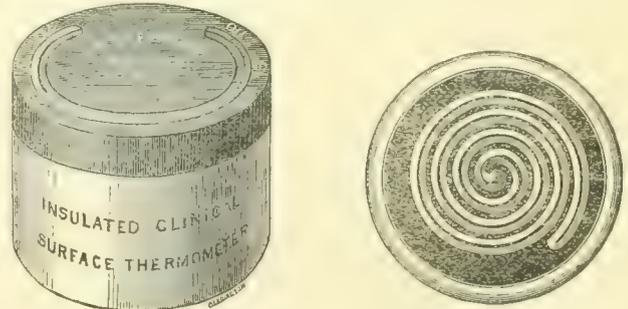
MEDICINE.

TREATMENT OF PNEUMONIA BY ERGOT.—Dr. J. B. Searce (*Journal of Materia Medica*) directs attention to an abortive treatment in the congestive stage of pneumonia, which consists in bringing the system rapidly under the influence of ergot of rye. He gives the fluid extract in half-drachm doses, repeating every two hours until the symptoms are relieved, or ergotism is produced, indicated by dilated pupils, vertigo, a sense of fulness in the heart, drowsiness, etc. He refers to severe cases treated in this manner during the past winter, and in every instance the disease was aborted, and the patients were convalescent in from two to three days from the administration of the first dose. He says: "In order to test it thoroughly, I used no other remedy, either local or constitutional, and carefully watched the results. In from twenty-four to thirty-six hours, the pain was relieved; the temperature, rapid pulse, and hurried respiration brought down to their normal state; expectoration lessened in quantity and deprived of its blood-stained character; and, instead of waiting from seven to nine days for this to run its course, as it does under the usual treatment, our patients were entirely relieved in less than half that time."

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

INSULATED CLINICAL SURFACE-THERMOMETER.

THIS little instrument, which is represented in the accompanying diagrams, has been designed by Dr. Mortimer Granville for the purpose of taking the temperature of limited surfaces of the body. It is made by Mr. J. H. Steward, of 406, Strand. The framework is a cup



1.—Side view.

2.—Under surface.

of German silver, fitted into a socket of ivory. Occupying a large part of the lower opening of the cup, is a flatly coiled tube, containing mercury, representing the bulb of the thermometer. The tube passes up from the centre of the coil to the upper end of the case, where it is curved horizontally, and graduated from 70 to 115 degrees Fahr., the degrees being divided into fifths. In using the instrument, the lower part is applied evenly, but without unnecessary pressure, to the surface; the flat coil then rests on the skin, and the temperature is soon indicated at the scale. The instrument, which is of the size represented in the engraving, fits into a leather case, which also contains a lens to assist in the reading of the scale. It appears likely to be very useful in physiological and clinical observation.

Mrs. Prince's Louise (Maiden of Lorne) opened a bazaar at Carlisle, in aid of the Cumberland Infirmary, on the 20th instant.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, SEPTEMBER 29TH, 1877.

THE PENGE CASE: MEDICAL EVIDENCE OF EXPERTS.

THE trial of this remarkable case has extended so far into the week as to render it impossible to give at present a fair summary of it in its medical aspects. There is, however, one point brought out by the evidence for the defence, which concerns the duties of medical witnesses, and clearly defines the extent to which medical opinion may be placed before a jury.

It is well-known that, in any criminal case which has excited much public notice, and where the means of the accused are adequate, a clever solicitor for the defence will use every effort to procure medical testimony which shall conflict with the medical evidence given on the part of the prosecution. By a proper selection of his medical witnesses, he hopes to confute this evidence, or, at any rate, to raise a doubt in the minds of the jury as to the correctness of the medical opinions, and thus procure an acquittal. A copy of the depositions, with a fee, or the promise of a fee, is sent to some well-known expert, with a request that he will read them and furnish a written opinion, to be, of course, if favourable, supported by oral evidence at the trial. In almost every instance, this plan, when carried far enough, is successful. Although a majority of the experts thus applied to may have returned the papers with an adverse answer, this fact will be studiously concealed from the court, and only those gentlemen produced as witnesses who feel that they can conscientiously discover a mistake in the medical evidence for the prosecution.

In the case of barristers and solicitors it has been said that—

“It is the fee directs the sense
To find out either side's pretence”.

But this cannot, as a rule, be said of the members of the medical profession. There are many intricate cases, and the Penge case may fairly serve as an illustration, in which there may be reasonable grounds for a difference of opinion among medical men. It is not a conflict of testimony, but rather a difference in the conclusions drawn from the different points of view in which the facts have been presented to them. The solicitor for the defence, of course, gives prominence only to those points on which he requires the medical opinion in favour of his clients to be based, and thus, unless there were some check on this practice, nearly every case of importance would be presented to the jury in a confused form.

In the course of the Penge trial, Mr. Justice Hawkins has clearly laid down the law in reference to the reception of medical evidence under these circumstances. Among the expert witnesses for the defence, Dr. Greenfield, Assistant-Physician to St. Thomas's Hospital, was called, and said he had had the depositions in this case submitted to him, with the results of the *post mortem* examination, about four weeks ago, and he had given a written opinion on them; but he admitted he had not heard the evidence in court.

The learned judge observed upon this: “It is most important to know the exact materials this gentleman had before him. One word may make a difference. To my mind, this is the most unsatisfactory

sort of evidence. The jury have to inquire into the facts brought before them in open court; and this gentleman comes for the purpose of showing that the gentlemen called on the part of the prosecution were wrong in the conclusions which they have formed. It is most unsatisfactory to have their opinions contradicted not by one who heard them, but by this gentleman, from an opinion on something not before the jury.”

This is not only a legal but a commonsense view of the matter. No opinion should be received from an expert, except it have been based on medical evidence which he has had an opportunity of hearing in court. It is conceivable that, unless this rule is strictly enforced, one medical witness may be contradicting another simply on an *ex parte* statement of facts wholly different from those deposed to on oath.

At a subsequent stage of the proceedings, Dr. Greenfield was asked “whether he had read and considered the notes of the *post mortem* examination of the body of deceased, and, assuming that those notes correctly stated the appearances, whether he had formed any opinion as to the cause of death”. He said in reply, “I formed the opinion that if the bodies described as tubercles were in the membranes of the brain, and of the *acute* form, which I imagined them to be from the description—”

The JUDGE: This gentleman is forming an opinion as to what he has not heard. He ought to have been in court. His opinion is founded on an *if*.

On this the witness was withdrawn.

But for the interposition of the judge, this might have been easily turned into a conflict of medical evidence. Had Dr. Greenfield been in court, he could have heard the evidence, and, if necessary, have procured, through counsel, any additional information from the medical witnesses for the Crown to enable him to give his opinion without resorting to “ifs” and “assumptions”.

Since the above remarks were written, the seven days' trial has ended in a verdict of wilful murder against the four persons who were included in the indictment.

There is much in the medical evidence for the prosecution and defence which requires observation, but we must reserve our remarks under this head. We quite concur in the view taken by the medical gentlemen who appeared on the part of the prosecution, that death was solely due to exhaustion from starvation and neglect.

The cause assigned in the certificate, before the facts had undergone investigation, was cerebral disease and apoplexy. This probably laid the foundation of the defence, that the deceased had died from tubercular meningitis.

VISITATION OF CHANCERY LUNATICS.

OUR correspondent of September 15th, “The Resident Physician and Superintendent of an Asylum”, inquires of us whether he would not have been perfectly justified in refusing to allow a person, representing himself to be a Chancery Visitor, to visit a Chancery patient detained in his asylum, unless he sent in his card.

It is scarcely a question of sending in a card or not. If the superintendent had reasonable doubt of the identity and official character of his visitor, he would clearly be justified in refusing access to his patient until that doubt was removed. We are informed that for this purpose the Chancery Visitors carry with them office copies of their appointments, and any person in charge of a Chancery lunatic who doubted the identity of a person representing himself to be a Chancery Visitor might very properly request to see this document. Any person who obtained admission into any house or asylum by the false representation that he was a Chancery Visitor, and also any person who refused admission to a real Chancery Visitor in the discharge of his duty, would be liable to legal proceedings and punishment. The demand, if made,

"I want to see J. H.; show me her at once", seems abrupt; but visiting officials well know that while they are delayed in the drawing-room, the ordinary condition of the lunatic may be entirely changed.

The Sunday visit is justifiable on similar grounds to those on which a visit at night is justifiable, when it is thought necessary for the protection and welfare of the lunatic. Sunday is the day of all others when lunatics in asylums are most liable to improper treatment. A proportion of the attendants are often allowed to be absent on that day; and although lunatics are no longer chained to their cribs in hunger and solitude from Saturday night to Monday morning, in the manner which Lord Shaftesbury has recently described before the Select Committee, it is well known that Sunday in an ill-conducted asylum is a day of peculiar indolence, negligence, and disorder, a day, therefore, on which asylums ought not to be exempted from official visitation.

In the instance adduced by our correspondent, it appears from his letter that the Sunday visit resulted in an order received from the Lord Chancellor, in a week from the visit, for the removal of the lunatic; a most unusual occurrence which appears fully to justify the unusual visit. The Lord Chancellor would not make such an order, until the Board of Visitors had submitted to him the report of the individual Visitor as urgent.

EVASIONS OF THE VACCINATION ACT.

A NOVEL method of evading the provisions of the Vaccination Act has just been brought to light by the prosecution of a Mr. J. S. Walton, one of the coroners for the North Riding of Yorkshire. That an ignorant peasant should object through prejudice to the vaccination of his child, we can readily understand; but that a man of education, qualified to hold the office of coroner, should resist and attempt to evade the provisions of the Act, is a state of things for which we were not prepared. An officer of the law is bound to set an example of obedience to the law; but in this case there is not only disobedience, but a shabby artifice is resorted to by the defendant, in order to justify his conduct.

We need not inform our readers that, under the Vaccination Act, the parent is liable to a pecuniary penalty for refusing to allow the vaccination of a child. Proceedings must be taken within fifteen months of the birth, and in Mr. Walton's case, the authorities, with great consideration for Mr. Walton's position, had allowed this period nearly to run out. The proceedings were laid under Section 29 of the Act of 1867, which distinctly states that, unless a reasonable excuse be offered for neglecting to have the child vaccinated, there must be a conviction, with the infliction of a fine.

Mr. James, who appeared for the defence, asserted that the child had been vaccinated on five different occasions, but unsuccessfully; while the Act stated that, if there were proved to have been three unsuccessful attempts, the parent was exonerated from having it revaccinated.

It is fortunate for the public that the law requires the vaccination to be performed by a registered medical practitioner; and no certificate is valid or can be received in defence, unless it is signed by the person who actually vaccinates the child—the words vaccinated "by me" being purposely inserted, in order to prevent any fraudulent evasion.

The facts as proved were simply these. Mr. Walton, the parent and objector to the operation, not being himself a qualified or registered practitioner, had, as he states, performed the operation five times, but unsuccessfully, upon his own child. As to the mode in which he performed it, what kind of lymph he used, and whether he used any lymph at all, there was no evidence. There was nothing beyond his own unsupported statement that he had actually performed five unsuccessful operations! That they should have been unsuccessful in the hands of a man not qualified for medical practice, and a determinedponent of the Vaccination Act, is not surprising.

A brother of the defendant came forward, and stated that their father was a surgeon, and that defendant had attended to vaccination cases, etc., and had signed certificates. He also stated that he knew that the child of his brother had been vaccinated four times, but not that he had been present and witnessed the operations.

We are surprised, too, to find that a registered medical practitioner appeared to support this hollow defence, and thus to aid in neutralising the public benefits derivable from enforced vaccination. Mr. R. E. Unthank, surgeon, signed a certificate to the effect that the child had been vaccinated (erasing the important words *by me*), and that it was insusceptible of successful vaccination. He admitted that he gave the certificate on the word of Mr. Walton. Such evidence as this was, of course, worthless for the defence. The magistrates properly condemned the defendant in a penalty—regretting, at the same time, that the law should have been so far disregarded by one who held the office of coroner.

ALLEGED DEATH FROM NOXIOUS FOOD.

A REMARKABLE case has just been the subject of a trial at Glasgow, in which the master of a ship, Robert Cochran, was charged with culpable homicide. It appeared from the evidence given by some of the survivors of the crews that the ship sailed for Melbourne in 1875, and arrived in Glasgow last June. The provisions, consisting of beef, pork, and other articles, were supplied from London, and were intended to last fifteen months. All went well until November 1876, the ship having in the meantime taken in 1,500 tons of guano from Peru, and being then on her return to Falmouth. At this time, some barrels of the beef and pork were in such a bad state that they were thrown overboard. On November 19th, a cask was opened, in which the pork was found to be in a state of putrefaction. It emitted an offensive smell, and the fat was of a greenish colour. It was made into soup on the following day, and, as there was no other food, the men partook of it, although it had a nauseous taste. One of the survivors thus describes the effects upon himself and others. They had severe griping pains, with vomiting and purging, and there were only four left to work the ship out of a crew of fourteen. Ten were thus affected, and six died, some of them being paralysed and delirious before death. At the Falkland Islands, another crew was procured, but they were taken ill and left the ship. The barrel of pork which was supposed to have caused this illness had been on board two years.

In addition to the supply of this unwholesome food, it was proved in evidence that the sugar supplied to the men contained arsenic as an impurity in the proportion of about a grain and a half in a pound. There was also evidence that the fore-castle of the vessel, in which the men affected slept, was in a very foul state. A Montevidean crew which came on board and slept there suffered from illness of a similar character to that of the other men, although they were living on fresh meat. The second Montevidean crew which came on board did not occupy the fore-castle, and escaped illness. The atmosphere of this part of the vessel was supposed to be rendered unhealthy by the fermentation of the guano on board.

The medical opinions on the cause of the symptoms and death differed. Dr. Moore assigned them to the eating of putrid meat; Professor Dunlop also assigned them to some noxious principle produced in the decomposed pork; in fact, to blood-poisoning from putrid food. Dr. Johnstone supported this view. His opinion was, that the poisoning must have been from the pork, and not from the sugar. The pork was sufficient to explain all that had happened. Professor D. Maclagan thought that the putrid pork would account for the attacks of vomiting and purging, but not for the paralysis of the lower extremities from which some of the men suffered. He also thought that the arsenical theory corresponded with the symptoms more than the pork theory. These symptoms might have been produced by the constant use of the sugar, had there been no pork-poisoning at all.

It was his decided opinion that the pork by itself would not have produced all the symptoms described.

On this evidence, the Lord Justice Clerk stopped the case, and directed a verdict of "Not guilty". The two main points on which the guilt of the accused rested were not supported by the evidence for the prosecution:—1. That the prisoner knew that the pork was unfit for food; 2. That it produced the death of these persons.

We quite concur in the verdict, as there was nothing to show that the accused knew that the pork was noxious and unfit for food. In our view, the symptoms were more in accordance with poisoning by the pork than with chronic arsenical poisoning. As, according to an analysis, the sugar did not contain more than one-tenth of a grain of arsenic to the daily allowance of an ounce for each man, there was not enough taken to cause acute poisoning; while the sudden and violent outburst of pain, severe vomiting and purging, with collapse, are quite inconsistent with chronic arsenical poisoning. These symptoms are, however, the usual results of eating noxious food, and they did not show themselves until after this food had been eaten. The absence of any effects on the conjunctiva and skin is also adverse to the theory of chronic arsenical poisoning.

The small quantity of arsenic taken daily was doubtless eliminated. In order to account for the violent vomiting and purging on the arsenical theory, we must suppose that elimination did not take place, and that the poison accumulated in the body. This is contrary to experience. We can see nothing inconsistent with poisoning by the putrid pork in the occurrence of delirium and partial paralysis. We have no doubt that the fore-castle of the ship was in an unsanitary state, and might account for some of the attacks of illness.

THE QUARTERLY RETURN OF THE REGISTRAR-GENERAL.

DURING the first three months of this year, 109,422 persons were married in the United Kingdom; 79,510 of these being married in England and Wales, giving a marriage-rate of 13.1, or 0.7 below the average of the quarter. The rate was highest (16.4) in Lancashire and Cheshire; lowest in the extra-metropolitan part of Middlesex (7.4) and in Herefordshire (7.8). From 1870 to 1873, the marriage-rate in England and Wales showed a steady increase, whereas since 1873 the rate has continuously declined.

In the second quarter of 1877, the *births* of 293,855 children were registered in the United Kingdom; of which number 223,220 occurred in England and Wales. This was equal to an annual rate of 36.5 per 1,000 persons living, and exceeded the average by 0.3. In the mainly agricultural counties of the South-Western Division, the birth-rate did not exceed 29.7 per 1,000, whereas in the four northern counties, in which the population is principally engaged in mining, the rate averaged 42.8. In twenty of the largest English towns, it averaged 37.1; being highest (47.2) in Oldham and (48.8) and Salford.

In the three months ending June 30th, 1877, the *deaths* of 176,585 persons were registered in the United Kingdom; 131,289 in England and Wales, which afforded a death-rate of 21.5 per 1,000 persons living. This rate was 0.4 above the average of the quarter; the excess being probably due to the unseasonably low temperature which prevailed during the greater part of April and throughout May, and being only partially counterbalanced by the low death-rate during June. In London, the excess of deaths above the average during the quarter was 869, of which 766, or 88 per cent., were due to diseases of the respiratory organs. The 131,289 deaths included 68,899 of males, and 62,390 of females; the death-rate of males was equal to 23.1 and of females to 19.9 per 1,000 living of each sex. In equal numbers living, the deaths were as 116 males to each 100 of females. This relative proportion varied greatly, however, in different localities: thus, in Lancashire, the death-rate of males to that of females was as 121 to 100; in Westmorland it was only as 86 males to 100 females.

The highest county death-rates were in Monmouthshire and Lancashire. The urban death-rate throughout England and Wales was equal to 22.7 per 1,000, whilst the rural death-rate did not exceed 19.7. In the twenty largest English towns, the rate ranged from 16.7 and 18.2 in Portsmouth and Brighton to 31.7 and 33.5 in Salford and Oldham. The 131,289 deaths at all ages included 29,541 of infants under one year of age, equal to 132 per 1,000 births registered, and corresponding with the average of the quarter. The rate of infant mortality in Lancashire continues excessive. In Blackburn, the deaths under one year of age averaged as many as 214 per 1,000 of the births registered.

The annual rate of mortality during the quarter among children and adults aged between one and sixty years was equal to 12.4 per 1,000 living at those ages, and was almost identical with the average. Among persons aged sixty years and upwards, the death-rate averaged 74.0 per 1,000 living, and exceeded the average by 5.1 per 1,000. In Brighton, the mortality amongst elderly people was exceptionally small.

The 131,289 deaths included 3,107 referred to whooping-cough, 2,764 to scarlet fever, 2,730 to measles, 2,191 to various forms of fever, 1,966 to diarrhoea, 1,416 to small-pox, and 547 to diphtheria; the deaths from these zymotic diseases were consequently 14,721, and were equal to an annual rate of 2.4 per 1,000, which was 0.5 below the average. In some agricultural counties, the zymotic death-rate scarcely exceeded 1.0 per 1,000; it was 3.3 in London, 3.4 in Lancashire and Cheshire, and 3.4 in Monmouthshire and Wales. The highest urban zymotic death-rates were 5.6 in Wigan (scarlet fever), 5.7 in Cardiff (measles), 6.4 in Barrow-in-Furness (measles and scarlet fever), 8.9 in Exeter (scarlet fever), and 12.8 in Newport, Monmouth (measles).

Whooping-cough was the most fatal zymotic disease of the quarter, and caused 574 more deaths than in the preceding quarter, the reverse of what is almost invariably the case. The 2,764 deaths from scarlet fever were considerably fewer than in any quarter since the third of 1873. The disease was, however, excessively fatal in Wolverhampton and Sunderland, in Reading, Shrewsbury, Stoke-upon-Trent, Dudley, and Wigan, and particularly in Exeter, where the annual death-rate from this disease alone was 7.1 per 1,000. In the parish of Lydney, Chepstow, an especially fatal outbreak occurred. The death-rate from measles slightly exceeded the average; the fatality from this disease being particularly high in Tredegar, Newport (Monmouth), Cardiff, Pontypridd, and Swansea. The mortality from fever still continues to decline, and was, during the June quarter, 28 per cent. below the average of the seven corresponding previous quarters. The fever death-rate throughout the country generally was 0.36; in Bristol, however, it was as high as 1.15. The 1,416 fatal cases of small-pox showed a decline of 527 from the number registered in the previous quarter, and included 904 cases in London and its suburban districts, 315 in Lancashire, and 86 in Cheshire; while but 111 fatal cases were recorded in the rest of England and Wales. No fatal case of small-pox was registered in thirteen English counties, nor in ten of the twenty largest towns, among which the fatal prevalence of the disease was confined to London, Liverpool, Manchester, Salford, and Oldham. The 547 deaths from diphtheria showed a marked decline from the numbers in recent quarters; those from diarrhoea differed but slightly from the average rate.

The recorded natural increase of population in the United Kingdom during the quarter, caused by the excess of births over deaths was 117,270; in England and Wales it was 91,931. The number of emigrants who left the United Kingdom during the same period was 35,681, a considerably lower number than that recorded in the June quarter of any year since 1847. The English emigrants were 16,040; Scotch, 2,586; and Irish, 7,918. Of the 26,544 British emigrants, 60 per cent. left for the United States.

During the greater part of April and May, the temperature was low, and there were severe night frosts early in May; the temperature of June was considerably above the average. The mean temperature of the quarter was 0.4 deg. below the average. The measured rainfall at Greenwich was 5.3 inches, and was half an inch below the average. "Wheat rose to a high price; so did potatoes. Coal was not so dear as it had been in previous years. Fewer persons than usual were relieved out of the poor rates."

DR. C. HEINE, Professor of Surgery in the University of Prague, has lately died at Cannstadt, of diphtheria.

THE Museum of the Royal College of Surgeons of England has received as a present from the Hon. Charles P. F. Berkeley, the skeleton of a crocodile, 15 feet 9 inches in length, which was shot by that gentleman last winter near Hagar Silsilis, in Egypt.

THE fiftieth annual meeting of the Association of German Naturalists and Physicians was opened in Munich on September 18th by Professor Pettenkofer. The second general meeting was held on September 20th, under the presidency of Duke Carl Theodor of Bavaria, who gave an address on the importance and the object of the Association. Cassel was chosen as the place of meeting for next year; North and South Germany being visited alternately.

To the names of the Vice-Presidents of the International Medical Congress given at page 419 of last week's JOURNAL, the following have to be added: Wilkinson (England—President of the British Medical Association); Bouillaud, Verneuil, and Gosselin (Paris); Ollier and Letiévant (Lyons); Roubaix (Belgium); Baccelli (Italy); Sonderegger (Switzerland); Bergmann (Sweden); Carsten and Van Capell (Holland); Seguin (America); and Calucci Pasha (Egypt).

LAST week, a house-agent named Parker was fined £5 and costs at the Southwark Police Court for having let a house in which three children had been suffering from scarlet fever, without having first carried out the regulations for disinfecting such premises. The father of the children was fined 40s. for removing to another house the bedding and clothing used by the sick persons without having them properly disinfected.

MADLE. TIETJENS.

MADLE. TIETJENS was tapped again by Mr. Spencer Wells last Saturday. Relief was again obtained; but more than temporary relief cannot be expected. Sir James Paget joined in a consultation with Dr. Howell on Tuesday, and fully confirmed the opinions of the other attendants.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

DURING the past collegiate year, of the 87 candidates who underwent the primary examination for the fellowship, 43 were rejected. At the final examination, 27 passed out of 37. At the primary examination or the membership, out of 792 candidates, 246 were rejected. At the final examination, out of 569 candidates examined, 356 passed. The library and museum of the College, which are now undergoing repair, will be re-opened on Monday, October 1st.

THE DANGER OF EXTREMES.

AN Austrian contemporary, in a recent number, publishes an account by Dr. Solger of the case of a child which, when two months old, had disturbances of digestion and was much emaciated in consequence of being fed on farinaceous diet. As the family had cows, Dr. Solger ordered milk, properly diluted, to be administered; and under this aliment the child thrived so well that he did not again see it until it was nine months old. He was then called to it on account of its having suffered for some time from symptoms of suffocation, which increased in severity. He found the child very fat, with a red face, pro-

truded eyes, and breathing with difficulty with its mouth half-open, but without any symptoms of disease. On inquiry, he found that the child had been daily fed with 2.49 litres (nearly 4½ pints) of pure unmixed cow's milk, besides having pap. The symptoms of suffocation of course soon subsided when the quantity of food was reduced. Dr. Solger remarks that this case shows the necessity of instructing women in the feeding of children, as more infants die in the country from over-feeding than from starvation.

THE LIVERPOOL WATER-SUPPLY.

THE *Liverpool Post* says that a new scheme is about to be laid before the public for the water-supply of Liverpool. It is proposed to make Wales the fountain-head, by impounding the waters of the river Vyrnwy, at Llanwddyn, Montgomeryshire, and those of the river Tarrat, at Llangedwyn, embracing a watershed of quite 80,000 acres, and capable of yielding more than eight times the quantity of water now daily supplied to Liverpool. The distance the water will have to be brought is sixty-six miles. It is represented that the engineering features are very favourable.

THE ARMY HOSPITAL CORPS.

THE *Army and Navy Gazette* announces that, acting under the powers conferred by the recent warrant, the Army Medical Department will shortly issue regulations for the administration of hospitals in peace, in war, and in manœuvres. The most important portion of these regulations will relate to the relief of the wounded who are struck down in actual battle. These have been most carefully digested, and will present an organised system for the removal from the field of battle and for the relief of maimed soldiers. Full and detailed instructions will be given for the care of every man hurt from the moment after he is wounded till he is safely placed on board of a hospital-ship for conveyance to England. The regulations provide for the removal of wounded men from the ranks engaged with the enemy without impairing the combatant force by a larger number than two men from each company. These will convey men who are hurt in action from the line of soldiers engaged in the battle to the nearest dressing-places, where such assistance will be given to them as can be afforded at the moment. From that point, the care of the wounded, their transport and relief, comes under the charge of the Medical Department and its subordinate Army Hospital Corps. Under their control, the columns of ambulances, which will form an integral portion of the mobilised army, will carry the wounded from the dressing-places, and search the field when the action is over for such as could not be removed while the firing continued.

PREVENTION OF LEAD-POISONING.

SOME lead-workers have lately tried a careful washing of the hands in petroleum as a preventative of lead-poisoning. Three washings a day are said to be sufficient to prevent all serious danger of lead-poisoning. The success obtained by these men has been such, that they have recommended a trial of petroleum as a guard against poisoning by salts of copper or mercury where these are employed in trade.

DEATH FROM PRUSSIC ACID.

A GENTLEMAN of some scientific acquirements went to stay at Hastings on account of the health of his wife. He became very depressed in spirits, and suffered much from sleeplessness, on account of which he had, without medical advice, taken chloral in doses of twenty-five grains; and lately he had increased the dose. He had never conceived that the death of his wife was probable till that event actually occurred, although Dr. Bagshawe, while attending her, had often called his attention to such a probability. Immediately upon the death of the wife, her husband shut himself up in the room with the body, and, when found two hours afterwards, he was dead. At the *post mortem* examination, it was noted that the dependent parts of the body were very livid, and the pupils widely dilated. The stomach contained from two to three ounces of red fluid, which had a strong odour of

prussic acid; and, on chemical analysis, a large quantity of hydrocyanic acid was found in the fluid. A bottle containing a small quantity of prussic acid was also found in the room. The constant use of chloral to overcome sleeplessness appears to have so weakened the patient that his mind was unable to bear the shock of the loss of his wife, and he took poison to end his misery.

ARTISANS' DWELLINGS

THE Improved Industrial Dwellings Company have just completed another set of their buildings on a site comprising two acres of land lying between the Goswell and St. John Street Roads, about ten minutes' walk from the General Post Office. Less than three years ago, the site was occupied by old buildings, sheds, cattle-lairs, and courts of the worst description. The buildings contain every necessary convenience for the separate use of families of the working classes, there being large playgrounds adjoining for the use of the children. The improvement has been effected at a cost of upwards of £75,000; but, notwithstanding this large outlay, the rents are fixed at moderate amounts. This Company has now twenty three estates in various parts of London, which accommodate nearly three thousand families.

UNIVERSITY OF UPSALA.

THE recent celebration of the four hundredth anniversary of the University of Upsala was attended, in response to invitations, by representatives of a large number of the European universities. Of the British universities, Oxford was represented by the Rev. John Earle, Professor of Anglo-Saxon; Cambridge by Dr. Humphry, F.R.S., Professor of Anatomy; and the University and Royal Society of Edinburgh by Dr. Balfour, Professor of Botany, Sir C. Wyville Thomson, Professor of Natural History, Mr. Tait, Professor of Experimental Physics, and Messrs. A. Buchan and Sprague. Among continental universities, Greifswald was represented by the Rector, Dr. Hüter, Professor of Surgery; Copenhagen by its Rector, Dr. Panum, Professor of Physiology; Kiel by Dr. Ladenberg, Professor of Chemistry; Erlangen by Dr. Rosenthal, Professor of Physiology; Vienna by Dr. Heschl, Professor of Pathology; Charkow by Dr. Lagermark, Professor of Chemistry, etc. The King of Sweden, who took part in the ceremony, has presented the University with 40,000 crowns, the annual interest of which is to be awarded to young authors of scientific works.

HYDROPHOBIA.

SEVERAL cases have been reported within the last week. One was that of a girl aged sixteen, at Colyton, Devon, who was bitten in the wrist by a strange dog in the end of July or beginning of August. The wound was cauterised, and healed. Symptoms of hydrophobia appeared on September 17th, and she died the next evening. A man named Hobbs died of hydrophobia at Newport in Monmouthshire, two months after having been bitten by a dog. The third case occurred at Guy's Hospital, the subject being a little girl aged four, named Kellcher, of Walworth, who was bitten by a dog about a month since. At the inquest, the owner stated that the dog had never bitten any one before, that he was leading it by a string, when the child, who was playing on the pavement, arose, and the dog snapped at her, tearing a piece of her ear off. She was an out-patient under the hands of the junior house-surgeon at Guy's Hospital until September 20th, when she became an in-patient under the care of the house-physician, who deposed that her tongue became parched, and when offered water she had a spasm in the throat, showing that hydrophobia was approaching. The child died on September 22nd. The jury returned a verdict of "Accidental Death".

THE ORDER OF ST. JOHN OF JERUSALEM.

THE Ambulance Committee of the Order of St. John of Jerusalem, of which Sir Edmund A. H. Lechmere, Bart., M.P., is Chairman, has decided, under the direction of the Chapter of the Order, to take steps with a view to the relief of the sick and wounded of the English army in war, and for the instruction of persons not belonging to the medical

profession in the best means of tending and relieving persons injured by accident. It is proposed to open registers for the purpose of entering the names of any individuals, male or female, not necessarily belonging to the Order of St. John, who would consent, in time of peace, to study the art of tending sick and wounded under different circumstances, or who would undertake in time of war to come to the aid of the Order in one of the following capacities, viz.: 1. Honorary assistants, who would contribute money or services in England, with a view to the support in the field of any form of ambulance-train or field-hospital which might be decided upon; 2. Commissioners, who would be ready to proceed at once to the seat of war, and advise the Order as to the nature and extent of the assistance to be rendered, and who would remain, if required, in responsible positions; 3. Subordinates, who would be willing to proceed with the train, hospital, or other form of aid decided upon, and to work under the orders of the commissioners or surgeons. With a view to having a large number of efficient and available assistants of the three classes named above on the register of the Order, the Committee urge cordial co-operation on the part of the members, both in their individual and corporate capacity, with the universities, medical schools, and volunteer corps. Subscriptions of five shillings and upwards are solicited, to cover working expenses, and especially to make up the sum of £215 necessary for the purchase from Government of an ambulance-wagon for the purpose of training sick-bearers. Communications on the subject may be addressed to the Secretary of the Order of St. John, St. John's Gate, Clerkenwell.

NEW PUBLIC BATHS IN CLERKENWELL.

LARGE and commodious new baths are at the present time in the course of erection on the ground at the corner of St. John's Street and Wilderness Row, which was cleared of buildings, as a part of the scheme for carrying out the new thoroughfare between Oxford Street and Shoreditch. The buildings will contain a spacious swimming bath, ninety feet by thirty, as well as a series of private baths.

SANITARY SCIENCE AND ITS PRACTICAL RESULTS.

A PORTION of the address delivered at Aberdeen, last Monday, by Mr. Edwin Chadwick, President of the Public Health Section of the Social Science Association, consisted of an exposition of the results produced by the application of the principles of sanitary science in the prolongation of human life and the prevention of disease. He very happily put the subject in the form of a hypothetical contrast; pointing out that, on the one hand, by closely copying certain notorious localities, both in Great Britain and on the Continent and America, with all their unsanitary conditions, a city might be built which should present an annual mortality of more than 40 per 1,000; in which more than half of those born should die before the fifth year; and in which there should be a general moral and physical deterioration of the survivors. That these results could be produced, was proved by their existence under the conditions referred to. On the other hand, the application of sanitary knowledge had produced, and might produce, results which were thus summarised by Mr. Chadwick. 1. We have gained the power of reducing the sickness and death-rates in most old cities by at least one-third; or, as a rule, of reducing the death-rates in old British urban districts to 16 or 17 in 1,000. 2. In new districts, on sites apart from old urban sites, we may, with a complete arterial system of water-supply and surface-cleansing—including measures for the prevention of overcrowding—ensure reduction of death-rates to less than one-half, or to a mean rate of 10 in 1,000, and the sickness in the like proportion. 3. In well-provided and well-regulated institutions for children from three to fifteen years of age we may secure them an immunity from the common children's epidemics, and reduce the death-rates to a mean of about 3 in 1,000. 4. In prisons and places under effective sanitary control, the death-rates (from disease) have been reduced amongst persons from the school ages and upwards to about 3 in 1,000, or to one-third of the death-rates prevalent amongst the general population of the same ages. 5. To the persons in such institutions an immunity may be given against

all ordinary epidemics, typhus and the eruptive diseases, diarrhoea, and dysentery, which ravage the general population. 6. Amongst the general population a reduction by fully one-half of the diseases of the respiratory organs may be effected by general public sanitation. 7. Complete habits of skin-cleanliness, alone and apart from general structural arrangements, or alterations of habits in other respects, constitute a factor of about one-third of the power of sanitation. 8. By a proper selection and a due sanitation of sites in tropical climates, and the sanitary care of the population, the birth-rates may be made to exceed the death-rates, and a healthy succession secured for colonisation, for people of the British or of the white races. 9. By the increased health and strength imparted by improved physical training under sanitary conditions, on the half-school-time principle, in the infantile and juvenile stages, the efficiency of three for productive occupation may be imparted to every two of the most depressed classes of the population. 10. The death-rates from disease in the mercantile marine may, by the exercise of the like powers of sanitation that are exercised in the Royal navy, be reduced by two-thirds, or to the general death-rate now prevalent in the Royal navy, namely, about 6 in 1,000. 11. As indicated by existing normals, the greatly reduced death-rates in the army at home and abroad admit of important further reductions, by a more complete application of tried and approved means of sanitation.

A CAUSE OF INFANT MORTALITY.

A CHILD, eight weeks old, became the subject of a coroner's inquest at Islington, a medical certificate having been wisely refused. The child, when first born, was suckled; but, the mother becoming ill with rheumatic fever, the infant was handed over to the care of its grandmother, and by her fed with "tops and bottoms, biscuits, arrowroot, oatmeal, corn-flour, cow's milk, condensed milk, and aniseed". The child was thus literally starved to death for want of proper food, and the jury returned a verdict to this effect. The want of care appears to have been due to ignorance, and not to intentional neglect. It is much to be desired that a greater amount of knowledge as to the methods of rearing infants should be diffused amongst all classes of society.

SPECULATIVE BUILDING.

THE attention of the Local Government Board has been directed to the character of the buildings now being erected within the parish of Hackney, and has been by them referred to the Hackney Local Board. It appears that there are streets of new houses being erected at Hackney Wick in which the brickwork is very badly constructed, and mortar used composed of cinder-siftings from the sewers. The drains are totally inadequate to the requirements of the houses, and the pipes are laid in a soil composed mostly of dust and refuse. The Hackney Board of Works have, in consequence, appointed a committee to conduct a full inquiry into the whole matter. At a time when so much good work is being done in providing suitable and healthy dwellings for the poor in the various quarters of London, it is most important that the various Local Boards should supervise the construction of all "speculative buildings", and prevent the erection of unsanitary and unsafe houses. We are glad to see that this matter has attracted the attention of the Hackney Board, and is likely to receive their careful consideration.

HOW TO DESTROY CONDEMNED MEAT.

WE referred last week to the method proposed by Dr. Saunders for the destruction of condemned meat by means of a "disinfecting bath". Hitherto disinfection has been effected by sprinkling the meat with impure commercial carbolic acid; but, although this process may render the meat innocuous, it simply replaces one noxious smell by another; complaints have also been made that the acid injures the carts used in subsequently removing the meat. Carbolic acid powder has also been employed, but with very doubtful efficacy. Dr. Saunders has found out that even pure carbolic acid is far less efficacious as a

means of arresting decomposition than was once supposed, and he now uses as a disinfecting bath a solution of "Cooper's salts", protosulphate of iron, and picric acid. "Cooper's salts" are composed of the waste chlorides of commerce; they are odorless and perfectly harmless to man and animals, and free from all deleterious action on metals or fabrics. The chloride of sodium contained in the mixture arrests change in albuminous substances, while the chloride of calcium exercises a specific action upon the animal tissues undergoing incipient decomposition, forming an insoluble and inert albuminate of lime. Putrid meat, when immersed in this solution, is immediately deodorised, while the picric acid and sulphate of iron render it permanently disgusting to the taste and to sight. The meat, when seized, will be at once placed in a portable bath carried in a van, while for large quantities stationary baths will be provided at the condemned meat-shed. Deodorisation is effected by an hour's immersion in the bath. This process does not spoil the fat for commercial use, as was the case with carbolic acid. The Commissioners of Sewers propose themselves to deal with this condemned meat by converting it into commercial products.

ART IN HOSPITALS.

MR. JOSEPH MOORE, Chairman of the Committee of Management of the Seamen's Hospital, Greenwich, has made an appeal to the public to assist him in decorating the wards of that institution with pictures, so as to dissipate the depressing monotony of dead walls. He says that there is ample space in the hospital to put up two hundred and fifty specimens. Towards this number, fifty have already been given by the residents in and around Blackheath and Greenwich; and it is hoped that many of all classes will respond to this call. It is desired that the pictures should be simple, coloured prints and chromolithographs being preferable to engravings.

A SOURCE OF ZINC IN WATER.

THE water of a well in the neighbourhood of Nieuburg was found to coagulate some milk which it was used to adulterate, and, on analysis, was found to contain iron and sulphate of zinc. A second well in the neighbourhood was likewise found to contain some sulphate, though less iron than the first. On investigation, the cause was found to be some pyrites that had been used to repair an adjacent road. In some districts, pyritous residues are used for making roads, and have the effect of keeping the road dry for a long period. Some of these residues, however, contain zinc-blende, which, under the action of the atmosphere, becomes converted into sulphate of zinc, and, dissolving in the rain-water, is likely to find its way into adjacent wells.

FEVER IN JAMAICA.

THE deaths of the Governor of Jamaica and two members of his family from what is said to have been yellow fever have caused some alarm in the island. How far this may be justifiable, it is difficult, in the absence of more accurate information, to say; but we are inclined to suspect that enteric fever, as a cause of death in our dependencies, is often overlooked; and that proper inquiry by competent authority might show that, in this case, disordered drains had more to do with Mr. Rushworth's illness than anything peculiar to the climate of Jamaica. We commend to the consideration of those whom it concerns the following remarks from the *Times*.

"The assumption that any given form of prevalent disease is malarious, or, in other words, that it depends upon causes over which the inhabitants of the infected locality can exercise no immediate or direct control, is one which has at all times been acceptable to large classes of people. It furnishes a convenient cloak for ignorance, an apparent justification for inactivity, and a sufficient excuse for the timidity which is prompt to fly from real or imaginary danger. In India, where there probably are 'jungle' or truly malarious fevers, just as there once were agues in the fen-districts of England, these malarious fevers have served as scapegoats for the whole class of filth-fevers, preventing at once any recognition of their true character and any endeavour to extinguish the causes from which they have sprung. We strongly suspect that in Jamaica very similar conditions are in existence; that there may be, in

certain low-lying or swampy parts of the island, localities in which even malignant forms of fever may take their origin; and that these cannot be completely banished until such localities are drained and brought under cultivation. It is even conceivable that the fever thus originating may acquire contagious properties, and that its poison may linger about ships, dwellings, and clothes; but the high probability is that disease of this class is small in its amount, and that the 'common fevers of the country' are neither more nor less than typhoid, propagated by the contamination of drinking-water in the way with which we are sadly familiar in England..... The alarm now said to be prevailing in Jamaica might be turned to the lasting benefit of the island, if the Government of the colony would obtain the services of some English physician specially skilled in the investigation of the causes of disease and unbiassed by local influences of any kind, and would instruct him to report upon the fevers now existing there, and upon the extent to which they would probably be preventable by improved sanitary conditions. We no not in the least believe that this most beautiful of all islands is necessarily a fever-nest, or that its inhabitants are surrounded by any risks which might not be obviated and dispelled by proper care."

PUBLIC HEALTH.

DURING last week, 5,728 births and 2,950 deaths were registered in London and twenty-two other large towns of the United Kingdom. The natural increase of population was 2,778. The mortality from all causes was at the average rate of 19 deaths annually in 1,000 persons living. The annual death-rate was 20 per 1,000 in Edinburgh, 19 in Glasgow, and 20 in Dublin. The annual rates of mortality per 1,000 last week in the twenty English towns, ranged in order from the lowest, were as follow: Brighton 13, Portsmouth 14, Norwich 16, Plymouth 16, Sheffield 17, Bristol 17, London 17, Leeds 17, Bradford 19, Leicester 19, Newcastle 19, Oldham 20, Wolverhampton 21, Manchester 21, Birmingham 22, Nottingham 22, Hull 23, Sunderland 24, Salford 24, and Liverpool 25. The annual death-rate from the seven principal zymotic diseases averaged 3.7 per 1,000 in the twenty towns, and ranged from 1.9 in Norwich to 6.3 and 6.9 in Salford and Liverpool. Small-pox caused 12 deaths in the twenty towns, of which 10 occurred in London, 1 in Manchester, and 1 in Bradford. Whooping-cough caused 21 deaths in Liverpool; and scarlet fever 12 deaths in Manchester. The deaths referred to typhus and enteric fever in the twenty towns, which were 48 and 63 in the two preceding weeks, further rose to 79 last week. In London, 2,286 births and 1,179 deaths were registered. Allowing for increase of population, the births were 71, and the deaths 150, below the average numbers in the corresponding week of the last ten years. The annual death-rate from all causes, which in the two preceding weeks had been equal to 17.4 and 18.6 per 1,000, declined again last week to 17.4. The 1,179 deaths included 10 from small-pox, 22 from measles, 30 from scarlet fever, 8 from diphtheria, 18 from whooping-cough, 31 from different forms of fever, and 71 from diarrhoea; thus, to the seven principal diseases of the zymotic class 190 deaths were referred, against 182 and 226 in the two preceding weeks. These 190 deaths were 103 below the corrected average number from the same diseases in the corresponding week of the last ten years, and were equal to an annual rate of 2.8 per 1,000. The fatal cases of measles were proportionally most numerous in the East districts. The deaths from diarrhoea, which in the five previous weeks had declined from 194 to 86, further fell to 71 last week, and were 35 below the corrected weekly average; 63 were of children under five years of age, including 54 of infants under one year of age. The deaths from small-pox, which had been 8 and 10 in the two previous weeks, were again 10 last week. Eight of the fatal cases were certified as unvaccinated, one adult case was certified as vaccinated, and in one case the medical certificate did not give any information as to vaccination. The number of small-pox patients in the Metropolitan Asylum Hospitals, which in the preceding seventeen weeks had declined from 964 to 181, further fell last week to 160; the number of new cases admitted during the week was 32, against 24 and 35 in the two previous weeks. The number of patients in the Highgate Small-pox Hospital, which had been 19 and 18 at the end of the two preceding weeks, fur-

ther fell to 14 on Saturday last. Six deaths were referred to puerperal fever; and five to the accidents of childbirth. In Greater London, 2,773 births and 1,392 deaths were registered, equal to annual rates of 33.1 and 16.6 per 1,000 of the population. In the Outer Ring, three fatal cases of small-pox were recorded in West Ham, and one in Croydon. Three deaths were referred to diphtheria in Stratford, one in Croydon, one in Kingston, and one in Bromley (Kent). In Bombay, 229 deaths resulted from remittent fever, and 91 from cholera; dysentery caused 267, and cholera 142 deaths in Madras. The duration of registered sunshine in the week was 20.8 hours, the sun being above the horizon during 86.5 hours.

SCOTLAND.

THE winter session in Edinburgh begins on Tuesday, October 30th. The University course will be opened by an address on that day by the Principal, Sir Alexander Grant, Bart. The inaugural address of the Extra-academical School will be delivered by Dr. John Duncan in the anatomy class-room at the Royal College of Surgeons.

IT is stated that a suggestion emanating from New York, that condensed air might be substituted for ice in the transmission of American beef, is likely to be soon put in practice by a Glasgow firm, Messrs. John Bell and Sons, who have already taken out patents for the purpose.

IT was reported to the Glasgow Police last week that a man, David Brown, aged 61, a storekeeper in a dyework, had died in a house at the east end from the effects of poison. The deceased, it was stated, had been in the habit of making a drink for himself, one of the ingredients of which was arsenic taken from the stores at his disposal. On Friday night, he prepared such a draught, and became ill almost immediately after he had taken it. Two medical men, Dr. Wilson and Dr. Patrick, saw him; but he died shortly afterwards in great agony.

OUTBREAK OF TYPHOID FEVER AT GALASHIELS.

AN alarming outbreak of typhoid fever has occurred at Galashiels. It is believed to be traceable to a public well in the market-place, from which a large number of people draw water. One case ended fatally on Sunday. Analyses have been made of the water of this and other wells in the neighbourhood, the result being that the well in question showed unmistakable signs of the presence of organic matter in considerable quantity. The well has been closed against public use.

DR. MATTHEWS DUNCAN.

A NUMEROUSLY attended meeting of medical men was held last week in the hall of the College of Physicians, Edinburgh—Dr. Keiller, President, in the chair—to consider the question of a complimentary dinner to Dr. Matthews Duncan on his leaving Edinburgh. It was arranged that the dinner should be held on Tuesday, October 30th, at the Douglas Hotel; and a committee was formed to make the necessary arrangements, of which Dr. Wyllie and Mr. Joseph Bell, the Secretaries of the Colleges of Physicians and Surgeons respectively, were appointed honorary secretaries. We have no doubt that Dr. Duncan's great popularity, and the esteem in which he is held by the profession in Scotland, will ensure a highly successful entertainment.

GLASGOW SUBURBAN WATER-SUPPLY.

THE inhabitants of Springburn and Hogganfield, two important districts in the outskirts of Glasgow, were supplied with Loch Katrine water on Thursday week. In the former, works have been constructed to supply a population of nine thousand at the rate of thirty gallons per head *per diem*. The pumping-station at Eastmuir has a tank capable of holding three hundred thousand gallons, into which the water flows from the mains laid from the loch to the city. The inaugural cere-

mony was performed by the daughter of one of the bailies, who has greatly interested himself in supplying the district with pure water. In the Hogganfield district, appliances have been provided for the supply of a population of three thousand at the same rate.

THE EDINBURGH ROYAL INFIRMARY.

THERE are likely to be several changes in the *personnel* of the staff of the Royal Infirmary, Edinburgh, in the course of the next few months. The resignation of Dr. Matthews Duncan leaves a vacancy in the office of physician for the diseases of women, for which Dr. Angus Macdonald, and possibly Dr. Keiller, are spoken of as candidates. Dr. Haldane, whose term of office has expired, retires from the post of physician; Dr. Brakenridge, senior assistant-physician, taking his place, and leaving a vacancy for an assistant-physician, for which there are several candidates—among others, Dr. J. D. Affleck and Dr. Moinet. On the surgical side, Dr. P. H. Watson's term of office expires shortly, when Dr. John Duncan will become full surgeon, and leave a vacancy for an assistant-surgeon. Dr. Cadell, Dr. Alexander Müller, Dr. Bishop, and Dr. P. H. Maclaren, are likely to contest this appointment. Dr. Wyllie, at present junior assistant-physician, will, on becoming senior assistant-physician, vacate the post of pathologist, to which it is expected that Mr. D. J. Hamilton will be appointed. The changes on the surgical side of the house are rendered uncertain by the still unfilled vacancy in the Chair of Clinical Surgery, which may possibly still further disturb existing arrangements.

GLASGOW SOUTHERN MEDICAL SOCIETY.

THE thirty-fourth annual meeting of this Society was held on September 20th, when the following gentlemen were elected office-bearers for the ensuing year. *President*—Eben Duncan, M.D. *Vice-President*—John Niven, L.F.P.S. *Treasurer*—E. McMillan, L.R.C.S. *Secretary*—Thomas F. Gilmour, L.R.C.P. *Editorial Secretary*—Andrew J. Hall, M.B. *Seal-Keeper*—Robert S. Wallace, L.F.P.S. *Court Medical*—John Dougall, M.D. (Convener); A. L. Kelly, M.D.; Niel Carmichael, M.D.; James Morton, M.D.; Robert Park, L.F.P.S.

THE ABERDEEN UNIVERSITY.

IT is understood that an arrangement has been made with reference to the claims brought on behalf of the University of Aberdeen by the trustees of the late Dr. Cruickshank and Principal Pirie against the Town Council of Aberdeen, in connection with the recent decision of the House of Lords finding that certain lands and fishings in the parish of Nigg, Kincardineshire, are held in trust for those parties by the Town Council. It was calculated that the arrears would amount, without interest, to about £8,390; and the representatives of both parties have agreed to a compromise by a payment of £3,200.

IRELAND.

THE deaths registered in Dublin during the week ending September 15th represented an annual mortality of 19.8 in every 1,000 of the population. Only 20 deaths occurred from zymotic diseases, against an average of 44.2 for the corresponding week of the last ten years.

THE last modified examination for candidates who have been rejected for the licence of the Pharmaceutical Society of Ireland took place at the College of Physicians this week, when thirty candidates presented themselves for examination.

THE ACTION OF ALCOHOL.

DR. B. W. RICHARDSON gave his second and last lecture last week, in Dublin, on "The Promotion of Temperance"; the meeting being presided over by Mr. Robert McDonnell, President of the College of Surgeons. After referring to some portions of his previous lecture, in which the various stages produced by varying doses of alcohol were

described, the lecturer remarked that, supposing that only two and a half ounces of alcohol, the full dietetic dose, were taken daily, that quantity would so increase the heart-beats that in ten days there would be 100,000 extra strokes of the heart, or one day's work of the heart beyond what was required without a stimulant. This, continued for a series of years, would give one year's extra work in ten years, thus diminishing the duration of life by the extra strain put on the heart and blood-vessels. He observed that in drunkards sulphur compounds were not eliminated by the liver, and sulphur-alcohol, when inhaled, produced great depression, languor, and a feeling of extreme unhappiness. Alcohol takes several months to be entirely removed from the body. Diagrams were exhibited, detailing the various stages of digestion, and it was shown that the admixture of alcohol with food retarded that process. Dr. Richardson referred to the habitual use of alcohol as producing a want of precision, mental energy, and muscular power. A vote of thanks to the lecturer terminated the proceedings.

POOR-LAW UNION INQUIRY.

ON Monday, the 24th instant, the Poor-law Inquiry Commission was opened in Coleraine Workhouse to receive such information as the ratepayers desired to tender as to the amalgamation of unions and other matters connected with the inquiry. The Chairman, Major Trench, in opening the proceedings, stated that the question of Poor-law administration in Ireland had for some time past been the object of very considerable consideration and discussion, it being urged that the number of unions and their officers were very much larger than was requisite to work that system, and that very great economy would be effected by amalgamation, without reducing the efficiency with which the Poor-law could be administered. Last year, representations having been made to Parliament on this subject, it was considered advisable that the present Commission should be constituted. It was resolved to go into the question of classification, to hear any suggestions that might be made on the subject of indoor children and lunatics; the idea being that, in the event of any of the existing workhouses being closed for the destitute poor, relief then might be used for massing the lunatics and pauper idiots. With regard to the county Derry, he found, first, that the three union workhouses of Coleraine, Ballymoney, and Limavady were constructed to accommodate 3,188 inmates, whilst in the most thronged period of the present year there were only 962 inmates housed therein. Again, there was a great demand for increased accommodation for lunatics, the county asylum at Derry being wholly inadequate. The Commission had now visited the three unions referred to; and, if amalgamation were decided upon, they were of opinion that Coleraine Workhouse should be closed, and the paupers of that district sent in proportion to Ballymoney and Limavady, which were more central. After considerable discussion, it was announced that the feeling of those present was in favour of amalgamation, provided that the scheme, when worked out, is shown to be beneficial to the poor and the ratepayers, and not injurious to the due administration of the Poor-law.

DR. SAYRE'S TREATMENT OF SPINAL DISEASE.

IT rarely happens that a novelty in practical surgery excites so much interest as has been caused by Dr. Sayre's treatment of spinal disease, as demonstrated in the London hospitals and during the meeting of the Association in Manchester. Lately, he has visited Cork, where he has given two demonstrations; one at the North Infirmary, and the second in Queen's College, by the kind permission of the President, Dr. Sullivan. On both occasions, there was a large attendance of the profession; and patients, the subjects of spinal curvature, were exhibited and operated on, so as to show the results of the method. The meeting in Queen's College was held under the auspices of the South of Ireland Branch of the British Medical Association, the chair being taken by Dr. Macnaughton Jones, the President of the Branch. After the demonstration at the Infirmary, Dr. Sayre and a number of members of the profession were entertained at luncheon by Dr. Jones.

THE SICK AND WOUNDED IN THE RUSSO-TURKISH WAR.

SUBJOINED are extracts from a series of reports received last week by the Stafford House Committee for the Relief of Sick and Wounded Turkish Soldiers, and kindly communicated to this JOURNAL.

Mr. Barrington Kennett, writing from Constantinople to the Committee on September 7th, says:—I send you herewith extracts from reports received from some of our sections, marked *a, b, c, d, e, f*. The authorities of the different districts in which our surgeons are engaged bestow on them the highest praise for their skill and devotion. The work at Adrianople has been officially reported direct to the Sultan. I have not had any further report from Mr. Pratt since my last communication to the Committee. I have every reason to believe that his section is actively engaged near Eski-Djuma. I have just organised a corps of fifty stretcher bearers under Colonel Coope, inspector of the *gendarmérie*. They will consist of fifty *zaptiehs* of good character. They will be provided with stretchers and all necessary materials, including *cacolets* (litters), a few country wagons, tents, etc. I shall appoint a doctor to accompany them, and attach them to a *corps d'armée* in which General Baker is serving. They will thus be sure of rendering good services. In accordance with a request of Sir A. Kemball, I am sending further stores and another sum of £100, making £400 in all, to Dr. Casson, who is in the Kars district. Sir A. Kemball asked me to send two more of Lord Blantyre's surgeons, but they are all so hard at work now that I do not think it justifiable to detach them. The Red Crescent Hospital at Varna, to which are attached Drs. Cullen and Kouvaras, is now full of wounded brought down under the charge of Dr. Hayes by railway from Rasgrad, and conveyed by his transport from the station to the hospital. I have appointed Messrs. Cullen and Harvey and Dr. Sketchley (recently engaged) to form an ox-transport at Kesanlik, to assist in bringing away to Philippopolis hundreds of wounded now lying at that place. This is a strong staff, as the two former speak Turkish and the latter Bulgarian. The Adrianople railway transport will now consist of Dr. Barker, two English assistants as dressers, and a dragoman. The soup-kitchen at Constantinople provides for the immediate wants of all the wounded who arrive by train. Yesterday, over five hundred were provided with soup, rice, tobacco, and coffee. Mr. Young of the National Society has given me more cases of soup, which came in very usefully for the work.

a. Extract of a Report by Dr. Bond Moore, dated Adrianople, 29th August.—I beg herewith to send you the following report of the wounded men we have had in our charge since our arrival here. *Report:* Men in old hospital when I took charge, 206; sent to Constantinople convalescent, 57; died before removal to Barrack Hospital, 3; removed to Barrack Hospital, 146. Of these, there have been sent to Constantinople, 76; died in Barrack Hospital, 4; men remaining in hospital too seriously wounded to be removed, 66. When next I see you, I will explain the difficulty of giving an accurate report of patients transferred to our wards during our absence in the night-time by the Turkish surgeons. We have not in any single instance objected to attend to these men. They were nearly all suffering from active erysipelas or its results; and, in justice to the Stafford House Committee (without I have your authority), I object on their behalf to be responsible for the high rate of mortality which occurred amongst these men, irrespectively of the instances in which our patients contracted from them the contagion. We have received information that about six hundred wounded men are *en route* for our hospital. Stores, etc., we are greatly in need of; of splints, there is not a single one here, so will you kindly forward some as soon as possible, also about twenty badges for the attendants in the hospital, and some good cognac, as the stuff we buy here for the hospital is very bad indeed, and costs more than the best in Constantinople.

b. Extract of a Report by Dr. T. E. D. Hayes, dated Varna, September 3rd.—On Friday last, the 31st August, at 8.30 P.M., I received information, through the kindness of the railway officials, that a number of wounded were to come from Rasgrad on Saturday, and that a special train was being made up to fetch them. I immediately communicated with M. Court; and, after a delay of nearly three hours caused by the Turkish authorities making difficulties about our going through the gates, I left at 11.45 P.M., taking a number of beds and carriage-cushions I have had made. We arrived at Rasgrad Station at 8 A.M. on September 1st, and were told that the wounded were at the hospital near the town. It is nearly two miles from the station. I went there immediately, and found a wretched state of affairs. The chief doctor, Hayreddin Bey, a most intelligent Turk, was up to his eyes in work;

he seemed the only competent surgeon there. I went to work along with him at once, and stayed till after 2 P.M., when I visited our doctors' tent, which was, of course, empty, they being at the front with Nedjib Pacha's division, where they had done right good service, as I have learnt from quite independent sources; and the Turkish soldiers themselves, forty-nine of whom are now in the Red Crescent Hospital, speak feelingly of the kind and prompt attention they received at the hands of the English doctors. At 4 P.M., we had four hundred and sixty-two wounded placed in the train on mattresses, stretchers, and straw. A surgeon in the Turkish service, a Greek, was supposed to be in charge of the men; but he seemed to know nothing about the nature of their injuries, nor the number of the men, though he had come from the hospital with them. One man died on the road, just as the train was stopping at Ishiklar Station; he was removed on a stretcher and given over to some *zaptiehs* to be buried. The men had bread with them, and they were given water at each station on the road. We arrived at Varna about 11.45 P.M., and, after a good deal of heavy work, got them out of the train, and the worst cases were placed in our wagons. I think they were all in hospital by 1.30 A.M. On September 2nd, Dr. Hayes further reports: Last evening, seventy-three more arrived; and, on the part of the Turkish authorities (medical), there was no one to receive them. We went to work and got them out of the train, and sent as many as we could in our wagons. After we nearly had finished this work, a species of Turkish doctor arrived with some bearers; and, with the aid of them and some of the town-carriages, the rest of the wounded were got to hospital by 10 P.M. I have already established, at Rasgrad and Shumla Road, dépôts where there are beds, cushions, etc., under the charge of competent persons; and I can easily make an arrangement to have some soup ready for the Rasgrad wounded at Sheylanjik. As for those from Shumla, there are no stations on the road where food can be got. The soldiers have always bread with them.

c. Extract from a Letter of Dr. Sandwith, dated near Schipka Pass, August 29th.—Hume and I came up with Saleiman's moving camp on the night of the 19th. The following morning we presented ourselves to him, and then marched on with his troops to the mouth of this pass. The fighting commenced the following day, and we established ourselves at the foot of the mountain to dress the wounded who were brought down to us in the afternoon. During the next six days, some thousands of wounded passed through the hands of Leslie and our two selves. We performed seventeen large operations, some being ordinary amputations, others more rare. The Turkish military doctors, four or five of whom worked with us, were Greeks or Armenians, and confessed that not one of them was competent to amputate a finger. Besides this, as far as I know, they never extracted a single bullet. On the second afternoon, I amputated a man's thigh, but could not then get an ox-wagon to transport him to Kesanlik. We sent one of our own men to nurse him during the night, but he died the next morning; his death partly depending, in my opinion, upon exposure to cold and lack of nourishment. The wounded were transported from the mountain passes, after one, two, and even three days' delay, on ordinary pack-horses, a few of the severe cases being ultimately brought on rude stretchers. For this work, nothing could be more suitable than mules with *cacolets*. The transport arrangements between our ambulance and Kesanlik were very defective; and the evacuation from that town to Philippopolis was not commenced until Stoker arrived and carried off two hundred thither.

d. Report of the First Journey of the Stafford House Adrianople Railway Ambulance, by F. R. Barker, dated Constantinople, September 4th, 1877.—In accordance with your instructions, I proceeded, in conjunction with Mr. Cullen and dragoman Williams, to Adrianople on August 30th, our object being to accompany the wounded from station to station, giving any assistance that may be required. At the station in Stamboul, we found awaiting us a van which had been kindly lent to us by the railway company for stores, and a free pass first-class all along the line. On arriving at Adrianople, about eight o'clock the same evening, we proceeded to the Hôtel d'Europe, where we met the Stafford House surgeons under Dr. Bond Moore. The following day, on arriving at the station, we met the Pacha, who welcomed us, and told us that he expected a train of wounded to arrive from Philippopolis shortly. We forthwith prepared our stretchers, so that we were quite prepared to receive them on their arrival, much to their astonishment, many of them remarking on the activity and interest taken in them by the English surgeons. We were able to render them good service, I myself having dressed sixty-five and amputated a finger. Messrs. Cullen and Williams were both equally busily engaged, and had not finished dressing them by the time the train moved off out of the station. We afterwards saw Lady Strangford. At her ladyship's suggestion, but on my own responsibility, I engaged the services of Mr.

Sketchley, who, last winter, was in charge of her hospital at Batak. The next morning, we proceeded to Philippopolis, where we found large numbers of wounded continually arriving from the front, most of them in a wretched condition, many of them not having had their wounds dressed for twelve or fourteen days. We called on the Pacha, who received us cordially, and entered fully into the spirit of our work. He expressed himself highly pleased with our object, but thought that a road transport from Kesanlik to Philippopolis was absolutely necessary, as they had no means of conveying the badly wounded from the front. Nevertheless, he said he would afford us every assistance in his power. We started that afternoon with eight hundred and fifty wounded, our van being attached for Adrianople. We dressed the wounded all the way to Tirnova, passing along from carriage to carriage, till darkness put an end to our labours. We were then enabled to procure a little soup for the worst cases. Many of the wounds, though trifling in themselves, were, from want of attention, becoming gangrenous. I had some difficulty with the wounded, who insisted on getting out when the train stopped, and were in danger of being left behind. On the way, we passed Dr. Neylan, who was going to Philippopolis, and were rejoined by Williams, whom we had sent to Tchorlon to see the men get their soup. On arriving at Adrianople, the worst cases were sent to the hospitals; and another train of five hundred and eighty was made up for Stamboul. We dressed whilst the light lasted, but were unable to get through so much as on the previous days, there being no communication between the carriages. At Tchorlon, we distributed soup, each man receiving a bowl. The following morning, we had a few bad cases of hæmorrhage, doubtless due to oscillation, one of which was so serious that it demanded an operation, which I had to perform under most disadvantageous circumstances, the operating-table being a railway trolley, with a burning sun overhead. The shock, though severe, I am glad to say, was almost recovered from by the time we arrived at Stamboul, the men having been supported by stimulants. With regard to stores, I found the assorted cases most useful for dressing at railway stations, and would propose that one be left at Adrianople under the charge of the station-master. I also gave some of my stores to Lady Strangford.

e. Report from Mr. Cullen, Hôtel Royal, Pera.—Our transport service, consisting of myself, Dr. Barker, and Mr. J. D. Williams as assistant, started from Constantinople on August 30th, and arrived at Adrianople the same evening at 8.5 P.M. I left the special railway van which was kindly made over to us by the railway company for our own use in charge of Mr. Williams, and proceeded to the town of Adrianople, which lies at a very considerable distance from the railway station, with Dr. Barker, to consult with Dr. Moore and others as to the state of the hospitals, and to gain information as to where relief was most needed. From all I heard, the greatest want was a transport service between Philippopolis and Kesanlik, where there are a very large number of wounded men without any adequate means at hand for removing them, and an entire want of any general system of arrangement on a large scale. The next morning, the 31st, a large train of wounded men arrived from Philippopolis; and I at once had an interview with Djemil Pacha, the governor of Adrianople, and informed him of the assistance we were able to afford him in the case of the wounded. The wounded were at once removed to a temporary shed which had been erected near the line for their reception. Mr. Barker was the only surgeon on the spot at the time, and removed the first man who left the train on a stretcher of our own. I particularly informed his Excellency that we were acting for the Stafford House Committee, and he was exceedingly courteous, and expressed his thanks for the great assistance he had received from all the Stafford House men on so many occasions. He requested me to convey his thanks to the Committee, and gave an order to supply me with a guard for our van, which was done. Drs. Moore and McIver came down soon afterwards, and were at once in full work. During their labours, Djemil Pacha and Mr. Blunt, our consul, several times passed through the building and saw the Stafford House men at work. The Pacha expressed himself in high praise of their labours, and held them up to the native doctors and dressers as an example which they would do well to follow. It did one good to hear the thanks and blessings the wounded so liberally bestowed on our men for the care and attention they had shown them. On Saturday, September 1st, we proceeded to Philippopolis, and arrived there at 7 P.M. On Sunday, September 2nd, I went with Dr. Barker and Mr. Sketchley to Mr. Calvert's, the British Consul, and he kindly sent his cavass with us to the Pacha's. On sending word that members of the Stafford House Committee wanted to see him, we were admitted immediately. He was exceedingly cordial, and gave me all the information I wanted. He said that there were between four and five thousand wounded men at Kesanlik, and that every day the number was added to; that there was no properly or-

ganised transport service, no competent surgeons, and no stores; and that he should be only too thankful if we would undertake a service of our own between Philippopolis and Kesanlik. He offered every assistance in his power, and, on leaving, said: "Englishmen have done a great deal to assist us; at least accept my personal thanks, and convey the same to your society." The same day, at 3 P.M., we started for Adrianople with a train of wounded men, and all of us were hard at work on the road, going from carriage to carriage, tending and dressing, and cheering up the poor fellows. They were most grateful, and said that the first thing they should do on arriving at Constantinople would be to offer up prayers for our safety and happiness. On entering the carriages, we found them dejected and in great pain. On leaving, all were comfortable, and some were so much relieved that they were singing. At Tirnova, we procured soup for the worst cases, and saw them safely discharged at Adrianople, where we arrived at 3 A.M. on Monday, September 3rd. At 3 P.M. the same day, we started for Constantinople with a train of five hundred and twenty wounded men, who were being sent on from Adrianople hospitals. These we tended on the road to the best and utmost of our abilities, and, having telegraphed from Adrianople, we were able to distribute soup to every one of the poor fellows at Tchorlon at 3 A.M. the next morning. At the station at Cabakja, one man, whose hand was fearfully shot, was in such pain and danger, that it was thought advisable to amputate it. I spoke to the officer in charge of the wounded and to the man himself, explained the case to them, and told them that chloroform would be administered, and that nothing could save the limb. I got the free consent of both, and Dr. Barker, assisted by Mr. Sketchley, at once successfully performed the operation. The station-master most obligingly delayed the departure of the train till we had finished and the man had been removed to a first-class carriage. He was most carefully attended to by Dr. Barker, who travelled with him all the way to Constantinople, and delivered him up, doing well, to the officers sent to receive the wounded. With regard to the medical treatment of the wounded, I beg to refer you to Mr. Barker's report. The military officer in charge of the wounded, who journeyed with us from Adrianople to Constantinople, particularly requested me to furnish him with our names, as he wished to report them to the Seraskierat for the care we had taken of the men under his orders, and expressed his personal gratitude to me for what we had been able to do for them. We arrived at Constantinople at 4 P.M. on Tuesday, and soup was distributed under your orders to all the wounded men before they left the station.

f. Extract from Letter of Dr. Stoker, dated Adrianople, September 2nd, 1877.—The *cacolets* are absolutely necessary to get the wounded off the mountains. If you could send some more, or induce the Committee to get some made after your pattern, it would save lots of lives and suffering. I am getting twenty more wagons, and only came here to buy the harness. I have arranged two stopping places for our ambulances, and food will be provided whenever we send on to give two or three hours' notice. I will want a couple more doctors shortly, as my other duties prevent me from attending to my medical ones.

The following letter has been received from Mr. Young, the Commissioner in the Black Sea of the National Society for Aid to the Sick and Wounded in War.—"Constantinople, September 9th, 1877. Dear Colonel Loyd Lindsay,—From all divisions of our medical staff, I continue to receive accounts of splendid work done for the sick and wounded. Dr. Leslie's division during the fighting at Schipka was continuously at work among the thousands of wounded resulting from the daily engagements fought there, and from the 14th to the 20th August he visited the numerous refugees, women and children, some of whom were wounded, and among whom he distributed Liebig's extract of beef. Dr. Crookshank's division, which on September 1st was with the Turkish forces before Popkoi, treated in the week ending that date 495 sick and wounded, and after the fighting on August 30th visited with his transport the scene of the engagement, bringing in the wounded. Dr. Hope's division at head-quarters of Dervish Pasha, near Batoum, has its hospital tents full of wounded, and the litters and *cacolets* with which he is provided have proved of immense service in mitigating the sufferings of the wounded in the mountainous country there. From Varna I have transported on two occasions sick and wounded to Constantinople, the buildings of the former place having been overcrowded with the wounded sent down from the front. Large numbers of wounded are pouring into Constantinople daily, and the Red Crescent Society are hard at work endeavouring to meet the immense needs of the wounded, not only in the capital, but at the front, by means of flying ambulances, transport, etc. The last wounded I brought from Varna were placed in a hospital established by the Red Crescent Society and Stafford House

Committee in the Palace of the Sultan at Beglerbeg. The soup-kitchen established by Barrington Kennett for the wounded while being transported long distances by rail having proved of great benefit, I continue to give him supplies of preserved soups, which, he tells me, have been of the greatest service, owing to their being easily prepared for use on the shortest notice, and often wounded arrive at the stations where the soup kitchens are without previous intimation of their coming being given. Other supplies of medical comforts I have given for use of the sick and wounded under the care of the surgeons of the Stafford House Committee. Having had from the first the intention of sending supplies to the hospitals at Erzeroum, Kars, and that direction, I am now on the point of proceeding to Trebizonde to carry out that intention before the winter sets in. Yours sincerely, J. S. YOUNG."

The following telegram from Dr. Harry Crook-shank, dated Varna, September 25th, 4 30 P.M., has also been received by Col. Loyd Lindsay. "Fighting all day. The Turks attacked the Russian position. We pitched the hospital marquees on a large vacant space in a village near a fountain. We cleared out the mosque and two large houses, and a large barn filled with straw. Mead arrived the same afternoon. During the night, we received five hundred and twenty-seven wounded. Working incessantly two nights and days, we transferred three hundred. The remainder are under treatment. We had twenty-one amputations; and there are yet more to be done. The patients are supplied night and morning with a large plate of hot boiled mutton. (25th. Arrived Varna 10 days. Ill with enteric fever?)"

From Armenia, it is telegraphed that there is not a single doctor, and neither hospital nor stores, with the army of 30,000 men which is advancing on Erivan. From Erzeroum, on September 20th, it is reported that new English doctors were expected, with a large quantity of stores sent by Lord Blantyre. We hear that Dr. Casson's party at Erzeroum and Kars consists of only four surgeons; but that two more start next week to join him.

The principal reports from the hospitals and ambulances, in which the wounded are collected, that are sent to this country naturally come from the Turkish side, because, as we last week explained, the Russians have hitherto declined to employ others than Russian surgeons. From Bucharest, however, we learn that there is a great dearth of doctors to cope with the immense number of Russian and Roumanian sick and wounded soldiers.

The following is an extract from a letter sent last week by the Dutch Vice-Consul at Bucharest, Baron d'Hogguér, who is working at one of the Roumanian ambulances at Cotraceni. "Six hundred wounded arrived this morning, and six hundred a few hours later. There was absolutely hardly anything prepared. There are hundreds of Russian wounded in all the town hospitals. Everything that could be, has been arranged for the Roumanian wounded. Almost every dresser and all the surgeons are at the front, and in the Turnu Magureli ambulances. When the six hundred wounded arrived, we found that they had not had any wounds dressed for four days. Gangrene has broken out in this hot climate. The town barbers dress the wounds. We want *everything*. We did not expect to have three thousand wounded in one day. We want lint, chloroform, ice, surgical instruments, all surgical appliances for amputations, and, above all, a good surgeon. Try to get the English Committee to send one out *at once*. Let him be sent to me at once, with everything that can be sent. I cannot describe to you the harrowing scenes I have witnessed, and every hour fresh cases come in. The town is crowded with the Russian wounded, and even your admirable Red Cross organisation is finding the work above its strength. Ask your English friends to send everything they can to both Societies. The Russians are helping as much as they can, but their hands are full, and Bucharest is one large ambulance. Surgeons, and chloroform, and instruments are what we want at once."

THE SOCIAL SCIENCE ASSOCIATION.

AT the recent meeting, in Aberdeen, of the National Association for the Promotion of Social Science, the Department of Public Health was presided over by Mr. EDWIN CHADWICK, C.B.

On Thursday, September 20th, the special question for consideration was, "What is the best mode of providing suitable Accommodation for the Labouring Classes, and of Utilising Open Spaces in Towns". Dr. WILLIAM HARDWICKE opened the discussion by reading a paper, in which he explained a model block system, which he inspected on the Continent, and which he hoped to see some day adopted in London. The most interesting part of the address dealt with the question of utilising open spaces in London. He was anxious for the multiplication of such spaces; but he pointed out that, when they were closed

against the public, they were deprived of half their value. London squares and gardens presented good opportunities for recreative purposes, and he agreed with those who thought there should be legislation on the subject, believing that compulsion, with proper compensating clauses, would not fail to acquire these spaces for the public benefit. The speaker also pleaded for graveyards being used as ornamental recreation-grounds.—Mr. WILLIAM BOTTLEY (London) recommended that drainage should be carried from the backs of houses, and not under the floors; that dwellings should have a southern exposure as much as possible; that greater care should be taken in the construction of cisterns in the future than there had hitherto been.—Mr. BALDWIN LATHAM (London) mentioned that the question of accommodation for working men in the metropolis had within recent years been settling itself by the railway companies providing means of transit to suburbs fifteen and twenty miles distant. With regard to open spaces, he agreed with Dr. Hardwicke that they should be made public.—EX-BAILIE ESSLEMONT (Aberdeen) said that the English spirit of independence revolted against a system of aggregation of populations in large blocks.—Dr. FARQUHARSON approved of the co-operative principle adopted in connection with the block system.—Dr. STEVENSON MACADAM (Edinburgh) and other gentlemen took part in the subsequent discussion.

On Friday, September 21st, the special question was, "How can the Sanitary Condition of Population engaged in the Coast Fisheries of Scotland and other parts of the United Kingdom be Improved?" Papers were read on this subject by Mr. WILLIAM PAUL of Aberdeen and Dr. JAMIESON of Peterhead. They said that the coast fisheries were generally overcrowded with men and women coming from other districts. On these occasions, the sanitary state of the dwellings was of the worst description. The idea was advocated that the local authorities should take action in improving such habitations. Numerous plans of dwellings for this class were exhibited, and highly approved of by the members attending the Section.

On Saturday, September 22nd, Dr. STEVENSON MACADAM of Edinburgh read a paper "On the Contamination of Water in Domestic Water-Cisterns". The remedy for the evil, he said, lay in the periodic cleansing of the house-cistern, which should be regularly done every month or two. This should be carried out with a very soft brush, and every care must be taken that the natural skin of the lead be not disturbed. A wire perforated zinc cover might be placed over the cistern to keep out mice, pieces of plaster, etc., but a tight cover which hindered the aëration of the water should not be used.

The PRESIDENT delivered his address on Monday, September 24th. On Tuesday, September 25th, Dr. STEVENSON MACADAM of Edinburgh submitted a communication "On the Ventilation of Drains and Sewers", in the course of which he urged the importance of having a ventilating tube inserted in the service-drain from houses to the sewer. But that of itself was not sufficient. Between the ventilating pipe and the sink there should be placed in the service-drain a U-shaped trap with upright drain-pipe, leading to the surface, in the throat of which there should be inserted a wire cage containing fragments of dry charcoal. For the ventilation of the street-drains and sewers, the furnaces of public works, such as gas-works, should be utilised where such were available, and open air-shafts carried from the main drain to the surface of the streets at numerous points. Besides ventilation, there should be a periodic flushing of the main drains and sewers by the opening of sluices or valves connected with large cisterns placed at proper distances apart. Dr. Macadam concluded by urging the importance of carrying the waste-pipes of water-cisterns level to the open air.—The CHAIRMAN remarked that there was no great necessity for ventilation if sewers were properly constructed.—Mr. COLLINS of London suggested various modifications of the ventilating apparatus.

Mr. E. J. WATHERSTON of London read a paper "On the Laundry a Centre of Contagion". He expressed his astonishment at this matter being overlooked when so much was being done in the way of sanitary reform, and said that he believed a wide-spread knowledge of the risks consequent upon the present evil system would create the demand, to be followed very promptly by the supply of proper washing establishments constructed upon scientific principles and aided by machinery. In order that infected linen should in no case come into contact with that of furniture possessing what he might call a clean bill of health, he suggested a second and detached laundry constructed specially for the reception of infected linen. He thought it might be safely assumed that the application of machinery to this branch of industry would cause a greater rather than a lesser demand for labour, and that washerwomen would be better off as assistants in large laundries than they at present were as small proprietors. He further suggested that it should be made an offence punishable by fine or imprisonment for householders or occupiers to send washing to any

washerwoman or laundry whatsoever without previous notice in the event of there being illness in the house.

Mr. W. IVISON MACADAM of Edinburgh read a paper "On Animal Life in Fresh Water Reservoirs".

As the present system of lunatic asylums existed for the continuance of the present system, and that an efficient one would never become a *fait accompli* in this country until the people demanded it of the legislature.

LUNATIC ASYLUM REPORTS.

THE MIDDLESEX ASYLUMS.

THE two Middlesex Asylums at Colney Hatch and Hanwell may be fairly compared as containing about the same number of patients, drawn from the same pauper class and representing the same forms of disease. The reports of these two asylums for 1875 open with excellent "introductory" by the Chairmen, showing that the cost per head at Colney Hatch has been reduced to 9s. 7½d. per week, whilst that at Hanwell is 9s. 11d. The Colney Hatch Chairman, Mr. Wyatt, adverts to the "great inconvenience arising from the reception of lunatics from criminal asylums who have served their sentences"; and Dr. Sheppard, in his report, supports this statement. The evil complained of has been often alluded to in this JOURNAL, and we recommend the Secretary of State's attention to it at the earliest opportunity. The moral wrong and trouble and mischief which these depraved minds create is incalculable, besides the expense to which the county is indirectly put through them.

Passing now to the medical superintendents' reports, we find a general tone of satisfaction running through them. Amusements have been increased, ward decorations multiplied, seclusion and restraint lessened; coroners' inquests are conspicuous by their comparative absence; death-rates at any rate are not above the average, and the superintendents express gratification with the courtesy of the Committees and the willingness of the coadjutors. This is as it should be, and is doubtless what these gentlemen really feel. The admissions on the male side at Colney Hatch were 351, and the recoveries were 31 per cent. on the admissions; at Hanwell, they were 205, and 40 per cent. of recoveries. The Hanwell people congratulate themselves on this large percentage as compared with other asylums; but we must remind them that many accidental circumstances contribute to the percentage of recoveries on admissions in asylums; e.g., the acuteness of the cases, the period of the year when they were admitted, a large death-list giving vacancies which are soon taken up by acute cases, the opening of the new metropolitan asylums which absorb the most demented and chronic of the insane population, etc. At Colney Hatch, the recoveries (taking the male side) have in some years been very large without any apparent reason for it; thus, in 1872, they were 43.5 per cent.; in 1875, they were 56.6 per cent. Certainly, the difference in the recoveries at Hanwell Asylum has been very great between the years 1874 and 1875 and all the preceding years to the time of the opening of the asylum; thus, in 1871, it was 16.2 per cent., and in the next year 29.7 per cent. only, although a larger number of new cases were admitted in 1871 than in any other year of the asylum's history; but in 1874 the recoveries sprang up to 43.4 per cent., and last year, as we have stated, they were 40.0. The difference would, no doubt, be attributed by the medical superintendent to the fact that many of the chronic cases have been removed to the metropolitan asylums; but to us this does not seem sufficient. It looks more as if, on the appointment of new superintendents and on the introduction of better hygiene, more amusements, and better facilities for medical treatment, owing to the appointment of a larger medical staff, better attention has been given to persons for whom there was simply no opportunity or time for treatment before, and that in this way many have been restored to freedom who had remained in the asylum overlooked, but not looked over, creatures of a routine into which the most originally active man may lapse.

We do not notice the same disparity in the recoveries for different years on the female side at Hanwell. In 1874, they reached 54.3 per cent. without apparent cause, but throughout they have been more consistent; in 1875, they were 39.8 per cent., those at Colney Hatch being 39.52 per cent.

Commenting on the deaths, we find that the mortality is large, owing probably to the large number of "general paralytics" sent from the metropolitan parishes. At Hanwell, taking both sides, the mean is slightly below that given in the Commissioners' last report for the county and borough asylums; but, on the male side at Hanwell, the

deaths were 1 per cent. above the county average; whilst at Colney Hatch on the male side they were 3 per cent. in excess.

A very important feature in the reports is the question of seclusion and restraint. At Hanwell, seclusion is nearly abolished; at Colney Hatch, it remains in great force, and Dr. Sheppard sets himself up as the champion of it. At Hanwell, on the male side, seclusion amounted to only one hour twenty-five minutes; but at Colney Hatch, though exact figures are not given, the time was, we know, much greater. This points a radical difference in the treatment; and, without eschewing "seclusion" as a curative means, we must give the palm to Hanwell in being able to report fewer cases, with fewer casualties, and a greater number of recoveries. Much of this question of seclusion depends on the temperament of the medical superintendents, and on the amount of personal attention given by them to the patients.

The superintendents of Hanwell and Colney Hatch have more opportunities for real medical treatment than are found in most asylums, for they are relieved of all the responsibilities concerning the finance, stewardship, etc., of the asylum; and, though we are among the first to acknowledge the difficulties lying in the way of treating so large a number of patients, we expect, whilst allowing that much is now done, still greater things from them, having, as they appear to have, the confidence of their Committees, who declare themselves always willing to support the medical element.

COUNTY ASYLUMS.

WE have received the reports of the following Asylums and Hospitals for the Insane, viz.: Bethlem, Nottingham, Three Counties, Brookwood, Hayward's Heath, Preston, and Newcastle-upon-Tyne. All show that a large amount of work is being done, in directions varying according to the position and nature of the asylum, and that the patients are treated with consistent liberality not trammelled by the arguments (or rather the rhapsodies) of the ultra non-restraint party on the one hand, nor using their vast power to carry out their own ideas on the other, but stating fairly the principles on which treatment is carried out. We may especially refer to some good remarks by Mr. Ley of Prestwich and by Dr. Brushfield of Brookwood; on the subject, by the former, of the effect of religious revivals; and, by the latter, on the present system of paying labourers in connection with the question of intemperance.

These asylums are not all in the same position, and Bethlem is the most peculiar among them. It professes to receive acute and curable cases only, drawn from the middle and upper classes; but the report shows that "general paralytics" are admitted, and that chronic cases are retained in numbers. These, as confessed by the superintendent, detract from the useful powers of the hospital, and are contrary to the intentions of the founders. Bethlem, from its central position, large medical staff, and reputation, should be, and is to a small extent, a school of reference for acute insanity, and we should much like to see it affiliated to some physiological laboratory, where results of importance to the specialty could be worked out; but the present system of rules, if properly carried out, seems opposed to the watching from beginning to end of a long continued case. The accounts of *post mortem* examinations are fuller than those given in any other report, but show poverty of description of any but the coarsest appearances. Dr. Williams notes especially the increase of "general paralysis", and of intemperance as a cause of insanity.

The County Asylums agree in many particulars; thus the percentage of recoveries and deaths average the same, and the weekly charges correspond fairly. In all of them (except Hayward's Heath) there are complaints of pressure on space, and of the effect of the Government grant of four shillings per head per week in filling their wards with chronic insane persons who might have been retained in the workhouses. It is, no doubt, a great calamity if by this grant acute cases are kept out of the asylums where they can have prompt medical attention; but we desire to call attention to the plan pursued by Dr. Duckworth Williams of Hayward's Heath, of sending chronic insane persons back to their friends, whenever it is possible, as this plan relieves the asylum, relieves the rates, and comforts the patients themselves. It is so rational and humane that it deserves every encouragement. But, on the other hand, there is no doubt that, if the Government grant had facilitated the admission of the chronic insane into asylums, it has done good by removing those persons to conditions where they can be properly treated, statistics better obtained, and observations more correctly made. It is quite true that the machinery of county asylums is in many instances too elaborate and expensive for the treatment of chronic and harmless patients, but it is also true that these persons cannot be properly looked after (or, at any rate, *are not*) in workhouses, and that a special machinery is required for them. It may be right to keep the present asylums for acute cases, but receptacles on a cheaper scale and

improved plan might be carried out; and, in consequence, to a to
 tract, except on conditions that allow of their being discharged when
 room is required for those for whom the asylum was intended. In many
 asylums, much room that may properly be utilised is thrown away;
 thus, we notice in the report of the Three Counties Asylum, that the
 patients", whilst other parts are so overcrowded that the excessively high
 mortality of this asylum may not unfairly be attributed to unequal dis-
 tribution of cubic space. Over and over again, we have noticed in
 these huge buildings that want of room for patients is complained of,
 whilst the space devoted to committee-rooms, entertainment halls, cor-
 ridors, and so on, is out of all proportion. The Commissioners work
 hard, fairly, and impartially; and, since their experience is so wide
 and their intentions beyond suspicion, it is a pity that their recom-
 mendations are not more generally carried out. We desire to call the
 attention of some superintendents to errors in their reports which are
 inexcusable in properly educated medical men; for instance, we notice
 that in one instance death is recorded as resulting from "empyema"; in
 another, we find the causes of death given as "epilepsy, apoplexy, and
 disease of brain". This is too indefinite, and shows either that *post*
mortem examination was made, or that medical work was done in a
 mere perfunctory manner, under, perhaps, the pressure of lay work,
 such as looking after bricklayers or signing stewards' contracts.

CORRESPONDENCE.

SUBCUTANEOUS DIVISION OF THE NECK OF THE THIGH-BONE: RETENTION OF MOTION AFTER OPERATION.

SIR,—Amongst the many advantages which result from such profes-
 sional gatherings as the annual meeting of the British Medical Associa-
 tion recently held at Manchester, is the opportunity afforded of witness-
 ing any special method of treatment adopted by any of the surgeons in
 the town visited, as well as the peculiarities and modifications in the
 general arrangements adopted at the various hospitals we have the op-
 portunity of visiting.

In his very able address, delivered as President of the Surgical Sec-
 tion, and published in the BRITISH MEDICAL JOURNAL for August 11,
 1877, Mr. Lund directed attention to a most important practical sub-
 ject; viz., "the after-history of surgical cases", and illustrated his
 remarks by exhibiting a number of patients upon whom he had per-
 formed capital operations, or operations of great surgical interest,
 several years previously. One of these cases was a man upon whom
 Mr. Lund had performed the operation of subcutaneous division of the
 neck of the thigh-bone in both hip-joints, one eighteen and the other
 sixteen months previously, *i. e.*, in March and May 1876.

I had the opportunity of examining this patient carefully in bed in
 the Royal Infirmary, where he was also examined by Dr. Sayre of New
 York and a number of surgeons who went to see Mr. Lund's cases.

In the *left hip-joint*, free motion existed, and, when the pelvis was
 fixed, the movements of flexion and extension were very free; but ab-
 duction and adduction, as well as rotation, were much more limited,
 although the limb could undoubtedly be moved in all these directions.
 Movement gave the patient no pain whatever, and he told us that, in
 walking, this was decidedly the more useful limb of the two, and he
 was able to bear his weight upon it firmly.

In the *right hip-joint*, motion also existed, and the patient was able
 to flex and extend the limb; but the movement was much more limited
 than in the left, and he could not bear it to be moved without slight
 pain, which, he said, was consequent upon a railway journey he had
 undertaken a day or two before to come to Manchester, when he had
 experienced a little difficulty in getting in and out of the railway car-
 riage. He stated that he was able to move this joint nearly, but not
 quite, as freely as the left before the railway journey.

In this case, both joints were operated upon in consequence of bony
 ankylosis, with the limbs in a straight position, the result of rheu-
 matic inflammation nearly three years previously.

I also had the opportunity of carefully examining, together with Dr.
 Kitchen of Manchester, another case in which Mr. Lund had subcu-
 taneously divided the neck of the femur on both sides for bony anky-
 losis of both hip-joints, the result of rheumatic inflammation three
 years previously. The patient, William Exton, aged 30, had been con-
 fined to his bed during fourteen months after the attack of rheumatism
 in September 1873, and was admitted into the Royal Infirmary on
 October 26th, 1876. The left hip-joint was operated upon on Decem-
 ber 3rd, 1876, and the right fourteen weeks afterwards.

I found this patient able to walk about the room without any as-
 sistance, though he preferred using a stick, in consequence of a little
 pain on motion in the right hip, in which the movement was very
 limited, although motion undoubtedly existed. At the left hip-joint,
 tolerably free motion existed at the seat of operation; the movements
 of flexion and extension were freely permitted, and the movement of
 rotation was also tolerably free; but both abduction and adduction
 were very limited. He did not complain of any pain when the leg
 was moved, and the cut surfaces of the new articulation seemed to
 move freely on each other, as if they were covered with a smooth layer
 of fibro-cartilage. The man could bear his weight well on the left leg,
 and only wished the right one was as good; but, as nine months had
 elapsed since the operation on the left, and less than six months since
 the operation on the right, this could hardly be expected.

The similarity of these two cases in their pathological history, the
 symmetrical nature of the affection, the fact that in both cases the legs
 became ankylosed in the extended or straight direction, and the simi-
 larity in the result, up to the present time, and motion in each case
 being much more freely permitted in the left than in the right leg, ap-
 peared to be very remarkable. I could have no doubt that motion
 will be permanently retained to a very useful extent in the left hip-
 joint in both cases; but, with regard to the right hip-joint, in both
 cases it seemed to me that much would depend upon the extent to
 which passive motion is persevered in and can be borne by the patients,
 and also on the continuance of weight-extension, which had been em-
 ployed by Mr. Lund with great advantage.

Mr. Lund has for the fifth time performed this operation within the
 last few months on a young gentleman residing near Manchester, but
 I had not time to visit the patient with him. Every effort is being
 made to preserve motion, and the case will be reported upon at a later
 period.—I remain, sir, yours obediently,
 WILLIAM ADAMS.

Henrietta Street, Cavendish Street, Sept. 18th, 1877.

THE TREATMENT OF SPINA BIFIDA.

SIR,—In your issue of to-day (September 22nd), there is a review
 of my small volume on the *Treatment of Spina Bifida*, in which sur-
 geons are invited to try the method suggested, and it is added "that
 thus the materials for a correct estimate of its value may be speedily
 collected". Now this is very proper, and, I trust, will be largely
 done; but the previous part of the review is apt to mislead, hence the
 reason of my now addressing you. The reviewer states that the only
 novelty is the use of glycerine in place of water, on account of the
 slower diffusibility of the former, and admits that this may be of great
 practical importance; but he omits (and this is what I desire to call
 attention to) to notice the importance attached to complete closure of
 the puncture, and the means for effecting this, without which the pa-
 tients would certainly die. I am aware that several eminent surgeons
 have tried drainage, as by a horse-hair for example, but have invariably
 lost their cases. Let me repeat that prevention of the continuous loss
 of spinal fluid is indispensable to success, and constitutes one of the
 most important parts of the new method.—I am, yours, etc.,

199, Bath Street, Glasgow.

JAMES MORTON, M.D.

TAUNTON (RURAL).—The population in 1871 was 20,565; the
 births in 1876, 529; and the deaths, 315. The birth-rate was 26.4
 and the death-rate 15.7 per 1,000 population, both being singularly
 low. Dr. Alford says that many of the hovels have been removed,
 and well-built cottages erected in their stead, although a great many
 picturesque but unhealthy cottages still remain. He also dwells on the
 injury to health arising from piggeries, the drainage of cottages into
 ditches, the existence of cesspools and accumulations of manure and
 refuse. The well-water is so contaminated from these sources, that it
 was found polluted in 44 out of 58 samples. There were 52 deaths of
 infants under one year, which give a death-rate of 9.8 per 100
 births and 16.5 per 100 deaths, both of which are singularly small.—
Taunton (Urban). Population in 1871, 14,957, but now estimated at
 15,109; births in 1876, 447, and deaths 335, making a birth-rate of
 29.8 and a death-rate of 22.3 per 1,000 population. Dr. Alford men-
 tions that ventilation of the sewers is being carried out and street-
 cleansing better performed; also that piggeries are less in number than
 in previous years. The contrast between the death-rates of the rural
 and urban populations is very great for so small a town as Taunton;
 but it is possible, as the workhouse is in the urban district, that ten
 deaths belonging to the rural district are included in it. There
 was an epidemic of scarlet fever, which caused 35 deaths, or more
 than 10 per cent. of the whole, although disinfection was actively
 carried out; but isolation was impossible, as there is no hospital for
 infectious diseases.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:
NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 10th day of October next, at Two o'clock in the afternoon.

FRANCIS FOWKE,
General Secretary.

36, Great Queen Street, London, W.C., September 15th, 1877.

YORKSHIRE AND EAST YORK AND NORTH LINCOLN
BRANCHES.

A CONJOINT meeting of these Branches will be held in the Infirmary, Hull, on Wednesday, October 3rd, 1877, at 1.30 P.M. President of the Yorkshire Branch, G. Shann, M.D.; President of the East York and North Lincoln Branch, R. H. B. Nicholson, Esq.

Members intending to read papers are requested to forward the titles to either of the Secretaries as soon as possible.

After the meeting, the members will dine together at 5.30 P.M., at the Station Hotel. Tickets (exclusive of wine), 7s. 6d. each.

W. PROCTER, M.D., York, } *Hon. Secretaries.*
F. F. HARDEY, Hull, }

September 25th, 1877.

BORDER COUNTIES BRANCH.

THE autumnal meeting of this Branch will be held at Thornhill, on Friday, October 12th.

Gentlemen intending to read papers, or be present at the dinner, are requested to give notice to either of the Secretaries.

R. MACLAREN, M.D., Carlisle, } *Honorary Secretaries.*
J. SMITH, M.D., Dumfries. }

Carlisle, September 25th, 1877.

WEST SOMERSET BRANCH.

THE autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, October 18th, at 5 P.M.

The following question has been settled by the Council for discussion after dinner:—"What in your opinion is the best way of managing the Third Stage of Labour so as to diminish the risk of *Post Partum Hæmorrhage*?"

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, September 15th, 1877.

PUBLIC HEALTH

AND

POOR-LAW MEDICAL SERVICES.

THE Sanitary Purposes Committee of the Preston Urban Sanitary Authority have recommended that the salary of Mr. Henry O. Pilkington, the Medical Officer of Health, should be increased from £100 to £150 *per annum*.

DORCHESTER RURAL SANITARY AUTHORITY.—Hitherto, the six medical officers of the Dorchester Union have been officers of health, one for each district. The Local Government Board, however, have declined to sanction this arrangement any longer; and consequently Mr. E. C. Day of Dorchester has been appointed Medical Officer of Health for the Eastern half of the union, and Mr. Rendall of Maiden Newton for the Western half. The salary of each is to be £50 *per annum*.

MILITARY AND NAVAL MEDICAL SERVICES.

SURGEON-MAJOR OLIVER has invented a canvas cup which will enable the soldier to refresh himself on a long march, and which possesses the double advantage of being uncumbersome and inexpensive.

SURGEON-GENERAL T. BEST has been appointed Principal Medical Officer at Portsmouth on promotion, *vice* Surgeon-General R. Bowen, retired, being succeeded in medical charge at Colchester by Deputy Surgeon-General W. S. Murray, M.D.

OBITUARY.

CHARLES MAYO, M.A., M.D.

DR. CHARLES MAYO died on board the Australian Navigation Company's steamship *Lyce Moon*, on Sunday, July 15th. Dr. Mayo was exceedingly ill with dysentery, and was advised that a sea-voyage was his only chance, but he sank thirty hours after leaving port, and was buried at sea.

Dr. Mayo was educated at Winchester College, and proceeded thence to New College, Oxford, of which he afterwards became a Fellow, and graduated as M.D. of the University of Oxford in 1871. He studied also at St. Bartholomew's Hospital, where he was for some time House-Surgeon. Of an active temper, he entered the service of the United States during the great Civil War, and acted as army surgeon throughout the siege of Vicksburg. He afterwards served with the German Army in the Franco-Prussian War, and became Staff-Surgeon Major in the Hessian service, and director of the Princess Alice's hospital at Darmstadt. He was much consulted by the Princess Alice respecting the organisation of hospitals and other means of affording aid to the sick and wounded in war. For his services, he received the Imperial German War Medal, the Bavarian Cross of Merit, and the Hessian Cross for Medical Service. After this, he entered the Dutch medical service, and was present as surgeon during the greater part of the first campaign in Acheen. After a short sojourn at home, he accompanied Sir A. Gordon to Fiji, where he held the appointment of Government Medical Officer of Vanua Levu and the Eastern Islands. He was the author of a *History of Wimborne Minster*, and of a contribution "On the Medical Service of the Federal Army", in *Vacation Tourists and Notes of Travel*.

JAMES TETLEY, M.D., TORQUAY.

DR. TETLEY, whose death took place on September 18th, had practised in Torquay for the last forty years. Having graduated at the University of Edinburgh in 1834, he shortly afterwards settled in Torquay, hoping that its soft and genial climate would prove beneficial in his then feeble condition of health. In this he was not disappointed, and so far improved as to be able to commence practice after a short residence. By his skill as a physician, by his kindly and gentle manner, he soon won for himself the respect and esteem of all with whom he was brought into contact, and for many years occupied a leading position as a consultant. His loss will be deeply and widely felt, both by his professional brethren and by a large circle of attached friends and patients. Though not taking any active part in public affairs, Dr. Tetley was a liberal contributor to many charities. To the Torbay Infirmary, the Western Hospital for Consumption, and to Erith House, Dr. Tetley was Consulting Physician, and rendered valuable services in promoting the welfare of these institutions.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, September 20th, 1877.

Davidson, Alexander Deas, Erith, Kent
Hornsby, George Harcourt, Bromsgrove
Macdonald, Henry Murray Wyld, Madras, East Indies
Newman, Arthur Joshua, 37, Southwick Street, W.
Price, Edward Harlow, 11, Edgewood Square, W.
Taylor, Frank, Stoke's Croft, Bristol
Weston, Edwin, Madras, East Indies

The following gentlemen also on the same day passed their primary professional examination.

Alden, Ebenezer Wenham, Middlesex Hospital
Jeffreys, James Graham, St. Thomas's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—
BRIGHTON AND HOVE LYING-IN HOSPITAL—House-Surgeon. Salary, £400 *per annum*, with *£100* for *board and lodging*. Applications to be made on or before October 18th.

CHINA—Medical Missionary. Salary to commence at £350 *per annum*, and residence. Immediate application.

EDINBURGH SCHOOL OF MEDICINE—Lectureship on Physiology. Applications on or before October 18th.

ROTHERHAM HOSPITAL—Resident House-Surgeon. Salary, £100 *per annum*, with board and furnished apartments. Applications to be made on or before October 15th.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 1/2 P.M.—St. Mark's, 1 A.M. and 2 1/2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1 3/4 P.M.—Royal Orthopaedic, 2 P.M.

TUESDAY..... Guy's, 1 3/4 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1 3/4 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY.. St. Bartholomew's, 1 3/4 P.M.—St. Mary's, 1 3/4 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2 30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1 3/4 P.M.—St. Thomas's, 1 3/4 P.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1 3/4 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.

FRIDAY..... Royal Westminster Ophthalmic, 1 3/4 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1 3/4 P.M.

SATURDAY.... St. Bartholomew's, 1 3/4 P.M.—King's College, 1 1/2 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1 3/4 P.M.—St. Thomas's, 1 3/4 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—Obstetrical Society of London, 8 P.M. Specimens by Dr. Galabin and others; Dr. W. T. Greene, "A Synopsis of One Thousand Five Hundred consecutive Labours".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

INQUEST WITHOUT INQUIRY.

SIR,—I was sent for a few days ago by a lady patient who was in great distress in consequence of her servant having found a parcel in the area, which from its size, shape, and smell, she believed to contain a dead and putrid child. I at once opened the parcel, and found therein a newborn male child in a state of tolerably advanced decomposition—perhaps it had been born a fortnight. The cord had been broken off at three or four inches from the abdomen, and there seemed to be marks of violence on the face. I made only a slight examination, and at once gave information to the Brixton Police Station authorities. I left my card with the inspector, not doubting that I should at least be summoned to the inquest, and perhaps ordered to make a *post mortem* examination. As a matter of fact, neither I nor any other surgeon was summoned; no medical examination of the corpse was made; whether the child was born alive or not, and whether murdered or not, was not ascertained; and no opinion or evidence on these points offered or asked for; and, notwithstanding the opinion of some of the jury that the "doctor should have been there", the case was quickly concluded, with the intelligent verdict of "Found dead". I should like an opinion whether a necropsy should not have been made in this case, or at any rate whether I ought not to have been summoned as a witness.—I am, &c., A BRITISH MEDICAL.

. In such a case as that described by our correspondent, medical evidence ought to be taken.

JUVENIS asks for the addresses of some of the offices to which a medical man seeking an appointment as ship's surgeon should apply.

C. M. BRIDSON.

SIR,—Would you kindly answer these two questions? 1. Is the examination for the L.R.C.P. of Edinburgh superior to that for the L.S.A. of London? 2. Is a man with the qualification L.R.C.P. of Edinburgh (1860) and M.R.C.S. Eng. (1854) justified in saying that he is better qualified than one holding the L.S.A. of London (1858) and M.R.C.S. Eng. (1855)? and, both living in the same town, that he is the only properly qualified man in the neighbourhood?—I remain, sir, your obedient servant, AJAX.

. 1. Both examinations are good tests of a candidate's competency to practise medicine. We cannot say which of the two is superior to the other. 2. A holder of the qualification L.R.C.P. Ed. and M.R.C.S. Eng. is not justified in making either of the statements referred to in this question. The second especially is absolutely incorrect.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

THE M.D. BRUSSELS.

WE are indebted to several correspondents for replies to the question of L.R.C.P. in last week's JOURNAL. The information which they give is substantially the same as that published in the *London Medical Record* of September 15th, which is as follows.

"By the regulations of the University of Brussels, British and other medical practitioners, provided with proper qualifications, are admitted to examination before the Faculty for the degree of M.D. Residence is not required from such as are unable to absent themselves long by reason of their professional occupations. No degrees, however, are granted *in absentia*, and candidates must come over in person and have their names inscribed in the books of the University. The fees are, for inscription of name, 25 francs (£4.18s.); for examinations, 35 francs (£7.10s.); for registration of diploma, 10 francs (8s.); total, 50 francs (£10.12s.). The examination consists of three parts: 1. General Therapeutics, including Pharmacodynamics (proportions of doses), Special Pathology and Therapeutics of Internal Diseases, General Pathology, and Pathological Anatomy. 2. Surgical Pathology, Theory of Midwifery, Public and Private Hygiene, Medical Jurisprudence. 3. Examination at the Hospital of one or two patients under Medical and Surgical Treatment; Examination in Midwifery, consisting in Obstetrical Operations on the *mannequin* (model of pelvis); Examination in Operative Surgery, consisting of some of the usual operations on the dead subject, such as amputation, ligature of an artery, etc. Great importance is attached to practical knowledge, but candidates must also prove that they possess positive theoretical science. Examinations take place at any time between October 15th and June 20th, except during the Christmas and Easter vacations. They are *visu voce* and written; but candidates may be exempted from the latter and confine themselves to the *visu voce* tests. Candidates must exhibit their qualifications or diplomas. The three examinations may be got through in a week, allowing a day's interval between each two. Saturday is the most eligible day for arriving, for candidates for whom time is an object. The delay of a week is, however, never exceeded by more than a day or two. The examinations are conducted in English through the medium of an interpreter, for such candidates as are not familiar with the French language. The degrees granted by the faculty are merely scientific titles, and do not confer the right to practise medicine in Belgium."

In addition to the above, we quote a few extracts from our correspondents' letters.

Dr. Broom writes that, when he was in Brussels, one of the Professors informed him that, in his experience and opinion, British practitioners who had gone there to graduate had found their difficulties and failures chiefly in the extent and detail of the examinations—particularly in pathology, therapeutics, operative surgery and midwifery, and in the clinics; and in the case of those who failed, it was often due to want of thorough preparation, as well as to putting too much faith in being favoured or excused on account of their being already qualified and not intending to practise in Belgium.—F. M. hints that the candidate should be well acquainted with the continental methods of performing surgical operations.

ANIMAL PHYSICS.—R. E. P. asks what is the best work on Animal Physics, including the relations of food to work, and its reduction to foot-pounds, etc.

JAMAICA.

SEVERAL correspondents have sent replies to the question of R. M. in the JOURNAL of September 15th (page 401).

G. F. C. is of opinion that any one in average general health and with a good constitution might reside in Jamaica for the time he mentions with a reasonable amount of safety. An epidemic of yellow fever appears in Kingston about every five or seven years. The climate is much less enervating than that of many parts of India. There is a strong fresh sea-breeze during the day and a deliciously cool one during the night. The heat is not nearly as great as in many parts of India, as well as G. F. C. can remember. The thermometer rarely goes above 90 deg. Fahrenheit. On the other hand, there is no really cold weather, the thermometer never falling below 60 deg. Fahr. These figures are from memory only. The climate of the Newcastle range of hills is very good—never hot, but often very cold; and the scenery is enchanting. Diet, clothing, and exercise are the principal things to be attended to; and a change to the hills for a month or so, to escape the heat of the plains in August or September, is beneficial.

Dr. W. Munro says that if R. M. value the lady's life in the least, he should not think of taking her to Kingston at present, or of going himself. When he hears that the epidemic of yellow fever has passed away, he ought then to take her out. By the time the next outbreak occurs she will be in less danger, as she will be more acclimatized. It is especially new comers who are attacked. Going out after an epidemic of yellow fever, a lady never exposed to wet, and living a quiet life, would be likely to continue in good health. Dr. Munro's experience having been obtained in the Leeward Islands, he is not able from personal observation to say anything about Jamaica; but he has heard that the climate on the Newcastle range is like a mild English one. He refers R. M. to Parkes's *Hygiene*, and to his (Dr. Munro's) Notes on Yellow Fever in the *Edinburgh Medical Journal* for September 1871, especially the last two pages, for further information.

J. M. C., who has spent some years in Jamaica, and resided for a considerable portion of that time in the neighbourhood of Kingston, writes:—A young married lady, by residing for any period of time in the neighbourhood of Kingston, would undoubtedly run a certain amount of risk, not so much on account of the climate as in consequence of the almost total neglect of sanitary principles, not only in Kingston but throughout the island. The climate of the plains around Kingston is not insubstantial, and, by selecting a dwelling with a good site, pure water supply, and proper removal and disposal of sewage, the chances of her being attacked by any fever of a malignant type would be exceedingly slight, provided she were prudent in avoiding undue exposure to the sun, etc. The present epidemic of yellow fever is not abnormal, for epidemics of this disease are frequent enough, but by attention to the above simple principles it need excite little dread. The climate of the Kingston plains is extremely enervating, whilst that of the Newcastle range of hills is delicious and bracing; and an occasional sojourn in these hills would go far towards counteracting the withering influence of the plains beneath.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

COST, SUPPLY AND QUALITY OF THE METROPOLITAN WATER.—1877. The following are the returns made by Dr. C. Meyrick Thwaites, one of the Medical Officers of Health.

Names of Water Companies.	Total Solids Matter per Gallon.	Oxygen required by Organic Matter, etc.	Nitrogen		Ammonia.		Hardness. (Clark's Scale.)	
			As Nitrates, &c.	Saline.	Organic.	Before Boiling.	After Boiling.	
<i>Grains.</i>	<i>Grains.</i>	<i>Grains.</i>	<i>Grains.</i>	<i>Grains.</i>	<i>Grains.</i>	<i>Degs.</i>	<i>Degs.</i>	
Thames Water Companies.								
Grand Junction ..	1.48	0.024	0.007	0.000	0.007	12.1	3.0	
West Middlesex ..	1.00	0.048	0.090	0.000	0.007	12.6	3.0	
Southwark and Vauxhall ..	1.75	0.052	0.115	0.000	0.007	12.1	2.4	
Chelsea ..	18.60	0.021	0.143	0.000	0.000	1.2	3.0	
Lambeth ..	17.70	0.077	0.125	0.000	0.000	13.2	3.3	
<i>Other Companies.</i>								
Kent ..	28.00	0.083	0.375	0.000	0.002	19.4	5.0	
New River ..	17.00	0.024	0.147	0.000	0.000	12.0	3.0	
East London ..	17.00	0.077	0.125	0.000	0.000	12.1	3.7	

Note.—The amount of oxygen required to oxidise the organic matter, nitrates, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters, the quantity of organic matter is about eight times the amount of oxygen required by it. The water was found to be clear and nearly colourless in all cases but the following, when it was very slightly turbid; namely, in that of the Southwark and Vauxhall, and the Chelsea Companies.

THE EPIDEMIC AT NETHER HOYLAND.

SIR,—In reference to a paragraph in the BRITISH MEDICAL JOURNAL (page 388) for September 15th, I think it right to let you know that the epidemic now prevalent at Nether Hoyleland is one of scarlet fever and not of typhoid. There have been twenty-three deaths from scarlet fever since May 21st in a population of about seven thousand.—I am, sir, yours obediently,
MICHAEL T. SADLER,
Medical Officer of Health for the Barnsley Rural Sanitary District.

MR. R. A. JACKSON (Little Sutton).—Dr. Husband has been for several years one of the public vaccinators authorised by the Local Government Board to grant certificates of proficiency in vaccination. No other certificate, therefore—beyond the qualifications to practise—is required.

THE ARMY AND NAVAL MEDICAL SERVICES.

The following questions were submitted to the candidates for Her Majesty's Army, Naval, and Indian Medical Services, at the examination held last month at the University of London.

Anatomy and Physiology (Mr. Busk). Monday, August 13th, 10 A.M. to 1 P.M.—1. Write a full description of the superior maxillary bone; its development, connections, and relations with blood-vessels, nerves, muscles, etc. 2. The arteries in the thigh, from the level of Poupart's ligament in front and behind to the knee, and including the popliteal space: state their courses, relations, and anastomoses, more particularly around the hip and knee-joints. 3. Describe the minute structure of the cerebral substance, and the mode in which you would proceed to demonstrate it, with the reagents you would employ for the purpose. 4. Describe the development of the human embryo, from the entrance of the ovum into the Fallopian tube to the end of the third month.

Surgery (Mr. Pollock). Monday, August 13th, 2 to 5 P.M.—1. A patient has obstruction of the bowels: describe the symptoms which would indicate the probable seat of the obstruction, whether in the small or large intestine; and the conditions which would generally determine the nature of the treatment, medical or operative. 2. What are the causes of incontinence of urine—local, constitutional, or accidental—and the measures to be adopted for its relief? 3. Describe the local and general characteristics of acute inflammation of the knee-joint, the result of accident or other cause; the changes which occur in and around the joint when the progress is unfavourable; and the treatment of such a case from the commencement. 4. Describe the symptoms of abscess of bone. What is the more common seat of such an abscess, and the treatment to be adopted in a suspected case? 5. Describe the symptoms of rupture of the intestine—the result of a blow or fall (without external wound)—and state under what conditions such a rupture might possibly not prove fatal. 6. What are the symptoms and causes of oozæna? at what period of life is it most frequently met with? and what local treatment should be adopted when general measures fail to relieve it?

Medicine (Dr. Aitken). Tuesday, August 14th, 10 A.M. to 1 P.M.—1. What do you understand by the terms "infectious," "contagious," "epidemic," and "endemic"? Name the diseases which are believed to be contagious, and mention the principal reasons for your belief in the diseases you name being contagious. 2. Describe the morbid anatomy of "sclerosis" as a lesion of the nervous system. Name the diseases in which it is a constant morbid condition, arranging them according to the parts or tracts of the nervous system which are the seat of sclerosis; and state the most characteristic symptoms of such cases during life. 3. What are the symptoms and physical signs of a fatty heart? 4. Describe a case of acute hydrocephalus in a child, and the appropriate treatment. 5. Name the diseases which mostly cause deformities of the female pelvis, and what are the most common varieties of pelvic deformity? How are they diagnosed? What are the standard measurements of the diameter of the true pelvis in the adult female, at the brim, and in the cavity? and what are the measurements which are to be taken in the diagnosis of deformities of the pelvis? What size would be considered too small for the natural delivery of a full-grown child? and what would you do, in such a case, to meet the existing difficulties? 6. What do you understand by an "alterative" medicine? Name the most approved preparations of arsenic, iodine, and mercury used as "alteratives," and the appropriate doses of each preparation you name used as such.

Zoology. 1. Describe the principal modifications of the respiratory system in the animal kingdom. 2. How does the vertebral column differ in the different classes of mammals? 3. Give the characters of cephalopods, and state their distribution at the present time and at former periods. 4. Give an account of the chief races of man. 5. What is meant by alternation of generation? In what groups of animals does it occur?—**Botany.** 6. Contrast the characters of labiateæ, boraginææ, scrophulariaceæ, and solanaceæ. 7. Give the characters of the order Characeæ. 8. What is the area of geographical distribution of cruciferae, dipterocarpeæ, ericaceæ, epacridææ, proteaceæ, betulaceæ, coniferae, and orchidææ? 9. Describe the process of germination in exogens and endogens, and in a fern-spore. 10. Describe the structure and junction of a leaf.—**Physics, etc.** 11. Two travellers start from the same point to make the circuit of the globe, one going easterly, the other westerly. On returning to the point of starting, one will have gained and the other lost a day. Explain the reason of this. 12. Define the terms specific heat, latent heat, radiant heat, and point out the differences in the conduction of heat by different bodies. 13. Give a sketch of the principal geological formations on the earth, in their order of succession. 14. In what forms does carbon occur in nature, free and in combination with other elements? 15. What is meant by specific gravity? How is it ascertained in solids, liquids, and gases?

THE LANCET'S VISITORS IN LONDON.

SIR,—In the last number of your JOURNAL, the correspondent who signs himself "Resident Physician and Superintendent" refers to a letter of mine in your issue of April 28th last, on "Chancery Lunacy." He complains of the conduct of a Chancery visitor in entering the chamber of a patient without giving his name. He says: "Should I not have been perfectly justified in refusing to allow this visitor to see the patient, or even to enter the house, unless he sent in his card? Another question arises: when a fresh visitor is appointed, should not the proprietors of asylums be in due courtesy apprised of it, else any stranger may be admitted if he call himself a visitor?"

I consider it the duty of a resident medical superintendent to refuse the instantaneous admission of a stranger, whether he be a government official or not, without his sending in his card or showing his credentials. Leaving out of the question the courtesy due from one gentleman to another, the welfare of a lunatic requires that the greatest caution should be exercised with regard to his seeing even his nearest relatives. Ushering a perfect stranger suddenly into his presence might be fraught with the greatest danger to himself or his visitor.

I do not think it necessary, as your correspondent suggests, that when a fresh visitor is appointed the proprietors of all asylums should be apprised of it, as such appointments are always sufficiently announced in the public journals.—I am, sir, your obedient servant,
J. M. WINN, M.D.

Harley Street, September 19th, 1877.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from—

Dr. G. H. B. Macleod, Glasgow; Dr. C. Theodore Williams, London; Dr. George Johnson, London; Dr. Farquharson, London; Dr. Bantock, London; Mr. Wm. Adams, London; J. M.; Mr. Robert Frewen, London; Dr. W. Munro, London; Dr. Wahlucht, Manchester; Mr. M. A. Adams, Maidstone; Dr. F. Warner, London; Dr. Sedgwick Saunders, London; Mr. T. Inglis, Edinburgh; G. F. C.; Mr. T. F. Gilmour, Glasgow; Juvenis; Dr. GreatRex, Stoke-upon-Trent; Mr. T. Holmes, London; Dr. O'Neill, Lincoln; Mr. T. Whitehead Reid, Canterbury; Dr. G. Harley, London; Dr. Joseph Rogers, London; Mr. G. Eastes, London; M.D.Brussels; A Brixton Member; Mr. T. MacCall, Durham; Dr. F. A. Mahomed, London; Mr. F. Mason, London; Dr. C. A. O. Owens, Long Stratton; Mr. E. J. Day, Dorchester; Mr. J. M. Howie, Liverpool; Dr. Fancourt Barnes, London; Mr. Douglas Hemming, London; Mr. G. P. Field, London; W. W.; Dr. Stephen Mackenzie, London; Dr. J. H. Roberts, Philadelphia; Dr. Finny, Dublin; Dr. James Russell, Birmingham; The Rev. Dr. Houghton, Dublin; An Associate; Dr. Foulis, Glasgow; The Secretary of Apothecaries' Hall; M.D.; Dr. Wilson Fox, London; The Registrar-General of England; Dr. Galabin, London; Dr. Kelly, Taunton; K.; Dr. Tripe, Hackney; The Registrar-General of Ireland; Dr. Mackey, Birmingham; Dr. Wardell, Tunbridge Wells; Dr. Hinds, Birmingham; Dr. Murphy, Sunderland; Dr. Wallace, Greenock; Dr. A. Swaine Taylor, London; R. E. P.; Mr. J. W. Ewens, Bristol; Dr. Grimshaw, Dublin; Dr. McClintock, Dublin; Mr. J. H. Thomas, Wellingborough; Dr. T. L. Rogers, Rainhill; Mr. T. B. Sprague, London; Dr. Wm. Fairlie Clarke, Southborough; Mr. Lennox Browne, London; Dr. J. Eaton, Cleator Moor; Dr. Edis, London; Our Dublin Correspondent; Mr. J. Cranmer Gell, Birmingham; Our Edinburgh Correspondent; Dr. J. Broom, Clifton; Dr. Joseph Bell, Edinburgh; Dr. J. W. Moore, Dublin; The Secretary of the Obstetrical Society of London; Mr. R. A. Jackson, Little Sutton; Dr. A. Ogston, Aberdeen; Dr. J. Worms, Paris; Dr. C. B. Taylor, Nottingham; Dr. W. Bayes, London; Dr. J. Murray, Scarborough; E. A. W.; M. O. Doin, Paris; F. N.; Dr. Procter, York; Dr. Tenison, London, etc.

BOOKS, ETC., RECEIVED.

Handbook of Practice of Medicine. By M. Charteris, M.D. London: J. and A. Churchill, 1877.

INTRODUCTORY ADDRESS

DELIVERED IN

THE MEDICAL DEPARTMENT OF
KING'S COLLEGE.*At the Opening of the Session, 1877-78.*

BY

JOSEPH LISTER, M.B., F.R.C.S., F.R.S.,

Professor of Clinical Surgery and Surgeon to King's College
Hospital; etc.

A RECORD OF EXPERIMENTS ON FERMENTATION.

GENTLEMEN,—In making my first appearance as teacher in King's College, I cannot refrain from expressing my deep sense of the honour conferred upon me by the invitation to occupy the chair which I now hold; and, at the same time, my earnest hope that the confidence thus reposed in me may not prove to have been misplaced.

In considering how I could best discharge my duty as the person selected to deliver the Introductory Address of the Medical Session, I have felt that two courses were open to me: either to spend the short but important time at my disposal in an endeavour to convey to the student some sense of the exalted privileges, and correspondingly high responsibilities, of the beneficent calling to which he proposes to devote himself, or to treat on some special subject, in the hope that I might say something which should have interest and, if possible, even instruction, not only for the student, but also for the eminent men whom I have the honour to see around me. The latter is the course which I have decided to follow, and the subject which I have selected is a short account of an inquiry in which I have been engaged in the interval between the cessation of my official duties in Edinburgh and their commencement here. The object of that investigation was to obtain, if possible, some positive and definite knowledge of the essential nature of a class of phenomena which interest alike the physician, the surgeon, and the accoucheur. I allude to the changes in organic substances which are designated by the general term fermentation.

In medicine, the large class of diseases termed zymotic derive their name from the hypothesis that their essential nature is fermentative. In obstetrics, puerperal fever, the most frequent cause of disaster after childbirth, is now regarded by many of the highest authorities as likewise due to fermentative disorder; and, in surgery, among the various causes which may disturb a wound, we know that by far the most frequent in operation, and the most pernicious agent in its effects both upon the wounded part and upon the constitution, is putrefactive fermentation. If this be so, it is clear that to understand the nature of fermentation must be a matter of the very highest importance, with a view to curing or preventing the various evils to which I have alluded.

What, then, do we mean by fermentation? I shall best approach the answer to this question by giving an example. Rather more than a week ago, I witnessed in the north of Italy the time-honoured practice of treading grapes in the wine-vat. I was told that the juice would within twenty-four hours boil, as it was said, over the vats into which it was introduced; in other words, that the sugar of the grape-juice would within that short time be so converted into alcohol and carbonic acid gas, that the carbonic acid gas, by its ebullition, would cause sufficient frothing to produce the effect to which I have referred. This conversion of the sugar of the grape into alcohol and carbonic acid gas is accompanied by the development of a microscopic organism, the yeast-plant, or, to continue the old nomenclature, *Torula cerevisia*, consisting of microscopic cells multiplying by pululation, as indicated in this rough diagram. Now, it is, I believe, universally admitted that the alcoholic fermentation of grape-sugar is due to the growth of the yeast-plant. M. Pasteur thinks that he has traced the origin of the yeast-plant in the juice of the grape to a minute fungus adhering to the outside of the skin of the grape. Be this as it may, it is admitted on all hands that the alcoholic fermentation is caused by the growth of the yeast-plant. So long as the juice of the grape is protected by the skin of the berry, no fermentation occurs; but, as soon as it escapes from that protection, the organism, by its development, induces the fermentation. Nor is it by any means exclusively in the natural juices of fruits that such fermentation is induced. Any sugary solution, provided it contains, besides the sugar, other ingredients requisite for the nutrition of the yeast-plant, will serve as

pabulum for the yeast-plant, and in this case the yeast-plant will give rise to the fermentation. Here is a glass containing what is termed Pasteur's solution, a solution devised by M. Pasteur for the very purpose of affording nourishment to the yeast-plant and other minute organisms. This was prepared on September 10th in a flask purified by heat, covered over with a pure cotton cap, which permits the entrance of air, but does not permit the entrance either of the yeast-plant or of any other form of dust. The Pasteur's solution, of itself containing, besides sugar, ammoniacal and earthy salts for the nutrition of the fungus, was heated to about the temperature of boiling water, so as to destroy any organisms that might exist in the water. The result is, that it continues perfectly unchanged, just as it was on September 10th; but, if we were to add to it a little of the yeast-plant from fermenting grape-juice, we should find that, at the temperature of summer weather, this would very soon be in a state of free fermentation at the same time that the yeast-plant would multiply. This, then, is a typical instance of fermentation. We have an active agent termed the ferment, which ferment is capable of self-multiplication. That I believe to be the essential property of a true fermentation. There is an active principle termed the ferment, which ferment has the faculty of self-multiplication. Now, in this particular case, I have already said it is admitted on all hands that the yeast-plant is the cause of fermentation. Persons may differ as to how the development of the yeast-plant gives rise to the resolution of the sugar into the alcohol and carbonic acid gas; but all now agree that, somehow or other, the yeast-plant causes the fermentation. Now, is this so in all cases, in the case of all fermentations? Are all true fermentations caused by the development of organisms? That, gentlemen, is the question which it is desirable that we should be able to answer.

Take, for example, the case of the putrefactive fermentation of blood. We all know that, if blood be shed from the body into any vessel without special precautions, in a few days it putrefies. The bland nutrient liquid, soon after leaving its natural receptacle, becomes foul, acid, and poisonous: a change fully as striking as the change which sugar undergoes in the alcoholic fermentation. Here we have a glass into which blood was received with special precautions. In the first place, the glass, covered, as you see, with a glass cap and a glass shade, with a view of preventing the access of dust, and standing upon a piece of plate-glass, had been heated to about the temperature of 300 deg. Fahr., and cooled with an arrangement that insured the filtering of the air from its dust—the air that entered during cooling—so that we were perfectly sure that the glass contained no living organisms.

Then, in the second place, the glass had been charged from a flask like this. It contains, as you see, a glass tube introduced into it; it is stuffed well with cotton-wool between the neck of the flask and the tube, there is a piece of cotton-wool over the end of the tube, and another piece is tied securely over the spout of the flask. The flask so arranged was heated just as the glass had been heated. It is not necessary to heat so high as to singe the cotton. Heat far short of this is adequate, according to my experience, to make perfectly sure that you destroy all living organisms. The flask having been thus prepared, the jugular vein of an ox was exposed, with precautions against the entrance of anything putrefactive, and, the cotton cap having been taken off from the end of the tube, the jugular vein was slipped over the tube, tied on, and then the hand of the assistant, who previously restrained the flow of blood, being relaxed, blood was permitted to flow into the flask. Then, before coagulation had time to take place, this and various other glasses were charged after the removal of the cotton cup from the end of the spout. Now, the first thing that may strike you is the remarkable fact that this blood-clot has not undergone any contraction. One of the earliest things that your professor of physiology will have to teach the junior students will be that blood, after coagulation, contracts; that the blood-clot contracts; that the fibrin is pressed out. But here no such thing has taken place. There has been no shrinking of this clot, no pressing out of the fibrin, and I venture to say that there is no one here, at least I think it is unlikely that there is anyone here except myself, who has seen such a phenomenon, illustrating how, when the most familiar objects are placed under new circumstances, the most unexpected results will arise. Now, this is a matter of very considerable interest with reference to the behaviour of blood-clots inside the body in wounds and so forth. However, that is not the point to which I wish now to draw your attention. The point to which I wish to draw your special attention is, that this blood, although it has been six weeks in this glass, without any close fitting of the glass shade or the glass cap, has not putrefied. The air is perfectly sweet, perfectly free from odour.

Now, gentlemen, this, without going further, is a very important matter. It proves that the blood has no inherent tendency to putrefaction. It further proves that the oxygen of the air is not able to

cause the blood to putrefy, as used to be supposed. There was a time—the effect is still seen to a certain extent—when the dark venous colour of this blood-clot gave place to the crimson colour of arterial blood in a gradually deepening band from above downwards. We still see some of the red colour remaining, though now the converse effect has begun to take place. That florid redness, then, gentlemen, showed that the oxygen of the air was in reality acting upon the blood, yet it did not putrefy. Now, if I were to take a little morsel of already putrefied blood, say, upon the end of a needle, and touch with it this clot of blood, putrefaction would, in the course of a very short time, spread throughout the mass. Exactly as in the case of alcoholic fermentation under the influence of a yeast-plant would the fermentation spread.

Putrefaction, then, is a fermentation, a true fermentation, characterised by the power of self-propagation of the ferment. Then, gentlemen, if we examine microscopically, we find in the putrefying blood, as we found in the fermented grape-juice, microscopic organisms, termed bacteria from their rod-shape, which we have here represented on the same scale as we had the yeast-plant; some of different sizes, very much more minute than the yeast-plant, and commonly endowed with a remarkable power of locomotion. I say that, in the putrefying blood, we find these organisms developing *pari passu* with the fermentation.

Now, the question is, Are these bacteria the cause of the putrefactive fermentation, or are they merely accidental concomitants? These are two views which are entertained at the present day by men of high eminence. It may be said, "Why should there be any doubt that the bacteria are the cause of the putrefactive fermentation, any more than there is a doubt that the *Torula cerevisia* is the cause of the alcoholic?" Well, one reason I believe to be that the bacteria are so exceedingly small. They are not so easily defined. We cannot get them in a mass as we can get a mass of yeast; at least without a great deal of trouble; and, besides that, they occur very similar in appearance in a great number of different fermentations. There is, therefore, so far some colour for doubting whether bacteria are the cause of a special fermentation, like this putrefaction. Then there is another ground justifying such a view; for certain it is that organic substances are liable to extremely remarkable alterations, decompositions, under the influence of agents which are endowed with no life at all. As good an example of this as we can take is what occurs in the bitter almond when it is bruised with water. You all know what takes place under those circumstances; that there is prussic acid developed, and essential oil of almonds, and other materials. Now, these did not exist beforehand in the bitter almond, but they are the result of the mutual action upon each other of two constituents of the bitter almond, neither of which was hydrocyanic acid, nor oil of bitter almonds, etc. These two constituents are termed emulsin and amygdalin. Amygdalin is a crystallisable substance, and can be obtained separate. Emulsin, though not obtained in a state of crystallisation, can be obtained separately. Till these two materials are in a state of solution in water, they do not act upon each other, upon the bitter almond at all; but, as soon as they are in watery solution, the emulsin so acts upon the amygdalin that the amygdalin becomes broken up into the constituents to which I have referred. This is an exceedingly remarkable fact. Undoubtedly, the emulsin is dead; there is nothing living about it. It is not an organism. It is obtained by a process of alcoholic extraction and so forth. It is thoroughly a chemical substance, a merely dead substance, if we may so speak, and yet it does produce this remarkable effect upon the amygdalin. But, when we come to consider this case, we find that this process, remarkable as it is, lacks the true character of genuine fermentation, that of the faculty of self-propagation of the ferment. Liebig himself, who was the great advocate of the doctrine of so-called chemical ferment, and who discovered this action of emulsin on amygdalin, pointed out, and showed by irrefragable evidence, that the emulsin does not undergo any multiplication; not only so, but that, after a while, it so happens that the emulsin loses the property of acting on the amygdalin; but, for a considerable time, it continues to act upon it without undergoing apparently either increase or diminution of its bulk. It may be called a resolvent, the amygdalin being the resolved material.

There are other cases equally striking that might be mentioned, not only in the chemistry of vegetables, but in the chemistry of our own bodies. There exists, for instance, in the saliva a material called ptyalin, which has a remarkable power of acting upon starch. In the gastric juice, there is a material called pepsin, which has a remarkable power undoubtedly of acting on albuminous materials, fitting them for solution in digestion. But here again we find, when we come to consider the matter, that there is no evidence whatever that either pepsin or ptyalin is capable of self-multiplication. Each is secreted for the

purpose and in the quantity in which it is required, but it has no faculty of self-multiplication; and I believe, if you search through the whole range of organic chemistry, you will not find a single recorded instance where any ferment, so-called, destitute of life has been proved to have the power of self-multiplication. At the same time, gentlemen, though this is the fact, I believe I am correct in stating that it may be admitted that the thing might be theoretically possible. It is conceivable, for instance, that a resolvent, if we may so speak, of comparatively simple constitution might, by its action upon a resolvable compound, resolve it into substances, one of which should itself be the resolvent, and, if that were so, the process might go on *ad infinitum*. That is conceivable; and even, gentlemen, if it were not conceivable, although we have no instance of the kind on record, yet we have persons in high authority, as teachers both of physiology and of pathology, maintaining this view: that probably, under the circumstance, for instance, of putrefactive fermentation, the bacteria are mere accidental concomitants; but the real essential agent in the putrefaction is not an organism at all, but some so-called chemical ferment destitute of life. I say, so long as we have authorities maintaining such a view, it is our duty, if we can, to disprove it; and it has been with this object that the investigations of the last two months, to which I have referred, have been conducted.

I may say that, as regards the putrefactive fermentation, we have already evidence in the flask and in the glass that I have shown you (the flask also has no putrefactive odour emanating from it), that blood has in itself no inherent tendency to putrefy. It must receive something from without, and that something is not mere oxygen. Mere oxygen will not do; mere water will not do. Blood and water constitute a mixture highly putrescible, very much more liable to putrefaction than blood itself. But here we have had mixed with water the contents of a glass like this, only that the water had been previously boiled, so as to kill any organisms in it; boiled under the protection of a cotton cap, and then, the cotton cap being raised, careful provisions (into which I must not enter) against the entrance of dust being taken, the clot was spooned into the water; a fresh cotton cap, perfectly pure, was put on, and so we got, I believe for the first time, a permanent cold watery extract of blood, and here it retains the same brilliant clearness that it had in the first instance, more than a month ago.

The special process of fermentation which I have been investigating has not been the putrefactive, but one which seemed to me more convenient for the purpose, the lactic fermentation, the fermentation by means of which milk sours and curdles, by means of which the sugar of milk, instead of being converted as grape-sugar into alcohol and carbonic acid, is converted into lactic acid: a curious instance of a chemical alteration. The chemical composition, as regards the proportions of the three elements, carbon, hydrogen, and oxygen, remains identically the same; but those of you who are chemists understand what I mean when I say the atomic weight of the lactic acid is one-fourth of the atomic weight of the sugar of milk. Each atom has been resolved into four simple atoms of lactic acid. Now, it may be naturally supposed, if you observe what happens in a portion of milk obtained from a dairy, that this is an absolute inherent tendency of the milk, this souring and curdling. If you get milk from a dairy and keep it long enough, it is certain to turn sour and curdle; then after a while, there comes a certain mould upon the surface, the *oidium lactis*, which constitutes the sort of bloom there is upon a cream cheese; then afterwards comes on, often simultaneously with the growth of this mould, the butyric fermentation, in which butyric acid is produced; and afterwards, if you keep the milk long enough, it will probably putrefy. When you see, time after time, specimens of milk, taken from various dairies, undergo this succession of alterations, you may be tempted to suppose that these were changes to which the milk was disposed from its own inherent properties as it comes from the cow's udder. The late eminent Professor of Chemistry in this College, Professor Miller, in his excellent work on Chemistry, states that the ferment of the lactic acid fermentation is the casein of the milk. I am bound to say, however, in justice to Professor Miller, that he also adds that M. Pasteur has expressed his belief that there exists an organic living ferment which produces this fermentation; but Professor Miller does not profess to decide between these two opinions. On the contrary, his first statement, that the casein is the ferment, might lead you to suppose that he inclines to the former view. If this were the case, as there is casein always in the milk, there should always be the lactic acid fermentation. But it was pointed out long ago by M. Pasteur that, if you examine any specimens of souring milk with the microscope, you find little organisms. These, when you come to look at them carefully, you see to be obviously of the nature of bacteria. Bac-

teria may either have the faculty of motion or they may not. This particular bacterium is a motionless bacterium, so far as I know; still it has the essential nature of a bacterium: a microscopic fungus, multiplied by fissiparous generation, always by lines transverse to the longitudinal axis of the organism. I have ventured to give to this little organism the term *bacterium lactis*; for, gentlemen, no doubt there are different kinds of bacteria. The mere fact that they are minute must not make us shut our eyes to this fact. You sometimes hear bacteria spoken of as if they were all alike. The fact that some do not move and others do, is one indication of a difference. Another indication of a difference is, that some bacteria will thrive in a substance in which others cannot live. For instance, the *bacterium lactis* refuses to live at all, according to the more careful experiments I have been lately making, in Pasteur's solution; the very fluid provided by Pasteur for bacteria to live in, and for these *torulæ* and for fungi generally, that is a medium in which the *bacterium lactis* refuses to grow at all, although the majority of bacteria grow in it with rapidity. That is clear evidence that this is a different kind of bacterium from those which both move and thrive in Pasteur's solution. You will observe, also, it is somewhat peculiar in the form of the segments; they are oval, and not so rod-shaped as bacteria generally. These you will always find in milk when it is in the early stages of souring. This is a flask of boiled milk, prepared on August 27th. It has not coagulated; it has undergone none of the changes to which I have alluded. There has been no butyric fermentation, no *oidium lactis* has formed upon it, no putrefaction. This milk is as sweet as when it was first prepared. From this same flask, with precautions with which I will not detain you, I have charged various glasses. This has been charged for weeks: the milk remains fluid, you observe, although there is abundantly free access of air. The oxygen of the air and the caseine which still exist in the boiled milk have together been unable to bring about this lactic fermentation. As regards boiled milk, we have already sufficient evidence that the lactic fermentation is not something to which the boiled milk is spontaneously prone; it requires something to be introduced into it from without. Not only so, but, suppose you take a series of glasses of boiled milk like these, and introduce into them a series of drops of water, you will get fermentation in them. If you take, for instance, a drop as large as a quarter of a minim, you will have a fermentation in every one, and an organism in every one; but you will neither have, according to my experience, the lactic acid fermentation nor the *bacterium lactis*. You will have bacteria of other sorts, fermentation of other kinds.

Again, suppose you take a series of such glasses, take off the glass shades and the glass caps, in different apartments and at different times, and expose the milk to the air-dust for half an hour; you will get fungi and bacteria of different sorts, but you will not get the lactic fermentation. According to my experience, you will not get the *bacterium lactis*; and thus it turns out, so far as boiled milk is concerned at all events, that the ferment that brings about this particular fermentation is a rare ferment. So far from boiled milk being spontaneously prone to the change, it requires something to be introduced from without, which is a rarity both in ordinary water and in ordinary air, and yet, undoubtedly, this is a true fermentation. If you were to take such a glass as this, and dip the point of a needle into a glass of souring milk, and touch with the needle point the edge of the milk, within two or three days it would be a sour clot. Then you should find, as certainly as I did, the *bacterium lactis* throughout the mass.

But then, it may be urged, indeed such arguments have been used, this may be very well for boiled milk, but how about unboiled? May it not be that, by boiling the milk, you have destroyed certain chemical substances, purely hypothetical we must admit, but which we do think likely to exist? It is very difficult sometimes to avoid an offensive expression. I do not at all wish to make use of one; but it may be, according to the views of some persons, that in the unboiled milk there may exist certain chemical substances prone to evolve into organisms by spontaneous generation, and prone to produce these and other fermentations; but which, by the act of boiling, we deprive of this tendency; and, therefore, with a view to meet this objection, the first part of my investigation was devoted to endeavouring to see whether or not milk, as it comes from the cow, really does or does not contain materials tending to the development of organisms or to fermentation of any kind.

An exceedingly simple experiment will probably serve to convince you to a considerable extent with regard to this matter. If you go to a dairy where there is also a cow-house, take a couple of clean bottles, and fill one with milk from the dairy and the other with milk direct from the cow in the cow-house, the milk obtained from the dairy will be certain to sour, but the milk that you get direct from the cow will very probably never sour at all. It will acquire a nasty bitter taste,

and will not have the *bacterium lactis* or the *oidium lactis*, but some other kinds of fungi. Well, now, a very simple experiment is enough to show that the lactic acid fermentation is not a change to which milk is spontaneously prone. If this be so, it occurred to me that, if we were to take more care in the experiment, and also to perform the experiment so as to take the milk into vessels previously purified, in small quantities, we might be able to get the milk not only without the lactic acid fermentation or the *bacterium lactis*, but without any fermentation or any bacterium, or any sort of organism. Accordingly, I arranged a number of little glasses like these, and little test-tubes with test-tube covers arranged upon a stand of glass-tube and silver wire. These were put into the hot box and heated to 300 deg. Fahr., and then, some milk having been received from the cow into a vessel purified previously by means of this pipette attached to a syringe, the pipette having been purified, milk was drawn up into the pipette, and then, by means of the syringe, each little cap being in succession raised, a few minims of milk were introduced into each of the glasses, the caps being immediately reapplied. The result was, every one of the milks underwent fermentations, every one of them; and every one of them contained organisms, some of them as many as three different ones. The great majority of those twelve glasses which I used presented little orange specks, such as were never seen, I suppose, in any milk before; and, on examining these, I found them to be little organisms, to which I have ventured to give the name *granuligera*, because they consist of granules, different from bacteria in this respect, that you might suppose them not to be organisms at all till you had the opportunity of seeing them undergoing multiplication by fissiparous development, multiplied by crosswise fissiparous development; in a manner, however, differing from the transverse fissiparous multiplication of bacteria, in being crucial. But, besides the *granuligera*, there were bacteria of different sorts, and also some *torulæ*, but there was no *bacterium lactis*, and there was no lactic acid fermentation. What inference were we to draw? Was I to suppose that, although the lactic acid fermentation had been excluded, it was impossible to exclude others; that others were present in the milk as it existed in the cow's udder; or was it that I had not been sufficiently careful? The latter was the view I was disposed to take. The experiment had been performed in the cow-house, where certainly the air might be supposed to be reeking with organisms. I, therefore, performed the experiment a second time, and this time in the open air. It must be confessed it was not far from the cow-house, and it was a fine day at the very time of the year in which organisms most abound. On this occasion, I had twenty-four of the little glasses which you see before you. This time, again, every glass had organisms in it. At the same time, every glass seems to be different from all the rest. Such fermentations as there are here, I venture to say were never seen anywhere before. I have brought before you a diagram, showing some of them on a large scale. I want particularly to direct your attention to these strange scarlet spots which occurred in almost all of them. They began in tiny scarlet dots, which spread as fermentative changes, and, therefore, capable of self-multiplication in the substance of the milk. Here is one that is green, and here is another of an orange yellow colour. Here are two that have two kinds of filamentous fungi. I have not examined the species, but I shall very likely find that it is some species that has not been described. I found in the first experiment, as one of the organisms, a filamentous fungus of the most exquisite delicacy, though in general type of the same sort of arrangement as the common blue mould or the *oidium lactis*. The size of the filaments was so exceedingly small that twenty of them would lie abreast in a single human red corpuscle; they were smaller than even the *bacterium lactis*, smaller than the majority of bacteria. I believe no such exquisitely delicate filamentous fungus has ever been seen, even by Professor Bentley.

Now, how are we to explain this strange result? I am still disposed to believe that these organisms have got in for want of sufficient care on my part. But how are we to explain these strange appearances? Simply thus. If the *bacterium lactis* had been here, it would have taken the precedence of all other organisms in its development and the changes which it would have introduced would have made the milk an unfit soil for these organisms. Therefore I said—perhaps you might think me rash in saying so—there never were such fermentations or such organisms seen before in milk, simply because they never had the chance that they had here of coming forward; they would have been smothered—killed—by the effects of the *bacterium lactis* and other bacteria. Well, I determined to make one more attempt. This time I took the original twelve glasses. I mentioned that a large proportion of these glasses had scarlet spots, but I have not yet investigated upon what organism they depend. In the former experiment in the cowhouse, the great majority had orange spots, and those, as we have seen, were composed of heaps of granules. It occurred to me

that one cause of failure might be this. Suppose one single group of these granules to exist, and to become disturbed and broken up, it might vitiate the whole specimen of milk; therefore, instead of drawing up the milk into the pipette with a syringe and then expelling it, I determined to have it introduced as directly as possible into the little glasses. These glass vessels having been purified by heat, the piece of India-rubber connecting them could not be purified by a very high temperature; it was purified by boiling. Cotton caps were tied over the ends of the glasses during the heating. The cow was taken out again into the open air, and this day the elements were in my favour. It had been a drizzly morning, and I might fairly hope that some of the multitudes of organisms existing in the little orchard might have been washed down and that the air might have been purified. I was also more careful in this respect. I got the dairy-woman to milk the cow without drawing the hand over the teat, so that the end of the teat should always be exposed by an action of the fingers in succession. Her hands were washed with water, and the cow's udder also, and she having squirted a little milk to wash away the organisms from the orifice of the duct, the cap was removed and the end of the tube was held in the immediate vicinity of the teat; a few drachms were introduced, then the cap was readjusted, and then these little glasses were filled by the simple expedient of alternately relaxing and compressing with the finger and thumb on the caoutchouc, so that there was as little disturbance as possible of the organisms that might be supposed to be introduced in spite of my care. It is six weeks since this was done. At first sight, you might suppose, contrasting these appearances with those of the other tubes which were only filled three days earlier, that the latter milks were all pure. The truth is, all but two have organisms in them; but I may mention that all but four had obviously organisms in them before I went for my trip on the Continent three weeks ago. In the course of the three weeks that have elapsed, two others have gone; but they already showed organisms which, though very pale and insignificant, were quite easily seen by a magnifier in such considerable mass that I felt sure they must have already been growing for a considerable time; and, therefore, in all probability those that still seemed to the naked eye and to the magnifier free from organisms were really so. Accordingly, two days ago I drew out milk from one of those that seemed to be still pure, and I had the great satisfaction of finding the milk not only perfectly fluid and tasting perfectly sweet, with a perfectly normal reaction, purpling both the blue litmus paper and the red litmus paper—the normal reaction of perfectly fresh milk—but under the microscope I could not discover any organism of any kind whatsoever. Therefore, I think we are justified in saying that in unboiled milk as in boiled milk, provided, of course, the cow be healthy, there does not exist any constituent having any power of giving rise to organisms or producing the lactic or any other fermentative change.

This, gentlemen, is the first step; the second will not occupy us so long; and I must beg that you will give me the opportunity of mentioning it, because, I believe, you will agree with me that it is the far more important step of the two.

The second part of the investigation was to find absolute evidence, if possible, whether the bacterium lactis was or was not the cause of the lactic fermentation. It occurred to me that, if we could estimate with some degree of accuracy the number of bacteria present in a given quantity of the liquid, and then if we were to dilute the milk with a proportionate quantity of boiled water, we might have the diluted milk so arranged that every drop with which we should inoculate boiled milk might contain, on the average, one bacterium; and if we should do so, as it would be practically certain that they would not be distributed with absolute uniformity, we should expect that we might have as the result of these various inoculations, some glasses with the lactic fermentation, some glasses without it, some with the bacterium lactis, and some without it; and, if it should turn out that we should get those glasses with the bacterium lactis which underwent fermentation, and, on the other hand, those glasses which had no fermentation free from the bacterium lactis, that would prove the point, as, I think you will agree with me, it did, when we come to discuss the matter at a little more length after we have all our facts. Well, how are we to determine the number of bacteria existing in the liquid? This was done in a simple manner; a little covering glass, just half an inch in diameter, was used. Of course, we know how many square thousandths of an inch there are in the area of this little glass. We also know by the micrometer how many thousandths we have across our microscope, and, therefore, by calculation we know how many square thousandths there are in our field, and thus we can tell how many fields there are in the covering glass. I also, by means of this little syringe with a graduated disc and a piston rod in the form of a screw, graduated 2-100ths of a minim, by which means you

can, with perfect precision, unit 1-100th of a minim, or 2-100ths, or any number you choose. I found that 2-100ths, or 1-50th, exactly filled the covering glass, so to speak; so that, when put down upon a glass plate, the rim of fluid round about the covering glass was not one quarter of the diameter of the field; using the highest magnifying power, so that practically it was all under the covering glass. I knew, therefore, that there was 1-50th of a minim under the covering glass. If, then, I counted how many bacteria there were in a field, and took the number of the different fields and struck the average, I found how many bacteria there were on the average in the field; therefore, by calculation, how many there were under the covering glass, and how many there were in the 1-50th of a minim; and, consequently, I knew how much boiled water I ought to add in order that the drop of whatever size I might wish it to be should contain, on the average, one bacterium, and one only. This being done with a particular specimen of souring milk, I found that it was needful to add no less than one million parts of boiled water to the milk to ensure that there should be rather less than one bacterium, on the average, to every drop. Then with these inoculating drops I inoculated five glasses of boiled milk; and the result was that out of the five only one curdled; but one did curdle, and that one had the bacterium lactis in abundance; the others did not curdle, underwent no fermentation whatsoever, and had no bacteria in them. You may say, perhaps, "How was it that there were none of these different things that you have been showing us?" Simply for this reason, that although these existed, and one of them existed probably in every two or three minims of the milk, yet they were in exceedingly small proportion to the bacterium lactis, so that you might have searched, perhaps, for a whole day, with a high power of the microscope, and never discovered one. We are apt to forget how difficult it is to find these minute objects; unless they are very numerous indeed, in liquids. Therefore, when we came to dilute the milk with a million parts of water, the chances of getting anything but the bacterium lactis were exceedingly small. It was with reference to the bacterium lactis that the dilution had been made, and not with reference to these other organisms so exceedingly small in quantity. It so happened that we saw in the souring milk that there was another kind of bacterium, a moving kind different from the bacterium lactis; it was in every field, but not nearly so numerous as the bacterium lactis; it did not, however, exist in the one milk that curdled.

Now, having the bacterial ferment pure, we had the opportunity of performing other experiments; and the last experiment that I shall mention is this. These five specimens which you see before you were inoculated each with a drop calculated to contain two bacteria; these other five were inoculated each with a drop calculated to contain one bacterium; these five open glasses were also inoculated with drops each calculated to contain one bacterium; and one with a drop calculated to contain four bacteria. The result was that the specimen with the drop calculated to contain four bacteria curdled in a few days; and all these five calculated to have two bacteria to a drop curdled in a few days. The milk, you see, is perfectly solid, and curdled and soured. You will observe that no other change has taken place except the lactic fermentation, no oidium lactis, and no other alteration; it is as pure in whiteness as when it was first coagulated. I may here mention that, although all these coagulated, they did not all coagulate at the same time. There was a time in the twenty-four hours during which the coagulation went on, in which I hoped that some of them were going to be permanently fluid; implying, as you would expect, that the particles of the ferment were not uniformly distributed; some had more than others, though each happened to have one. But, of the five glasses calculated to have one bacterium to each inoculating drop, three have remained fluid, and two of these others; so that, of the ten, exactly five, it so happens, have remained fluid without any curdling. I may consider myself somewhat fortunate that I have succeeded in bringing these all the way from Edinburgh in this condition. I will now deprive this of the protection in which it has hitherto lived. [Professor Lister poured out some of the milk and drank it.] It is perfectly sweet. It has a slight flavour of suet, which M. Pasteur has described as resulting from the oxidation of the oleaginous material of the milk.

Let me note this curious circumstance, that, of those specimens which did coagulate, those in the tubes coagulated considerably earlier than those in the more open vessels. At first, it seemed as if, for some strange reason, they were going to remain more fluid than those in the open vessels—even those that had, according to the calculation, four bacteria to the drop. I believe this is to be explained on the same principle as Pasteur has explained a corresponding fact with regard to the yeast-plant. He has shown that, if a saccharine solution be put in a very thin layer in an open vessel of yeast, the yeast-plant develops

to a very great extent, but very little fermentation occurs; on the contrary, if it be put into a deep vessel, the development of the yeast-plant does not go on so rapidly, but more fermentation occurs. He explains it this way: that the yeast-plant requires oxygen for its nutrition; if it get it easily, as it does in a shallow vessel in the air, it produces comparatively little effect in breaking up the sugar into its constituents. So here, in the deep vessel, the carbonic acid accumulates, supposing any to exist, as in a well. Here the bacterium lactis had but little opportunity for getting oxygen. Accordingly here, just as in M. Pasteur's experiments with the sugar, the lactic ferment produced more rapidly its effect of lactic fermentation.

But this, you say, is assuming that bacterium lactis is the ferment. Now we are coming to that point. I say that this fact demonstrates, as I believe, that the bacterium lactis is the cause of the lactic fermentation. I must add one point by way of fact. For the satisfaction of others rather than for my own, I went through the laborious process of investigating portions of all these vessels, and I found that, in every one in which the lactic acid fermentation had taken place, where there was curdling and souring, the bacterium lactis was present; and in no instance in which there was no lactic fermentation was any bacterium of any sort to be discovered. I believe that demonstrates that the bacterium lactis is the cause of this very special lactic fermentation. But, let us assume for a moment that there did exist some other particles besides bacterium lactis in the milk capable of causing a fermentation; that the lactic ferment were not the bacterium at all, but some chemical ferment. First of all, you will please to observe that we have from this experiment absolute evidence that the ferment, of whatever nature, is not in solution, but in the form of suspended insoluble particles. If the ferment had been in solution, every drop would have produced the same effect. The fact that some drops were destitute of the ferment proves that that ferment was not in a state of solution. That is absolutely demonstrated. Now, suppose we admit, for the sake of argument, that the lactic acid ferment was some non-living substance, capable of self-multiplication as rapidly as the bacterium, but not living; a strange hypothesis, no doubt—but suppose we admit it. Suppose we admit that these chemical ferments, the chemical lactic ferment and the bacterium lactis, were merely accidental concomitants of each other, it would be absolutely inconceivable that these two accidentally present things should be present in exactly the same number. But, suppose you admitted that—that there were exactly as many of the bacterium lactis as there were of the ferment, the true fermentative particles—suppose you admitted that inconceivable thing, I say it would be again inconceivable that they should accompany one another in pairs, that invariably where there was bacterium lactis there should be a ferment particle, and where there was no bacterium lactis no ferment particle. That would be as inconceivable as the other. Therefore, we have two inconceivables, one of which would have been sufficient to show that we cannot admit any other hypothesis than that bacterium lactis is the cause of the lactic acid fermentation.

But the experiment tends to even more than this. Where we find the effect so exactly proportioned, as regards the number of glasses affected with fermentation, to the adult bacteria that we count, we are led to infer that this particular bacterium, at all events, has not any spores—that there are no spores existing in addition to the bacteria. People seem often to assume that these bacteria must necessarily have spores or germs. It seems to me an unlikely thing that they should. If they are, as it were, a generative apparatus *per se*, they are constantly multiplying; why should they have spores? I do not say that bacteria may not have spores. There are very different kinds of bacteria; some may have spores, and some may not; but this sort of result seems to indicate that this particular bacterium has no spores; because, if we had, besides the bacteria that we can count, spores of bacteria disseminated through the liquid also, we should have the effect more than in proportion to those bacteria that we have. The only fallacy here is that it may be that the bacterium has not been diffused uniformly through the milk. Therefore, I do not say that in this case it is absolutely proved yet. At all events, this experiment gives us a line of inquiry, by means of which we may probably settle that point with regard to any individual case of bacterium. This, however, I do not desire to urge upon you; but, what I do venture to urge upon you, is that you will seriously ponder over the facts which I have had the honour of bringing before you to-day; and, if you do so, I believe you will agree with me that we have absolute evidence that the bacterium lactis is the cause of this lactic acid fermentation. And thus I venture to believe that we have taken one sure step in the way of removing this important but most difficult question from the region of vague speculation and loose statement into the domain of precise and definite knowledge.

ON HÆMORRHAGE FROM THE RETROFLECTED UTERUS, AND ITS TREATMENT.*

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AT the risk of being thought to occupy your time on a subject already worked out, and again to tread over well-trodden ground, I have ventured to bring up a subject which is very clinical; and one which, though apparently well discussed both for and against, has not yet been decided, at least by many, so as to be to them a rule for practice.

When discussions on the treatment of the retroflected uterus have taken place, it has generally happened that two opposite opinions have declared themselves: one strongly in favour of mechanical treatment; the other, if not actually repudiating it, yet considering it the *dernier ressort*, not to be tried till constitutional management and local treatment have failed. Between these two extremes, there are various shades of opinions, inclining to the one or the other according as experience, education, and other circumstances have affected the possessor. I shall perhaps be not far wrong when I rank the majority of the profession as forming the intermediate class.

The difference of the extreme opinions appears to me to be owing to these facts.

1. Women are not unfrequently found with completely retroflected uterus, without the least uneasiness or complaint, all their lives.
2. Women complaining of certain symptoms, and even crippled by them, are found to have retroflected uterus; all of these symptoms subsiding upon the restoration of the uterus to its normal position.
3. It is often observed that, before the retroflexion is confirmed, the uterus sometimes is retroflected, and at another time in normal position.
4. That temporary engorgement of a retroflected uterus, which had before given no trouble, frequently subsides under horizontal posture and appropriate treatment.

According as these conditions have presented themselves, in respect of number and intensity, to the various observers, so have their opinions inclined in one direction or another.

It is not my intention, nor is it suitable at the present time, to occupy this meeting with a full discussion on retroversion and retroflexion; but there is one clinical state of it, by no means unfrequent, upon the treatment of which as much difference of opinion has existed, and in a measure still exists, as on any part of the subject. Upon this subject I am desirous of adding the result of my experience. Hæmorrhages may occur from the retroflected uterus in various degrees; the remarks I shall make apply to all of them, more or less, but it may be well to take a typical example.

The uterus is completely retroflected, the body two or three times the normal size; sensitive to the touch, especially at the fundus; the os and cervix are large and patent; there are much leucorrhœa and menorrhagia, with greater or less bleedings between; coagula passing often, sometimes with pain; pain in the back, bearing down; uneasiness in the groin; and indeed all the direct and reflex symptoms produced by retroflexion exaggerated.

It has been contended that in this state it is inadvisable to handle the uterus, so as to cause its restoration to its normal position, and to retain it by vaginal pessaries. It has been argued that this state is inflammatory, and that the disturbance will increase it: that the proper thing is to subdue the inflammation, first, by depletives locally and by postural treatment, and then to replace the organ, should it not have recovered its position by the rest.

This line would be doubtless correct, were the premises upon which it rests correct also. Let us consider for a few moments these data. The effects of retroflexion of the uterus have been well recognised, and may be divided into those which are derived, first, from the obstruction produced by the flexion; and secondly, from the dependent position of the fundus. By both of these the secretions are retained beyond their usual time, a certain amount of irritation is set up, which increases the secretion, and this accumulating, distends the cavity; and thus, in the case of hæmorrhage, a larger amount is permitted to flow. Besides this, a clot, often forming, has to be expelled by uterine contractions, which cause pain, bearing down, and backache; these clots, by breaking up, by a species of decomposition, set up increased irritation and flow of blood and serum, etc. Besides this, the level of the fundus being three to four inches lower than normal, there is a greater pres-

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sure on its vessels by gravitation, thus facilitating increased bleeding; and at the same time, a certain amount of dilatation of the vessels themselves, with frequently exudation into the tissues they supply. And thus we find thickened walls, increased in thickness also by the action necessary to expel contents abnormally retained. This fluid pressure cannot exist without the nervous structure being pressed upon, and thus tenderness and uneasiness are felt, which no doubt are increased by the causes of irritation to the mucous surface already alluded to. When miscarriage has occurred in a retroflected uterus, then these effects are very much increased; and continue for a long time, so long that, as Dr. Barnes has remarked, the original causation is forgotten. But this position also renders the expulsion of the ovum more imperfect and prolonged, especially where there is, as is frequently the case, a firm adhesion between the villi and the uterine wall; and this is well shown by my own experience, for in nearly every case where I have been called in consultation for difficult abortion, with violent hæmorrhages, the uterus has been found retroflected. Other effects succeed to retroflexion, such as external infiltration of serum, or even blood, besides the reflex neurotic symptoms; but at the present I am alluding to the actual clinical state of the uterus itself, the result of its retroflexion especially, accompanied by hæmorrhages. And the question which arises from the consideration of these facts is: Whether the large and tender state of the uterus is dependent upon the retroflexion, or a coincidence with and accident to the state? If the organ have become so in consequence of its malposition, then the line of treatment seems clear, namely, to restore it. But, say some: If you interfere with the uterus in this condition, you will cause an increase of the inflammation and make matters worse.

But, suppose it can be shown clinically that the uterus *can* bear the handling necessary for its restoration to position, that it is not made worse, but, on the contrary, gradually loses all its bulk and tenderness, then the objection just mentioned is without ground. But in truth the term "inflammation", as applied to the sensitive irritable state, is a misnomer: not but that much care should not be exercised in the restoration, lest we unnecessarily increase its irritability by our manipulation. To assist in the solution of this problem, I have ventured to add briefly the results of my own clinical experience, and this is as follows.

1. In no instance where I have restored the uterus, and kept it *in situ* by a vaginal pessary, have I found any inflammatory symptoms follow.

2. In no case have I found other than improvement, the uterus gradually becoming smaller, less sensitive, and the discharges from it less, till it gradually resumed its normal state, so far as was compatible with a certain amount of permanent thickening, the result of the former engorgement.

3. In the case of hæmorrhage, and this especially the sequel of abortions, the restoration of the uterus to its normal position has always been attended by a diminution of the loss rapidly, and in a few months the cessation, except when other causes for hæmorrhage, as fibroids, abrasions, etc., coexisted. An exception also must be mentioned, namely, that the first period after restoration is more free not infrequently, although the second shows clear signs of abatement. This is probably owing to the ease with which the fluid can escape from the uterus now in normal position, while the causes of the hæmorrhage in the uterus are not yet much lessened.

I may add that, in restoring the uterus enlarged and tender, I do not employ the sound, at least very rarely. By gently lifting up the fundus out of Douglas's pouch (in which it is somewhat firmly retained by the recto-uterine ligaments, as shown by Dr. John Williams) by the finger introduced by vagina or rectum, and hooking down the os, assisted by the supine posture, and then introducing a Hodge's pessary, I have generally succeeded in bringing the fundus into its natural position.

If abrasions be present at the first, I generally reduce the uterus and wait a little time; if the abrasions be not cured, I apply the usual remedies. However, we may, in the less irritable organs, apply them earlier, the pessary remaining *in situ* or removed each time. Frequently, however, the abrasions and catarrh pass off as the general improvement takes place.

If the facts which I have noted agree with the experience of others, which I think to a large extent they do, then it may be laid down, as a rule of practice, that notwithstanding the tender and bulky state of the uterus we may, when we find it retroflected, especially associated with metrorrhagia, without fear restore it at once to position, and employ a Hodge's pessary to retain it there. If the restoration be difficult to complete at once, the uterus still inclining somewhat backwards, it will, so far as I have noted, fall into its place shortly by the action of the pessary, assisted by the various movements of the body. If the patient complain of uneasiness, it is very easy to neutralise all pressure

by the adoption of the horizontal posture, assisted by the prone position. If this be carried out for a few days, I have found that the uterus tolerates the instrument well, for in a short time the sensitiveness is lessened by the restored position as before mentioned. Of course, sometimes the uterus is adherent in its retroflected state; care must, therefore, be taken lest we carry on our attempts at restoration too vigorously. Gentle tentative trials should, of course, be made at commencement.

I need hardly point out that care must also be taken in our diagnosis, lest we mistake retro-uterine hæmatocele for the bulky tender retroflected fundus. I may give one case, as illustrative of the advantage of at once restoring the uterus to its normal place in severe hæmorrhage.

A. B., married, mother of six children, was admitted under me into Guy's Hospital, April 4th of this year, in consequence of very severe uterine hæmorrhage, which led her medical man to suspect malignant disease. She was very exhausted and blanched. The history of the case was as follows. She menstruated regularly up till last November. After this, she saw nothing for nine weeks, when severe hæmorrhage set in, but it was shortly checked. She kept her bed for three weeks, but upon getting up the bleeding at once returned, and continued daily up to the time of admission, being very profuse whenever she exerted herself, altogether having had nine or ten severe hæmorrhages. I found the cervix patulous, more anterior than normal, with a swelling behind. This proved to be the body of the uterus, retroflected, somewhat more bulky than normal. I essayed to restore the uterus to its proper position; but the bleeding which took place, on the use of the sound, was so profuse that I had to desist, and plug the os with a sponge-tent. After ten minutes, this was removed and the bleeding was found to be arrested. I then introduced a Hodge's pessary, which, assisted by digital pressure on the fundus *per vaginam*, restored the organ. A dose of ergot was then given. The bleeding at once ceased, with the exception of a slight flow for three days, followed by a little watery discharge. She gradually regained strength and colour, and finally menstruated normally on May 13th, about five weeks after her admission. To the present time, she has continued regular. She had only one drawback from rapid recovery, a slight local inflammation of two of the veins in her legs.

CASE OF INDURATED MEDIASTINO-PERICARDITIS.

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BAUER, in his article upon Diseases of the Pericardium in Von Ziemssen's *Cyclopædia of Medicine*, relates some interesting cases of indurated mediastino-pericarditis: I propose to give an abbreviated account of a case which has been under my care.

Ellen B., aged 20, a delicate-looking girl of blonde complexion, and below the middle height, by occupation a shirt-maker, was admitted as a patient under my care at the Eastern Dispensary on August 21st, 1873. A year previously, she had been under treatment at the dispensary for pleurisy of her right side; there was no effusion. For the past three months, she had been losing flesh, and had ceased to menstruate. On August 16th, she gave up work on account of pain in her chest. She looked very ill; the expression of her countenance was anxious; the skin feverish; pulse quick; tongue dry, with the edges and tip very red; the dorsum covered by a yellowish white fur. She had anorexia and thirst. The bowels were loose; the urine was of specific gravity 1020; no albumen. There was no sign of any pulmonary mischief. The heart's apex could be felt between the fifth and sixth ribs, half an inch inside the nipple-line. The vertical percussion-dulness began at the fourth left cartilage; on the right side, it extended over the fourth, fifth, and sixth cartilages; transversely on a level with the fourth rib, it commenced nearly an inch to the right of the sternum and ended just within the left nipple-line. On auscultation, loud grating friction could be heard all over the præcordial region. The hepatic and splenic dulness were normal.

From this date, all the usual symptoms of enteric fever gradually declared themselves; raw-beef tongue; bowels loose, four or five evacuations daily; abdomen tub-shaped; tenderness and gurgling in the ileo-cæcal region; pink spots disappearing under pressure on the abdomen and chest; sudamina; increased area of dulness over the spleen, which eventually projected two inches and a half from the left costal margin, and was markedly tender when handled. This occurred when there were signs of effusion into the left pleural cavity. In addition to

this left pleural effusion, there was every evidence of pericardial effusion, undulatory impulse, triangular-shaped dulness, the blunt apex of the triangle reaching as high as the second left interspace; the heart's sounds were muffled; there was cessation of friction; the respirations were hurried; the cough hacking; there was no expectoration. She had also an ulcer with a yellowish white floor on her right tonsil, and there was some enlargement and tenderness of the cervical glands at the bifurcation of her right carotid artery. Her temperature attained its maximum on August 24th, when it reached 104.4 deg. Fahr. Her pulse was small and feeble, ranging between 120 and 130. She wandered in her sleep, and her pupils were dilated. By September 17th, the signs of effusion into her pericardium and left pleural cavity were fast disappearing; grating friction could be heard in the left axillary and infrascapular regions, and loud rumbling friction all over the præcordial region. Her general symptoms improved from this time: the bowels were no longer loose; the tongue cleaned and became moist, and she was able to sit up in bed. On November 6th, the temperature was 100.4 deg. Fahr.; it varied from 99 deg. to 100 deg. Fahr. up to her death. She now got pleurisy of the right side.

During the early part of December, œdema of the ankles set in; this extended up her legs, and by the end of the month, there were signs of some fluid in her abdomen. At this period, I found, on examining her chest, the following condition. The heart's apex was nowhere to be seen or felt; the præcordial dulness was pyramidal, commencing above at the second left interspace; it extended on the right side downwards and outwards to within an inch of the right nipple; transversely, it reached from this point to the left nipple. There was no alteration of the area of dulness during a full inspiration. The heart's sounds were of regular rhythm, uncomplicated but extremely feeble; there was no increase in their strength as the stethoscope was carried up the sternum. Her jugular veins, more especially the right, were turgid and pulsed slightly; on pressing one's finger up the vein and making the patient hold her breath, there was no filling of the vein from below; but, on relaxing the pressure and telling her to take a deep inspiration, it became immediately distended. Her pulse was between 120 and 130, remarkably feeble in character; a full inspiration almost completely extinguished it. Her respirations were short and hurried; there was still some dulness in the right mammary and lower part of the axillary and infrascapular regions, with weak respiration and here and there crepitating friction. The lower border of the liver could be felt two finger-breadths below the right costal margin in the vertical nipple-line. The spleen, as far as could be ascertained by percussion, had resumed its normal size and position.

By January 26th, the ascites had greatly increased in amount; there was no œdema of the head, neck, or chest; the urine became albuminous. On February 27th, paracentesis of the abdomen was performed by Dr. Cameron, the resident medical officer to the dispensary, and eleven quarts of greenish yellow highly albuminous fluid were drawn off. On February 28th, the temperature was 100 deg. Fahr.; pulse 104. She had some tenderness at the seat of puncture. Her appetite was good; she passed more urine, which was no longer albuminous. The fluid rapidly reaccumulated in her abdomen; but she declined any further operation for its relief. On March 23rd, she died.

The appearances found after death were as follows. The pericardium, which was enormously thickened, was firmly attached by tough connective tissue to both lungs, the diaphragm, anterior chest-wall, and lower dorsal vertebræ; it was so closely adherent to the heart as to completely obliterate all trace of pericardial cavity. The heart was a little enlarged; the left cavities and valves were normal; the right ventricle was somewhat dilated, and the tricuspid orifice more patulous than usual; the muscular substance of the heart was palish in colour, but it was not examined microscopically. There was apparently no diminution in the lumen of any of the large vessels. Both lungs, besides being tightly attached to the pericardium, were more or less adherent by their lower lobes to the chest-walls; there was some fluid in the right pleural cavity. Both lower lobes of the lungs were somewhat congested and œdematous. I could find no trace of tubercle anywhere. The peritoneal cavity contained several quarts of greenish yellow serum. The omentum was studded with miliary tubercle; the liver was enlarged, and presented a nutmeg appearance upon section; the spleen was of natural size; its capsule was thickened. The kidneys were healthy. The other organs were not examined.

This case, both in its clinical features and in the appearances disclosed on dissection, tallies exactly with the description given by Bauer. In all these cases, the physical signs have been increased area of cardiac dulness, indistinct apex-beat, muffled heart-sounds, a small feeble pulse, weakened, and, in some cases, completely extinguished by a full inspiration—the "paradoxical pulse". I may remark that diminution, amounting in some cases to complete extinction, of the radial pulse

was pointed out by Dr. C. J. B. Williams, in the *London Journal of Medicine* for April 1850, as present in advanced stages of pericarditis and adhesion of the pericardium. Lastly, and what may be considered perhaps the pathognomonic sign of all, there was swelling of the cervical veins during a full inspiration.

CASE OF HYDATID TUMOUR OF THE LEFT KIDNEY SUCCESSFULLY TREATED BY ASPIRATION.*

By J. B. BRADBURY, M.D., F.R.C.P.;

Linacre Lecturer on Physic in the University of Cambridge, etc.

CASES of hydatid tumour of the kidneys are of such rare occurrence, and their diagnosis and treatment are often attended with so much difficulty, that the following case appears worthy of being brought before the Medical Section of this Association.

Henry Whitbread, aged 8, living at Gamlingay, in Cambridgeshire, was admitted into Addenbrooke's Hospital, on July 5th, 1876, under my care. He was a sharp intelligent looking boy, and rather thin. His only complaint was of an enlarged abdomen. A large tense elastic swelling occupied almost the whole of the left half of the abdomen, which was absolutely dull on percussion. No distinct edges could be felt to the tumour, which was not, however, perfectly smooth and regular, since two slight localised swellings were found on its anterior surface. Superiorly, the percussion-dulness reached to within one inch and a half of the nipple in the nipple-line, and, tracing it to the right, it became separated from the liver-dulness (right lobe) by a band of well marked resonance. It then passed down, about one inch and a half to two inches to the right of the mesial line, and lost itself below in the dulness of the (full) bladder. On tracing it to the left, the dulness reached as high as the seventh rib in the axillary line, but at this level it did not quite extend to the spine. The whole of the left hypochondrium was filled with the tumour, and there was complete dulness down to Poupart's ligament. The percussion was tympanitic over the rest of the abdomen not occupied by the tumour. At the upper part of the tumour, the "repercussion thrill" could be obtained.

The heart's apex beat immediately beneath the nipple, just under the fourth rib. The heart- and lung-sounds and the urine were normal. The liver was also normal. On July 6th, I introduced the needle of an aspirator into the tumour, and drew off forty-four ounces of hydatid fluid. No hooklets were found in the fluid. After the operation, the boy vomited several times, his pulse became quick (140 to 150), and the following day he had an eruption of urticaria, which lasted till July 8th. The temperature on July 7th was 102.4 deg. Fahr., but at no time did it exceed this point. On July 10th, the boy was progressing favourably; there was no tenderness over the tumour, but the urine was found to contain albumen, due to the presence of pus.

July 13th. The descending colon was found to be displaced towards the right side, and to run obliquely from the neighbourhood of the xiphoid cartilage to the left iliac fossa.

July 15th. The urine still contained pus. The abdomen was enlarging again. When the boy was made to sit up in bed, he complained of pain in the loins, and four of the lumbar spines were found to be prominent, and the skin over them reddened. They were very painful on pressure. The pain in the back continuing, it was decided to aspirate the tumour again on July 16th, and this was done by Dr. Humphry under the influence of chloroform. Thirty-one ounces and a half of a greenish opalescent fluid were withdrawn, which, in the latter stage of the operation, was flaky and apparently purulent. After standing, the fluid deposited two ounces of pus. Under the microscope, pus-cells and the heads of numerous echinococci armed with hooklets were detected. He vomited again several times after the operation, but no urticaria followed the second puncture, as is invariably the case so far as my experience goes. There was a slight fall of temperature after the second aspiration, which was permanent, the temperature only on one occasion exceeding 100 deg. Fahr.

On July 25th and 26th, small cysts with hooklets were found in the urinary sediment. From this time, the patient became gradually better. The pain in the loins and tenderness over the vertebræ became less and less, and the urine deposited less pus. The descending colon also assumed its normal position. On several occasions, echinococci were found in the pus, and also a few hyaline casts. The boy was made an

* Read by the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

our patient on November 4th, and was kept under observation for some months. When last seen, he was quite well, the abdomen being perfectly normal and the urine free from either pus or albumen. For some months, he took Parrish's chemical food and cod-liver oil.

REMARKS.—Hydatid disease is not uncommon in Cambridgeshire, probably owing to the quantity of surface-water drunk, in which sheep-dogs have deposited the ova of the *tœnia echinococcus*. During the last few years, I have seen ten or twelve cases of hydatids of the liver, and I have noticed that, when cases have occurred elsewhere, many of the patients have at some time resided in Cambridgeshire. The case I have related is the only one of hydatid of the kidney which I have seen, and is interesting in several points. In the first place, the colon did not run in front of the kidney, but was pushed to the right, thus rendering the diagnosis more difficult. As no sharp edges and no notch could be felt in the tumour, but perfect roundness everywhere, it was concluded that the organ implicated must be the kidney. Secondly, the enlargement was thought to be due either to hydatids or to hydronephrosis, and the hydatid fremitus conclusively proved that it must be the former. Thirdly, a curious feature in the case was the appearance of pus in the urine after the first aspiration, thus showing that the cyst had effected a communication with the urinary passages, most probably the pelvis of the kidney. This was a fortunate event in the case, and contributed in no small measure to the ultimate favourable result. The swelling and great tenderness over the lumbar vertebrae made me at one time feel rather apprehensive of serious mischief; but, after the second aspiration, these gradually subsided. So far as I know, this is the only case in which a hydatid tumour of the kidney has been aspirated. I think I was justified in performing the operation, as the tumour was rapidly increasing, and might have burst into the lungs or elsewhere if it had not established a communication with the pelvis of the kidney. There being no colon in front of the tumour rendered the operation less dangerous.

EXCESSIVE CAUTERISATION OF THE CERVIX UTERUS AS A CAUSE OF PAINFUL CICATRICES, ATRESIA, AND LOSS OF SEXUAL DESIRE.

BY J. WALLACE, M.D.,

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THE occurrence of several cases in my practice has drawn my attention to these subjects, and induced me to make the following observations.

Now-a-days, the speculum vaginae is used more frequently by specialists and general practitioners than twenty or thirty years ago, and the public have so overcome their objections to it, that there is reason to fear that its use may degenerate into routine, with consequences so injurious that the instrument may be brought into disrepute. This would be a misfortune for the patient, and a crippling of the resources of the practitioner. Nevertheless, if, as a matter of routine, it be passed once or twice a week for months or years, for the purpose of cauterising "an ulcer of the womb", this danger is apt to arise. I know not whether this practice arises from the fact that students are not taught gynecology, and hence become practitioners with this branch of their art still to learn, or from a want of due consideration of the circumstances which surround this special branch; but whichever it may be, I feel sure that, to obviate all this, the licensing bodies ought to extend the term of study and increase the number of lectures, in order to promote the knowledge of obstetric medicine and surgery.

Excessive and Prolonged Cauterisation.—What are the immediate pathological results of weekly or bi-weekly application of the nitrate of silver, which is the agent in most favour with practitioners, to the os tincæ? Inflammation and ulceration, lit up again and again by each application, followed in some instances by atrophy, and in others by hypertrophy of the cervix, with hard painful cicatrices and more or less contraction of the tissues and closure of the os, or even complete obliteration; endocervicitis and endometritis, the mucous lining of the cervical canal being more or less destroyed, and an ulcerated irregular surface remaining instead. Secondary functional derangements of the uterus follow, manifested first by dysmenorrhœa of a metrorrhagic character; and as the obstruction increases, regurgitation of the menstrual fluid takes place through the Fallopian tubes, setting up ovarian, perimetrial, and general pelvic inflammations, with all their subsequent miseries.

The portio vaginalis uteri in some cases is so destroyed by caustics, that a hard depressed cicatrix alone remains of it, and this is generally painful to the touch; the os is small, but not sufficiently so to account for the severe dysmenorrhœa, which I have heard described by in-

telligent patients as "awful agony which sent them delirious". In such cases, the mucous membrane of the cervical canal is disorganised, and covered with uneven granulations which bleed on the most gentle touch of the sound, and are so acutely sensitive that I have frequently found it necessary to give chloroform before it was possible to examine the condition of the uterus. In a case under my care lately, the canal was tortuous from these excessively sensitive granulations; yet, on passing the speculum, the mucous membrane of the cervix seemed free from all inflammatory irritation, and it was only by a minute examination of the canal of the cervix that it was seen to be denuded of healthy membrane, while a careful digital examination revealed to the touch irregularities marking the different cicatrices. Sexual intercourse could not be tolerated; uterine pain was ever present; and although she had been cauterised externally and internally by various practitioners during a period of several years, no relief was obtained. The cicatrices were clearly seen with the aid of the duck-bill speculum. This uterus had never been impregnated, yet it measured fully two and a half inches, although its vaginal portion had been destroyed to more than half its extent. Relatively, it was enlarged from menstrual obstruction. Free division of the cervix cured this case.

Painful cicatrices are also frequently seen upon a hypertrophied cervix, accompanied by the same pathological degeneration of the mucous lining of the canal as in cases of atrophy, and they may exist where the conditions are apparently normal. Such cases as the latter are the opprobria of gynecologists. They go the round from one practitioner to another, unrelieved and ever complaining. I saw some time ago a patient of this sort, who had been almost everywhere, and had suffered everything to be done which had been recommended for her case, yet the uterine aching pain remained as before. The hard and nodulated cervix was painful to the touch, although its mucous covering was smooth. The sound passed with difficulty on account of the tortuous cervical canal; and, although no force was used, free bleeding followed. With the speculum, the os was seen to be small, puckered cicatricial lines radiated from it, and the canal was denuded of its membrane and ulcerated. Although married twelve years, this patient had never been pregnant, and was in other respects healthy. Under various practitioners, she had been submitted to various forms of treatment, but without any abatement of the dysmenorrhœa, metrorrhagia, and leucorrhœa. The canal of the cervix was freely laid open with the uterotomy, and the painful cicatrices removed by excision. She recovered rapidly, and it may be remarked that, as is usual in these cases, the cervix healed in a month without any caustic application whatever; carbolic water and simple astringent injections used daily being all that the case required. Of course, it was necessary to prevent closure of the os during the healing process by the occasional passage of the sound. This was the first case in which I performed this operation for painful cicatrices; and, as I had the opportunity of watching this patient for six years afterwards, it is interesting to state that she had no return of her uterine disease.

These two cases illustrate the methods of treatment by incision of the canal and removal of the painful cicatrices, where uterotomy fails, or where it may be thought not likely to be sufficient, as in hypertrophy, which I have practised for nearly ten years with almost invariable success, and it has been equally successful in the hands of my friend Dr. Steele, who was induced by me to try it. Some years ago, at a meeting of the Lancashire and Cheshire Branch of the British Medical Association, he read a paper upon this subject, in which he detailed the results of several successful cases.

Another unfortunate condition arising from the application of caustics to the cervix uteri occasionally met with is—

Loss of Sexual Desire, which may be partial or complete.—On several occasions, I have been consulted by patients for this condition, in which sexual connection was only tolerated, and where there was no sexual orgasm whatever. The fear was, lest any unhappy family troubles should arise by discovery on the part of the husband. An inquiry into the causation of these cases has invariably elicited a history of frequent cauterisation, followed by loss of special sensation. Having had my attention thus accidentally drawn to this subject, I availed myself of every opportunity of inquiry which presented itself to me; and now, from having observed a number of cases, one of complete and permanent loss of sensation, one of complete loss remaining for two months, after which the normal condition returned, and several others where the loss was more temporary after each caustic application to the cervix, but still so marked as to be noticed by the patient, I am convinced it is associated with peripheral lesion of the nerves of the mucous membrane of the cervix, cicatrices producing permanent compression and loss of function, and probably with changes in the nerve-centres from sympathetic irritation.

Atresia Uteri may occur at any stage of the caustic treatment. Three

cases have lately been under my observation. The first was complete in a patient between fifty and sixty years of age, produced by bi-weekly cauterisation for ten months ten years ago, for ulceration during the climacteric period, and again two years ago for eighteen months by another practitioner. She complained of a burning aching in the womb, intense periodic spasms, the pain radiating to the sacrum, around both hips, and down both thighs, accompanied with palpitation, profuse sweating, and not unfrequently delirium. On vaginal examination, a depressed hard cicatrix occupied the place of the cervix. With the speculum, no os could be found. Having brought down the uterus with the vulsellum, I passed by force a small steel probe through a depression of mucous membrane which seemed to indicate the former situation of the os, into the canal of the cervix, and speedily opened up the canal to its natural size by a succession of bougies. The uterus measured two and a half inches, and contained a small quantity of mucus, not amounting to hydrometra, but sufficient to produce the uterine disturbance. It may be noticed that the uterus was hypertrophied, considerable atrophy generally occurring at her age. The atresia of age takes place at the internal and not at the external os, and in that it resembles the adhesive form of atresia which sometimes follows metritis after confinement. The next case is that of a young married patient, the vaginal portion of whose uterus was nearly in the same condition as that of the last case. No os could be discovered by touch or sight, and the cervix was represented by a hard round nodule of the size of a large pea, but the uterus was small. During menstruation, the discharge was discovered oozing from a pin-point opening at one side of the cervix. With difficulty, a steel probe was passed, followed by a larger and larger one, and immediate relief followed a profuse discharge of retained menstrual fluid. Ten days afterwards, I opened up the canal with the uterotome, and she is now well, metrorrhagia and dysmenorrhœa having disappeared, while the general health is restored. This patient had been under the care of a practitioner for eighteen months, who passed the speculum twice a week and applied caustics. And for what? She had been married two years, and not becoming fruitful, yet wishful to, had consulted him, and he had "found ulceration". But this could hardly have been the ulceration of a normal uterus, for it was undeveloped and only measured an inch and a half in depth. Another case of incomplete atresia, accompanied with considerable hypertrophy of the cervix, I saw a year ago. She had become disheartened and hopeless of cure, having derived no benefit from treatment; and had it not been that I was summoned to relieve her intense agony produced by obstructed menstruation, the case would not have come under my notice. The cervix was irregular and nodulated, measured an inch and a half in length, and although the os could be discovered, the smallest probe could not be passed, and the touch requisite to do so could not be tolerated. Narcotics relieve her, and as she has been told that when the menopause comes her suffering will cease, she declines to submit to any further treatment. Cauterisation weekly for two years preceded the morbid condition.

Acute Atresia Uteri, if I may so call it, is another form of the lesion produced in a more direct and speedy manner by the recent and more active form of treatment of swabbing out the cavity of the uterus with nitric acid, acid nitrate of mercury, potassa fusa, to the cervix, etc., for endometritis and inflammation of the cervix. The cases I have seen were partial, and occurred in my own practice. Four applications of acid nitrate of mercury, extending over a period of four months, produced the first case. Her endometritis was cured, and I did not see her again for several months, when she returned complaining of painful and obstructed menstruation. The os admitted a small probe; the cervix was hard, and any attempt at dilatation was intolerable. Chloroform was administered, and the canal laid open with a successful result. The second case was brought on by nitric acid, but was discovered at the end of two months, and yielded readily to dilatation. The third and fourth cases resulted from potassa fusa applied to the cervix, and were discovered at the end of three months. Immediate dilatation and the occasional passage of the sound set them right. In producing rapid dilatation in these cases, and in keeping the os open in cases where there is a strong tendency to contraction and closure, I have found the greatest assistance from Priestley's dilator.

In conclusion, I may remark that to Dr. Henry Bennet the profession are chiefly indebted in this country for the many valuable uses, and perhaps, through misapprehension on the part of practitioners who endeavour to imitate his practice, for many of the abuses of the nitrate of silver. He says (*On Inflammation of the Uterus*, p. 393): "The solid nitrate of silver, or a strong solution, should be applied every three, four, or five days to the inflamed mucous membrane covering the cervix." This treatment is recommended for many weeks until the ulceration heals. Again, he states (*ibid.*, p. 417): "Sometimes,

indeed, the os becomes smaller than in the healthy state", "but I have never seen it obliterated by these severe cauterisations", viz., by potassa fusa, etc., "for the natural secretions of the regions above always gradually reopen the os, etc." West ridicules somewhat and opposes the treatment of Bennet. Bernutz (*Diseases of Women*, translated by Dr. Meadows, p. 140) says: "I cannot too strongly protest against the intemperate use of caustics to the cervix uteri", and mentions one case where "obliteration of the cervix resulted"; and in another "contraction of the cervico-vaginal orifice"; and in a third, of the "cervico-uterine orifice". These cases, as shown by him, lead on to more serious consequences. Yet in the *Obstetrical Journal*, February 1877, a case is given from the "*Archives de Tocologie*" (September 1876), reported by a countryman of his own, Dr. Chambaud, where for uterine hæmorrhage at the third month of pregnancy, after leeching, and because of a muco-purulent discharge from the os, cauterisation with nitrate of silver, by means of Lallemand's *porte-caustique*, of the os and cervix was continued for fourteen weeks. Complete occlusion followed, and although seen in consultation by M. Depaul, it could not be overcome either by the finger or sound. When labour came on, fourteen hours of pains recurring every two minutes made no impression, and it was only after incision that the uterus was emptied. The child died, and the mother ultimately recovered after an attack of metritis. Wonderful to relate, Dr. Chambaud thinks that had he cauterised more persistently than he did, no occlusion would have taken place. Thomas (*Diseases of Women*, p. 587), affirms that strong caustics are a prolific cause of contraction of the cervical canal, and Rigby (*On Female Diseases*, p. 114) speaks of the "dishonest application of caustic to the os uteri at intervals so short as to render it impossible for the effects of the first application to have healed before the second was made".

Here I may state that repeated cauterisation is not necessary to produce healing, for the severe ulceration produced by potassa fusa on the lips of the uterus will heal in from four to six weeks without any subsequent cauterisation whatever. It is only necessary to direct the patient to use the vaginal douche daily, either warm water, carbolicised water, sulpho-carbolate of zinc, or whatever astringent in solution that may be deemed suitable. The occasional passage of the sound during the healing process will obviate any tendency to atresia.

The treatment may be summarised thus. 1. For painful cicatrices, divide the cervix freely; if that fail, remove them by excision. 2. For recent atresia, use rapid dilatation; for atresia of old standing, free division with the scissors and uterotome; simple medicated dressing afterwards, if there be endometritis. 3. The sound should be passed a week before each menstrual period for three or four months to prevent reclosure.

CASES IN AURAL SURGERY.

By G. P. FIELD, M.R.C.S.,

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CASE I. Impacted Cerumen being the apparent cause of an Otitis Membrana Tympani.—The Rev. A. W. came to me August 28th. He had previously consulted a well known surgeon, who had diagnosed cerumen, and used the syringe, but had only succeeded in removing a portion of the wax. The surface of that which remained assumed a peculiar honeycomb appearance, which had led the surgeon to consider that the patient had entirely lost the whole tympanic membrane of the right ear and nearly all that of the left. By carefully syringing (in the manner I have elsewhere described), I soon removed the accumulation from both ears. I found the tympanic membranes quite healthy, and his hearing was completely restored. I have seen many other cases of impacted wax, and also cotton-wool, assuming a great variety of appearances, calculated more or less to mislead the surgeon; so that I am not surprised at the mistake that was made in this case.

CASE II. Extensive Sloughing Ulceration of Ear (Syphilitic).—E. N., aged 42, a carpenter, came to me at the hospital December 1876. He had a hectic appearance, quick pulse, and other symptoms of severe constitutional disturbance. Two-thirds of the auricle of the left ear had sloughed away, leaving a large round hole, in which, however, the external auditory meatus could not be distinguished. There was a large quantity of very offensive discharge, and he described the pain as very severe. This serious state of disease had commenced, he said, three months previously, from pricking his ear with a pin; and since that time he had been treated with different tonics, and a great variety of lotions and ointments, without any relief; in fact, the ulceration was progressing all the time. From the condition and history of the disease, I diagnosed a syphilitic taint, and prescribed five grains of iodide

of potassium with bark three times a day. The ulceration was thoroughly cleaned by poultices, and then dressed with an ointment composed of a drachm of unguentum hydrargyri nitratis with five drachms of zinc ointment. Rapid improvement took place, and in three weeks the sore had quite healed, leaving a respectable looking ear, although, of course, there was much loss of tissue. During the treatment, the external meatus was kept open with pieces of lint; and when he left the hospital, although the external meatus was very small, yet the hearing was good.

This case illustrates how a local disease in a patient with syphilitic taint may resist all ordinary treatment until the specific nature of the case is recognised, and shows how soon such a case is relieved when suitable remedies are employed. This man might have been saved the loss of part of his ear, and also a dangerous illness, if the syphilitic features of the case had been diagnosed at an earlier period.

CASE III. *Perforation of the Membrana Tympani, becoming permanent in consequence of delay in treatment.*—A lady had suffered from a constant discharge from the right ear, with deafness, for several months. She was sent to me by Dr. Pollock, whom she had consulted for her general health, before which occasion she had not thought the ear-symptoms of sufficient consequence to require attention. I found a large perforation of the membrana tympani. By treatment with astringent lotions, such as sulphate of copper (half a grain to the ounce), and keeping the tympanum well washed out in the ordinary way, this patient gradually lost the discharge, and her hearing-distance improved from one inch to six, but the perforation remained. I believe that if she had been treated earlier, the opening might have been healed, and her hearing perfectly restored. The following case is confirmatory of this opinion.

CASE IV. *Perforation of Membrana Tympani.*—Mr. D. consulted me in January 1877. He was sent by Mr. Maunder. Seven days before, after a violent fit of sneezing, he found himself deaf in the right ear. He could only hear the watch when in contact with the ear. I easily distinguished a large perforation in the membrana tympani. The surrounding mucous membrane was in an unhealthy condition. I therefore prescribed a lotion of sulphate of zinc and carbolic acid (five grains of each to one ounce of water), to be used four times a day. In a few days, the condition of the mucous membrane had improved, so a solution of nitrate of silver (half a drachm to one ounce) was carefully applied two or three times a week to the perforation by means of a probe covered with cotton-wool. In a few weeks the aperture had closed, all signs of injury had disappeared and the hearing was quite restored. This patient was kind enough to call upon me three months afterwards, during which time he had been exposed to considerable changes of climate (travelling in Egypt), to let me know that the cure had been permanent.

A CASE OF FAT-EMBOLISM RESULTING FROM RUPTURE OF A FATTY LIVER.

By D. J. HAMILTON, F.R.C.S.Ed.,
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THE following case may be interesting to the readers of the BRITISH MEDICAL JOURNAL, from the fact that, so far as I am aware, there is no other record of a similar lesion in English literature, although the condition is very generally recognised by Continental pathologists. It is also particularly interesting, on account of the unusual situation from which the oil was derived which acted as the embolon.

The patient from whom the organs were taken was a lad about fourteen years of age, a native of Germany, and a sailor. While aloft, he slipped his footing and fell a considerable distance on to the ship's deck, alighting, from all accounts, on his right side. Although stunned with the fall, he soon recovered sufficiently to walk about the deck. In an hour or two afterwards, however, he became very much distressed; his breathing became embarrassed, coma ensued, and he died a few hours after the injury. At the *post mortem* examination, the liver was found to have sustained a few small ruptures, from which a little blood had flowed, but only a comparatively small quantity. The liver itself, however, was peculiarly fatty, and, for a lad of his age, unusually so; whereas the other organs seemed perfectly normal, so that the lung and kidney were retained as specimens of healthy organs, and were hardened in chromic acid for microscopic examination. The liver was rejected as a normal organ, on account of its being so fatty.

In due time, sections were made of the lung and kidney, and, in order to bring out their outlines more prominently, a half per cent. solution of perosmic acid was employed as a staining reagent. The

most extraordinary appearance was revealed by this means in the lung. The whole of the middle and smallest sized branches of the pulmonary artery were found to be plugged with oil, which now had a black colour, owing to the action of the perosmic acid.

Even the minutest capillaries, in many cases, were completely choked up with a large embolon composed of oil. The oil was generally in one large elongated mass, occupying the lumen of the vessel for a considerable distance, or it was in drops of various sizes closely aggregated together. The vessels seemed in great part empty, but, in other respects, the lung was perfectly normal. Similar embolisms were detected in the kidney, but only in very small number. The other organs were not retained, and consequently not examined.

Fat-embolism is a pathological lesion of the greatest importance, and has been described within the last few years more especially by Zenker, Wagner, and Busch. It generally happens that the subject of it has sustained a fracture of bone, or some operation has been performed necessitating the opening of the medullary cavity of a bone. The oil which so escapes into the surrounding parts becomes absorbed by the neighbouring blood-vessels and is carried to the right side of the heart, and subsequently into the lung. Here it gives rise to the most complete capillary embolism, entirely precluding the passage of the blood through the organ, the patient accordingly dying from gradual carbonic acid poisoning.

I am not aware that any case similar to the present has been recorded; but, on a little reflection, it can be easily seen that the liver might be an extremely fertile source of fat-embolism in certain diseased conditions. Those cases of death in a few hours after a simple fracture of bone or operation on bone must be familiar to every surgeon, but, up till the time that this very important discovery was made, were totally unaccounted for. No *post mortem* appearances worthy of note are found on naked eye examination, and the patient is generally said to have died from "shock", this term being thought quite sufficient to explain all deaths of this kind.

A case recorded by Czerny, in the *Berliner Klinische Wochenschrift* for 1875, Nos. 44 and 45, is extremely instructive. The patient, a mason, had sustained a simple fracture of the thigh, and died next day with symptoms of coma. There was great oedema of the lungs, with cyanosis, and microscopic examination showed the capillaries of the lung to be filled with clear fluid fat. Small fat-embola were also seen in the cerebral vessels. I remember myself having seen, a few years since, a perfectly parallel case. The patient, a perfectly healthy young man, was brought into hospital suffering from a simple fracture of the thigh, and apparently was going on quite well until a few hours after admission, when he gradually became comatose and died next day, totally unconscious, within twenty-four hours after the injury. At the *post mortem* examination, absolutely nothing was found to account for death, and he also was supposed to have died from "shock". I have little difficulty in believing that this was likewise an instance of "fat-embolism".

LIGATURE OF LEFT EXTERNAL ILIAC ARTERY FOR FEMORAL ANEURISM: RECOVERY.

By J. FLEMING, M.D., F.R.C.S.,
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J. MCQ., 1st battalion 25th Regiment, aged 28, and of nearly six months' service, was admitted from Shorncliffe to Netley Hospital on May 26th, for a large aneurism of the left femoral artery immediately below Poupart's ligament.

On admission, he appeared very anxious and irritable, as he was suffering great pain. He stated that previously to his enlistment (December 1876) he was a sailor, and that he contracted primary syphilis in January 1865, which was followed by a suppurating bubo in the right groin. He, however, is a healthy-looking man, is married, and has had seven healthy children.

He gave the following account of his present affection. About the end of February 1877, whilst "doubling" in the barrack-square at Shorncliffe, he felt a prick like that from a pin in the upper part of the left thigh. No farther notice was taken of it until the end of March, when, in the gymnasium, vaulting the "horse", he suddenly felt a pain in the left groin, and, on applying his hand, detected a pulsating tumour about the size of a walnut. He was treated at hospital for some time; but the tumour increased in size, and he was attacked with pain in the knee and thigh, the latter becoming much swollen. He stated that on April 15th pressure was applied above the tumour, and continued interruptedly for many weeks, causing him

great suffering; but without any benefit. On arrival here, an examination showed the tumour to extend downwards from Poupart's ligament for three inches and a quarter, and transversely for three inches and three-quarters, the outer margin being in a line with the anterior superior iliac spine. The tumour was pulsating very strongly, and the skin covering it smooth; and at the most prominent part a circular pink spot, painful on pressure, about the size of a threepenny-piece, was observed, while the lymphatics in the vicinity of the aneurism were enlarged and tender. The circumference of the limbs at the seat of the aneurism differed only by one inch; that of the right being 19%, and of the left 20% inches. On manipulating the tumour, it conveyed the sensation as if some coagulation had taken place; and it was therefore thought advisable to again try the effects of pressure above the tumour on the external iliac, pressure below being impracticable.

The limb having been wrapped in cotton-wool, Read's compressor (3rd series) was applied over the external iliac on June 4th, and continued interruptedly until the 22nd, the pad being well covered with French chalk, and shifted as the skin became tender. The following were the dates and periods during which pressure was employed. June 4th, 8 hours; 5th, 6 hours; 6th, 4 hours; 8th, 3 hours; 9th, 3 hours; 10th, 2 hours; 11th, 2 hours; 12th, 2 hours; 14th, 7 hours; 21st, 1 hour; 22nd, 50 minutes; total, 38 hours 50 minutes.

On June 14th, the skin over the course of the external iliac became so tender that pressure had to be discontinued; while the pain from the aneurism necessitated the administration of opium and hypodermic injections to procure sleep.

About this period, I observed in the medical journals an account of some cases of popliteal aneurism having been cured with the aid of Esmarch's bandage; and it was resolved to give it a trial. It was applied on June 21st and 22nd for one hour and fifty minutes respectively, the patient being for the time under the influence of chloroform, and the bandage applied in the manner recommended, Read's tourniquet having been placed on the iliac; but, though at the end of this period the strength of the pulsation appeared less and the tumour felt harder, there was no permanent good result, rather the contrary, as the patient complained of increased pain along the course of the femoral artery as well as in the knee and ankle.

The dimensions of the aneurism on June 30th were—transverse $4\frac{1}{2}$ inches, and vertical $3\frac{3}{4}$ inches; thus showing a considerable increase since the 4th, almost an inch in its transverse diameter. As the means adopted for inducing coagulation in the sac were unsuccessful, and as the condition of the patient was rather critical, it was decided, in consultation with Professor Longmore, to apply a ligature on the external iliac.

The patient having been prepared, the bowels freely opened, etc., the operation was performed on July 9th, under the influence of ether, and in the usual manner, by a curved incision above Poupart's ligament. There was some difficulty in reaching the vessel and avoiding injury to the peritoneum, as it was found to be closely adherent to the transversalis fascia, which was echymosed in places, the result, no doubt, of long-continued pressure from the artery-compressor in that situation. The artery having been found healthy, and pressure on it entirely controlling the flow of blood in the sac, a silken ligature was applied at the middle part of its course. The upper part of the wound was brought together by a silver suture, the lower left open with the two ends of the ligature protruding, and a pad of antiseptic gauze placed over it to absorb the discharges. The limb was then wrapped in cotton-wool, elevated a little, slightly flexed and everted, thus placing it in an easy position supported by pillows, and thirty minims of Battley's solution of opium were given.

He had a good night's rest, and expressed himself as feeling very comfortable next morning, the pain in the knee and thigh having very much diminished since the operation. The case progressed favourably without a bad symptom and without a rise in temperature beyond normal, except on one occasion, when it rose about 1.5 deg., but which soon regained its normal condition on the bowels being freely evacuated. At that time, some deep-seated pain was complained of in the groin, but that disappeared very soon, and was no doubt owing to the same cause.

The ligature came away on September 6th, fifty-eight days after the operation; and the length of time it took in doing so was probably owing to the wound uniting deeply between the loop of the ligature, in front of the vessel, which may have enclosed some of the tissues.

The wound has now quite healed, leaving a thin line of cicatricial tissue in the skin, and there is no return of pulsation in the sac, which appears to have become hard and small and to be undergoing absorption. There is very little difference now in the size of the limbs, and the patient can walk about without any degree of discomfort.

CLINICAL MEMORANDA.

DEATH FROM A RECENT PLEURAL EFFUSION.

ALTHOUGH the operation of tapping the chest in all cases of considerable pleural effusion may now be looked upon as unquestionably the best established and most important step in modern therapeutical practice, the necessity for it is still advantageously illustrated by cases where fatal results might almost certainly have been avoided by its performance. Death being taught to be an uncommon event in acute unilateral pleurisy, many are not impressed by the lessons of the best of instructors, clinical experience, with the possibility of its occurrence, but, trusting to the cut-and-dried teaching of medicine so much in vogue, read of the fact as an exception to a rule, and straightway forget it. And, however conclusive the theoretical arguments for the necessity of chest-tapping may appear on paper, their practical influence in convincing the many is almost *nil* in comparison with such a case as the following.

A young married lady, after a fortnight's attack of subacute rheumatism, from which she had suffered twice before, was on the way to recovery, when she complained of a return of the joint-pains and some pain in the right side. Apparently, no further symptom pointing to any serious chest-mischief was noticed for some days, until, about three weeks from the beginning of her illness, the pain in the side became greater, and there was considerable shortness of breath. At this time, when I first saw her, she had all the typical signs of a large right pleural effusion, with rapid breathing and a somewhat anxious expression. The left lung was apparently healthy, with the exception of some scattered bronchial rales at the base, and the heart appeared normal in size, action, and position. It was decided to recommend tapping on the following day, unless there was a notable improvement in the symptoms. The next morning, the patient was clearly worse, the face being bluish, the breathing shallower, and the right side position alone possible. Immediate tapping was urgently advised, but refused by the patient, who died on the evening of that day.

Taking into account the recent nature of this almost uncomplicated effusion, and that the history of the patient, both family and personal, gave her a clean bill of health, with the exception of the attacks of rheumatism, it may fairly be argued, with as much certainty as can belong to any medical treatment of any disease, that tapping the chest would in this case have saved life and led to a good recovery.

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London Children's Hospital.

A CASE OF APHASIA.

ON reading the instructive remarks on the Jurisprudence of Aphasia in the JOURNAL of the 15th instant, I am reminded of a case of aphasia of a well marked character which I saw in consultation in the past year, and the notes of which I have before me. The patient, who is now much improved in health, is a strong muscular man aged 55, and married. He was a foreman in a large engineering establishment, and had been working hard for some time before the attack in bringing out a patent invention. Seven or eight days before I saw him, he was seized in the night with paralysis of the right side and aphasia, without any symptoms of coma. A few days previous to this, he had a convulsive attack, apparently of an epileptiform character, with temporary loss of power of the right side; and, about eight weeks before this, he became very much depressed in spirits, complained of slight pain in the head, and began, for the first time, to manifest symptoms referable to the brain, as forgetfulness and misplacement of words, and calling persons and things by wrong names.

The patient's state, when I first saw him, was peculiar. He lay on his back in bed; could say "yes" or "no" distinctly, but these were the only intelligible words he could utter. He had some power in the right extremities, but not much. If the leg were bent for him, he could extend it, and, if it were pinched, he gave indications of pain. He seemed to be quite rational, and to understand everything that was said to him and of him. He attempted to answer questions and to explain his symptoms, but intelligible speech failed him, and he gave utterance to an unintelligible jargon intermingled with "yes" or "no", showing that these two words formed the extent of his vocabulary. His pulse was weak; he had no symptom of disease of the heart or lungs; his hearing was good, so was his deglutition. The pupils did not contract equally, and the left less than the right; and the tongue, when protruded, deviated to the right side.

On looking at cases of aphasia in a medico-legal point of view, it

is very evident, from the great variety of symptoms which the disease presents, that each case must be considered on its own merits. This was an extreme case of aphasia which I have briefly narrated, and was doubtless the result of a good deal of brain-lesion. Still, it would appear that the patient's language was interfered with more on its mechanical than on its intellectual side. Had he been called upon to make a will at the time I saw him, I believe he would not have been competent to do so; for, although his intelligence might have been adequate to the task, he had not power to explain himself so that his wishes might be understood.

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Lincoln Lunatic Hospital.

ENLARGEMENT OF THE SPLEEN, ACCOMPANIED BY LEUCOCYTHEMIA, TREATED WITH RAW BEEF.

Mrs. S., aged 31, married, has had two children. The last was born four years since (1873). The labour was premature, and was followed by very severe hæmorrhage, from the weakening effects of which, however, she quickly recovered. Her health continued good till June 1876, when, without any cause, as it seemed to her, her appetite failed; and, when she forced herself to eat, frequent vomiting took place. Sometimes the symptoms improved, and she felt better for a week or ten days at a time; but she never altogether lost the feeling of nausea and disgust for food. In January of the present year, she grew rapidly worse. She was unable to take food save in very small quantities, and the attacks of vomiting were longer and produced great prostration. On being sent for, I found her much reduced, and the heart's impulse very weak; the pulse feeble, 90, rising to 130 on the slightest exertion; the surface quite pallid; the tongue, inside of the lips, and the gums pale and bloodless. Raising the head from the pillow produced faintness and ringing in the ears. Vomiting occurred every time food was taken. No hæmorrhage had taken place, nor was leucorrhœa present. The spleen was much enlarged, but no pain was felt in the region occupied by that viscus. The bowels were torpid. The urine was natural. There was no œdema or symptom of dropsy. The lungs were healthy. Everything in the shape of drugs and food usual in such cases having been tried, I recommended raw beef, passed three times through a mincing machine, to be given from time to time in very small quantities, mixed in a little beef-tea. From the first day this treatment was tried, a gradual improvement took place. In a week, she could take milk and egg, and bore well the iron tonics prescribed for her. In a month, she was able to leave her room, and gradually grew stronger till, in June last, she went for a six months' residence on the South Coast.

There was no history to this case. The patient had always been healthy; was born and lived till her marriage on a highly-elevated well-drained part of the Midland region. She never had ague and never lived in a place where malaria was known to exist.

E. R. TENISON, M.D., Shepherd's Bush.

SURGICAL MEMORANDA.

CONGENITAL ATRESIA OF THE VULVA; AND PHIMOSIS.

My attention has been directed to a case of congenital atresia of the vulva reported by Mr. Fowler in the *JOURNAL* of September 22nd. Such are, I imagine, more common than he appears to think, three having occurred in my practice within the last two years, two at the Hospital for Sick Children in this city and one in private practice. The latter came under my observation when the child was two years of age, having been overlooked by the mother until the birth of a second girl, when the difference in the two children induced her to consult me. In this, as in the other cases, I found a thin membrane tightly stretched across the vagina, as described by Mr. Fowler. A very slight amount of straining soon succeeded in rupturing this; and a little oiled lint inserted between the lacerated parts was all that was necessary, and no further trouble ensued. A similar case occurred in my practice many years since, in which the obstruction to micturition was so great as to call for interference two or three days after birth. Here the use of a probe was necessary to break down the adhesions.

With reference to the other abnormality alluded to—phimosis—I would observe that I have lately treated these cases by dilatation with dressing, or, what is better, torsion, forceps, either completely at one operation or gradually at intervals of three or four days, taking care to break down all adhesions between the prepuce and the glans penis,

and getting the prepuce well back over the corona glandis; with instructions to the mother to repeat the latter part of the process twice a day, and taking care not to allow the prepuce to remain drawn back. In one case only did the neglect of this latter precaution induce a condition of paraphimosis, necessitating a few days' residence in the hospital. Where dilatation is not considered desirable, I prefer the operation of removing a sufficient portion of the end of the prepuce, and then slitting up the mucous membrane *only* and uniting the raw edges by sutures. This operation, although more troublesome both in performance and after-treatment, gives better results, and leaves a good covering for the glans, which by the ordinary operation is left permanently uncovered on the upper surface. I have to-day seen a case on which I operated thus some months since, and casual observation would not detect anything unusual. In conclusion, I may add that phimosis is a very common affection in the children brought to the out-patient department of our hospital, being for the most part detected during the exposure necessary for the proper examination of rickety or deformed children, and would otherwise probably have escaped notice. It is a very common cause of irritation of the skin on the inner and upper part of the thighs, from the retention of a few drops of urine within the prepuce.

JOHN EWENS,
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PAROTITIS AND ACUTE ORCHITIS.

THE association of these two diseases is not of so frequent occurrence that the placing of the following cases on record will appear out of place. Acute orchitis following upon parotitis is quoted as the best instance of inflammation by metastasis. This is questionable, and will probably be proved to be fallacious, just as acute orchitis supervening on gonorrhœa is now known to be due, not to metastasis, but to continuity of inflammation from the urethra through either vas deferens to the corresponding epididymis. The similarity of diseases affecting the parotid and the testicle is very striking; for, besides the above association, the following analogous diseases are found in both organs: enchondroma, encephaloid cancer, fibro-cystic and other encysted tumours. The following cases of orchitis and parotitis have lately come under my notice.

W. F., aged 38, a married man, caught mumps from one of his children, of whom he had three, all girls. The right parotid and right testicle were affected. The testicle became affected one week after the commencement of the parotid swelling, and as the inflammation was subsiding gradually, and not suddenly. The swelling of the testicle was preceded by pain in the thorax and severe pain in the abdomen. Under the treatment of warm flannels over the testis, rest, and opening medicine, the swellings subsided; but for some little time afterwards he complained of slight pain in the region of the groin, and pain in the right loin simulating unilateral lumbago.

T. G., aged 17, suffered from double parotitis, the right side being first and chiefly affected. The swelling of the testicle was also on the right side, and appeared as the mumps were subsiding. The patient suffered from pneumonia at the same time. He was treated by leeches and strapping. During convalescence, he suffered from pain on the right side, shooting up into his back.

On comparing these two cases, the following symptoms are identical in each. The orchitis appeared as the parotitis was gradually subsiding, and was also situated on the corresponding side of the body. The severe pain in the thorax and abdomen of the one case, and the pneumonia in the other, suggested a communicating link of inflammation between the two organs. The presence of the orchitis on the corresponding side to the parotid swelling is noticeable also in the cases quoted by Sir Astley Cooper at page 136, *On the Structure and Diseases of the Testis*, where in the one case having double parotitis there was double orchitis, and in the other the affection was on the right and corresponding side.

Does the communication take place by metastasis, or by continuity of inflammation? and, if the latter, whether by means of the fascia or by lymphatics? The presence of a communicating link, by which the inflammation might possibly be traced from one organ to the other, is favourable to the latter view. The continuity takes place probably by means of the fascia; and in support of this theory is the occasional occurrence of its transmission to the membranes of the brain, as quoted in the *London Medical Gazette*, 1851, page 651, where death occurred from meningitis supervening on mumps. Again, in another case which came under my notice, of an unmarried woman aged 32, parotitis was associated with mammitis on the corresponding side, the gland being indurated and very painful, without any catamenial irregularity. Here the transmission of inflammation may have taken place by continuity along the deep cervical fascia; viz., from the

parotid fascia to the fascia of the thoracic region, which sends septa into the substance of the mammæ supporting its various lobes.

S. OSBORN, F.R.C.S.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

CHARING CROSS HOSPITAL: MR. BARWELL'S WARDS.

Ligature of Common Carotid and Subclavian Arteries.—A man, aged 45 and healthy in general appearance, presented a tumour, six inches by four, rising from the thorax behind the right clavicle. A careful examination indicated that this was an aneurism of the innominate. There were no signs of disease of the heart or vessels in other parts. While under observation, the swelling increased in size, and caused a considerable amount of dyspnoea and other distressing symptoms, so that the man became desirous of submitting to operative treatment. Mr. Barwell accordingly ligatured the common carotid in the usual situation, and the subclavian artery in the third part of its course. Antiseptic precautions were used both at the operation and at the subsequent dressings; a drainage-tube was placed in the incision over the subclavian, and the wounds were closed with silver sutures. A week after operation, the tumour was much smaller, and had undergone an appreciable amount of consolidation. A slight pulse could be felt at the wrist, due to the establishment of the collateral circulation. There had been but very little febrile reaction, and the patient was doing well.—[Since taking the above report, we have ascertained that the man has made an excellent recovery.]

Subcutaneous Osteotomy.—A girl aged 17, now fairly healthy but in childhood the subject of rickets, was so deformed in the bones of the lower extremities that she had never been able to walk. For the relief of this extreme degree of "bow legs", she submitted to osteotomy. At the first operation, the tibia and fibula of each leg were divided subcutaneously by means of the chisel; the legs were then made straight and put up in plaster of Paris cases. A fortnight after the first operation, the femora were both divided in a similar manner, and put up in plaster cases. The girl made a good convalescence, and was getting about on crutches, when, unfortunately, she fell by accident and caused a fracture of the right femur, two inches above the seat of section. This, however, showed that the ends of the bone divided had become firmly reunited after the operation. The limbs now appear quite straight and of equal length, as she lies in bed. In these operations for osteotomy, Mr. Barwell prefers the chisel to the saw, as this instrument divides the soft tissues and periosteum only to the extent of the width of the chisel, whereas a saw must make room for itself to play in among the tissues, as it is drawn backwards and forwards across the bone.

Cleft Palate.—A case of cleft palate has lately been operated on, and is still in the wards. The cleft extended from the hard palate, which is not much affected, through the soft palate and uvula. Two operations have been performed at separate sittings. At the first, the soft palate only was dealt with by the ordinary operation; at the second, the uvula was united, and this proved the more difficult to manage. No anæsthetic was given, but the mouth was held open with a gag; silk ligatures were used to unite the edges after they had been pared. Mr. Barwell sometimes employs catgut sutures in this operation; they offer the advantage that they may be left in a longer time than silk ones, and do not readily cut the tissues. When the soft parts are firmly united and all inflammation has subsided, the fissure in the hard palate will be dealt with by dissecting down and uniting the soft tissues. In this case it will not be necessary to divide the bone, as the opening is of moderate size.

Lithotomy.—A man aged 41 was cut for stone by the lateral operation. He is known to have passed calculi when four years old, and has suffered from bladder-symptoms all his life. From an examination with the sound, Mr. Barwell ascertained that a very large stone had to be dealt with. The lateral operation was performed, and the bladder was at once reached, but the stone was so large that it could not be removed entire. The screw-crushing forceps was then introduced into the bladder. The stone was too large to allow of its being grasped by the blades, but numerous pieces were chipped off until at last the calculus was extracted. When pieced together, it measured four inches across

and was very hard in the centre, with a phosphatic coating. When seen the day after operation, the man was doing well.

Amputation of the Thigh.—A boy had suffered for a considerable length of time from disease of his knee-joint and caries of the inner condyle of the femur. The condyle had been trephined, and the diseased bone gouged out. This had, however, failed to produce a satisfactory result, and the joint had become completely disorganised, so that amputation afforded the only chance for the boy's recovery. Esmarch's bandage was applied to the limb, and a piece of tubing ligatured the thigh above. The operation was performed under carbolic spray, produced by a hand-boiler. A long anterior flap was cut, containing little but skin, and the posterior flap was cut short; the scar was thus brought well behind the bone, and the under flap did not drag upon the union. Catgut ligatures were used to all the arteries, including the femoral, and were cut short.

In all these cases, anæsthesia was produced by first giving nitrous oxide gas and subsequently ether.

DR. GREEN'S WARDS.

Spontaneous Evacuation of Gall-stones.—An elderly woman, of a healthy general appearance, complained of feeling ill, with some soreness in the abdomen. On examination, a distinct tumour was felt in the region of the gall-bladder; the surface was uneven, but no fremitus was felt on palpation; and there was neither then nor at any time the slightest jaundice. While in the hospital, she was attacked with sudden and severe abdominal pain, accompanied by vomiting, which lasted for some hours and then subsided spontaneously, leaving the patient much prostrated. Several faceted gall-stones were found in the stools subsequently passed, and the tumour was found to have disappeared completely. At present, the patient is completely free from pain, though much debilitated; the abdomen is large and flabby, a condition apparently due to general weakness, and often seen after chronic illness. Three years ago, she had a severe attack of colic, and has never enjoyed good health since. She is taking a mixture containing ammonio-citrate of iron, with alkali, and a dose of Carlsbad salts is given every morning to move the bowels and lessen the tendency to the formation of gall-stones.

Ascites and Hydatid of the Liver.—A boy was admitted to the hospital a year ago with extensive ascites, the liver being felt to be large and rough, apparently due either to a true cirrhosis or to a syphilitic change. Paracentesis abdominis was performed, and then a firm tumour, distinctly fluctuating and as large as a cricket-ball, was felt projecting downwards from the central portion of the liver. The boy has lately been readmitted with ascites, which quickly disappeared under the use of copaiaba. It has been stated that copaiaba causes diuresis by producing thirst, but in this case the ingested fluid was measured, and was not found to exceed the amount usually taken. The abdomen is now again free from ascites, but the cystic tumour of the liver has entirely disappeared; apparently a hydatid cyst has undergone spontaneous cure and shrivelled up.

Phthisis, with Pneumothorax.—A young man was admitted to hospital with a fistula and the signs of pulmonary phthisis, his temperature varying from 103 deg. to 104 deg. Fahr. While lying in bed, he suddenly developed the signs of an extensive pneumothorax on the left side, which has remained ever since. There was no pain when this occurred. The heart is now beating to the right of the sternum; the left side of the chest is fully and permanently dilated, and universally superresonant in its upper parts, though dull at the base, when the patient sits up below a level line running round the chest; a distinct splashing sound is heard on succussion, and metallic tinkling is heard on auscultation. The chest contains both fluid and air, but it has not been aspirated or otherwise interfered with. Since the onset of pneumothorax, now ten weeks ago, the temperature has been normal, and, as is often found in such cases, the progress of the phthisical symptoms has become arrested for the time.

Gastric Ulcer.—A woman aged 28, pale and emaciated, complained of the symptoms of gastric ulcer, with much abdominal pain and frequent vomiting. She was totally unable to take solid food; milk caused very great pain, and was immediately ejected, even when mixed with lime-water and given in small doses every hour; beef-tea was also immediately vomited. Directions were given that the patient should be fed by enemata, consisting of four ounces of strong beef-tea, the yolk of an egg, and an ounce of brandy four times a day.

The following mixture was ordered: ℞ Liqueur morphia: hydrochloratis ℥x; bismuthi carbonatis gr. x; sodæ bicarbonatis gr. v; pulveris tragacanthi comp. gr. x; aquæ q. s. ad ℥i. To be taken every six hours.

In four cases of gastric ulcer, Dr. Green has lately used Chapman's koumiss, particularly selecting the medium quality as containing a

smaller proportion of casein, and using it when in such a condition that it readily flows from the bottle. Four patients have lately been found to derive great benefit from its use. In the case of a lady suffering from chronic gastric ulcer, when all treatment had failed, and she appeared to be in a hopeless state from want of nutrition, koumiss was given in small and frequent doses; it was well borne without pain or vomiting, and the patient made an excellent recovery. Koumiss has likewise been found useful in some of the diseases of children.

Gastric Ulcer, with Thickening of the Pylorus.—A middle-aged man had occasionally suffered from symptoms of chronic gastric ulcer for five years, with many relapses. He was admitted to hospital with signs of contraction of the pylorus and great dilatation of the stomach. Percussion of the abdomen gave a distinctly less resonant note over the stomach than that obtained over the colon and small intestines. During the examination, the thickened and dilated walls of the stomach could be seen and felt through the emaciated abdominal walls. The man was much troubled when moving about with vomiting of food, frequently ejecting yeast-like frothy matter, containing sarcinae and formula; but when at rest, there is an absence of symptoms, and he is able to take food. He was allowed a general diet, with meat.

Rheumatic Fever, with Hypostatic Pneumonia.—A young man was admitted to hospital suffering from a first attack of rheumatic fever, on the third day of the disease, with a temperature of 103 deg. Fahr. He was at first ordered fifteen-grain doses of salicylate of soda every two hours, but on the seventh day of illness this was given only every three hours. The arthritis soon subsided, except from the right knee, where the inflammation became fixed and very painful. The temperature fell under treatment, but rose again as high as at first, though the man was still taking the salicylate. On coming to the bedside, it was observed that the patient's respiration was quiet and shallow, the *æ nasi* dilating at each inspiration. The pulse was 100 to the minute, small, and easily extinguished by pressure of the finger, thus indicating the probability of hypostatic pneumonia. Examination showed a weak action of the heart, without valvular complication; slight dulness at the right base, with weak respiration, accompanied by a few *râles*, but no bronchial breathing. It was ascertained from the nurse that the man generally lay on his right side, so as to place the inflamed knee in a comfortable position. Brandy was ordered in half-ounce doses every three hours, the salicylate of soda was discontinued, and ten-grain doses of quinine in powder were to be given night and morning. Turpentine stupes were used as a counterirritant to the chest, poultices being avoided as heavy, impeding respiration, and so harmful to the patient. Directions were given to the nurse that the position of the patient should be frequently changed. The hypostatic congestion appeared due to the feeble circulation accompanying continued pyrexia.

THE LEEDS GENERAL INFIRMARY.

CASE OF DOUBLE OPTIC NEURITIS.

(Under the care of Mr. OGLESBY.)*

It not unfrequently happens that cases of optic neuritis present themselves to the notice of the ophthalmic surgeon long after the most prominent and most interesting aspects of the case have passed by. When the constitutional mischief has been slight and the symptoms but ill marked, it is with difficulty that a distinct diagnosis can be arrived at. Much benefit accrues in clinical teaching when the ophthalmoscope discloses changes within the eye, which changes are due to constitutional mischief, present in an active form, such as kidney-disease and blood-poisoning of a specific character.

During the summer of 1875, Harriet — presented herself at Mr. Oglesby's table complaining of left facial neuralgia of a permanent character, which, she said, much interfered with the vision of the right eye, the dimness of vision having occurred during a paroxysm of pain. Other than the neuralgia and dimness of sight, she believed she was free from disease. She appeared healthy and well nourished, was cheerful in spirits, and had walked a considerable distance that morning to the hospital. Mr. Oglesby drew the attention of the class to the fact that there were no objective symptoms indicative of intracranial mischief, such as a tumour, clot, or new growth; no drooping of the eyelids, no irregularity of the action of the muscles of the globe, and the condition of the pupil in each eye was normal. Her memory was perfect, her speech unaffected, the pulse quick (90), the breathing hurried, and the action of the heart laboured. The urine, on examination, was found to contain blood in considerable quantities; and a few drops placed under the microscope gave abundant evidence of existing renal disease. The ophthalmoscope disclosed a well-defined neuro-retinitis in each eye. The discs were swollen from effusion;

the veins large and tortuous; the arteries thin and indistinct. The extent of disc-effusion was perceptible by their rough and jagged edges. The retinitis was confined chiefly to large blood-extravasations, with a few scattered white albuminoid patches. The field of vision in the right eye presented a decided contrast to its fellow; but, on further examination, a large apoplectic effusion was found, situate in the immediate vicinity of the yellow spot.

Alternate doses of iron and effervescing salines were given, which produced favourable results. On her appearance next week, the urine was free from albumen, nor has it since reappeared.

The most interesting pathological changes, which afforded valuable clinical teaching, were to be seen with the ophthalmoscope. The effusion into the left disc, after the end of the second week, began to disappear; and at the same time was noticed the enlarged calibre of the retinal vessels and the fading of the albuminoid spots. At the end of the fourth week, the vision of the left eye, which when first seen was limited to 20 Jäger, was so far improved that No. 6 could be read without difficulty; and, at the expiration of six weeks, all disc-effusion had gone and a healthy disc-circulation re-established. The retina was, to all appearance, free from disease; and vision was perfect. The eye remained sound when last seen, which was after the lapse of several months.

The pathological bearings of the right eye differed so essentially from those of the left, that it afforded very considerable scope for demonstrating the altered condition of nerve-fibre after effusion, distinctly marking the sequential changes which take place after lengthened deposit of serum or lymph in and around the nerve-tubules; and it afforded Mr. Oglesby another opportunity to state how important it was that remedies should be administered for the purpose of rapidly producing absorption of effusion before the deposit had had sufficient time to compress minute vessels and so cut off any direct nutritive supply to nerve-tubule or fibre, the result of which was so clearly demonstrated by an atrophic condition of disc.

Six weeks after the patient was first seen, the effusion into the right disc remained unaltered. The only pathological change, as seen with the ophthalmoscope, was the disappearance of the blood-extravasations and a further diminution of the calibre of the retinal arteries. Vision, which at first was limited to the counting of fingers, had so far diminished that shadows were barely perceptible.

The first diminution in the amount of effusion occurred at the end of the eighth week. Two weeks later, the apparent inner half of the disc was free from effusion; but there was an unhealthy whiteness, which augured badly for returning disc-circulation. After the lapse of three months, the whole of the effusion had disappeared, leaving a white disc and a total abolition of sight.

Mr. Oglesby explained to his class that the present was the third or fourth case which had come under his care in which he could trace an optic neuritis as being a direct result of a passing catarrhal nephritis.

In the pathological condition of the discs, there was a marked difference. The effusion into the left disc and retina was less dense and lymph-like than into the right; it was present for a shorter space of time, was rapidly absorbed under treatment, and left no trace of its presence behind. The effusion into the right disc was much more dense (more paint-like), existed for a lengthened period, was less amenable to treatment, and existed for a sufficient space of time to blot out the circulation to the nerve-tubules; the result being atrophy and death of fibre. This is the sixth case of the kind which has come under Mr. Oglesby's care, in which one disc after neuritis regained its healthy functions whilst the other became atrophic.

SHEFFIELD GENERAL INFIRMARY.

MYELOID DISEASE OF THE LEFT SUPERIOR MAXILLA: REMOVAL OF THE WHOLE BONE WITHOUT ANY EXTERNAL INCISION: RECOVERY.

(Under the care of Mr. ARTHUR JACKSON.)

FOR the notes of these cases, we are indebted to Mr. RENNIE.

A delicate girl, aged 19, was admitted into the Infirmary on July 19th, 1877, with a soft semifluctuating tumour connected with the anterior surface of the left upper jaw. It had been noticed for twelve months; attention having been first called to it by pain, to relieve which a tooth was extracted.

The swelling increased steadily for four months without much pain; and latterly it had not grown much. She was for three years the subject of epileptic fits. At first, it was thought that there was fluid in the tumour; but a small puncture revealed the true nature of the disease to be myeloid sarcoma; and it was decided to remove the whole bone.

* The notes were taken during the year 1875.

On July 19th, the operation was performed. The cheek was carefully separated from the tumour and the nose from the bone, so that the whole could be raised, and the bone-forceps applied. Some difficulty was experienced in cutting through the malar process of the superior maxillary bone into the orbit, which might be remedied by a curved pair of bone forceps. The orbital plate was removed; but the bone did not come away in one piece. There was very little bleeding; one vessel only was tied, which appeared to feed the anterior surface of the tumour. The operation took a longer time than the ordinary proceeding.

She went on uninterruptedly well after the operation; and on August 2nd was made an out-patient. There was slight facial paralysis.

DENTIGEROUS TUMOUR OF LEFT SUPERIOR MAXILLA: REMOVAL WITHOUT EXTERNAL INCISION: RECOVERY.

(Under the care of Mr. ARTHUR JACKSON.)

A boy, aged 4, was admitted into the Infirmary on May 18th, 1877, with a large projecting tumour from the anterior surface of the bone close to the mesial line; of slow growth, causing no pain, but great disfigurement; it was very hard. The general health was good.

On May 24th, it was removed by separating the cheek from it and making a triangular section of the upper jaw from inside the mouth, and then using the bone forceps. There was no hæmorrhage, and the boy was well in a few days, without any scar or evidence of the operation.

On examination, the tumour appeared to be a dentigerous tumour containing a misplaced tooth at its posterior extremity.

He was discharged on June 13th.

REVIEWS AND NOTICES.

A TREATISE ON THE THEORY AND PRACTICE OF MEDICINE. By JOHN SYER BRISTOWE, M.D.Lond., F.R.C.P., Physician to St. Thomas's Hospital, Joint Lecturer on Medicine at the School, and Examiner in Medicine to the Royal College of Surgeons; formerly Examiner in Medicine to the University of London, and Lecturer on General Pathology and on Physiology at St. Thomas's Hospital. London: Smith, Elder, and Co., 15, Waterloo Place. 1876. Pp. 1166.

MEDICAL students have now a very considerable number of manuals of physic from which to choose. Nor is the quality inversely as the quantity. We could name nearly a dozen, perhaps more, distinct hand-books of medicine, every one of which has its excellences; and now Dr. BRISTOWE gives us another which will certainly hold its own in the general competition, and will, we suspect, become a favourite amongst men reading for examination at the Universities and at the College of Physicians. But the use of manuals of medicine and surgery is not confined to students in the common sense of the term. When a man has been in practice for half-a-dozen years or so, he begins to feel a desire to consult some recent text-book on newly recognised or newly discovered diseases, and their treatment. This is more especially the case as regards what are called "nervous diseases" and affections of the skin. No matter how well read in the theory or how well versed in the practice he may have been when he left his hospital, no matter how diligent a reader he may be of his BRITISH MEDICAL JOURNAL or other similar publications, he begins to feel a little rusty, and desires to get more forcibly drawn pictures of the current medicine of the day than he can derive from the often sketchy outlines or scattered cases in the periodicals. It is in this way that we account for the large and increasing sale of manuals of medicine. It is true that America and the colonies now take a considerable number of copies of any book the name of whose author is known to their medical public, either by previous writings, or by his position as a lecturer or hospital physician or surgeon. Here, again, we think that Dr. Bristowe's book will command a large support from the English reading public in the colonies and abroad; for it seems to us especially good in cutaneous diseases and in those of the nervous system. This by no means implies that it is weak in other things. It is true, diseases of women are, for the most part, omitted, but this is common to most of the text-books; and perhaps good reasons might be given for it, one principal one being the want of space. Here we have 1,200 closely printed and closely written pages; and if the same space had been given to gynecological subjects as to others, another 300 or 400 pages would have been needed.

Those who know Dr. Bristowe, would reasonably expect that such an undertaking done by him would be well done. We do not think

they will be disappointed. Even what we may call the *subediting* (though he modestly disclaims all credit for this, and ascribes it to his friends Drs. Donkin and Greenfield) is remarkably well done. We have seldom seen a book of the size with so few misprints or misspellings. This is a matter of no small importance to the average student. If he find a tapeworm called *tinea*, and the skin-disease called *tænia*, if *platylmia* is written for *platylmia*, *speroptera* for *spiroptera*, *oe* always put for *ae*, and even *abscess* and *emphysema* boldly printed on the page, as was done in one large manual of physic a few years ago, the average student will reproduce these errors in his examination papers, and even write them on death-certificates and other formal documents; nor can we blame him much, if those who ought to set him an example are so careless. There is, however, one passage in Dr. Bristowe's manual with which we feel disposed to quarrel for similar reasons. That passage occurs under the heading of Pleurisy, or rather Pleuritic Effusion, at page 425, and appears to ridicule that care and caution without which, in our humble opinion, not even a tooth should be drawn or a gum lanced, or even the most trifling operation in surgery conducted. *Primum est non nocere* is a maxim which deserves to be written in letters of gold over the consulting-room of the surgeon and the operating-theatre of the hospital.

As regards the general style of the work, the following description of the *symptoms* and *progress* of leprosy affords a fair specimen. It is prefaced by an account of the *causation* and *history* of this disease the true leprosy or *Elephantiasis Græcorum*, which is thus defined: "A specific disease, endemic in many parts of the world, characterised by the slow development of nodular growths in connection with the skin, mucous membranes, and nerves, and (in the latter case) by the supervention of anæsthesia, paralysis, and a tendency to ulcerative destruction and gangrene." The author then remarks: "Leprosy is a disease of both sexes, and all ages, but commences most commonly in early adult life. It is usually preceded by premonitory symptoms which continue for weeks, months, or even years, before the specific signs of the disease manifest themselves. These consist, in the first instance, in lassitude and depression, attended with more or less febrile disturbance, rigors, nausea, and loss of appetite. After a time, livid blotches make their appearance here and there on the surface of the skin, remain out for a few days or a few weeks, and then subside, to be followed, at irregular intervals, by other similar outbreaks. They are tender elevated discs or rings, or more or less irregular patches, varying, perhaps, from half an inch to two or three inches in diameter. In the course of time, the blotches become more persistent, and their subsidence is followed, either by brownish pigmentary stains, or by an unnatural whiteness and opacity of the skin, associated with more or less contraction and depression. The central area of a patch not unfrequently assumes one or other of these conditions, while its periphery is still extending in the form of an elevated livid ring. During the earlier of these stages, the affection has often some resemblance to psoriasis, lupus, or acne rosacea, and is sometimes termed *macular leprosy*; during the latter of them, the condition of skin is sometimes designated *morphea nigra*, or *alba*, according as the cicatricial area is pigmented or colourless. The specific phenomena of leprosy now begin to develop themselves, and these vary according as the skin and mucous membranes on the one hand, or the nerves on the other, are principally affected. Many cases, no doubt, occur in which all of these tissues are implicated, either simultaneously or in succession; but in a large number the specific morbid processes are almost accurately limited to one or other tissue, and the disease hence assumes two distinct and easily recognised types. They are known as *tubercular* and *anæsthetic* leprosy respectively.

"In *tubercular leprosy*, which is relatively most common in temperate climates, nodular elevations slowly develop themselves in the substance of the cutis, and mainly on the site of the macular eruption. These are attached by broad bases, become more and more prominent, and sometimes pedunculated, and not unfrequently coalesce with one another, so as to form irregular nodulated masses. They vary at length individually from perhaps the size of a hazel-nut to that of a walnut. They are for the most part hard and resistant, of a dusky reddish or brownish hue, smooth, and sometimes polished on the surface, and often, like those of lupus, present a certain degree of translucency. They are attended with little inherent pain or uneasiness, but are more or less tender, and are remarkable for their permanence and the little tendency which they manifest to undergo degeneration or ulceration. Nevertheless they do occasionally after a long time become the seat of a partial fatty change, grow softer and almost fluctuating, and acquire a dirty yellowish hue; and not unfrequently also, when irritated by exposure, filth, or injury, they become excoriated or ulcerated, or covered with a thin scab, and exude a serous or ichorous fluid. The growth of the tumours is attended with atrophy of the cuta-

neous glands and of the hair. The latter first becomes thin and dry, and loses its colour, and then disappears entirely. It is important, however, to note that the loss of hair is not, as in syphilis, general, but simply limited to the situations in which there is obvious disease. The tubercles of leprosy occur mainly on those surfaces which are most exposed to the air, namely, the face, hands, and feet; but they are common also on the extensor aspects of the limbs. On the face, they chiefly affect the eyebrows and eyelids, the nose and lips, and the lobes of the ears. The nodulated thickening of the eyebrows and adjacent parts of the forehead gives a peculiar morose character to the expression; and the thickening of the nose and lips, with the associated bronzing of the parts, imparts to the European the appearance of the mulatto. When the face is thus affected, the term *leontiasis* is sometimes applied to the disease. In the hands and feet, the back or dorsum is chiefly involved. In addition to the cutaneous growths which have just been described, nodules of the same kind appear in the subcutaneous tissue. The morbid process is limited to the skin and subjacent tissues for a longer or shorter time; but at length certain of the mucous membranes become implicated, especially those of the nose, mouth, and larynx. The affection here is of the same kind as that in the skin: it consists in the formation of nodules, which increase in size, run together, and sometimes form flattened elevations. The growths, however, are softer, more readily ulcerate, and, on healing, produce deep and dense cicatrices. In the progress of the disease, the cartilages of the nose become not infrequently exposed, the tongue large, nodulated, and seamed with cicatrices, and the different parts of the larynx thickened and stiff, and its channel contracted. In association with the affection of the larynx, a peculiar cough and hoarseness of voice become developed, which are very characteristic of the disease. According to Danielssen and Boeck, the trachea and bronchial tubes may undergo the same changes as the larynx. The conjunctivæ are apt to be similarly affected, and inflammation, suppuration, and perforation of the corneæ to ensue."

Anæsthetic leprosy is thus described in a similar style, and the author proceeds as follows. "The duration of leprosy is very uncertain; that of the anæsthetic variety is, on the average, sixteen or seventeen years, that of the tuberculated form eight or nine. Death is due partly to gradual impairment of nutrition, but mainly to the supervention of complications, especially phthisis, dysentery, and kidney-affections."

Dr. Bristowe's work is illustrated with diagrams of the eyeball, and of the images in different kinds of squint, as well as with a couple of jhygograms.

A HANDBOOK OF THE THEORY AND PRACTICE OF MEDICINE. BY FREDERICK T. ROBERTS, M.D., B.Sc., F.R.C.P., Assistant Physician and Assistant Teacher of Clinical Medicine at University College Hospital, etc. Third Edition. Two Volumes. H. K. Lewis. 1877.

This work, which, as will be seen by our heading, has already reached a third edition, is enlarged by the addition of much new matter, the introduction of upwards of forty illustrations, is printed in uniform type on smooth paper, and, being brought out in two volumes, admits of being more conveniently held in the hand.

Although Dr. ROBERTS modestly calls this work a handbook, it will be found, on reference to its pages, that the various subjects have been treated in a complete and masterly manner. We would particularly draw attention to the article on diet and general hygiene, vol. i, page 24, as it exhibits with what earnestness he draws attention to the necessity for care and caution in dealing with these two essentials in the art of healing, if such art is to be attended with success. We the more heartily endorse the views there expressed, as, from our own experience, we have had full opportunities of testing the truth of what the author asserts, "that treatment does not consist solely in the administration of medicines"; indeed, we are of opinion that hitherto too little consideration has been shown by physicians to these points, which, in our judgment, are all-important, both in the cure and in the prevention of disease. Nor is this all: to the student of medicine and young practitioner we would say, that the patient is always favourably impressed with his medical attendant when he exhibits an interest in deciding what should be his diet, and what should be the nature of his surroundings.

The article on contagion and epidemics, page 91, vol. i, is written in a scholarly manner; and, whilst giving the diverse views that at present prevail on this much vexed question, holds the balance fairly between contending theorists. Students of medicine and junior practitioners will find the diagnostic tables of the principal fevers, on pages 222-23-24-25, vol. i, of much service in affording them a ready means for discriminating affections, which we much fear are far too frequently

mistaken. On pages 245, 246, vol. i, there is a table exhibiting with great clearness the diagnostic distinctions between gout, rheumatism, and rheumatoid arthritis; if the student will impress the facts here sketched on his memory, he will hardly ever fall into the error of mistaking these apparently cognate diseases. Similarly, on pages 441, 442, will be found a diagnostic table of acute pulmonary diseases, to which we would direct our readers' attention. The article on physical examination of the respiratory organs, pages 317 to 344, vol. i, will well repay perusal, as a subject sufficiently difficult to the youthful student is here tersely but clearly described; the same observation applies to the physical examination of the circulatory organs, pages 6 to 23, vol. ii. The description of the sphygmograph, 19 to 20, vol. ii, and the information to be obtained from its intelligent employment, is given in such a way that even the non-professional reader might, with moderate attention, easily acquire an insight into the use of this instrument.

Passing to the physical examination of the abdomen, our author points out, with similar clearness and brevity, the information which can be gained by such examination, and the readiest way of obtaining it. Chapter 24, pages 168 to 179, vol. ii, devoted to a description of intestinal worms, is well illustrated by drawings taken from the works of Von Siebold, Davaine, Leuckart, Küchenmeister, and Virchow. In the description of the diseases of the urinary organs, the author places before his readers an exhaustive account of the various affections of the kidneys, etc.; and here, again, his description is profusely illustrated by woodcuts, giving representations of the various deposits found in the urine. In the article on diseases of the skin, which occupies the last twenty-three pages of vol. ii, we have presented, in a complete and compendious form, all the information which the student could possibly remember, or the general practitioner need, in their diagnosis and treatment. The author, in the preface, states the names of the authorities who have aided him in the compilation of this part of his work.

In bringing this review to a close, we may perhaps be permitted to remark that, in our judgment, this work might be improved were the doses of the various medicines the author advises more fully set out; and we are induced to make such observation in consequence of observing how lamentably deficient the young men of the present day are in all matters relating to prescribing. We have repeatedly found young men, possessing double qualifications, and who were able to fairly diagnose disease, utterly at a loss when asked to write a prescription for its treatment. Such unfortunate ignorance arises, in our judgment, from the faulty method, followed in recent years, of imparting medical instruction. The youth now goes at once from school to an hospital, and from hospital to practice, passing through none of that preliminary drilling which formed so admirable a ground-work for the building up of a sound medical education.

With these observations, we heartily commend this handbook, not only to gentlemen preparing for the medical profession, but to those who may have finished their professional education; as this work contains, in a brief and concise shape, all that the busy general practitioner needs to know to enable him to carry on his practice with comfort to himself and with advantage to his patients.

ON IDIOCY AND IMBECILITY. By WILLIAM W. IRELAND, M.D., Medical Superintendent of the Scottish National Institution for the Education of Imbecile Children at Larbert, Stirlingshire. Pp. 413. London: J. and A. Churchill. 1877.

WE have much pleasure in welcoming this work as an important contribution to the subject of idiocy. Many papers relating thereto have been published, but they are so widely scattered that it is difficult to know what has and what has not been written. Dr. IRELAND has not only collected together the papers previously published by himself and others, but he has added much new and important material. The book is useful in two ways; firstly, because it gives the latest information obtainable on the subject; and secondly, in that it is an excellent work for reference.

After giving a definition of idiocy and imbecility, which is at once plain and scientific, the subject of "Statistics of Idiocy" is dealt with. It appears that, according to the census of 1871, there were in England and Wales 29,452 persons described as idiots and imbeciles. This number, however, is admitted to be 25 per cent. below the mark, in consequence of the reluctance of parents to return their children as idiots and imbeciles. Compared with the entire population, the ratio is one idiot or imbecile in 771 persons, or 13 per 10,000 persons living.

The chapter on the "Causes of Idiocy" is an important one. Dr. Ireland mentions those usually given, viz., heredity, consanguine marriages, scrofula, drunkenness in the parents, and fright or other painful

emotion to the mother during pregnancy. There is no doubt, however, that it is often not one, but many, or even all of these acting together, which produce the result. Consanguinity appears to produce it only in a small number of cases, and then it is due to one or both parents coming from a diseased stock. With respect to the part which drunkenness plays in its production, there is much difference of opinion. The true solution of the matter appears to be that drunkenness in the parents does not of itself produce idiocy in the children, but an unhealthy nervous system, easily upset by slight causes.

Dr. Ireland classifies idiocy from a pathological standpoint, his idea of idiocy being "compounded of the following classes, which are generalised from individual existing idiots, who resemble one another by having the same or similar diseases, as they resemble the type of idiocy by having mental deficiency along with a corporeal disease": 1. Genetous idiocy; 2. Microcephalic idiocy; 3. Eclamptic idiocy; 4. Epileptic idiocy; 5. Hydrocephalic idiocy; 6. Paralytic idiocy; 7. Cretinism; 8. Traumatic idiocy; 9. Inflammatory idiocy; 10. Idiocy by deprivation. Though there are objections to this classification, as, for instance, that one case might fall under several definitions, yet there is no doubt that it is practically useful. Dr. Ireland then proceeds to describe these classes with reference to their nature, symptoms, varieties (if any), diagnosis, prognosis, pathological anatomy, and treatment. Illustrative cases of each class are given.

The subject of insanity in children is touched upon. According to Dr. Ireland, it is a rare affection. The distinctive diagnosis between it and idiocy is that in the former "the intellectual hebetude of the idiot is wanting, and the insane child shows energy and passion quite different from the sluggish feeble cast of idiocy". Idiots, however, may be affected with mania, melancholia, and delusions.

The remarks on "the sensory and mental deficiencies of idiots" show that all the senses are deficient in those of low type, and that mentally, even in the highest class, idiots are children during the whole of their life; in the lowest class the intellect is almost nil. For purposes of education, Dr. Ireland divides the pupils of the Larbert Institution into five grades, according as they can speak, or can be taught to speak, read, write, or work.

The chapter "on the best methods of educating idiots and imbeciles" is one of the most important in the book. The author rightly lays stress on the fact that idiots and imbeciles are with much greater advantage both to themselves and their teachers educated together than singly. "It is often a great advantage for children to get rid of the uniform and hopeless inferiority in which they have lived, and to find that they have equals with whom they can interchange their simple ideas, and who give them a ready sympathy, and even to find that they have inferiors." It has been found by practice, too, that the educating them together excites a spirit of emulation.

The chapter on "laws for idiots and imbeciles" shows clearly the difficulties at present existing in order to obtain admission into training schools. The formidable array of legal and medical certificates necessary to imprison a lunatic in an asylum is not necessary, and in many cases militates against an idiot's admission. Simpler forms should be provided.

The book closes with a list of training schools for idiots and imbeciles, and an appendix on hereditary transmission of insanity and idiocy by Ludwig Dahl, with some genealogical tables showing the transmission of neuroses from one common ancestor.

The work is illustrated by plates, and is well got up. It is difficult in the limits of a review to do justice to its many excellencies. It must be read to be appreciated. The book will no doubt be useful, not only to medical men, but "to those who have the care and guardianship of idiots and imbeciles, or who take a philanthropic interest in provisions for their welfare". We congratulate Dr. Ireland on his success.

DEAF, NOT DUMB. By B. St. J. ACKERS, Esq., Barrister-at-Law. London: Longmans, Green, and Co. Gloucester: E. Nest. 1877.

OF late years, the education of the deaf has received much more attention than was formerly paid to this important subject.

MR. ACKERS, in his pamphlet entitled as above, gives a *résumé* of all that has been done in the education of the so-called deaf and dumb, and he adds the results of his very extensive experience, gained by personally visiting nearly all the establishments for this purpose in Europe and America.

He calls attention to a very important fact, which is usually quite misunderstood; namely, that no child is born deaf and dumb. Dumbness is really due to the want of education of the powers of speech, and not to their absence; for deaf children are quite as capable of articulation as their more fortunate hearing companions. The so-called "German system" of education undertakes to develop these powers of

speech, whereas the "French system" consists in employing signs by means of the fingers, etc. The value of the former, when successfully practised, is incomparably greater than that of the latter; for it enables the child to express itself in and understand, the language of those around, whereas the latter only allows the deaf to communicate with others who understand their language of signs. However, the French system is much more readily taught, and for this reason has, up to the present, almost completely supplanted the German, at any rate in England and America.

In remarking on the causes of total deafness, he rightly lays very great stress on the sad results of the congenitally deaf intermarrying, as so many of their children are born deaf. The author is not quite so happy in his observations on the causes of accidental deafness; he very justly attributes a large proportion of the cases to scarlet fever, but he leaves out other very frequent causes, while some of those to which he refers are almost insignificant; and, further, he makes a very questionable use of statistics to prove some minor points.

When undertaking to educate according to this German system, or "lip-reading" as it is called, the author reminds us that it cannot be too clearly borne in mind that there are three chief things to be taught the deaf—*articulation, language, and mental development*; and any one of these should not be allowed to get in advance of the others. This is, of course, applying the rules of ordinary education to the deaf, and cannot be too strongly insisted upon.

Mr. Ackers further observes that extreme patience is all-important, which, together with gentleness, firmness, and an evenness of behaviour, should always be practised by teachers and parents towards deaf children.

The author concludes this important and able address with an appeal to all those who have the means and the desire to help their fellow-beings to aid in the work of establishing schools for this valuable system of lip-reading, and thus lessening most considerably the sad affliction of those who heretofore have been regarded as both deaf and dumb, by enabling them to mingle with the world on more equal terms, and so rendering their part in the battle of life less difficult and discouraging.

A MANUAL OF OPERATIVE SURGERY ON THE DEAD BODY. By THOMAS SMITH, F.R.C.S., and WILLIAM J. WALSHAM, F.R.C.S. With Illustrations. Second edition. London: Longmans, Green, and Co. 1876.

THIS edition of Mr. THOMAS SMITH'S *Manual* possesses numerous good points, but there are also some passages which still require to be altered or supplemented. Much more attention has been paid to anatomy by Mr. WALSHAM, and the reader will find here good diagrams of the collateral circulation after ligation of the different arteries. What is given is good, but we regret that much more has not been done in this direction throughout the book. Not only are the surface landmarks not enough alluded to, but in the account of many of the operations the parts cut through or removed are most insufficiently given. As proof of this, let the reader turn to excision of the elbow as an instance of a common operation, and that of the os calcis as a rarer one.

We recommend the account of the operations on the foot as specimens of the clear but often too brief descriptions in this book: the student, however, should remember that if he follow the advice given for these and some of the amputations of the hand, to cut the under flap from within outwards after getting the knife behind the bones, he is likely, in his earlier operations, to entangle his blade on the inequalities which tarsal, carpal, and sesamoid bones present.

The methods of amputating at the knee-joint seem to us needlessly numerous, and so many of them so briefly described as to be useless. In the most important of all—that of amputating through the joint by double skin-flaps—no directions are given as to where the flaps should begin and end, an omission of no small moment; as, in order to get the cicatrix behind, the anterior flap should be made with the utmost care, especially as there is always a risk of sloughing.

Again, the account of the supracondyloid amputation is most obscure: no reliable directions are given for sawing through the femur, the cardinal point in this operation, on account of the importance of not opening the medullary canal. It is altogether a great pity that the account given by Mr. Stokes (the best in our language of this operation) has not been followed here.

In the chapter on trephining the skull, it is recommended not to trephine over the course of the middle meningeal artery. Now this appears to us to be one of the spots over which the student should be taught to trephine, and for these reasons: the knowledge that he is at work over a large vessel will make him the more careful in the

use of his instrument; furthermore, he may be called upon to trephine here in some cases of extravasation in the living body, and we know by experience that this spot is frequently selected at examinations.

While we have pointed out some passages which are open to criticism, we are of opinion that this book is a good and trustworthy manual of its kind. Future editions would be much improved by the omission of some operations, and the addition of more details to others.

ABSTRACTS OF INTRODUCTORY ADDRESSES

DELIVERED AT

THE METROPOLITAN AND PROVINCIAL
SCHOOLS,

On OCTOBER 1st, 1877.

ST. GEORGE'S HOSPITAL.

THE Introductory Address was delivered by Mr. T. P. PICK, Assistant-Surgeon to the Hospital.

Mr. Pick commenced his address by giving a brief sketch of the boyhood and early career of John Hunter, Astley Cooper, and Brodie, three of the great masters of our art of the past, two of whom had graced the walls of the hospital in which those of his hearers to whom his words were more especially to be addressed had that day enrolled themselves. He pointed out the great disadvantages they had suffered from, and the entire absence of systematic teaching which existed in their days; in spite of this, he showed the distinctions they wore, and the amount of knowledge they had obtained and transmitted to their successors. He besought his hearers, with their immeasurably greater advantages, to endeavour to follow in the footsteps of these men, and, like them, do some good in the world; so that their names should be revered and honoured when their place should know them no more. And, like those distant heavenly bodies, whose light continues to reach us for years after they have become extinct, their light would continue to burn brightly, like that of Hunter, Astley Cooper, and Brodie, after their earthly toil was over, and their names be remembered as having done something to advance the noble profession in which they had that day embarked.

He then proceeded to compare the course of instruction in Hunter's and Astley Cooper's time with that which was pursued in the present day, showing how little was done in the former case, and how no effort was made to teach the younger portion of the profession, so that the student had to rely on his own unaided efforts, and contrasting it with the carefully arranged curriculum of study of the present day. Briefly explaining what the general plan of study was, and how every effort would be made on the part of their teachers to assist them in their studies, he assured his hearers that, if they did not obtain a sound knowledge of their profession, the fault would lie with themselves, and they could shift the responsibility on to no other shoulders than their own.

The lecturer then proceeded to consider the points in the character of the men whose early life he had sketched which led to their success, and besought his hearers to endeavour to imitate them in these things. First of all, as the mainspring of their success, he placed industry and perseverance. No one, he said, could look back on the life of John Hunter, and remember what he achieved, without being struck with amazement at the amount of work accomplished in the short space of thirty-five years. No one would fail to see, on tracing back the life of Astley Cooper or Brodie, that the cause of their success was their industry and devoted zeal to their work. And, as it was in their day, so it would be now, the working man would be the successful and the far happier man. And, if they desired to emulate these men, it must be by steady, earnest, thoughtful work, and by a just appreciation of the value of time. "Your time here," he said, "is short; whatever zeal you may use, you cannot learn in three or four years all the knowledge that is to serve you for life in practice. All the more reason, therefore, that you should be ever on your guard, ever covetous of the moments which glide so rapidly and imperceptibly by. Your little hoard of time you must guard as jealously as a miser does his gold, and be constantly on the alert lest thieves should try to rob you of it." Such things as overindulgence in sleep, doing things superficially and in a hurry, and the solicitation of friends, were thieves which would rob them of much of their time, if they were not on their guard against them. The lecturer especially warned them against doing their work care-

lessly and superficially, as being surely a wasting of time. The secrets of Nature were not to be revealed to the superficial worker, who, like the butterfly, was ever flitting from flower to flower, but without staying long enough to extract the honey. In order to find the gold, they must dig deeply. It was only waste of time to wander from spot to spot and turn up a few spadefuls of earth, and, because they did not find the coveted gold, to try elsewhere. Their course must be different: they must fix on their spot, not without care and forethought, and then dig deeply through the gravel and shingle until they reached the clay, the real bed of the river, where the gold was. So it was with their studies; if they were always in a hurry, seizing a fact here and another there, but not staying to bind them together, they would find that their knowledge was like a vase of cut flowers, beautiful to look at, but speedily fading away, instead of like the ivy which clings to the oak and endures, notwithstanding the heat of summer and cold blast of winter. Knowledge superficially gained was time wasted, and, though it might enable them to pass their examinations, it would not stand them in stead in after-life.

Another trait in the character and life of those great men whose early days they had been reviewing which led to their success, was veracity and fidelity to their work. Shakespeare had said they must be "true to themselves"; they must be more than this; they must be true to their work; they must be accurate in all they undertook; they must never *think*, they must be *sure*. When they came to clinical work in the wards of the hospital, and proceeded to diagnose cases, they would find that medicine was often a hypothetical science; that is to say, given a case in which they desired to diagnose the disease, after a few preliminary questions, they would generally find that, unconsciously in their own minds, they had settled upon some disease or diseases which it might be, and their subsequent investigations would be conducted with the object of making out whether this hypothesis was correct or not. How futile would be all their endeavours, and how erroneous their conclusions, unless they were strictly accurate in all their observations!

Another point in the lives of Hunter, Cooper, and Brodie worthy of remark, was their devotion to their work. No one, for instance, could fail to notice with admiration, on reading the life of Hunter, and especially his letters, how thoroughly his whole being, his mind and thought, were centred in his work, and how it was the one aim and object of his existence. And this same devotion it would be well to copy. As had been said at the beginning of the address, they were now entering on the real business of their life, the business by which they would have to live, and, more than this, a business which involved the lives and well-being of their fellow-creatures; and it depended upon themselves and their devotion to their work whether they would rightly use or abuse the opportunities that were afforded them. If they made their work the great aim of their existence, they would never lose a chance of learning something. As Collingwood never saw a vacant place in his estate but he took an acorn out of his pocket and put it in, so let them deal with their opportunities through life. An acorn was but a little thing and cost nothing, but it might spread into a prodigious bit of timber. Let all their knowledge tend in the direction of that which was acquired by the great philosopher Newton, who, though he had a complete and comprehensive knowledge of science, likened himself to a little child gathering pebbles on the shore while the great ocean of truth lay undiscovered before him.

ST. THOMAS'S HOSPITAL.

THE Introductory Address was delivered by Mr. WAGSTAFFE, Senior Assistant-Surgeon.

It could not be overlooked that, in the present day, one object in the foundation of a hospital, which, if it existed at all originally, was then a very subsidiary one, had now, by advance of education, become one of its most important functions. Hospitals were not mere almshouses; but, as schools for the education of those who would have to look after the health of the nation, as well as institutions for the skilful care of those whose injuries or diseases required more than ordinary attention, such hospitals as St. Thomas's were specially adapted, and the responsibility of the governing body was associated with one almost as much as with the other. Mr. Wagstaffe addressed a few words of advice to those who had just determined upon beginning their medical studies, and urged beginning well as being more than half the battle. He then addressed all students of all ages upon what they were striving for and what was their chance of success. The first condition of success was to understand clearly what they wanted to do. To some, the accumulation of knowledge for the purpose of satisfying examiners was made the object; but he warned them against this, and condemned cramming. To gain a livelihood was another object, and

this was a justifiable one, but, though first in the order of necessity, not the highest. That his profession would give him the means of living there should be no question, for times had changed, and the position of doctors had altered; and so also had that of students. Quoting from Froude, he compared the student of three centuries ago with that of to-day, and referred to the fact of medical science being fashionable, when novelists, ladies, and royal dukes took to writing on medical matters.

The main object of a student's work and life should be Truth. The practical question which followed was, What qualities should be specially cultivated to gain this object? The first was honesty—honesty in using the means in his power to prove the truth of a statement when it was provable. There were a thousand and one supposed facts he would have to swallow as a student, and to disgorge as he grew older and wiser; but there were ten thousand and one facts laid before him which he could prove the truth or falsity of if he liked to use his senses. Incomplete or mis-statements, false theories, half-truths due to the want of honest observation and judgment, were often more pernicious than whole untruths, for they attracted less attention at first, and blended and grew into gross unrealities. Carefulness was insisted on as an essential. A truth had to be looked at on all sides, to be tested in a variety of ways; and the exercise of caution might prevent him finding many mare's nests, might save him trumpeting imaginary discoveries and worrying the literary world to no purpose. There was already too much literature for any man to read honestly; and too often he ran the risk of becoming a literary sewer, much rubbish passing through him and very little sticking. Perseverance was the third essential. What Dr. Arnold said of boys was equally true of men: that the difference between any two consisted not so much in talent as in industry. Few modern biographies showed what perseverance was better than that of Thomas Edward, the naturalist; and, if such a man regretted his lost opportunities, how much more must any one who has wilfully wasted them have occasion to condemn himself! And who could tell how far others might be injured by his ignorance? Courage was the last but not the least important quality—courage in himself and in his own opinions when honestly worked out. John Hunter had said: "Is there any whom difficulties dishearten, who bends to the storm? He will do little. Is there one who will conquer? That man never fails." Now-a-days, difficulties were much smoothed down; facilities for education were provided; and the fear was, that self-dependence was endangered.

Mr. Wagstaffe then cautioned students against the excesses or perversions of these qualities—against coarseness, want of consideration, and brusqueness. "And", he said, "particularly steer clear of that disbelief which apes originality. You are seeking the truth in things attainable. There are many things of which the proof lies far away and only comes from patient long-continued search. Things made a part of ourselves by being worked into our mind from childhood's earliest time. As time goes on and Reason tries to grasp what Memory has received, she often fails to seize the whole. But, if some part of what tradition holds is false, and much perchance is hard to prove, why cast away the whole and disbelieve in all tradition and authority?" The importance of personal influence was then adverted to. Few realised this, and few recognised how many a light word blossomed for good or evil when least expected. Our stray words and thoughts were not lost.

"Being not to little trees in one place,
Our brain-foliage tossed
Like the leaves of the trees that are caught
By the four winds of heaven, some thought
Blown out of the world into space,
And seems lost.
Being fallen like trees in one place,
Hid, buried, embossed,
Our dead leaves are raked up for mould;
But some that are sunbright and gold,
Blown out of the world into space,
Are not lost."

In conclusion, he trusted that, when their sunset was come, they might be able to say like Thierry in his last moments, "There is something in the world better than sensual enjoyment, better than fortune, better than health itself; it is devotion to knowledge, it is devotion to truth."

ST. MARY'S HOSPITAL.

THE Introductory Address was delivered by Mr. HERBERT PAGE, Assistant-Surgeon to the Hospital.

After some opening remarks to the students, impressing upon them the necessity of self-reliance in their work, and on the superior knowledge to be gained in the hospital wards and the dead-house rather

than from books, which can never supply the place of actual experience, the lecturer said that besides gaining a well grounded knowledge of their profession and its aims, they should be something more—the teachers also. But he who would succeed in this must be not only a good doctor, but also an educated man. He questioned whether the work done in schools would be of much use to them in the calling which they had chosen. He did not know whether, after all the talk of improvement, school commissions, and the like, there had been any material change in the general course of an English school education. The times were, indeed, not what they were, if in any of our schools an intelligent appreciation of the beauties of literature, of art, of painting, of music; if some knowledge of the physical sciences, of countries, and people, of governments, of the principles of law, of the science of history and of languages—were open to any who had a natural bent thereto. Happy was that man who found when he had left school that he had learned something of real value to him in the world in which he moved. It had often been urged that the medical profession lost much from having no connection with the great centres of enlightenment and learning. While, then, school education was doing so little; while it was impossible for all to enjoy the social life of Oxford and Cambridge; while, too, the enlarging influences of foreign travel could only be for the fortunate and few,—we must fall back on our own resources. The lecturer thought that many in after-life must regret the wasted opportunities of self-improvement which surrounded them. "Social and intellectual good may be derived from early years at our universities; but our advantages, while we have them, are in many respects greater. It should be counted a high privilege that you pass four years of your life in London; and there is no reason on earth why the most diligent work at your own special hospital studies should be hampered by an intelligent endeavour to know and profit by the treasures which this great Babylon contains. In that inimitable piece of portraiture which brings one of the most striking figures of the last century in very life before us in this, we read that his biographer, having suggested a doubt that if he were to reside in London the exquisite zest with which he relished it in occasional visits might go off, and he might grow tired of it, drew from Johnson the characteristic reply, 'Why, sir, you find no man at all intellectual who is willing to leave London. No, sir; when a man is tired of London he is tired of life; for there is in London all that life can afford.' You may urge that there is no time for such things. I do not believe it. The man who is always talking about want of time generally wastes the time which he has. 'Men waste half their lives from want of method,' said Sir Charles Bell, one of the greatest lights and most accomplished men in our profession. True, the advantages of life in London cannot be enjoyed by the students of every school; but the fountains of literature and the researches of science are open for all. If real culture be helped by a *knowing of the best that has been thought and said in the world*—and this definition we may accept as not very far from right—such culture is not withheld from any man. 'A cultivated mind,' wrote one of the leaders of thought in his day, 'I do not mean that of a philosopher, but any mind to which the fountains of knowledge have been opened, and which has been taught in any tolerable degree to exercise its faculties, finds sources of inexhaustible interest in all that surrounds it—in the objects of nature, the achievements of art, the imaginations of poetry, the incidents of history, the ways of mankind past and present, and their prospects in the future.' There is no profession in which a good training of the mind is so likely to be of service as in our own. Brought into contact as we are with all classes and sorts of men, who, perhaps, have but little sympathy with our calling and our work, how essential it is that our thoughts and feelings should not run always in the one groove of our own pursuits! A cultivated mind will do something more for us even in our special walk in life. It will make us better reasoners on the facts which daily crowd upon us in the investigation of disease; it will make us less selfish, more tolerant and charitable to the opinions of others; there will be less of professional rivalries and jealousy, and less thought of what we do ourselves, only so much as it is in the cause of humanity and truth. Thus endowed, a man may turn from the weariness of life, which must inevitably be his lot, to a sure source of refreshment and purest rest, whether he be toiling amid the busy and sunless gloom of a populous town, or in some remote village where he feels himself friendless and almost banished from the world." There was, moreover, no isolation in the work of medical men. Much of deepest concern to them was of interest to the educated men of every class. The greatest minds of all countries and ages had speculated on the foundations of thought and reason, and on the action of the human brain. For this age, and for our profession, it seemed to have been left to throw some ray of light on this subject. Careful observation of the results wrought by disease on the human brain, and the marvellous

facts revealed by experiments on the brains of animals, were doing something to unravel the problems of thought, and to make clear the functions of the organ of mind. For work done on this subject, and in that of the origin of preventable disease, what men in this, or in any country, occupied more foremost places than Ferrier and Hughlings Jackson, Bastian, Roberts, and Lister? "And here let me not forget that the distinguished surgeon whom I have last named to-day enters upon a new and larger field. There is no surgeon in London who cannot well afford to be glad that Professor Lister has become Surgeon to King's College Hospital. It is a sign of the times that now, as it has not always been before, there has been so little ill-feeling and jealousy aroused by his coming. And it is right that it should be so. The work of a wise man seeking after knowledge is not here nor there, but for every country, and through all time."

The lecturer had said that medical men must be teachers as well as healers. No man could be insensible to the zeal of the clergy in their exalted work, but while there were hundreds of homes and families in which they were never seen, there were very few from which the doctor could long be absent. "How immeasurably great might be the influence of so widespread a body as our own, if to the full, and in something more than in name, we were worthy to be called an educated profession! The primary truths and laws of physiology which govern health, and the infringement of which brings on disease; an attention to simple sanitary rules, the neglect of which may be dangerous not only to individual households, but also to whole communities; a proper training of the young, a breaking down of the ignorant prejudices which have long combated to make men regard mental disorder as a disgrace to be concealed, rather than as a serious and lamentable disease, calling for treatment in its earliest stages,—these are but a few of the matters concerning which the doctor ought, in the routine of his daily work, to make a deep impress on the people at large. More important even than any one of these is that great social question, the solution of which is a paradox to legislators and divines. It has been pithily said, and I think with truth, you cannot make men sober by Act of Parliament. It may be said with no less truth, you will never make them sober by holding out the rewards of sobriety in this life or the next, or by talking of the pathological horrors to which excess in alcohol gives rise, and of the virtues which are the charm of pure water. There is a moral in the story of the drunkard, who, thinking to cure him of his drunkenness, turned to the Sacred Book for guidance in the right way, and having searched it through, found mention of only one man who had asked for water, and he was in hell. Nor will much lasting good ensue from cutting off the means of evil. Hear the strong and vigorous language of Milton: 'Wherefore did God create passions within us, pleasures round about us, but that these, rightly tempered, are the very ingredients of virtue? They are not skilful considerers of human things who imagine to remove sin by removing the matter of sin. . . . Though ye take from a covetous man all his treasure, he has yet one jewel left, ye cannot bereave him of his covetousness.' Drinking and drunkenness are serious maladies which afflict our national life. I hold they can never be cured unless our people be taught a new habit—the habit of thrift. It is a grievous failing, which lies at the root of this disease, that our poorer classes do not know how to save. The man who has once felt the good effects of putting by something for a future day for himself and his children, will find a healthier eagerness for getting and saving, and will pause before he squanders all his substance in the public-house. Drunkenness is but rarely to be found in those countries whose people know the wisdom of providence. The absence of it in our land may be much fostered by so-called charity; and I am not sure that the lavish and indiscriminate charity, public and private, met with in England, is not one of the crying evils of the day."

After speaking of the changes being made in the hospitals and schools, and of the misfortune that the great corporate bodies of the profession did so little for the higher professional education of the men who flocked to them for diplomas, Mr. Page continued: "In the advancement of knowledge there is not one of us who may not play his part. The intricate questions which involve the evolution of disease, and the hereditary influences ever tending to modify it and call it into existence, can only be solved by those who have the opportunity of observing the life-history of whole families. It is not to those only whom custom attaches as surgeons or physicians to a hospital, but to the great body of practitioners throughout the country that we must look for light on these subjects. The general practitioner who will exercise a well-trained mind by the careful record of observations in his daily work will find a vast scope for study and reflection, and will confer a great boon upon mankind. Who, sufficiently burdened, it might seem, with a large general practice, has made a more distinguished name in the ranks of science than the Hunterian

Professor of the Royal College of Surgeons, Mr. W. K. Parker?—a man whom all must honour and regard, not less for his brilliant work, than for the noble spirit of humility in which it has been achieved." Let each man do his duty, fearlessly, honestly, and with singleness of purpose. He shall not work in vain. It is an ennobling thought, the solace of some of the wisest and best amongst us, that what we so do here may be consummated and made perfect in the life which hath immortality."

MIDDLESEX HOSPITAL.

THE Introductory Address was delivered by Mr. ARTHUR HENSMAN, Lecturer on Botany in the Medical School.

The lecturer commenced with a short review of the early history of the hospital and its medical school. In speaking of the ceremony which took place on May 15th, 1755, when the Earl of Northumberland laid the first stone of the new hospital, the lecturer said: "That stone, history informs us, was being laid whilst a fierce thunderstorm raged over London; and the painting by Pine, in the board-room, depicting the ceremony, truly represents this. But the painter, with that suggestive genius belonging to his art, has, I see, introduced into his work a distant gleam of sunshine, fit emblem of the light of that skill and the warmth of that charity which ever characterise the noble profession you are entering to-day, and which, we know, has not been lacking in those who, for more than a century, have manfully striven, within those walls, to dispel the darkness of sin and the gloom of human misery and suffering." The names of Handel, the composer, and David Garrick, the actor, were mentioned, both having closely identified themselves with the hospital as its benefactors. Alluding to the address which the medical officers presented to the governors, urging the formation of a medical school, to which, amongst other names, were attached those of Thomas Watson and Charles Bell, he said: "But these names must suggest memories of the past, and to those of us who are youngest become

The comparatively recent death of the aged widow of Sir Charles Bell, a surgeon so gifted that it mattered not to him whether he handled the scalpel, the pencil, or the pen, has severed nearly the last link that bound him to us, except in memory. But it seems almost a privilege, as well as a pleasure, to be able to speak of Sir Thomas Watson, old in years, yet young and vigorous in mind; still able and still willing to attract us by the charm of his writing and the weight of his long experience." Up to a comparatively recent period, science was nowhere systematically taught, excepting the medical schools. The older universities, unwilling to embrace these new wants, the birth of a new era, clung to the old traditional method of teaching, and had only lately begun heartily to recognise the real value of natural science as a branch of general education and culture. Whilst the medical schools had grown up as necessary offshoots of these charitable institutions which everywhere mark the progress of a civilised people, having been created for the education of a special class of the community, it must never be forgotten that they have had also found fitting employment for the energies of many who stood in the foremost rank of scientific investigators. The scientific discoverer must ever lead the way; applied science afterwards took up the thread of discovery. Illustrations of this order of evolutions were exemplified by the discoveries of the properties of steam, and its application as a motive power. The spectroscopy was shown to have had its origin in the early researches of Sir Isaac Newton, followed later by those of Wollaston and Fraunhofer. Speaking of anatomy, the lecturer said that it must ever remain one of the great central subjects of medical studies. Like the keystone of the arch, touching both medicine on the one hand, surgery on the other, fitly crowning the span of medical knowledge; for, without it, neither side could stand secure. He urged the students to work diligently in the dissecting-room; and to remember that, while they dissected, they were not simply learning anatomy, but were gaining habits of observation; training the eye and educating the hand. Sketching in outline would assist them much in their work; they should, if possible, sketch all they saw under the microscope, and make outline drawings of their dissections. The art of drawing, he believed, might be a great aid to a medical man throughout his whole professional career. A careful drawing of a well-prepared dissection, or of a microscopical preparation, might save hours of book drudgery, and must lead to clear and accurate ideas. To the busy practitioner, a rapid sketch of a morbid growth, or the mere outline of a diseased limb, might convey to the mind more than pages of careful notes. Drawing might be said pre-eminently to cultivate the eye, as to form, size, and relation, and it certainly educated the touch in a manner scarcely second to the use of

the scalpel in the dissecting-room. The address concluded by insisting on the importance of educating the senses. "We should endeavour to educate our senses, for their capabilities are great. As the blind man acquires a touch surpassing our experience, so should we strive to develop these half-expanded powers. I have often thought that John Hunter owed much of his great fame to the manual skill he gained as a cabinet-maker in his early career. Bear in mind that, although the skill of the optician gained for us a new realm, outside the range of unaided vision, when he constructed the microscope, yet, to see aright, the eye must have a special training. The murmurs of respiration, or the rush and reflux of the blood as it flows through the great centre of the circulation, are heard to no better purpose by the use of the stethoscope, if the ear be untaught. Whilst we extend the sweep of our knowledge by means of the microscope, the ophthalmoscope, and the thermometer, let us watch lest our own organs of perception—best instruments of all, created by an Eternal Will, and step by step evolved through lower forms to near perfection—be unequal to the requirements of these higher duties. Every side of the intellect must be trained; every right capacity of the body must be developed, if we would work to good purpose. These higher faculties and nobler aspirations, which express the moral side of our nature, can never flag, if the object and end be so good. Remembering the history of the past, it requires, I think, no prophet to predict in what direction we may hopefully look for advance in the future. We should ever remind ourselves that cause and effect work out their end with untiring round, for good as well as for evil; and a wiser generation, more in harmony, because more fully understanding the laws which govern men and the world on which they exist, will better escape those ills which surround us to-day."

UNIVERSITY COLLEGE.

THE Introductory Address was delivered by Dr. JOHN WILLIAMS, Assistant Obstetric Physician to University College Hospital.

The lecturer said that during recent years the progress of medical science had been great and rapid in all departments. It has seen in the invention of new instruments for scientific and clinical investigation, in the discovery of new drugs, in the enunciation of pathological laws, in the perfection of the art of surgery, in a more intimate knowledge of the natural history of disease, and in the development of hygienic and preventive medicine. At first sight, it might seem that progress had been greater in the art of surgery than in the sciences into which medicine was divided; but this was only apparent. The progress of surgery had not surpassed that of medicine. To appreciate this, the present must be compared with the past. Medicine had now entered upon its ultimate phase, and had assumed a preventive character. Gynæcology had not in this respect kept pace with general medicine; and yet it had made great progress. No apology was needed for making gynæcology the subject of an introductory address; for now it took rank with medicine and surgery as a special branch of study. It was of the greatest importance in practice, and its bearing on certain social questions agitating the public mind was such that in the future it must command greater attention than it had received in the past. The ancients held curious views with regard to the female organs of generation, and the theories invented by them to explain certain phenomena were simply absurd. No progress was made in the study of gynæcology until long after the revival of the study of anatomy in the fifteenth century. The muscular structure of the uterus was unknown until Santorini asserted it in the beginning of the eighteenth century. Harvey was ignorant of the existence of the human ovary, though he recognised in the foetus and its membranes a true ovum. His views with regard to the formation of the ovum, however, were purely imaginary; for he thought that it was formed from the juices secreted by the uterine cotyledon, which became swollen after intercourse. The ovarian follicles were observed by Vesalius, and Van Horne called them *ova*, while De Graaf gave the first full description of them, and with Van Horne regarded them as *ova*. There were great objections to this view—some of them insuperable; and in consequence Haller stated that the ovum was formed in the Fallopian tube from the expelled contents of the Graafian follicles. This view was accepted until the end of the last century. William Cruikshank published the results of his experiments, confirming De Graaf's observations, in 1797. The ovum was discovered by Von Baer in 1827; but his error with regard to it was dissipated in 1834-5, when Coste, Wharton Jones, and Wagner discovered and described the germinal vesicle and spot. In 1821 Dr. John Power enunciated the law of spontaneous discharge of ova. His conclusions were drawn partly from analogy, partly from observations made in the human female. His observations were, however, scanty; but ample proof of the law was supplied during the

twenty years following the publication of Power's book by the researches of Girdwood, Bischoff, Raciborski, and others. At the same time, the view that the functions of the uterus are dependent on the growth and rupture of Graafian follicles was promulgated. This was strenuously opposed by Ritchie, but it became generally accepted, and was received until the last few years, when the evidence against it has accumulated so that it can no longer be maintained. Moreover, much evidence has been brought to light to prove the independence of the uterine functions, not only of the growth of ovarian follicles, but also of ovarian influence. Changes in the mucous membrane of the uterus were first noticed during pregnancy. William Hunter described the decidua accurately. His brother John Hunter soon afterwards described it as an exudation of plastic lymph. The latter view was accepted and taught, until Sharpey and Weber discovered the true nature of the decidua by demonstrating its histological structure. The changes in the uterus during menstruation were comparatively unknown until within the last few years. It had been shown that they consist not in a congestion, but in a periodical development and removal by disintegration of a decidua lining. The views maintained with regard to uterine pathology were briefly sketched; and it was pointed out that in the formation of such views too little regard had been had to the physiology of the organs of generation. Pathology should be based in great part on physiology. These inquiries, moreover, had a direct bearing on the employment of women. The latter question could not be decided by prejudice, nor yet by the intellectual caprice of a few experimenters in moral and social science. The problem must be solved on physiological and pathological grounds. Uterine disease was in great part the penalty of a high civilisation. It was by a knowledge of its causes and mode of action that we could hope to avert disease and make gynæcology assume a preventive character. Dr. Williams concluded by welcoming his hearers to University College, and with an exhortation to hard work.

CHARING-CROSS HOSPITAL.

THE Introductory Address was delivered by Mr. J. A. BLOXAM, Assistant-Surgeon to the Hospital.

After giving the students, on behalf of the governors, a hearty welcome, and wishing them a prosperous career, he called on them to remember that it would be their duty to fight constantly, with might and main, for the safety of their fellow-men against disease, pain, accidents, and death, regardless of all risks and regardless of all comfort. As an example of devotedness to duty he pointed to a tablet on the wall which bore the name of Llewellyn, once a student at that hospital, who perished at his work. Of all positions, he held that to be the most terrible in which a man might be placed through ignorance of what he ought to know, and inability to do that the prompt and efficient performance of which alone could rescue his patient from the grave. To avoid such disaster nothing could avail but work, intense, incessant, and prolonged, in spirit devoted and earnest. In the short period of four years they would have to master the science and art of their profession, so far at least as to gain the licence to practise it. Surgery and medicine, not being of the exact sciences, required life-long practice. They must be perpetually learning, if they would keep up with the times in which they lived. Speaking as a surgeon, he would say, first, of anatomy that it was of the highest importance, as teaching them how regular and beautiful is Nature in all her several formations, and as leading them to study how to be accurate. After some personal references to changes in the hospital and school—such as the return of Mr. Godlee to University College, the accession of Dr. Cantlie to the place thus vacated in the dissecting-room at Charing-cross, the appointment of Dr. Bruce to the chair of *Materia Medica* vacated by Dr. Powell, and the acceptance of the post of assistant-physician by Dr. Lees—the lecturer returned to his sketch of the work lying before his hearers. Chemistry was essentially an exact science; but physiology, being progressive in its disclosure of the laws of life and the manner of our existence, was a less definite study than either anatomy or chemistry. While pursuing those three main subjects, he strongly counselled them to study botany, zoology, geology, and mineralogy; for the further they extended their research, the better would they be able to reason and so acquire a scientific mind. They should be in no hurry to see the practice of surgery and medicine in the out-patients' room till they had, by study, laid the foundation for a safe superstructure. He wished them to gain the art of learning by themselves and to avoid "cramming". Rather than always wanting to be coached, they should examine the cases carefully for themselves, one fact self-gained being worth any number acquired from others. He regretted that the abolition of apprenticeship had diminished the time and opportunity for self-teaching. All great men had attained

success and an honoured name by plodding. Genius, without perseverance, honesty of purpose, and prolonged labour, could achieve no great result. Before concluding his address, Mr. Bloxam reviewed the past twelve months' history of the hospital. Their Royal Highnesses the Prince and Princess of Wales had been graciously pleased to open new wards and to bestow their names on them. This had caused the hospital and school to become better known. He trusted the time was not far distant when the new buildings of the hospital would be supplemented by a new building for the school. After all, he argued, it was the school which made the hospital, not the hospital which made the school. No profession had made such progress as the medical, especially on the surgical side of it, during the past few years. Pain had been eliminated as a factor to be feared in operations. The danger of hæmorrhage was nil. By the aid of the thermometer they could gauge to a nicety the progress of their patients. They had almost annihilated that period which intervened between the infliction of a wound and the moment at which a healthy process commenced. If to Sir James Paget their thanks were due for helping them to form more exact diagnoses, hardly less honour attached to Professor Lister for the manner in which he had directed their attention to the subject. Mr. Bloxam stated that the treatment of wounds by carbolic acid was first tried at St. Bartholomew's Hospital in Sir James Paget's wards, when he (the lecturer) was his house surgeon. The treatment was not of that scientific character advocated by Professor Lister, and therefore they had not such good results; but undoubtedly it was there that the start was given to research in this particular direction. Mr. Bloxam concluded his address with a repetition of his advice to students.

WESTMINSTER HOSPITAL.

THE Introductory Address was delivered by Dr. W. CHAPMAN GRIGG, Assistant Obstetric Physician to the Hospital.

After some introductory observations, the lecturer said that, unhappily for the cause of suffering humanity in England, the hands of the physiological student were seriously trammelled by recent legislation, and experimental physiology, the sheet-anchor of medicine, had received a severe strain. To show how inconsistent the Cruelty to Animals Act was, he stated that investigations in certain cases had been greatly delayed by the difficulties placed in their way in obtaining the now necessary licence to perform a few experiments in transfusion. This enactment, prohibiting as it did the mere puncture of an animal's vein for the extraction of an ounce of blood when done in the cause of science, permitted the butcher to slaughter his oxen how he pleased, or granted a licence to anyone, no matter how ignorant, to fire away to his heart's content upon game. Yet, one day's "sport" in a well-stocked preserve inflicted as much suffering as one physiological student would inflict in a year's research. If there was no harm in maiming birds, hooking fish, coursing the hare, or hunting the fox, when done for mere sport, why should other pain, inflicted in the pursuit of science, simply for the alleviation of the sufferings of mankind, be subjected to such severe and damnable restrictions? These must check investigation, and act to the detriment of the interests of humanity. When they considered the enormous benefits that had accrued to humanity through experimental physiology, it seemed almost incredible that any thinking being could be found willing to arrest its beneficial course.

With regard to State Medicine, the profession had more austere and sterner duties to fulfil in advising and directing the legislators in dealing with grave sanitary questions more or less affecting the liberty of the subject, while supervising the health of the community and jealously guarding it against any physical deterioration and the elimination of any preventable diseases by which annually upwards of two millions and a half were stricken, nearly a million of whom were maimed, were disfigured, forced to drag out a brief and wretched existence, a misery to themselves and a burden to their friends, or a heavy tax upon the resources of the nation, while a quarter of a million prematurely perished. In these days of enormous standing armies and of sudden and predatory wars, it behoved our rulers to improve the physical well-being and mental faculties of the nation, and add, if possible, to the already great staying powers of our race, as at no distant period we might be called upon to fight for our very existence. The ever-increasing population of towns at the expense of the country must, before long, make it a matter of serious consideration as to what steps shall be devised to prevent the gradually deteriorating influences, the out-spring of town-life, which, if not attended to, must seriously affect our national prosperity. It was doubly necessary that a well digested, carefully matured measure, one that might last a generation, should be, without further delay, brought before Parliament, and should, if

possible, be approved of in its essential basis by the heads of both parties in the State. In the meantime, it is incumbent upon the profession to work steadily on and strive to make the educated classes realise what great injuries are inflicted upon the mass of the population, as well as on themselves, by an abnegation of the necessity for sanitary laws. Much had been done within the last twenty years, and no opportunities should be lost sight of. It was chiefly owing to the medical profession insisting that the fearful loss of life which occurred in the Crimean war through bad management was not a natural sequence of war that aroused the public attention to the necessity of proper precautions. There was no exaggeration in saying that more lives had been saved as the result of the impulse given to sanitation by that war, than were sacrificed during the whole campaign. Any attempt at saving life and mitigating suffering would not unreasonably be supposed to meet a ready response from a nation like ours; but the callousness of ignorance and prejudice knew no bounds. How many deaths were due to the defective hygienic conditions under which the mass of the population were compelled to live was little realised by landlords or corporations. A railway was not allowed to be opened for the conveyance of passengers until approved by a Government surveyor; but, through its instrumentality, only one life in three millions of its passengers was annually destroyed; nor was even a ship allowed to leave our shores unless certified as to her seaworthiness; yet, the all important necessary sanitary arrangements of our homes were left to the control of the mercenary builder. If landlords, like railway companies, were made liable for compensation for injury to health or death arising through their carelessness or neglect, there would soon be some tangible diminution in the annual holocaust of helpless beings at present sacrificed to greed and ignorance.

The lecturer next proceeded to speak of the preservation of maternal and infantile life in childbed, and specially directed attention to the injurious effects of the aggregation of the population in large towns and of the employment of females in factory labour. This evil was at its maximum in Lancashire, notably so before the Factory Act came into operation. The injury both to mothers and children would go on increasing with the increase of our manufactures and the demand for female labour, if care were not taken by the legislature to counteract the evil.

He then commented on the imperfection of the measures at present taken by the examining boards for securing a due education of the medical student in Obstetric Medicine. In consequence of this, the lying-in hospitals were not properly utilised so as to meet the increasing demand on the part of the public for properly trained accoucheurs.

Speaking next of the changes which had been brought about in the School, he referred to the retirement through illness of the Senior Physician to the Hospital, Dr. Basham, whose kindness, honesty of purpose, and willingness at all times to aid the students, had endeared him to all. He spoke also of the improved prospects of the School, and the various appointments which had been made during the year.

The lecturer concluded with some words of welcome and encouragement to the students.

QUEEN'S COLLEGE, BIRMINGHAM.

THE Introductory Lecture was delivered by Dr. BASSETT, Professor of Midwifery.

He said that the present was the fifty-fourth session of the Birmingham Medical School; and although it had passed through many changes during that time, it maintained its ground as a centre of medical instruction, for during the past year more than fifty students had passed examinations at one or other of the licensing bodies, and the returns furnished by the College of Surgeons placed its teaching power in a favourable position. Attention was drawn to the altered regulations which have resulted from the recent sitting of the Medical Council. Allusion was then made to the college having received a bequest of £2000 from the son of Dr. Ingleby to found a lectureship and scholarship for the promotion of the science of obstetric medicine and surgery, in order to perpetuate the memory of Dr. John T. Ingleby, who was many years Professor of Midwifery in this college. A hope was expressed that the new College of Science, which is fast approaching completion, and which has been so handsomely endowed by the munificence of Sir Josiah Mason, will prove a blessing to all students of science in this district, and that it will at the same time improve the industrial arts of the locality. The lecturer then dwelt upon the importance of each student devoting himself unreservedly to the acquisition of a knowledge of the various sciences on which the art of medicine is based, and to the absolute necessity of cultivating the habit of accurate observation, without which medical experience led to false conclusions and untrustworthy issues.

LEEDS SCHOOL OF MEDICINE.

THE Introductory Address was delivered by Mr. JOHN A. NUNNELEY, Lecturer on Anatomy, and Senior Ophthalmic and Aural Surgeon to the General Infirmary.

After referring to the appropriate opportunity presented by an introductory address for bringing all interested together and for taking a preliminary survey of the commencing session, and expressing the responsibility felt at offering, in the name of the Council, the official welcome at the opening of the forty-seventh session of the Leeds School of Medicine, the lecturer proceeded to address the students. He exhorted the new students not to let the difficulties which they would at first inevitably encounter dismay them, nor induce them to turn in disappointment from subjects which must seem, in the first instance, incomprehensible. They should rather be comforted by the remembrance that, only a short time before, the older students were in the same position, proving that steady industry and perseverance would meet with success. They must, however, expect to find the study of medicine a laborious business when compared with the course necessary to obtain entrance into other professions; and it was likely to become each year more and more laborious; for, thanks to the General Medical Council, many of the defects in the curricula of the various licensing bodies had been exposed, and consequently removed. The result was, that the requirements had become much more extensive, and the examinations more searching and comprehensive than was the case formerly; and it was now hopeless for anyone to expect to qualify himself without earnest and thorough work.

The lecturer next proceeded to speak of the great improvement in the general education of the student of medicine during the last few years, and the necessity for even further progress in this direction; and quoted Mr. Spencer Wells's opinion, as expressed in his late address before the British Medical Association at Manchester: "The surgeons of the future must be educated gentlemen, and we should so order our schemes of education as to bring into the profession as far as possible young men who have had the advantage of the highest general culture to be obtained by an English education". He then passed on to insist on the necessity for method and thoroughness in the student's work, and to discuss the value of lectures as a means of learning, and the different opinions held on this subject. No doubt, portions of every branch of learning could be more easily and completely learnt from books by each student privately than in the lecture-room, and, of course, allowances must be made for individual differences and capacities; but, altogether, he was satisfied that, if a due proportion of tutorial instruction and supervision were combined with it, the system of lecturing offered, on the whole, greater advantages than any other method of learning; and, a proper amount of private reading being superadded, enabled a student to gain a knowledge of a profession like the medical as readily and pleasantly as it was possible to do.

Having impressed on his hearers the importance of the study of anatomy and physiology, he remarked that, through the vast advances made in physiology and pathology, and in microscopic and experimental research, the area embraced by these subjects, as also by chemistry, had become so vast that it was utterly impossible for a student to obtain a knowledge of the whole; nor, so far as chemistry, at any rate, was concerned for the purposes of medicine simply, was it necessary that he should attempt to do so. It seemed, therefore, exceedingly desirable that the examining boards should, within certain limits, define their requirements in these subjects, as recommended by the Medical Council, in order that the time of the medical student might not be occupied more than could be avoided with what was unnecessary, or not practically useful.

On hospital work during the first year, Mr. Nunneley remarked: "No doubt, the attractions of the hospital are very great; and some men may be tempted to spend too much time in the wards and out-patient room, to the neglect of their proper work; but, on the other hand, I hold that the opposite course, of neglecting hospital work wholly during the first winter session, is equally a mistake for most students. Those who intend to spend some years at this or other hospitals, as well as those who are preparing for the higher examinations, especially those of the University of London, may advantageously postpone their hospital work and give their whole time to elementary subjects; but, with these exceptions, I think everyone should attend the surgical practice of the hospital regularly, even during his first session, especially as the apprenticeship to some busy practitioner, where much practical knowledge was obtained, is not by any means so general as formerly. Just as an apprentice to any trade gains by practice facility in the use of the appropriate tools, you must train your eyes, your hands, indeed all your senses; and it is of even greater importance to your future success that you should gain the knowledge how to deal

with patients, and so to obtain that mental control over them—that tact, without which all your skill may often avail you little."

Speaking of hospital practice, the lecturer dwelt on the necessity of working out cases thoroughly; one case thoroughly worked out being of far more value than twenty only half done. He warned them against the error of running after great cases only and neglecting the minor ones. It was a perfect knowledge of these latter that, for a young man, was of the most consequence. He thought also that some students devoted themselves too exclusively to the surgical wards, neglecting somewhat the medical ones.

After insisting on the importance of note-taking in the wards as a valuable means of training the powers of observation and impressing the cases on the memory, and the use of which a well recorded set of hospital cases would be found in after-life, the lecturer commented on the question of admission of women to medical degrees in England. "We should, of course, all agree that, if a new sphere of employment could be found for the large number of well-educated women who are now barely able to earn a living by teaching, etc., it would be a most desirable thing. But then comes the question, Is the practice of a profession like ours a proper vocation for women, and one which they would be likely to pursue successfully? Perhaps time only can fully decide this; but one thing is certain, that if it is to be decided in any degree affirmatively, it is absolutely essential that women should receive a medical education equally thorough with men, and pass the same examinations. This, as Dr. Barnes has observed, 'seems impossible so long as men and women retain the physical and mental attributes which have distinguished the sexes from the time of the Creation'. From ordinary general practice, as well as from nearly all appointments, the medical woman must be, of course, by circumstances, cut off, as also from any position involving the charge of a mixed population. She must of necessity almost be confined to large towns, as a special consulting practitioner among women and children; and here, no doubt, a few with unusual ability and determination may succeed; but the number can never, in all probability, be large, and will not take any great share in satisfactorily removing the difficulty of finding suitable occupation for ordinary women. And although we, I think in common with most men, both medical and other, believe that, of all the professions, that of medicine is the one least fitted for women, such a feeling will not, I am sure, prevent us from welcoming the few whose talents and energy enable them to enter our ranks."

In conclusion, he warned the students that the manner in which they would be able to discharge their great responsibilities and the character of their whole future career, would depend upon the advantage which they took of the facilities for acquiring a competent knowledge of their profession which would be offered to them in the school.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.

THE Introductory Address was delivered by Mr. RUSHTON PARKER, Lecturer on Surgery.

After some preliminary remarks with reference to the restoration of the large theatre of the Medical Institution, in which the day's meeting was kindly permitted to take place, and alluding also to the presence of Mr. Simon in the chair, and of Mr. Wheelhouse of Leeds as a visitor, the lecturer addressed a few special words to the first year's men, commending their choice of the medical profession. This he did on two grounds: first, because he considered a medical education to be one of the best, if not the best, intellectual training for those who claimed to be called educated men, whether they eventually followed a medical career or not; and secondly, because no one could fail to make a living, having his medical qualifications, provided he were fairly industrious and moderately prudent. He noticed how the profession of medicine was beginning to profit by the application to it of every form of scientific knowledge, which, he said, was gradually effecting as complete a transformation in the dissipation of error as it had already done in the domain of philosophy, by substituting verified facts for metaphysical speculation. In both, men had grown "less presumptuous in speculation and inconceivably more daring in practice". He considered, however, that, in the department of surgery, which it was his privilege to represent on this occasion, the methods of treatment were, in many respects, very far behind the mark; and, in accounting for this deficiency, he complained that, while great strides had been made in the accumulation of scientific knowledge, and while the growth of pathology had given birth to a new branch of natural science, far too little attention was still paid to the empirical lessons daily to be met with at the bedside. Especially in the application of mechanical expedients to surgical practice was this inferiority of their means clearly visible, and

he ventured to predict a brilliant future of success at the bedside to all who would faithfully apply themselves to the devoted study of more rational methods. It was a remarkable fact that the name of Liverpool was strikingly associated with stages of reform in the treatment of diseases of the joints, though it had in other particulars not been much distinguished in the history of surgery. It was about a hundred years since Henry Park, a surgeon in the Liverpool Infirmary, became associated with the practice of excising the ends of bones as a conservative remedy for severely inflamed joints. This practice had been established in surgery, and was still accepted as one of the most enlightened means of preserving limbs, and even saving life. It was now the privilege of Liverpool to be able, through one of her surgeons, to renounce the practice as unnecessary and wasteful, in consequence of the adoption of improved mechanical appliances and expedients, and of the simplification of all the means employed in this class of diseases. This great step in surgery had not been without its fruit already, and had been readily adopted to some extent in London and elsewhere. The success with which perfect results had attended the use of those improved methods not only in the case of broken limbs and inflamed, stiff, and deformed joints, but also of slight injuries and affections of all parts of the body, had been the growth of empirical observation, which consisted in the trial of successive means without reference to preconceived ideas. The true theories of surgery were thus dependent upon previous successful practice, and rested upon foundations which could not be shaken. It was a very poor thing to be constantly praising and flattering themselves, and fatal to the spread of reform in the work they had undertaken; and on this account it was profitable to turn their attention incessantly to their failures, and to seek their cause and prevention. In the treatment of the constitution, as it was called, and in the selection of their patients' diet, there was a great want of intelligent method and an almost utter absence of precision. Yet they had in the works of Mr. Abernethy the outline of principles, or at any rate minute directions as to practice, which were capable of easy verification, and the employment of which led to astonishing success. But the fashions of the present day were almost totally opposed to the precepts of that great practitioner, whose spoken language was often of a somewhat unmentionable character, but whose success was no greater than might be theirs if they adhered more closely to his example in the matter of treatment.

UNIVERSITY OF DURHAM COLLEGE OF MEDICINE.

THE Introductory Address was delivered by Dr. BYROM BRAMWELL, Joint Lecturer on Clinical Medicine and Pathology in the College of Medicine, and Physician and Pathologist to the Newcastle-on-Tyne Infirmary.

After some introductory remarks, he said, in addressing the new students, that they were entering the profession at a happy period of its history. Never was the practice of medicine more scientific and less empirical than now. The almost perfect condition of human descriptive anatomy; the advanced position of chemistry; the enormous progress which physiology had made during the past few years—a progress which would undoubtedly continue and be assisted by British physiologists, provided that the Government and people did not give way to the fancies and prejudices of the opponents of vivisection; the increased attention given to preventive medicine; the rapid advance of pathology; the brilliant prospect in store for therapeutics, in consequence of the scientific investigation of the action of medicines—all these indicated a bright future for medicine. It would be the duty of the students to share in that future, and to do what they could to advance the science and art of their profession.

It was, he said, a common notion among students, that the aim and object of their medical education was to enable them to pass their examinations. This was a dangerous fallacy, and would lead them to have recourse to cramming—a baneful mode of acquiring information. "The sole object of your medical education is to make you good practitioners; to teach you how to work and how to think, to give you such knowledge and training as will be of daily use to you in your future practice. You must endeavour, then, to acquire such a knowledge of each subject of your curriculum as will stick to you and be available for life. Knowledge of this sort must be thoroughly sound, thoroughly practical, and is only to be gained by steady persevering hard work. The acquirement of such knowledge is necessarily slow, for each new fact must not only be ingested, but must be thoroughly digested and assimilated."

Speaking of the conjoint scheme, Dr. Bramwell advised his hearers to avail themselves of its provisions if it should come into operation during their studentship, although its action would not be retrospective.

He next spoke of the increased facilities afforded by the University of Durham to those desirous of taking degrees in medicine; facilities which were as great as those offered by the Scotch Universities. While those alterations conferred great benefits, they conferred also great responsibilities on the teaching body of the College. "We must endeavour to follow the noble example of Owens College. It is absolutely necessary that we should have new buildings, and that some of our more technical chairs, such, for example, as anatomy and physiology, should be blessed with an independent endowment."

Returning to the students, he advised them to study anatomy and chemistry during the first year; but he thought it a great mistake to take physiology at that time. They should rather attend the course of physics; a sound knowledge of which was important to the physiologist, to the physician and surgeon, and to the medical officer of health. In illustration of the dependence of the solution of some of the most important problems on physics, Dr. Bramwell referred to the discussion on spontaneous generation and the antiseptic treatment of wounds. Speaking next of hospital practice, he said:

"During your first session, you should not devote much time to hospital practice. Half-an-hour or an hour daily spent in the surgical wards or out-patient department will be sufficient. You cannot as yet expect to gain much knowledge of actual disease, but you will be undergoing an all-important training. You will gradually lose that feeling of strangeness which at first is so oppressive. You will, by the mere force of example, get into the way of interrogating patients. You will, unknown to yourselves, be teaching your fingers to feel, your eyes to see, and your ears to hear. Some of you will say, 'Surely you are quizzing us; we can feel, see, and hear as well as you can.' Doubtless your powers in these respects are as good as mine, but at present they are untrained and undeveloped. Ask a child to describe an egg: it will tell you it is an egg, but will give no account of its shape, form, colour, weight, and other physical peculiarities. So, if you were asked to feel a patient's pulse, you might, perhaps, be able to perceive it, but you would be quite unable to note its characteristics or to give an intelligent description of it, simply because the whole thing would be new and strange to you. The object of your hospital training is to educate your feeling, seeing, and hearing; to develop in you that most important faculty, the power of observation; to strengthen your reasoning powers; to teach you the best, the most logical and orderly way of examining and recording cases; to make you familiar with the physical signs of disease; to teach you the mode of using the various instruments of mathematical precision which are now used in the investigation of disease—rather than to tell you what are the symptoms of this or that particular malady. A knowledge of symptoms, a knowledge of individual diseases, is only gained by experience, and will be readily picked up if you enter properly prepared upon the responsibilities of practice. Too much knowledge of this sort ought not, in my opinion, to be demanded of the student. The time has, I think, come when the amount of book-knowledge should be limited. It is impossible for any student to acquire a real knowledge of subjects so vast as the medicine and surgery of the present day; and surely it would be better to require a sound practical knowledge of a portion rather than an imperfect smattering of the whole."

Dr. Bramwell concluded his address with good advice to those about to enter on practice. Besides possessing professional knowledge, they must gain the confidence and esteem of their patients by observing the unwritten laws which govern the conduct of English gentlemen, and by gaining a knowledge of mankind. Their pecuniary reward, though less than that of other callings, would, if health permitted work, be steady, and less liable to variations. Their life would be happy, in the knowledge that they possessed the esteem of their patients. The lecturer himself, having practised in a town in which his father and grandfather had preceded him, could bear witness to the affection and reverence with which their names were mentioned by all classes. That each one of you may attain to a like position, is my most earnest wish."

SHEFFIELD SCHOOL OF MEDICINE.

THE Introductory Address was delivered by Dr. BANHAM, Joint-Lecturer on Medicine.

Dr. Banham, after a few preliminary remarks, congratulated the students upon their choice of a profession, assuring them that they would not be likely to regret that choice if they were able to endure the inevitable hardships which it involved. He enlarged upon the value of a preliminary training, even in cases where it had not been of a scientific character. "Indeed," said he, "not only are you not the worse for a training specifically different from the scientific work which henceforth is to be your chief business, but you are distinctly

the better." He then made some reference to the interdependence of all branches of knowledge, and showed the necessary truth of the seeming paradox, that a man must know many things before he can thoroughly know one. He next explained that whether fitted for their work by unusual intellectual powers or by a suitable preparatory training, the all-important work for them was the practical study of disease, a study which must be supplemented, but could not be superseded by the theoretical study of books. "The knowledge required," he said, "is not simply that bookish knowledge which enables you to describe a disease, but that practical knowledge which enables you to detect it, a knowledge gained at the bedside of your patients, requiring for its development trained eyes, trained ears, and trained fingers."

He proceeded to give a detailed account of the manner in which they should prosecute the practical study of medicine, quoting Lord Bacon's dicta on the necessity for the removal of all the idols of prejudice or authority from their minds, in order that an accurate observation may lay the foundation for a useful induction. In illustration, he traced the changes in medical fashion by which the cupping and drenching custom of one age had revolted the common sense of the next, only to give place to an authorised but excessive stimulation by inordinate doses of alcohol. A feeling allusion was then made to the loss that the school had sustained in the removal by death of two of the most accomplished members of its educational staff, Dr. J. C. Hall, one of the Lecturers in Medicine and Physician to the Public Hospital and Dispensary, and Mr. Samuel Parker, one of the Lecturers on Surgery and a Surgeon to the Infirmary.

A few remarks were then directed to those students who were about to leave the school and enter upon the responsible duties of medical practice, and special reference was made to the department of preventive medicine to which so much of their attention would have to be directed. He urged them to perform earnestly and faithfully their duties, remembering that it was not for themselves alone they toiled, but for the world around needlessly wasted by sickness and death.

ISLINGTON.—Dr. Tidy has written his report in a popular style, in the hope that it will be more read than if it were drawn up in a more technical manner; and, after stating the number of births and deaths, he asks himself a number of questions, in the hope that his readers will do the same. Amongst these are, Are we in a better sanitary state now than we were twenty years ago? Are we, with our elaborate drainage schemes and sanitary arrangements, a healthier race than our forefathers? To enable the vestry to determine these questions for themselves, he gives a table showing the death-rate per 1,000 for twenty years from all causes, from zymotic diseases, phthisis, etc. As regards the rate from all causes, he shows that it has not improved, whilst that from zymotics has lessened during the past four years; but without alluding to the fact that a similar result has obtained in all London. He gives some of the causes affecting death-rates, such as the relative proportions of males and females, the ratios of young to old, migration of the population; adopting all of the late Dr. Letheby's crude theories in their entirety, without any notice of their frequent and complete refutation. The death-rates for Islington are returned as having varied between 23.0 and 17.7 in the twenty years, and that of 1875 as having been 19.02 per 1,000. Dr. Tidy does not state the basis of his calculations of the death-rates; but, as far as we can ascertain by a comparison of the Registrar-General's returns for 1875, he has excluded all the deaths of non-residents, but has not added anything for deaths of inhabitants in hospitals outside his district. If so, his calculated mortality is much too low. The birth-rate per 1,000 population oscillated during the twenty years between 32.1 and 39.3, that for 1875 having been 36.9. He also states, as though it were something new, that the number of males born is in excess of females, and that in early life there is an excess of male deaths. The proportion of deaths under one year was larger than in 1873 and 1874, having been 280.1, against 266.7 in 1873. An analysis of the water for each month is given, which shows that the water-supply is good. The mortuary was a good deal used during the year ending June 30th, 1876, as no less than 359 bodies were deposited there; and 114 inquests were held in the coroner's room, for which the sum of £21 : 5 was paid. The sanitary work done during the year was fair in amount, as 2,436 houses were inspected, besides the bakehouses, cowsheds, slaughterhouses, and factories; as well as a considerable number of drains improved. We are, however, somewhat struck with the small amount of repairs and cleansing of houses, as compared with the number returned in the adjoining districts; so that it is evident that a systematic examination of the smaller houses is not carried out. There were 328 houses disinfected.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 6TH, 1877.

PROFESSOR LISTER AND DR. MATTHEWS
DUNCAN.

THE Medical Session, which commenced on the first day of this week, opens not without circumstances of interest which give room for reflection. Three of the greatest hospitals and schools in London have abandoned the practice of giving introductory addresses, and have substituted in their place evening meetings of a social character, such as dinners and *conversazioni*. Some members of the staff of the hospitals, however, justified the sort of personal interest in the practice which they had formally abandoned, by their presence at introductory lectures given elsewhere. Three of the staff of St. Bartholomew's Hospital and others of the staff of the London Hospital were present in the amphitheatre in King's College as auditors of Professor Lister. The mention of the name of the distinguished surgeon, who has taken his place among metropolitan professors, recalls to the mind the master-note of the chief topic of professional discussion on these opening days of the session. Since the nomination of Professor Lister to fill the void in the ranks of surgeons and teachers of King's College, created by the death of Sir Wm. Fergusson, the more recent appointment of Dr. Matthews Duncan to the Lectureship on Midwifery and Diseases of Women, at St. Bartholomew's Hospital, has extended and confirmed the principle underlying the appointment of Professor Lister on which we insisted when urging that appointment. In the fact that Professor Lister and Dr. Matthews Duncan have been both distinguished teachers in the medical schools of Edinburgh, and that they have simultaneously received the honour of selection for posts of the highest prominence and importance in the metropolis, and have been willing to make great sacrifices for the purpose of responding to the call, there is, of course, much more than one of those striking coincidences in human events which bear the false appearance of chance. It is a part of the inevitable tendency of competition and cultured emulation to clear all the sources of scientific energy, and to widen and strengthen the legitimate means of success in educational as in other enterprises. The hospitals and schools in London have made great steps in efficiency, in proportion as they have ceased to be institutions on the principle of close boroughs, controlled by hidden influences adverse to open competition, and shielded from public criticism. More is demanded now than heretofore of the hospital medical officer and of the medical teacher; the means of comparison of school with school and of hospital with hospital, as educational and curative agencies, are larger, more widely spread, and more easily within the competence of every observer. Hence, many old errors of organisation, springing from carelessness and want of thought, many springing from indifference or self-interest, have been gradually corrected under the influence of that strong pressure which the development of the natural powers of competition never fails to exert. Still, it must be confessed, and we have often had occasion of late years to point out, that the progress has been by no means as rapid or as satisfactory as might have been expected; and that, in many respects, the methods and traditions of selection of hospital officers and school teachers are antiquated, and contrary to the interests

of the profession, the public, and of science at large. We combated energetically, while the proposition to invite Professor Lister was still in progress, the objections which were urged by persons who held that the personal interest of one or other past, present, or future pupil or officer of the school should be considered paramount to the grand interests of the school itself as a centre of medical teaching, and of the hospital as a power of healing. Nevertheless, it is well known how energetically the views which we then combated were supported and maintained by individuals, and how large a measure of support they found in the medical press. Fortunately, they did not prevail; and no one who heard, no one who now reads, the masterly research with the results of which Professor Lister has enriched science, and with a history of which he honoured the school to which he became attached on Monday last, but must feel that the selection which the authorities at King's College have made has done honour to their judgment, and will add largely to the usefulness and lustre of their school; while it adds also to the glory and the greatness of the surgical profession in London, from which Mr. Lister sprang and to which he returns.

The promptitude with which so great a hospital as St. Bartholomew's has adopted a course similar to that followed by King's College, has shown that the principle of selection of the best man from the widest circle of choice, of which we are the convinced apostles, has found a powerful echo in the minds of the most thoughtful, and, we might also say, some of the most conservative men in the profession. Dr. Matthews Duncan has fearlessly quitted a great position as an obstetrical teacher and practitioner, holding a foremost position in Scotland, to transfer his powers and his energies, which are well known to be of the highest order, to the metropolis. Two such nominations following closely one upon the other indicate that that which was only lately considered to be altogether exceptional, may fairly be expected to become the rule. That rule, which we have already expressed in general terms, we desire again and again to reiterate; it is "that every hospital should be open to every candidate, and that every candidate should be available for every hospital". It is notorious that the old tradition of filling up vacant posts by available candidates in rotation from among the small number of students waiting about for appointments at each hospital, and from among the friends and *attachés* of the officers of the school, is a course which has been found more than once detrimental to the reputation and usefulness of hospitals and of medical schools in this country. In France, the system of *concours* prevents the entrance into hospital duties of any really incompetent person, and affords a fair public means of judging the relative merits of candidates. It is, however, open to much objection, and far preferable to this is open selection of the most suitable candidates on general grounds, including not only their scientific but their personal qualifications. In order, however, that such a method of selection as that which prevails in this country should have any real *raison d'être*, it is necessary that the field of selection should be as large as possible. Every kind of claim and every candidate should have an equal chance, whether his field of activity for the moment be metropolitan or provincial. The narrowest kind of "provincialism" is that which has so long limited choice for offices in London hospitals to a small circle of candidates available on the spot in the hospital itself. Against the perpetration of these antiquated and mischievous traditions, the appointments of Professor Lister and Dr. Matthews Duncan are standing and powerful protests. We desire that their effect may not be lessened by any undue prominence of the personal questions involved. The principle which they typify is one which cannot be made too prominent; at present, its application is only occasional and exceptional. Before long, we cannot doubt that it will become general and universally respected.

THE PENGE TRIAL.

THE full details of this remarkable trial, which have already appeared in the public journals, must have made our readers thoroughly acquainted with the facts on which the prosecution relied for a conviction of the accused. The general impression on the public mind is, that the verdict was fully justified by the evidence. An exception is made in favour of Alice Rhodes; and, no doubt, her case stands on different grounds from those on which the Stauntons have been convicted. It is highly probable that the capital sentence passed upon her will be commuted for penal servitude.

We observe in this, as in all notorious cases of murder to which public attention has been strongly directed, that after a conviction a number of writers object to the medical evidence for the Crown, to the summing up of the judge, and to the verdict of the jury. We are told that the medical evidence is untrustworthy, and that the witnesses for the prosecution have been flatly contradicted by other medical men of equal repute; that the summing up of the judge has been like that of a hostile advocate; and that the jury have been misled by prejudice against the prisoners. We believe that in many instances these objections are made by persons who would entirely abolish capital punishment; and that, had the verdict been one of manslaughter, we should probably not have heard of them.

As medical journalists, we have to deal with the medical evidence; and we are bound to admit that in the Penge trial, as in other great criminal trials, medical men, by coming forward ostensibly for the defence of prisoners, have raised in the public mind a feeling of uncertainty and distrust. In the notorious case of Palmer, convicted in 1856 of the murder of his friend Cook by poisoning him with strychnia, although the facts were quite consistent with this cause of death, and this view was supported by the opinions of the most distinguished physicians of the day, yet some medical men came forward to dispute this conclusion, and they assigned all the symptoms and appearances to disease; but they differed as much from each other as from the witnesses for the Crown, for, while one ascribed death to "angina pectoris", another contended that it was a case of "epilepsy, with tetanic complications". This was called a conflict of evidence, and it served the purpose for a time of unsettling the public mind as to the real cause of death.

A similar state of things has presented itself in the Penge trial. While the medical witnesses for the Crown have come to the conclusion that the death of the deceased was owing to starvation and neglect, two physicians have come forward for the defence, and have assigned the actual cause of death to disease, namely, tuberculosis or tubercular meningitis.

According to the views expressed by Drs. Payne and Bristowe, Harriet Staunton, who is said to have been murdered by the four convicts, actually died from natural causes, which the witnesses for the Crown had overlooked, and there was no starvation except that which might be regarded as an ordinary accompaniment of tubercular meningitis.

It would thus appear that the Coroners' jury, after a most elaborate inquiry; the grand jury of the county; and the judge and jury at the Central Criminal Court, after a "seven days" trial, have all fallen into a fatal error in pronouncing the four convicts to be guilty of the death of the deceased. Further, we must suppose that Mr. Longrigg, Dr. Bright, Dr. Wilkinson, Mr. Piggott, and Mr. Harman, the latter gentleman selected by the legal advisers of the prisoners, all of whom were present at the *post mortem* examination, are incapable of drawing conclusions from the appearances which they saw and described, and that they are unable to distinguish between the fatal effects of tuberculosis and starvation.

We do not hesitate to say that the evidence regarding the *post mortem* appearances was satisfactory, and fully justified the inference drawn by the witnesses for the Crown, that they were such as starvation would produce. Taken as a whole, they were not such as the tubercular disease

found in the body would explain.* It was admitted by the examiners that there was some tubercular disease in the membranes of the brain, as well as in the lungs; but, in the view of all these gentlemen, in neither case had it reached a stage to account for the death of the woman. We take it that they would be much better judges of this point than those who had had no opportunity of seeing the actual state of the brain. Had Drs. Payne and Bristowe been present at the *post mortem* examination, they might probably have come to the same conclusion.

It appears from the evidence that Dr. Bristowe had really had no time for a proper consideration of the facts of the case. He admits that he had not been consulted in reference to the case until the day on which he went into the witness-box for the defence. Surely, opinions thus hastily formed by one who did not see the body, are of little weight, when compared with those of five medical men who had made the *post mortem* examination, and who had had the facts of the case clearly before them for many months.

How little reliance can be placed on this sort of evidence is indicated by the fact that Mr. Bond of the Westminster Hospital, a gentleman who has won for himself a good reputation as a medical jurist, by his evidence in the Wainwright case, with the same facts before him as those placed before Drs. Payne and Bristowe, deposed that, in his opinion, starvation was the cause of death; and that it was not consistent with tubercular meningitis or any other forms of disease suggested in the defence.

It is clear, therefore, that the four medical witnesses for the Crown, and the two for the defence, had not before them the same opportunity or means for forming a judgment. A difference of opinion or conflict of testimony might, therefore, be reasonably expected.

There is, however, on this part of the case a matter which calls for serious comment. One medical gentleman, Mr. Harman, attended at the examination of the body of deceased on the part of the prisoners. He, of course, observed the appearances and drew his conclusions. That they did not differ from those of the medical witnesses on the part of the Crown, there can be no doubt; otherwise he would have been made a most important witness for the defence, and his opinion, if conflicting, might have had great weight with the jury. It was not, however, considered advisable to place him in the witness-box. The suppression of the evidence of this witness shows that those who conducted the defence were of opinion that his testimony would not have supported their case. The learned judge who tried the case naturally expressed his surprise and astonishment that in the conflict of medical testimony, raised by the defence, they had not called the surgeon whom they had employed to look to the state of the body. They preferred the testimony of a physician who was not present at the *post mortem* examination, and who had taken up the case for the defence at a few hours' notice.

The medical evidence of fact and opinion is strongly in favour of the justice of this conviction. There may be a difference of opinion about the relative degree of criminality of the four convicts, and the amount of punishment to be awarded to them; but there can be no moral or medical doubt that the deceased Harriet Staunton died from exhaustion as the result of the privation of food and maltreatment. Had these criminals been acquitted upon the evidence placed before the jury, it would, we believe, have caused a shock throughout the Kingdom from the inadequacy of our laws to repress atrocious crimes.

Admitting that the deceased woman was labouring under tubercular disease of brain and lungs, it cannot be denied that death would be accelerated by the privation of food and maltreatment which there was distinct evidence to show that she had undergone. We believe that no physician who had any respect for his character would venture to affirm that her removal from one place to another within forty-eight hours of her death, in the depressed condition in which she was proved to be, would not have accelerated her death. As the law of England stands, that which accelerates, causes; so under any circumstances,

tubercular meningitis notwithstanding, this would have been an act of homicide. So depressed was she in strength, that the criminals had actually speculated on her dying by the way.

It is satisfactory to know that, in spite of every attempt at concealment, a great crime has been brought to light. The secret imprisonment of the deceased, the insufficient supply of food, and the resolution that no medical man should have access to or even a sight of her, were all circumstances which rendered absolute proof difficult, and gave to the counsel for the defence a strong ground for arguing that no crime had been committed. Fortunately for society, this attempt to baffle the criminal law has signally failed. We quite agree with a contemporary that, in the terrible annals of crime, the Penge case will stand out as one of the darkest on record.

The Queen has made a donation of £250 to the Red Cross Society's funds for the relief of sick and wounded of both armies in the East.

M. GUENEAU DE MUSSY's method of administering salicylic acid is to dissolve it in a syrup of gum by the aid of ten times its weight of brandy, and adding to it a little lemon-juice.

M. LIMOUSIN exhibited, at a recent meeting of the Société de Thérapeutique in Paris, a sample of medicated wafers, each containing three or four *grammes* (45 to 60 grains) of castor-oil.

M. FRÉMY, of the Institute of France, has been elected President of the next annual meeting of the Scientific Association of France, which will be held in Paris in August 1878.

SCLEROTIC acid, the active principle of ergot, isolated by Dragendorff, appears in the American prices current at £5 per ounce. It is administered hypodermically in doses of one-sixteenth to one-twelfth of a grain.

WE are glad to hear that the Anæsthetics Committee of our Glasgow associates, appointed at the last meeting at Manchester, have fallen to work without delay, and we shall all look forward with much interest to the results of their interesting labours.

A GREAT school of pharmacy is being constructed in a portion of the grounds attached to the Luxembourg at Paris, which will occupy in all the large space of 17,000 square yards, and of which the laboratories will accommodate six hundred working students. The school will be open in 1880.

AT a meeting of the Presidents of the Physical Society of Guy's Hospital lately held, it was determined to establish, in addition to the two prizes of £10 and £5 for the two best papers read before the Society, and a prize of £5 to the student who most distinguished himself in the debates, two further prizes of £5 each for the best essays on certain subjects, viz., £5 for the best essay on Chorea, and £5 for the best essay on the Localisation of the Functions of the Brain.

M. E. FOURNIER read recently, at the Académie de Médecine, a paper which aims at overthrowing the localisation by Broca and Bouillaud of the centre of speech in the third convolution of the left frontal lobe of the brain. M. Fournier is satisfied that in the act of speech there is included, as a necessary element of the phenomena of sensibility, memory submitted to the action of judgment, will, and the phenomena of movements directed by a special sense. In his view, moreover, the loss of speech by lesion of one side of the brain does not prove that speech is localised on that side; it proves that the two sides are absolutely indispensable to the formation of speech.

THE *Daily News* Correspondent at Bucharest has called attention to the great strain thrown upon the Russian army surgeons by the number of the wounded requiring treatment. The emergency has attracted

*The reader will find a full account of Tubercular Meningitis, or Acute Hydrocephalus, in Wood's *Lectures on the Practice of Medicine*, vol. ii, p. 126.

the notice of the German (or Prussian) Government; and our Berlin Correspondent announces that a party of military surgeons, on special leave of absence, left that capital for the Russian headquarters. He states that they belong to some of the best regiments of the German army; and that Dr. Grimm, the chief of the medical staff, delivered an address to them before their departure. In present circumstances, and within the limits of neutrality, no stronger mark of genuine sympathy for Russia could be shown than the assistance thus afforded to the Czar's wounded troops.

THE Ottoman Government has made known through the consulates its want of doctors and surgeons, as well as other sanitary officers, for the army medical service. The conditions under which such sanitary assistance will be engaged are to be obtained at the various consulates.

A MOVEMENT has been made by the Vestry at Battersea to obtain permission from the First Commissioner of Works to appoint certain hours during which bathing may be allowed in the ornamental water in the Battersea Park. It appears that at the present time the average depth of the water is only three feet, but that it might be increased by keeping the lake fuller.

DR. ALFRED S. TAYLOR has resigned the office of Lecturer on Medical Jurisprudence and Toxicology in Guy's Hospital. This appointment was conferred on him by the treasurer and governors of the hospital in March 1831. He has, therefore, held it continuously for the long period of forty-six years. Dr. Taylor held also the office of Lecturer on Chemistry from 1832 to 1870, a period of thirty-eight years. Dr. Taylor retires full of mental vigour and rich in a matured experience, by which, on critical occasions, the profession and the public are, we apprehend, still likely to benefit when his critical and well-balanced judgment is imperatively called for by adequate authority.

THE STUDENT'S Hysteria.

IN a paper on Hysteria, which received a prize at the Physical Society of Guy's Hospital this year, Mr. P. Horrocks writes:

"During the fortnight following the death of the late Napoleon, Sir James Paget was consulted for stone in the bladder by no less than four gentlemen who had nothing the matter with them. And this leads me to speak of a form of hysteria which is frequent in males, and perhaps more so in our own profession than in any other class of people. How many students are there of one year's standing or more in this hospital or any other who have not imagined and really become convinced that they were suffering from some disease, generally a fatal disease. I myself must confess that I have since coming to Guy's been thoroughly convinced that my heart was diseased. After a time, however, I felt that I was labouring under a great delusion; it was not my heart after all, it must be my lungs. I remember listening with breathless attention to Dr. Habershon, as he lectured on phthisis, for I was so convinced that my chest was affected, that I had not at that time called up sufficient courage to read it in books, for fear of finding out without any doubt, that I was a doomed man. One thing, however, I could not get over, and that was that phthisical patients lose their appetites. I have never had that symptom yet, and so, after all, I may only have been suffering from mental delusion. I am not alone in this kind of thing; scores of students consult yearly medical men for complaints of which they have not a single symptom. Ask any of our staff, they have had ample experience, and will fully bear out what I have stated."

THE RED CRESCENT SOCIETY.

THE Red Crescent Society, which is founded on the base of the Geneva Convention, was established in April 1877; and, thanks to the aid it has received from the different Red Cross Societies, among which the Stafford House Committee is especially mentioned and thanked, it has managed to overcome the difficulties in its way. It has now two fixed hospitals, accommodating five hundred patients, five travelling ambulances, twenty-six doctors, and a considerable number of dispensers, dressers, and nurses. These, however, are quite insuffi-

cient to cope with the existing need; and the Committee, therefore, earnestly appeal for aid either in money or in kind. Subscriptions may be sent to the Ottoman Bank.

ST. THOMAS'S HOSPITAL.

MR. ALDERMAN STONE, at the request of an influential body of the governors, has decided to be nominated for the treasurership of St. Thomas's Hospital, vacant by the death of Sir Francis Hicks.

THE BUDGET OF THE SICK POOR OF PARIS.

M. DE NERVAEUX, the Director of the Assistance Public, has issued his budget for 1878. He calculates the expenditure on hospitals and out-relief to the sick poor of Paris at 25,837,000 francs (£1,033,480); the receipts from revenues and endowments at 14,567,000 francs (£582,689). He asks, therefore, for a subsidy from the city of Paris of 11,370,000 francs (£454,800). This shows an excess of 680,000 francs (£27,200) over the subsidy of last year, due partly to the opening a new hospital at Menilmontant, partly to increased allowances elsewhere.

TIPPING AND NURSING.

M. ANARIEN, in the *Archives de Tocologie*, reports two cases in which children at the breast of apparently healthy and well-to-do nurses were suffering from convulsions, and in which the children were saved by depriving the nurses of alcoholic potations, in which they were found to be freely indulging. We fancy our own practitioners could from their experience report many such cases. It is a common and pernicious delusion of nursing mothers and wet-nurses that, when suckling infants, they require to be "kept up" by alcoholic liquors; and women who are little given to alcohol at other times become for the nonce determined tipplers; this being, perhaps, of all other times, that when alcohol is likely to do most harm and least good.

TRICHINA EPIDEMICS.

REINHARD (*Archiv der Heilkunde*, 1877, Nos. 3 and 4) mentions that in Saxony, in sixteen years, from 1860 to 1876, there were thirteen trichina epidemics. The number of sick persons was 1,266, of whom 19, or 1.58 per cent., died. But very few were infected through eating raw meat; mostly by eating hard smoked sausages and other varieties of sausages; over seven-eighths of all poisoned were infected through eating sausages; very few cases can be traced to the eating of ham. Out of the nineteen deaths, three were infected through eating raw meat, two by hard smoked sausages, eight by eating common sausages, and two by eating ham. The epidemics were confined almost entirely to large cities and to the thickly populated districts. The source of the infection was traced twenty-nine times to butchers, and only five times to meat raised for home-consumption. The number infected by one trichinised hog is very small. It is determined that one medium hog furnishes meat for from one hundred and forty to two hundred people; out of this number, on the average, not one-fourth are infected, and sometimes not more than twelve. The tax-list showed that, in these sixteen years, over 6,960,500 hogs were slaughtered in Saxony. Out of this number, thirty-nine gave rise to epidemics, or one in 180,000 hogs. But observations disprove that trichinosis is so scarce among hogs. Microscopical observations were made in many parts of Saxony. In Ebenbach, 2,034 hogs were examined, and one was found to be suffering from trichinosis. In Dresden, Dr. Meissner, veterinary surgeon, examined 3,346 hogs, and found four suffering from trichinosis, or one in 839. The most reliable examinations we have come from Brunswick. Dr. Uhde examined 757,716 hogs, and found ninety-five infected, or one in 8,000. Taking the average of tables presented, and we find one hog in 7,706 suffering from trichinosis. This would give for Saxony, with her 6,960,000 slaughtered hogs, about 938 trichinised hogs. Taking the number of epidemics into consideration, we have four in 100 infected hogs giving rise to such a visitation. The author says: "Many believe that, for every infected hog detected and condemned, so many

lives have been saved, or rather so much suffering prevented. But this is far from the truth, as the above statistics have shown." Neither does the author think that microscopical observations can be carried out in large cities with any degree of accuracy whatever. Several epidemics were caused by hogs that had passed microscopical examination, the examinations having been made by men whose ability to perform them could not be doubted.

FURTHER DOCUMENTS IN THE PENGE CASE.

WE devote a large amount of space this week to the publication of further documents communicated to us by Dr. Payne and Dr. Greenfield, which throw new light upon the medical facts of the Penge case. Dr. Payne's masterly analysis of the pathological facts, in view of all the information now available, taken in conjunction with the able report of Dr. Greenfield, which could not be produced in court, are of a kind to demand the careful attention of the Government, and may possibly lead to some modification of the conclusions deduced from the sworn evidence at the trial, on which we publish a comment by a highly authorised pen in our leading articles. No doubt these documents will receive earnest consideration, and the Home Secretary will require further scientific and legal assistance in the sort of retrial which is likely to take place at the Home Office. This case, we must again remark, illustrates anew and most forcibly the extremely defective methods now in use in courts of law of obtaining expert medical testimony, and the very dangerously incomplete arrangements for obtaining *post mortem* reports for coroners' inquests. In both matters, serious reform is urgently needed in order to prevent failure of justice and the chronic recurrence of agitations of the kind now raised.

METROPOLITAN WATER-SUPPLY.

IN consequence of the agitation by the medical officer and the local authorities of Battersea, and under the guidance of Major Bolton, the official water-examiner, the Southwark and Vauxhall Water Company are carrying out a scheme of improved filtration, by which, it is believed, a great increase of purity in the water-supply will be obtained.

OPENING OF A NEW "COFFEE PALACE" AT HOMERTON.

ANOTHER "coffee palace" has been opened in High Street, Homerton. It resembles an ordinary public-house in every detail excepting its stock-in-trade, which is composed of un-intoxicating drinks of various kinds, but mainly tea and coffee. It is provided with a room exclusively for boys, a smoking-room, and a reading-room.

OVER-WALKING.

THE pedestrian feat by T. Hunter, aged 35, of Sunderland, has, it is stated, terminated fatally. On Thursday, Hunter commenced walking one hundred and sixty miles in forty-eight hours, ten miles further than Weston; and on Saturday evening he completed the distance, with thirty-five minutes to spare. On Sunday afternoon, while in bed, he was discovered to be ill, and speedily died from heart-disease through over-exertion and excitement.

THE SCHOOL BOARD FOR LONDON.

THE School Board for London having reassembled after the vacation, the Chairman delivered the annual address last week. After referring to statistical and other indications of the success of past work, Sir Charles Reed referred with satisfaction to the general decrease of punishments in the schools of the Board, corporal punishment being now rarely inflicted, owing in part to the stringent regulations under which it must now be administered. The decision to open a house for the reception of incorrigible truants and "boys beyond control" seems likely to be productive of much good. The Industrial Schools at present provide for 6,796 destitute and orphan children. At these Industrial Schools, the average cost to the Board per head is now £7:16 *per annum*, the parents and friends of the children paying according to their means. Nearly five hundred boys have been placed in various training-ships along the coasts, and these school-ships are now quite full. It is anticipated that the recent Act with regard to

the children on canal-boats will greatly assist the Board in its efforts to rescue and educate this neglected class. The experiment of educating the blind is considered to have been successful, and one hundred and twenty deaf and dumb children have been gathered for instruction at four different centres; the average cost of instructing these children was £1:6:3 for the half-year. The Board have received a report from the Commissioners of Police bearing cordial testimony to the fact that there has of late been a great diminution in the amount of juvenile crime and pauperism. The number of juvenile criminals received at Holloway Prison has fallen from one hundred and fifty-seven, the number received in 1869, to only twenty-eight in the past year. The result is attributed largely to the beneficial action of the diffusion of education.

MADemoiselle. TIETJENS.

THE serious illness from which this accomplished lady has lately suffered, the varying stages of which have been chronicled from week to week in these pages, terminated fatally at about 2 A.M. on Wednesday last, October 3rd. As Dr. Howell, her long-trusted medical attendant and valued friend, will publish a full medical history of her case, we need now only state that her father died of cancer; and that, although she did a great deal of hard exhausting work for more than twenty years, she was never a very strong woman. She early became very stout; her legs often swelled; and her performances, while delightful to the audience, were often very painful to herself. But no very urgent symptom arose until at Brighton, about two years ago, Dr. Howell found her suffering from stercoraceous vomiting and other signs of obstructed intestine, due to the pressure of a retroverted and enlarged uterus. He relieved the symptoms by pushing up the uterus above the brim of the pelvis. More than a year's relief followed. Mlle. Tietjens fulfilled a long and fatiguing engagement in America in 1876, and, on her return, suffered from a return of her former symptoms of obstructed intestine. Mr. Spencer Wells saw her in September 1876, with Dr. Howell, and, while she was under the influence of methylene, succeeded in pushing up the enlarged fundus uteri above the brim of the pelvis; with such relief that she went on a provincial tour, and sang for eighty nights. It was not until last April that she began to suffer again. She increased rapidly in size; free fluid formed in the peritoneal cavity; and symptoms of obstructed intestine again appeared. She sang for the last time on May 19th. On May 23rd, Mr. Spencer Wells opened the peritoneal cavity, removed eighteen pints of fluid, and found a hard nodulated omentum, and a coil of intestine adhering to the enlarged uterus. This he released, and temporary recovery was followed by removal to Worthing on June 18th. The cancerous nature of the disease of the omentum was feared, and the fears were confirmed by the repeated accumulation of peritoneal fluid. Three tappings were successively required, and always gave relief; but the end was evidently near when she returned to her home, in St. John's Wood, last month. Mr. Wells tapped her on September 23rd, and she remained till the day of her death, October 3rd, free from acute suffering. On the 2nd, she was up all the afternoon, was faint when assisted to bed about nine, slept for some time, but about two in the morning suddenly became faint, cold, and died as if in quiet sleep. If, in this case, surgery failed to save life, it succeeded in prolonging it for more than two years, and was always effectual in relieving all acute suffering.

DEATH OF PROFESSOR WUNDERLICH.

WE regret to hear of the death, at the age of 62, of Dr. C. A. Wunderlich, Professor in the University of Leipzig, and Director of the Medical Clinic of that place. Dr. Wunderlich, who died on September 25th of cancer of the retroperitoneal glands, graduated at Tübingen in 1836. From 1838 to 1850, he held various clinical offices in Stuttgart and Tübingen, and in the latter year was appointed to the University of Leipzig, where up to the time of his death he was actively engaged as an able teacher and physician. In 1841, with Roser and Pfeufer, he founded the *Archiv für Physiologie und Heilkunde*,

which is now conducted by Ziemssen as the *Archiv für Klinische Medicin*. He was also the author of a *Handbook of Pathology and Therapeutics*; but the work by which he is best known in England is his classical book *On the Temperature in Diseases, a Manual of Medical Thermometry*, which was translated for the New Sydenham Society a few years ago by the late Dr. Bathurst Woodman. He wrote also a *History of Medicine*, and a treatise on the *Pathological Physiology of the Blood*. His death is a great loss to medical science in Germany, and especially to the University of Leipzig.

HOME HOSPITALS FOR THE WELL-TO-DO.

In relation to this subject, the *Times* announces that nearly £5,000, or one-fourth of the guarantee fund which the Provisional Committee have fixed as a sufficient sum to warrant them in opening a home hospital, has already been obtained; but that the Committee will delay for the present the issue of any general statement to the public. So far, the money has been obtained with practically no outlay whatever, and there is every prospect of the whole sum requisite being speedily obtained and the experiment made.

THE CARDIFF UNION.

At a meeting of the Council of the Poor-law Medical Officers' Association, held at their room, 3, Bolt Court, Fleet Street, on Tuesday, the 2nd instant, *inter alia*, the following resolution was submitted and unanimously adopted:—"That this Council begs to express its gratification in learning that the medical officers of the Cardiff Union have memorialised the board of guardians, protesting against the conduct of certain members of that board in abusing their office as guardians by reflecting on the medical officers generally, and on Mr. Milward, district medical officer, especially, in such way as to injuriously affect their and his professional character, and urgently commends their action to the consideration of Poor-law medical officers generally."

SCOTLAND.

A GROCER in Glasgow was fined last week under the Adulteration of Food Act. It appeared that the sanitary inspector had purchased three jars from him labelled "pure comb honey", the contents of which were found to be a compound of honeycomb and glucose.

THE CHAIR OF ANATOMY IN GLASGOW.

WE understand that Dr. Cleland of Galway has been appointed to the Chair of Anatomy in Glasgow University, recently vacated by Dr. Allen Thomson. Thus, another of the vacant chairs in the Scottish universities has been most satisfactorily filled up; while the Chair of Clinical Surgery in Edinburgh, in some respects the most important of all, and the one which has been vacant the longest, is as yet unfilled. Indeed, there is not even any rumour, further than what is dictated by personal preferences, as to who is to be the successful candidate.

WATER-SUPPLY OF EDINBURGH.

THE water-supply of Edinburgh is just now in a more satisfactory state than it has been in for some time past. During the past fortnight, the water has been delivered at the rate of thirty-five gallons per head per day to a population of 286,800. This is partly accounted for by the large amount of rain which has fallen during the past spring and summer. The rainfall at Glencorse, from January 1st to September 25th of the last three years, has been as follows: 1875, 23.30 inches; 1876, 30.20 inches; 1877, 43.60 inches. It is to be hoped that we have now reached the summit of the curve, and shall begin to descend again next year.

HEALTH OF EDINBURGH.

THE mortality in this city last week was exactly the same as in the preceding week, the deaths registered being 79, equal to an annual death-rate of 19 per 1,000. It is satisfactory, however, to notice that while in the week ending September 22nd there were seven deaths

registered from typhoid fever, last week there were only two. In each week, there were five deaths from whooping-cough. There is no other epidemic disease at present in the city. Last week, the births were 137, 18 being illegitimate.

GLASGOW POLICE BOARD.

THE Watching and Lighting Committee have had a meeting with Sir William Thomson, the eminent electrician, as to the best means of street telegraphy and fire and police claims, and have instructed him to report as to the merits of Symington's system and the autokinetic. The medical officer's report for the fortnight ending September 22nd stated that during that period there had been 454 deaths in the city, representing a death-rate of 20.5 per 1,000 living; this was rather higher than that of the previous fortnight: 176 of these deaths, or more than one-third, were from pulmonary diseases; representing an annual death-rate of 8 per 1,000 living. There were two deaths from typhus and ten from enteric fever. There were in the hospitals of the Board 55 cases of typhus, 26 of enteric, 16 of scarlet fever, 2 of measles, and 1 of small-pox—in all 100 as compared with 105 that day fortnight.

IRELAND.

DR. MARKS, one of the medical officers of No. 4 Dispensary District, Belfast, has resigned, owing to ill-health, and the vacancy will be filled up the first week in November.

THERE will be no Introductory Address at the Ledwich School of Medicine this session, the proprietors having determined that no opening address shall be delivered for the future.

PARSONSTOWN BURIAL-GROUND.

AN inquiry is at present being held by a Local Government inspector into the alleged overcrowded condition of the burial-ground known as the Parsonstown Old Churchyard. The evidence given showed that it would be advisable to prohibit any further interments, the consulting sanitary officer stating that, in his opinion, it should be closed, principally owing to the low-lying district in which it is situated, the river running close to it, scarcely two feet beneath the surface of the burial-ground. The investigation is held owing to the representations of the Board of Guardians acting as the sanitary authority, who represent that the cemetery is overcrowded and dangerous to the public health.

HEALTH OF BELFAST.

DURING the past month, there has been a considerable increase of fever in Belfast, and seven cases of small-pox were admitted to hospital. The mortality also from zymotic diseases, especially fever and diarrhoea, was also much greater than in the preceding months. The origin of the first of the cases of small-pox was from a convalescent, who came to Belfast from Glasgow; and, as the man had exposed himself in public, he was brought before the magistrates and fined £5, or the alternative of going to the Union Hospital. In the other three cases, the source of infection could not be traced. It is satisfactory to find that the cases were not of a malignant form, and that no death took place from the disease.

TYPHOID FEVER IN CORK.

A MEETING of the Public Health Committee was held last week, to consider certain statements published in the Cork newspapers as to an outbreak of fever in that city, which, it was alleged, resulted from the impure water supplied to the inhabitants. The medical officers of the various dispensaries represented that there was no exceptional outbreak of fever, and that any cases that existed arose, not from contaminated water, but in consequence of defective sewage. Ultimately, it was decided to request an inquiry into the matter by the Local Government Board.

THE PENGE CASE.

NOTES OF A POST MORTEM EXAMINATION ON THE BODY OF HARRIET STAUNTON, AGED 35, AT 34, FORBES ROAD, PENGE, KENT, ON THURSDAY, APRIL 19TH, 1877, AT 12 NOON.*

DR. WILKINSON, Dr. Longrigg, Mr. Pickell, Mr. Lister (Croydon), Dr. Bright, and Mr. Harman (Brixton); Police Sergeant in charge of House (Sergeant Bateman); and Assistant for Dr. Longrigg.

Weather and Temperature.—Weather fine and dry. Wind from East. Cool. From date of death to Sunday evening (April 15th), mild and very warm for season. From Sunday to day of *post mortem* examination, cold, raw, and dry.

External Appearance of Body, etc.—Body that of a female 40 to 50 years old; much emaciated; skin, especially of abdomen, dry and harsh; very dirty, filthy, hair full of pediculi; thighs dirty, shrunken, and skin very dry; excoriation on left labium vaginæ; some œdema of left ankle; ecchymoses on both ankles and legs; feet very dirty and very dry, "horny" skin; *post mortem* ecchymoses on both hips and arms; *post mortem* congestion and redness over muscles of back; marks of blister at back of neck. Petechiæ over chest and abdomen. Eyes sunken, closed; conjunctivæ not injected. Mouth open, dilated, containing food at back; tongue coated with thick dry fur. Appearance of face that of a person much older than age stated. *Breasts:* small and flaccid; no appearance of areola; nipples small and not prominent. *Abdomen:* shrunken; no lineæ albicantes or streaks whatever; no brown line from the umbilicus to pubes or appearance of any previous distension.

Measurement and Weight of Body: measurement from vertex to heel of foot, 5 feet 5¼ inches. Weight, with rope, 76 lbs.; without, 74 lbs. = 5 stone 4 lbs. Weight as stated by mother about two and a half years previously, 8 stone 7 lbs., or 8 stone 9 lbs., i.e., 119 lbs. or 121 lbs. Normal weight of woman 5 feet 5 inches, 9 stone 10 lbs.

Hair: false, covered with lice, cut off and thrown into fireplace.

Head: no external appearance of wounds or violence; on removal of skull-cap, adhesions were found between this and the dura mater and arachnoid or fibrous (and serous) membranes enclosing the brain, and between this last and the pia mater (or internal membrane of the brain itself) showing the existence of *previous inflammation*; but there were no appearances of any *recent* inflammation, such as lymph or effusion into ventricles or cavities of brain. There were some small patches of rough millet-seed-like deposit in the meshes of the pia mater, probably tubercular. There was well-marked and universal congestion of all the external blood-vessels, of the membranes, of the sinuses, and also of the internal vessels of the skull, especially of the longitudinal and lateral sinuses, i.e., the blood-vessels appeared as if injected. *Brain:* firm, healthy, and remarkably well preserved; well marked congestion of both external and internal surfaces; but no effusion into the ventricles, and no external signs of disease. Brain-substance firm, and distinction between white and grey matter well marked. *Puncta cruenta* well marked and numerous. No evidence of caries or necrosis of bones of skull. *Thorax:* no external signs of violence; on removal of sternum, no adhesions between the pleura and lungs; surface of lungs dark with ecchymoses on surface. *Pericardium:* contained about 1 oz. of fluid, but *not adherent* to surface of heart. *Heart:* small, contracted, coronary vessels much congested, giving the appearance of being injected; weight, 7¾ oz. (average weight, 9 oz.) Right and left auricles and ventricles empty and contracted. No trace of any valvular disease. *Lungs:* general appearance healthy; universally free from disease, except at *left* apex, where a small patch about 1½ to 2 inches square contained tubercular deposit (grey and hepatized). Congestion of base of each lung *post mortem*, but no evidence of pneumonia or any other disease of lungs general or special. *Liver:* very small, healthy-looking, smooth; no adhesions, no evidence of hepatitis or cirrhosis. Weight, 2 lb. 2¾ oz., or 34¾ oz. (average, 53.6 oz., Aitken). *Gall Bladder:* full, containing no gall-stones. *Spleen:* small (and congested). Weight, 4½ oz. (average, 6.13 oz.) *Kidneys:* healthy; no adhesions; smooth; distinction between cortical and tubular structures well-marked; no evidence of disease. Weight, right, 3¾ oz.; left, 4 oz. (average, 10.3 oz.) *Bladder:* healthy; contained about 3 oz. of urine. *Uterus:* Weight, 1½ oz.; length, 2½ inches; breadth (at fundus), 1¾ inches. Internal surface congested. Os uteri patulous; muco-gelatinous fluid exuding. *Vagina:* much congested throughout, especially at the

upper end. Vulva excoriated, especially the left labium. The *Stomach* contained undigested food, in which could be recognised egg, and bread, and grey fluid, and some meat. There was very marked and intense congestion of the internal lining, especially along the upper curvature. This congestion was remarkable, and quite unlike that of ordinary *post mortem* congestion. The *Intestines*, both small and large, were quite empty, and contained no food or faecal matter whatever. The *Duodenum* was much congested throughout the whole of its upper part. The *Omentum* was shrunk and contracted. It contained *no fat*; and *no fat* whatever surrounded the intestines, or any other organ, e.g., heart or kidneys. The *Rectum* was much congested during the last four inches, and presented a striking contrast to the bowels above the sigmoid flexure, the membrane of which was pale and exsanguine.

The stomach with its contents and the intestines were removed carefully, and placed by themselves in one jar for analysis; the liver was placed in a second jar; the uterus and ovaries in a third jar.

REPORT ON THE MEDICAL EVIDENCE BEFORE THE COMMITTING MAGISTRATES, AND THE POST MORTEM NOTES IN THE CASE OF HARRIET STAUNTON. BY W. S. GREENFIELD, M.D., ST. THOMAS'S HOSPITAL.

[The following is Dr. Greenfield's report to the solicitors for the defence upon the notes of the *post mortem* examination, and the evidence of the medical men who attended the *post mortem* as given before the magistrates. It will be seen that, as there was no definite statement that there was tubercle in the pia mater, and no complete description of the position and character of the bodies seen, it was impossible to make any decided statement as to the cause of death from the *post mortem* notes only. Hence, Dr. Greenfield appears to have been justified in giving a very guarded reply when asked what opinion he had formed as to the cause of death from the consideration of those notes above.]

In considering the points raised in this case, the questions necessarily arise, viz.:

I. (a) Is there evidence in the conditions found in the body *post mortem* of the presence of a disease in itself sufficient to cause death? (b) Are the other appearances consistent with the view that this disease may have been the cause of death? and (c) Are the symptoms, so far as they are described in the depositions of the medical men, consistent with the view that death actually resulted from this disease?

II. If it be doubtful whether death did actually result from the disease which was found to exist, are the *post mortem* appearances and the symptoms described consistent with the view that death resulted from the cause alleged, viz., starvation?

III. If evidence of starvation existed, may the starvation have been contributory to death, either by inducing the fatal disease or causing the fatal issue of that disease?

IV. If it can be shown that starvation, i.e., want of nourishment, was the cause of death, are all the diseases which produce such want of nourishment proved to have been absent?

In giving an opinion upon these questions, regard must be had to the nature of the evidence on which any opinion as to the cause of death must be based.

The evidence as to the symptoms during life relates (with one or two trifling exceptions) only to the last few hours of life. A conclusion based upon these symptoms might be negatived by evidence as to earlier symptoms.

The evidence based upon the *post mortem* examination is extremely defective, owing to (a) The omission to note (and it must, therefore, be supposed to examine) the condition of important organs; (b) The incomplete manner in which important facts are recorded; and (c) The want of due allowance for the circumstances under which the examination was made. Any opinion which may be given must, therefore, be conditional upon the accuracy of the observations and the interpretation to be given to them.

It will be convenient to state, first of all, some of the more important points in which the *post mortem* notes are defective; and in so doing it will be shown that all the diseases which produce want of nourishment resembling that due to starvation were not proved to be absent.

(a) *Points of the most essential importance* as to the condition of some organs are not noted. Death being ascribed to starvation, it would have been supposed that the diseases which are known to produce starvation, or which result in great emaciation, would have been sought for, and evidence of their presence or absence obtained. The *œsophagus* or gullet is not stated to have been examined—the presence of a narrowing of this tube by cancerous or other growth, or by simple

* Full. took place on Friday, April 13th, at 1.15 P.M.: *post mortem* examination 4.30. From unavailability of causes

stricture, might have produced starvation as surely and fatally as entire abstinence from food. Disease of the *larynx* might, and sometimes does, produce vomiting on attempting to swallow, and thus practically induce slow starvation. This is especially the case in a form of laryngeal disease which often accompanies consumption, and may occur early in that disease. Certain diseases are well known to produce extreme emaciation. *Diabetes* is one of these. In this disease there is rapid wasting, in spite of large quantities of food being taken; there is a dry, harsh, and sometimes a brownish condition of the skin, great thirst, usually a ravenous appetite, a large quantity of urine is passed, which contains sugar (glucose or grape-sugar). In this disease there is often a change of disposition and character, and death not unfrequently occurs with brain symptoms, and in a comatose condition. Moreover, tubercle is often found in some organs, especially the lungs, and death may be due to phthisis (*i.e.* consumption). Had the *urine*, three ounces of which are said to have been found in the bladder, been tested even roughly for sugar, the presence or absence of this disease might almost certainly have been ascertained. It is the more remarkable that the urine was not saved for examination, since in cases of poisoning the chemical examination of the urine is of the greatest importance for the detection of some poisons. "*Addison's disease*" is another disease which produces emaciation and great prostration. The symptoms are great weakness, vomiting, a bronzed condition of the skin, and some emaciation. In this disease the organs called the suprarenal bodies undergo a peculiar change, which is the characteristic and only certain *post mortem* evidence of the existence of the disease. Often there exists tubercle in the lungs or other organs, and it is especially in such cases that emaciation is great. Death may occur very rapidly, and is often preceded by coma. Mr. Longrigg states that "the face was bronzed"; he adds "from dirt", but the former is observation, the latter inference, and the bronzing of Addison's disease is not unfrequently mistaken for the effect of dirt. It is therefore remarkable that there is no note whatever of any examination of these organs. It may therefore with confidence be stated that the presence of a disease which might produce the appearances of starvation is not disproved by the evidence. But another point, even more remarkable than these omissions, is the fact that a most important disease, which was afterwards stated in evidence to exist, is not mentioned in the notes. Mr. Longrigg, in reply to Mr. Gye, stated that "*the peritoneum was inflamed*". Inflammation of the peritoneum is so serious an affection that the omission to record the fact of its presence in the notes is a very grave one. If it really existed, it might have been the immediate cause of death. And not only so; its presence would alone throw great doubt on the view that death resulted from starvation alone, for, so far as I am aware, there is no recorded case in which starvation alone has produced it, nor is there any ground for a belief that starvation would give rise to it.

(c.) *The manner and time of manner in which the bodies were recorded* makes it almost impossible to form any decided opinion as to their true nature, based upon the description given. Thus in the description of the small millet-seed-like bodies in the membranes of the brain, no mention is made either of their position with regard to the upper and under surfaces, or of their relation to the vessels, points which are of great importance in deciding upon the nature of such bodies in doubtful cases, where no other tests can be applied. Several other similar defects might equally be remarked.

(c.) *Want of due allowance for the length of time after death* when the examination was made (*viz.*, six days). From a very large experience, I can state with confidence that at so long a period after death (unless in a very cold temperature) very little importance is to be attached to signs of blood-staining or congestion, or fulness of the smallest vessels. There is internal evidence in the *post mortem* notes that this fact did not receive due recognition. Thus when it is stated that "there was well-marked and universal congestion of all the external blood-vessels" (of the brain) "of the membranes of the sinuses, and also of the internal vessels of the skull", and further, in speaking of the heart, it is said, "Coronary vessels much congested, giving the appearance of being injected", it must be understood that such appearances as the latter, and therefore probably of the former, are merely results of the natural *post mortem* changes in the blood, and are of no value as indications of their condition during life. The fulness of the large vessels of the skull and brain is of more importance, but the value would depend on whether the head was opened before the chest, which is not stated. So also the apparent congestion of the lining membrane of the stomach and intestines would be untrustworthy so long after death.

It is essential to insist on these points, seeing that any opinion as to the cause of death must depend for its value upon the accuracy of the evidence on which it is grounded.

I. Supposing, however, that it may be assumed that so far as they go the *post mortem* notes accurately describe the morbid appearances, what evidence is there (a) of the presence of a disease sufficient to cause death? Three organs were stated to have presented signs of disease—the lung, the peritoneum, and the brain. Of the lung it is enough to say that its condition would not alone account for death, and the state of the peritoneum is not precisely stated. In the brain the most important point is the presence of "small patches of rough millet-seed-like deposit in the meshes of the pia mater", of which it is stated that they were "probably tubercular". Without attempting to decide whether these bodies really were tubercular, the material for which decision does not exist in the Notes, it may be remarked: 1. That the concurrence of all the witnesses in the belief that they were tubercular is in itself of some value; 2. That this is confirmed by the statement that they were "in the meshes of the pia mater", their usual situation, and also by 3. The presence of tubercle in the lung. This is of value, because, although such bodies do occur in rare cases in the brain-membranes without the occurrence of visible tubercular disease in other parts, experience shows that this is exceptional and the cases rare. If these bodies were really tubercular, their presence in the membranes of the brain must, in my opinion, be regarded as evidence of a disease sufficient to account for death. For, although in the more typical cases of this disease there coexist other signs of changes of an inflammatory nature shown by various conditions, the absence of these in a marked or easily recognised form has been noted in carefully observed cases, has occurred in my own experience, and is a fact well recognised by authorities on the subject. Moreover, if the inflammation were slight, or of unusual form, it could not be certainly recognised so long after death. The number or amount of these bodies is not the essential point. Where any are visible with the naked eye, large numbers usually exist which are visible only with the microscope; in some very decided cases extremely few are seen, and those in situations where they would not be recognised unless searched for. It may, perhaps, be contended that these bodies may exist in the membranes of the brain without giving rise to any symptoms or to inflammatory changes. This view, although conceivable, would be in opposition to experience; that is, in the form described it is so extremely rare to find them present [without giving rise to brain-symptoms, that I cannot recall any case in which they were found after death when there had been no brain-symptoms during life; and the converse is equally true, that where they have been present in other organs only, no brain-symptoms have been observed. This is the conclusion which I have drawn from a large number of cases which I have observed. And if, as in the present case, symptoms corresponding to those usually seen in this disease were known to have been present, in the absence of other brain disease, the conclusion that tubercular meningitis was the cause of death would be irresistible. It is, therefore, not easy to understand how the medical gentlemen who made the *post mortem* examination can have attached so little importance to the presence of bodies which they believed to be tubercular, recognising as they did the presence of very marked reddening of the membranes, fulness of vessels, and a congested condition to which they attached importance. Nor does it appear that they took any measures to confirm or disprove the tubercular nature of the disease by microscopic examination. The symptoms observed by Mr. Longrigg are consistent with this disease (tubercular meningitis) as the cause of death, *viz.*, coma, rigidity of the arms, and inequality of the pupils. The combination of all these symptoms would in any case suggest brain-disease, and, so far as I am aware, be inconsistent with death from starvation alone, or from one poison alone in a previously healthy person. There is no evidence as to the time of onset or duration of these symptoms, or their mode of occurrence, which would be of importance in deciding as to the cause of death from the symptoms alone; but I may state that in one case under my care—a woman, 29 years of age—36 hours before death there were no marked symptoms, and I could not convince myself that any serious disease existed. (b.) Were the other conditions of the body consistent with this cause of death? There is nothing, so far as I can discover, at all inconsistent. The presence of another independent disease, had any such been found, which was not the case, would in no way invalidate the evidence given above, though a question might arise as to which of two fatal diseases actually killed. The question which may arise is, whether the emaciation could be accounted for by the amount of disease which was found in the brain and in the lung. The reply to this must be that, whilst both of these diseases are always causes of some emaciation, the question of degree is not one which can be decided positively on *post mortem* evidence alone. *Tubercular meningitis* is not in the adult necessarily accompanied by any great emaciation; the amount of wasting depends, in part, on the length of

the illness. In children, wasting is more frequently greater in degree than in adults; but this depends rather upon the general disease than on the brain-disease alone. On this point my experience does not coincide with that of Dr. Payne. The estimation of the part played by the lung-disease in producing emaciation must depend on other evidence as to symptoms observed during life, such as *diarrhoea* and *night-sweats*, both of which are of common occurrence in consumption, and are not necessarily due to any distinct change which can be seen after death. The former is of itself productive of wasting; the latter is evidence of *fever*, which may cause great wasting. *Diarrhoea* in the course of the acute attack of tubercular meningitis is exceptional in my experience, but I have seen it in one case. Into other points in the history of this disease I need not enter, as they have been fully set forth by Dr. Payne in his Report, with which in the main I concur.

II. If it be doubtful whether death did actually result from the disease which was found to exist, are the *post mortem* appearances and the symptoms described consistent with the view that death resulted from starvation? There may be grounds for a belief that the bodies in the pia mater were not of tubercular nature, or the doubt expressed in the notes may be more strongly maintained; hence the necessity for entertaining this question. What is the direct evidence that death was due to starvation, and what was its value? This evidence is found in the great emaciation, the empty condition of the bowels, and other minor points. The absence of any note of observations serving to exclude other causes of emaciation has already been remarked. On the general question of loss of weight of the entire body, it must be observed that the estimate given of the weight, two years and a half before, is from a statement of the mother's; and from this weight, even if accurate, the weight of the clothes must probably be subtracted. The other estimate, that of the "normal weight" of a woman of this height and age, is only another way of saying "the limit between extremes", which common experience shows to be fallacious, and in any particular case can be of little value. As regards the weight of particular organs, too much reliance must not be placed upon the conclusions drawn from them; for the weights of the heart, kidneys, and spleen which were observed are compatible with health. This statement is made as the result of observation. The weights stated as "normal" are, in some cases, too high (*e.g.*, the spleen), and are open to the same criticism as that of the body in general. Other points in reference to this have already been incidentally discussed. In death from starvation, it is usually stated that there are not only emptiness and contraction of the bowels, but actual wasting and thinning of their coats. This point is by some authorities considered of great importance, and one of the most reliable evidences of death from starvation. There is no note of any such condition having been observed in this case. The symptoms to which reference has been made, *viz.*, *coma*, *rigidity of arms*, and *inequality of pupils*, taken together, are inconsistent with death from starvation alone. The first two, *coma* and *rigidity*, do not exclude death from starvation if, as is stated by authors, death may occur after delirium and convulsions; but inequality of the pupils would be evidence, in my opinion, of acute or chronic brain-disease (supposing that the eyes were previously healthy).

III. If starvation were proved, can it have contributed to death, either by inducing the fatal disease, or by causing its fatal issue? If tubercular meningitis were the cause of death, there is no ground for either view in the present state of our knowledge; for both the disease and its fatal result very commonly occur where no want of food or care exists. Thus far, it has been assumed that the bodies found in the pia mater were tubercular, or that there is at least reasonable ground for the belief that they were so. But it is possible that this belief may not be maintained, or that further and more complete statements as to the nature, position, and appearances of these bodies may lead to great doubt as to whether they were such. The arguments based upon this belief would then become valueless. That they were indicative of some disease, there can be no doubt. Is there any alternative view which may be offered as to their nature which is consistent with the other appearances and symptoms and mode of death? The appearances described in the brain and its membranes indicative of some disease were—1. Undue adhesion of the dura to the pia mater, attributed by the medical gentlemen to old inflammation which they believed to have resulted from a blow or fall. The extent and character of these adhesions are not stated. 2. The presence of the small millet-seed-like bodies in the pia mater above described. 3. A firm condition of the brain six days after death, with marked distinction of the grey and white matter. If his condition be accurately described, it is very remarkable; and would, in my opinion, indicate disease. 4. General and well-marked congestion of the vessels and membranes of the brain and of the brain-substance. It seems not improbable that the first three of these conditions may have been the result of some old chronic changes such as are found

in some forms of insanity. *a.* The hypothesis of injury to account for I, unless there were other signs of such injury, would, I think, be inconsistent with experience. *b.* These may have been small fibrous nodules, such as are found under similar conditions to 1. This must remain uncertain. *c.* A firm condition of the brain so long after death in such weather would, in my experience, be inconsistent with health, and would very probably indicate a similar indurated or fibrous condition which may be associated with 1 and 2. If any value attach to 4, it would probably indicate that death occurred in an attack of acute congestion supervening on the chronic brain-disease. There is nothing in the symptoms described which is, so far as I can see, inconsistent with this mode of death. At present, as the tubercular nature of the bodies in the pia mater is maintained, the further questions arising out of the other possible view need not be discussed; but it is important that this alternative be not lost sight of.

MEDICAL HISTORY OF THE PENGE CASE: WITH REMARKS.

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In attempting to give a connected account of the death of Harriet Staunton from a medical point of view, I shall only dwell on those features of the case which appear to me to be most important; leaving the full record of the *post mortem* appearances to be studied in the original, which is not in my possession in such a way as to entitle me to publish it.

The history of the case begins on Thursday, April 12th, 1877, when Mr. Dean Longrigg was engaged to attend a lady expected to arrive from the country at Forbes Road, Penge. The state of the patient must have got rapidly worse after her arrival on that day, since Mr. Longrigg was twice sent for the same evening, though he was not at home. In the end he saw her the next morning at a quarter before ten, and her condition then is described by him in these words, in his depositions before the magistrates.

"The lady was alive, and perfectly insensible. I felt her pulse; it was extremely feeble. The arms were somewhat stiff and rigid. The eyeballs were staring and the pupil of the right eye was dilated, and that of the left contracted to almost the size of a pin's point. The breathing was stertorous. The face looked shrunken, and had a very dark appearance. The eyeballs were large, and sunken in the head. I noticed she was extremely thin, and I noticed the lice in her hair. The hands were dirty; the nails were particularly dirty. I tried to speak to her, but she took no notice, and did not move. She was dying."

Mr. Longrigg called again two or three hours afterwards, and found that she was actually dying; and she died at 1.15 p.m. that day. Mr. Longrigg gave a certificate that death arose from (1) cerebral disease, (2) apoplexy. Now, whether or not Mr. Longrigg was prudent in giving a certificate at all under the circumstances, it cannot be said that his diagnosis was altogether an unreasonable one, whether he used the word apoplexy in the sense of sudden shock to the brain or of cerebral hemorrhage. No one would have been greatly surprised to find a clot of blood in the brain. However, this was not found. But what was found? Mr. Longrigg says: "There were some small patches of rough millet-seed-like deposit in the meshes of the pia mater, probably tubercular. There was well marked and universal congestion of all the external blood-vessels of the membranes, of the sinuses, and also of the internal vessels of the skull. . . . Well marked congestion of both external and internal (*lower?*) surface (of brain). Puncta cruenta well marked and numerous. Distinction between white and grey matter well marked."

The important points here clearly were: 1. That there were bodies, probably miliary or granular tubercles, and, as such, of the acute form; 2. That the brain and its membranes were altogether in a state of such marked hyperemia or congestion as to constitute a very well marked and striking feature. Now, if these points were absolutely clear, and if no doubt existed as to the real nature of the bodies described as tubercles, I cannot think that any properly educated physician would hesitate for a moment as to the explanation of the cause of death. Why Mr. Longrigg failed to see the obvious connection between the symptoms and the *post mortem* signs will always be to me a matter of wonder and astonishment. Surely, the obvious conclusion would be that the disease was miliary tubercular of the pia mater in an early stage, and that this was an indication of an acute mortal disease. General tubercular would be a sufficient cause of death, independent of the amount or severity of the local symptoms.

Two difficulties might, however, at once present themselves: first,

whether the bodies here described were really and in a strict sense miliary tubercles; and next, the absence of some signs very commonly met with accompanying miliary tubercles. The first point is easily dealt with from a merely forensic point of view. Mr. Longrigg and the other gentlemen who gave evidence for the prosecution could not urge this objection, since they adopted without question the assumption that they actually were miliary tubercles; while the word "probably" in the original *post mortem* notes left it perfectly open to them to express any doubts or misgivings they might afterwards have had. They, however, did nothing of the kind. They spoke and argued about the matter in such a way as showed they had considered the point, and did not think the tubercular nature open to question. The evidently sincere belief of these gentlemen on the subject may not, however, carry conviction to the minds of the profession, especially as it was unfortified by subsequent microscopical investigation. If I may judge from the frequency with which I have heard the words "Pacchionian bodies" during the last week, scepticism as to the competence of these gentlemen to form an opinion on the subject must be somewhat widely spread among medical circles, in London at least. Let me say at once that in my humble opinion this scepticism is exaggerated. Had I myself shared this feeling, I could hardly indeed have formed so strong an opinion as I did with regard to the case, nor should I have been satisfied with gaining a cheap forensic victory by showing that the prosecution, at least, was not entitled to call in question the validity of this description. But I carefully studied the evidence given in court and the expressions used by each witness. Mr. Wilkinson was examined by the Attorney-General on the difference between Pacchionian bodies and tubercles, and clearly showed that he appreciated the difference. Dr. Bright answered several questions in such a way as to show that the question of tubercle had presented itself to his mind, and had received his serious attention. From all this, and from other minute points, I acquired the conviction, which I still hold, that the objects these gentlemen had had before their eyes were actually and veritably miliary or granular tubercles, and could not in reason have been anything else. This was enough for myself, and by those who read these remarks may be taken *quantum valet*.

Now, the second ground of difficulty is that appearances commonly met with in cases of meningeal tubercle are reported as having been absent, viz., production of lymph or pus, effusion, or excessive amount of fluid in the ventricles, softening of the brain-substance ("no appearance of any recent inflammation, such as lymph or effusion into the ventricles"). These points, all of them, are to some extent questions of degree. A very intense congestion, such as is here described, may be in some cases the only evidence of inflammation of a serous membrane, when that inflammation is in an early stage; let it last a very little longer, and lymph or pus would be produced. We cannot, of course, say that any particular kind or colour of congestion indicates active inflammation; since, as Virchow has taught us, or at least strongly urged, the colour of congested parts is no guide as to what the congestion arose from. But I will just state one reason for thinking that the hyperæmia present in early stages of tubercular meningitis is of such a kind as would have powerfully struck any one opening the head. There are in this disease, as in active hyperæmia of the brain-substance, nearly always small extravasations of blood which greatly contribute to the general redness, or to which, in fact, a great deal of the redness is due. In one or two cases I have seen, the extravasations have been really considerable. So far, then, the appearances appear to me consistent with the first stage of tubercular meningitis, or what would be doubtless more accurately called, as it is by the Germans, miliary tuberculosis of the meninges.

As to effusion of fluid into the ventricles, this is surely above all a question of degree. I cannot find that any anatomist has ever committed himself to the precise amount which can be called normal; and in the way the brain is generally removed, the fluid may (though it need not) run out and leave the ventricles actually empty, *i. e.*, with the walls collapsed. If we want to make an absolute assertion respecting the amount of fluid in the ventricles, we ought to extract it with a syringe before removing the brain, though generally, of course, this is not necessary. All that the statement comes to, then, is that the amount of ventricular fluid was not strikingly abnormal. Cases in which there is no excess of fluid or dropsy of the brain are of course not common, but they do occur. If authority be required, we can go to the sixty-one cases of Dr. West (*Diseases of Infancy*, 5th edition, 1865, p. 79), where I find in one case no fluid in the ventricles, in two cases "very little", in four not above one ounce—a quantity which might easily be regarded as perfectly normal. Again, Empis (*La Granulie*, Paris, 1865) gives cases where the amount of fluid was in one instance a "spoonful" in each ventricle, in another "very little". I only quote these instances because they are in print; but I have myself seen cases

where there was no excess of fluid whatever, and the only change approaching to dropsy was a certain œdema of the membranes which might easily escape observation or be thought of no moment. Finally, I will quote Huguenin, the latest writer on the subject, who states that, in his experience, ventricular effusion is absent in 18 or 20 per cent. of the cases, and quotes Seitz, who puts the percentage at 25. After this, what weight can be laid on the alleged absence of ventricular effusion?

Of course, the objection that there was no flattening of the surface of the brain or other evidence of distension falls entirely with the objection last given; for these appearances merely result from a very large effusion.

The third objection against the diagnosis of tubercular meningitis which was urged by Dr. Bright in his evidence is worthy of attention. It was that no tubercles were found at the base of the brain; those actually observed being on the convexity. Now, this is most curiously a confirmation, and not an objection, to my view. Cases where miliary tubercles are confined to the convexity are undoubtedly rare; but (even supposing that the Sylvian fissures were not overlooked), will not the absence of tubercles at the base explain the absence of the accompanying changes at the base, viz., the basal meningitis or acute hydrocephalus which we regard as the most usual evidence of meningeal tubercle? Not only is this likely; but I venture to say, from my own experience, that, in proportion as the tubercles affect the convexity and are absent at the base, the more likely are the signs of basal meningitis to be absent. Great authorities, such as Rokitsansky and Huguenin, go further: the former expressly limiting the phenomenon of "acute hydrocephalus" to tuberculosis of the base (vol. ii, third edition, page 414); while Huguenin gives as one of the three leading forms, "miliary tubercles in the entire pia mater, but usually in small quantities; no pus visible to the naked eye on either base or convexity; no hydrocephalus of any amount. . . . This form is rare;" and he states elsewhere that the absence of any inflammatory change visible to the naked eye is more apt to be the case with the pia mater of the convexity than at the base.

The last objection against the hypothesis of miliary tuberculosis was the absence of softening. This objection has certainly less weight than those with which I have already dealt. It is generally admitted that softening may be absent in a notable proportion of cases. It was so, for instance, in twenty-two out of sixty-one cases reported by Dr. West.

I think I have shown, then, that, supposing the lesions described and spoken of as tubercles to be really tubercles, there is no inconsistency in the absence of those additional signs of which I have spoken. Another form of the same objection was, that the amount of morbid change was too little to be important. The statement of Mr. Longrigg at the inquest and before the magistrates, that the supposed tubercular bodies were not enough to cause death, may be considered as in some sense the pivot of the whole proceedings, since it was only on the alleged absence of a natural cause of death that the question of death from starvation could be entertained.

Now, I will put it to any pathologist, or any physician of experience, whether he would like to take the responsibility of such an assertion. If the bodies were not tubercles, of course, the question falls; but, if they really were miliary or granular tubercles, can anyone assert how much or how many are required to cause death? Would a Rokitsansky, a Virchow, a Wilks take this responsibility which Mr. Longrigg found easy? Is it necessary to point out that tubercle of this character is a sign, in most cases, of a general disease, which many modern pathologists regard as comparable to a specific fever, which is often mistaken for fever, and sent into hospitals as such; which produces a so-called "typhoid state", the last stage of which may strikingly resemble the condition of the unfortunate deceased before her death? I fearlessly assert that, in such cases, the severity and fatality of the disease is in no kind of proportion to the amount of material change, or, as one of our greatest authorities remarked to me the other day, "the very worst cases are sometimes those in which there is least discoverable change". It would be really only a step farther to say of some exanthematic disease, "the eruption was there, but not enough to cause death".

The supposition that the meningeal tubercle was an indication of general tuberculosis might, of course, have been greatly confirmed had we any minute examination of the peritoneum, which was said to be "inflamed" or "rather inflamed". There must have been something or other which led to this condition being observed and being described by the word "inflamed" instead of the word "congested", of which we have heard so much. I could not find any other cause likely to produce even a slight degree of peritonitis, and suspected, and still suspect, that it may have been due to acute tubercular disease. Of

course, it can be only a suspicion; but, when we remember how small miliary tubercles are when they first appear, how uniform the appearance they produce, and how easily passed over, it seems to me by no means baseless. If there were peritoneal tubercle, it would also explain in a remarkable way the absence of fat in the omentum and round the abdominal organs.

The above facts, taken together with the unquestioned presence of a tubercular mass one inch and a half to two inches square (? cube) in one lung, are the chief facts in favour of general tubercular disease; but on one point I regret that our information is still defective; viz., the condition of the intestinal mucous membrane. The *post mortem* notes describe the condition of the upper part of the small intestine and also of the large intestine from the rectum to above the sigmoid flexure; but they do not say anything about the ileum or the cæcum. Now, if these parts were not examined, but sent off to Mr. Rodgers for analysis without being further opened, an important piece of negative evidence was lost. I regret that my entire inexperience in the routine of a criminal court caused me to miss the right opportunity of eliciting this information from Mr. Longrigg. The opportunity was passed by, and I therefore did not feel justified in drawing attention to the point afterwards. But it should be remembered that these parts are the common seat of tubercular disease when it affects the intestines, and that, had there been any tubercular ulcers present, they would have been a complete explanation of the extraordinary emaciation of the body, and would have been not unlikely to produce tubercular peritonitis. Of course, every inch of the intestinal mucous membrane may have been examined for all I know.

The conclusion from all the preceding appears to me to be that the immediate cause of death was tubercular disease; viz., what is generally called tubercular meningitis; provided, of course, that the *post mortem* appearances were correctly recorded; i.e., that words such as tubercle, etc., were used in an accurate sense.

It is quite another question whether there was a remote cause of the emaciation and cachexia preceding death.

I declined to give any answer to the question whether tubercular meningitis could produce the amount of emaciation described; and explained that I did not regard tubercular meningitis, unless the disease lasted a considerable time, as so much a cause of emaciation as being accompanied by, and sometimes preceded by, emaciation. Nevertheless, a very high degree of emaciation is sometimes produced. I remember a child, out-patient at the Children's Hospital, who suffered for about a month from symptoms of tubercular meningitis, and died without any complication but phthisis of the lungs, not advanced; and the emaciation of whose body was so extreme that the mother made a pathetic appeal to me to explain the cause of the child's death, as a neighbour accused her of starving it because it was so thin. Now, I had visited the child at home, and found it perfectly well fed and well cared for. Acute general tuberculosis which lasts a month or more may produce the most extreme emaciation, and the date of commencement of symptoms in this case is absolutely unknown. The statement of the prisoners and Clara Brown that the illness began on the Sunday or Monday before death may or may not be sincere, but the early symptoms of such a disease might easily be overlooked. Tubercular disease of the intestines, especially accompanied by diarrhoea, produces, as every one knows, extreme and rapid emaciation—perhaps no disease more rapidly—and, as I have said, there exists a shade of doubt as to whether the absence of this disease was fully established. I did not feel justified in expressing a strong opinion as to production of emaciation before the supervention of acute disease, and this was probably one cause which made my evidence weigh little with the jury.

I must now consider the rival explanations.

Chronic Brain-Disease.—Some members of the profession seem to lay great stress upon the probability of there being some chronic disease of the nerve-centres, such as general paralysis of the insane, or at least sclerosis. The only *post mortem* facts in favour of this view are: 1. The adhesions between the pia mater and dura mater, explained by Mr. Longrigg as being chronic, and referred to the history of a fall downstairs when a child;* 2. The suggestion that finding the brain firm so long (five days) after death furnished some evidence of its having been abnormally hard.

It seems to me the inference from these facts (or at least the first) would be that the brain was not healthy; but it would be impossible to say in what way it was diseased, without more minute examination. General paralysis of the insane has been called by a French writer the only form of insanity which enjoys the sad privilege of possessing a mor-

bid anatomy; but its lesions are varied. Adhesion of the pia mater to the cortex is the most frequent, while microscopic examination always reveals more or less increase of the neuroglia. It is plain that the evidence is wanting to prove the existence of this disease, and it could only be established by symptoms during life. For my own part, I knew before the trial nothing of Mrs. Staunton's mental state; but, from what I have since heard, I should think it not unlikely that she suffered from general paralysis or some allied condition. But there was certainly no evidence of this strong enough to go to a jury, unless witnesses had been called who had seen the deceased medically during life. A very ingenious inference has been drawn in a contemporary from Mrs. Staunton's letters. I do not make light of such indications; but imagine a medical witness trying to convince a Middlesex jury that mistakes in spelling were evidence of paralysis and insanity!

It must be remembered that insanity, or a condition approaching it, would account to a great extent for dirty habits, and might also, by leading to refusal of food or to emaciation *even when food was taken*, have explained a great deal that is set down to starvation and neglect. Moreover, this is not inconsistent with acute tubercular disease, since lunatics and general paralytics are not less likely than other people to get tubercle, but rather more so; only, if must be confessed, it explains to some extent the symptoms immediately preceding death without having recourse to acute tubercular disease. Still, I ask, even if the symptoms agree equally well with either hypothesis, which are we to prefer: that of which the evidence is still to be constructed, if it ever is, from obscure indications and facts observed during life; or that of which the grounds are written down in black and white in the depositions of the medical witnesses? We can surely only deal with what we know.

It was, indeed, admitted by Mr. Longrigg that the tubercular disease, if fully established, would have accounted for all the symptoms before death with one exception, viz., rigidity of the arms. (I need hardly repeat what I said in court, that rigidity of one or more limbs is mentioned in nearly all the books as a frequent, if not constant, symptom of tubercular meningitis. I have certainly seen it very frequently.) Now let us consider what this amounts to. It amounts to saying that the disease was the disease, but in an early stage. I grant that we rarely see the disease *post mortem* in so early a stage; but there is a fact in the history which explains this fully, if further explanation were needed. I was asked by the Attorney-General, like all the other medical witnesses, whether the journey to Penge would accelerate death; to which I could only answer in the affirmative. But, if it did accelerate death, this amounts to saying that death took place earlier in the disease than it would otherwise have done. Two, three, four days more, and effusion, with all the signs of active inflammation, might have been produced.

Starvation.—In discussing this question, it is important to consider precisely what we mean. Starvation must mean that food does not get into the body. Failure of nutrition alone obviously does not constitute starvation. Of this condition there are practically only two evidences to be found in the body: 1. Evidence of disuse of the digestive organs; 2. Evidence of atrophy and malnutrition. The combination of these is evidently necessary to prove starvation, since the latter alone is consistent with the taking of food, which, through some diseased condition, fails to nourish.

Evidence of disuse of the digestive organs is drawn from small size, attenuation, and paleness of these organs. These conditions are very conspicuously seen in some cases of obstruction of the œsophagus in hospital practice. The stomach and intestines are pale, anæmic, perhaps contracted and attenuated to the last degree, so as to be often quite translucent.

Were those conditions present in the body of Harriet Staunton? No. There was, on the contrary, evidence that the digestive organs had been in use. There was an unusual amount of blood in the stomach and duodenum. Mr. Longrigg stated, in his cross-examination, that the walls of the stomach were thin; but the change could not have been very conspicuous, since he had omitted to record it in his notes five months before. In no other part of the intestines was any thinness observed, so we may conclude that what atrophy of the digestive organs there was, was not out of proportion to the general atrophy of the body. It is suggested by the witnesses for the prosecution that the digestive organs had been out of use for a long time, and then the sudden giving of food caused congestion—a sort of acute dyspepsia. But the redness might just as well have been caused by normal digestion; and, according to Clara Brown, food was taken at all events on the Monday, if not on subsequent days, i.e., four days before death.

The extraordinary suggestion of the Attorney-General, that untimely or excessive feeding after starvation might produce inflammation of the peritoneum, would hardly need discussion, but that the eminent coun-

* Good authorities, from Rokitsansky downwards, describe chronic tubercular disease of the pia mater, producing adhesions to the dura mater. I could not swear to this, never having seen the condition; but it would be rash to deny the possibility of its occurrence.

sel attempted to extract from my answer some admission of its truth. I do not suppose any competent pathologist would regard it as worth discussion.

There is, then, no evidence of any *special* atrophy of the digestive organs from disease, and the evidence of starvation would only be derived from general atrophy and emaciation. But certain inferences were drawn by the medical witnesses from what they called "congestion of the outlets". The *vagina* is said to have been congested; but since it was also stated there was leucorrhœa, or, at least, vaginal discharge, this symptom has little weight, if any. The congestion of the rectum, again, must be taken in connection with diarrhœa, which, if it last three days (as is reported here), might easily produce irritation and hyperæmia of the rectum. Moreover, it must be remembered that the blood-supply of the rectum and the uterine organs is so closely connected by the pelvic plexuses, that hyperæmia of the one is very likely to produce the same condition in the other.

Mr. Longrigg then, to sum up, mentioned, as symptoms traceable to starvation—congestion of stomach, congestion of the brain, the same condition of the rectum and vagina, and even slight inflammation of the peritoneum; an enumeration which it would be difficult to parallel in any standard work; but which will appear stranger still, when we remember that the *very same* signs had been regarded as raising the suspicion of irritant poisoning. I am not surprised at this suspicion, and it was perfectly right to have the viscera analysed; but what shall we say of pathological appearances which can bear so diverse an interpretation?

I maintain, on the other hand, the appearances of the head, stomach, and peritoneum are, so far as they go, against the theory of starvation, and are really inconsistent with the theory of death from starvation alone. There remain, then, atrophy and emaciation alone as proofs of starvation; and these, as I venture to affirm, have no force whatever, unless all other causes are proved to have been absent.

It becomes, indeed, a serious question, whether the results of a *post mortem* examination can authorise medical witnesses to record an opinion that death took place from starvation, when the only trustworthy signs are those of emaciation even with the absence of positive disease.

It seems to me this can only be the case if the principle be assumed that *disease, sufficient to produce emaciation during life, must infallibly leave clear indications in the body after death.*

Is there any warrant for this assertion? I think not; for the following reasons.

1. Emaciation, even extreme, may be produced by moral causes alone, such as grief, disappointment, jealousy, and so on. We see this every day. True, such causes do not often, if ever, produce death; but the question in this case simply is: might they have produced the emaciation observed, or part of it, death being immediately caused by acute disease? If it were so, the moral guilt of at least one of the prisoners might be regarded as equally great as in the case alleged by the prosecution; but it certainly would not justify a medical verdict of death from starvation.

2. Emaciation of the most extraordinary kind may be produced by what are called functional nervous disorders, hysteria, hypochondria, etc., even falling short of actual insanity. I have seen most striking instances.

3. Obstinate vomiting, without obvious physical disease, would have precisely the same effect.

Till the absence of all these conditions during life has been established, a medical witness is not justified in stating that death took place from starvation.

When we add to this, that the absence of such diseases as diabetes and Addison's disease was not absolutely established, and that no account was taken of the alleged chronic brain-disease (of which some slight confirmation was found), it is surely not too much to say that the *post mortem* records did not justify the medical opinion.

When we turn from the *post mortem* evidence to the symptoms, it seems to me that the allegations of the medical witnesses for the prosecution were equally ungrounded. They regarded the symptoms of coma, rigidity of one or more limbs, strongly marked inequality of the pupils, as indicative of (if I understand rightly), or at least consistent with, death from starvation. Now, let it be granted that persons starved to death can fall into a state of coma, would that explain the other symptoms, which led Mr. Longrigg to diagnose apoplexy? Did they not suggest narcotic poison? I cannot think of any narcotic poison which would produce precisely these symptoms; but the hypothesis of starvation *plus* narcotic poison would be far more reasonable than that of starvation alone. Here again I must point out that the very same symptoms which were first regarded as raising a suspicion of narcotic poisoning were afterwards taken as evidence of starvation; just as the appearances (very plausibly) attributed to irritant poisoning

were afterwards taken to prove, or assist in proving, starvation. But what can be the importance of phenomena which change their significance, under the influence of dominant ideas, like the colours of a chameleon?

One other important point remains to be noticed. It was alleged by the prosecution that tubercular disease might be, and actually in this case was, produced by privation of food, cold, confinement, and neglect. To the question whether this might be the case, I declined to return a positive answer. Let us consider the state of knowledge on the subject. At the present time, we are in the midst of a great controversy as to the origin of tubercular disease. There are some who believe it to be a specific infective disease, communicable by inoculation; others believe it to be always in some way a consequence of inflammation; and the older view, that it can be produced solely by cachexia, weakness, malnutrition, has, to say the least, fewer adherents than it had. The point is, then, certainly a difficult one. Should we be far wrong in saying that the present teaching of science is something like this? Privation of food and bad surroundings will certainly aggravate tubercular disease once established, and accelerate its progress. They may also probably produce the disease in any one who has a constitutional or hereditary tendency. But it is not proved that they can produce it in a previously healthy person who has no such tendency. The latter assertion might be made still more strongly if the time given for producing the disease were limited to three months.

I conclude, then, that the medical verdict of death from starvation was unwarranted on the following grounds.

1. Evidence of important disease sufficient to cause death was passed over as of no importance.
2. Evidence of other causes of death was not sought for so carefully as to establish their absence.
3. The absence of diseases sufficient to produce the whole of the emaciation observed—whether those which leave *post mortem* traces or those which do not—was not sufficiently established.
4. The clear evidence of disease sufficient to prove *some* emaciation at least was insufficiently appreciated.
5. The *post mortem* appearances, other than emaciation, which were alleged to prove starvation, are either ambiguous or tend in the contrary direction.
6. The symptoms before death were inconsistent with death from starvation alone.
7. The assertion that the tubercular disease alleged by the defence as the cause of death might be or was produced by starvation is merely an individual opinion, and not warranted by the general state of scientific knowledge at the present time.

THE SICK AND WOUNDED IN THE RUSSO-TURKISH WAR.

WE are compelled by pressure on our columns to defer, until next week, the publication of some interesting reports sent by the English surgeons at the seat of war. As we stated a fortnight ago was likely to be the case, the Russians and Roumanians, finding the powers of their medical officers overtaxed, have consented to permit their wounded to be treated by English surgeons. On Tuesday last, Surgeon-Major McNalty, accompanied by Mr. Paul S. Conolly, Mr. Edward S. Pattison, and Mr. J. Naylor Stephens, left London for Bucharest, under the auspices of the National Society for Aid to the Sick and Wounded in the War, at the request of Mr. Lloyd, the Commissioner of the Society, who asked for four surgeons. One thousand blankets will follow with all possible speed for aid to the sick and wounded. Sir Henry Havelock, who is now in Bulgaria, will shortly be joined by Dr. H. Sandwith; and will probably be assisted by English surgeons, who will work within the Russian lines. The Princess Bariatinsky writes, requesting English surgeons on the Turkish side to seek out and succour the Russian wounded who may be within their reach, as she fears that, if they fall into the hands of their enemies, they are not likely to be so well provided for. That portion of the telegram from Dr. Crookshank, at Varna, which we last week printed with a ? attached, turns out to be correct. Dr. Crookshank is ill at Varna, suffering from typhoid fever.

GUY'S HOSPITAL.—An open scholarship in Arts, for a prize of £100, was competed for last week, and gained by Mr. W. Hamilton Hart. Mr. C. Haig Brown, it is stated, *proxime accessit*. The open scholarship of £100 in Science was gained, at the same time, by Mr. Edwin Leonard Adeney.

THE OPENING OF THE SESSION AT THE MEDICAL SCHOOLS.

THE session 1877-78 commenced on Monday last at the Metropolitan Medical Schools. At three of them (St. Bartholomew's, Guy's, and the London Hospital), the time-honoured custom of the Introductory Lecture was not followed, a dinner or *conversazione* occupying its place. Past and present students assembled in large numbers at each Alma Mater. The following is a detailed account of the proceedings at the various schools.

ST. BARTHOLOMEW'S HOSPITAL.

On Monday evening, the annual dinner for old students was held in the great hall of St. Bartholomew's Hospital. Sir Trevor Lawrence, Bart, M.P. for Mid-Surrey, son of the late Sir William Lawrence, presided. The company, numbering very nearly one hundred and forty, included Sir James Paget, Sir Sydney Waterlow, M.P., Treasurer of the Hospital; Sir W. Smart, Admiral Sir W. Mends, Professor Owen, F.R.S., Professor Abel, F.R.S., Dr. Carpenter, F.R.S., Dr. Black, Mr. Luther Holden, Mr. Trimmer and Mr. Stone of the College of Surgeons, Mr. Savory, Mr. Callender, Dr. Andrew, Dr. Matthews Duncan, Mr. Gay, Dr. Cholmeley, and numerous representatives of the medical school in the provinces among the rest. The healths of "The Queen" and of "The Prince of Wales", the President of the Hospital, were proposed and loyally received. The toast of the "Army, Navy, and Reserve Forces" was duly acknowledged by Admiral Sir W. Mends and Sir W. Smart. The Chairman then gave the toast of the evening, and in the course of his speech, alluded to the long connection of his father with the school, and, among numerous interesting particulars, gave some characteristic extracts from a letter Sir William Lawrence had written to his father on the occasion of his election to the post of assistant-surgeon to the hospital. The toast was responded to by the senior physician (Dr. Black). The health of Sir Sydney Waterlow, who was very cordially received, was proposed by Mr. Holden, who alluded to the enlightened and liberal spirit in which the treasurer and governors had undertaken to erect the magnificent pile of new school buildings now in progress. In responding, Sir Sydney remarked that, in consequence of the large and increasing number of students and the development of medical teaching, the governors could not but see that the old buildings had become wholly inadequate, and must be replaced by others on a more extensive scale. They were determined to do all in their power to enable the staff fully to maintain the present reputation of the school as the largest and the best in the metropolis. Before sitting down, Sir Sydney proposed the health of Dr. Matthews Duncan, who met with an enthusiastic reception, and remarked that he came to London hoping to learn much from association with his new colleagues, and confident that he would find great advantages in the ample means with which he found himself provided for teaching his department of the profession. The health of the Chairman was given by Mr. Savory, who could boast that he had once had Sir Trevor for his private pupil, though he could not flatter himself that, in the field in which he was now displaying such bright promise of future eminence, much of what he had taught would be remembered by him. Sir Trevor, in replying, said that he took great interest still in the profession to which he belonged, and referred to several points respecting which medicine and surgery claimed the early attention of Parliament. Sir James Paget proposed the health of the visitors, coupled with the names of Professor Owen and Professor Abel, remarking that, although these illustrious workers had devoted themselves to such widely different departments of science: the one building up, the other expending his energies in supplying the means of destruction, yet they had this in common, that they were both closely connected with medicine. After a speech from Professor Owen—perhaps the most interesting of the evening—in which he indulged in reminiscences of the years when his career was just opening before him, and after some remarks from Professor Abel and from Mr. Langton, the honorary secretary, in response to a toast, the company separated, after having spent a very successful and enjoyable evening.

We understand that arrangements have been made by which it will be easy to make rapid progress with the new block of school-buildings without interrupting the work of the session. The old Abernethian theatre has been added to the dissecting-room, thus providing abundant accommodation in this department; a large new lecture-theatre has been erected on the site of what was formerly the inquest-room, and a temporary reading-room has been placed on a vacant plot of ground near the College. The former library, the Abernethian

room, and the adjacent buildings are being rapidly pulled down; and, in a few days, the Giltspur Gate will itself be removed to make way for the frontage of the new buildings in Smithfield. Old St. Bartholomew's men will be pleased to learn that an excellent photograph of this grand old entrance has been taken by Mr. Godart. A new carriage-entrance has been provided under the "Henry VIII" gateway.

CHARING CROSS HOSPITAL.

The session at this school commenced on Monday last, the introductory lecture being given by Mr. Bloxam. There was a large attendance of students, and the theatre was crowded by friends and *alumni* of the institution. In the evening, the biennial dinner took place at the Freemasons' Tavern. Professor Huxley, an old student of Charing Cross Hospital, occupied the chair, and dwelt with earnestness and kindly feeling on his recollection of the days of his studentship. Several of the teachers of his time were present at the dinner. Five-and-thirty years ago, he became, he said, a student of the class of Mr. Hancock, who sat on his right, and who deserved all the eulogies given him as one who had laboured long in the interests of the school. Mr. Hird and Mr. Canton also were present, and were alluded to as amongst his old teachers. Professor Huxley declared that his success as a scientific man depended in the greatest measure on his training as a medical student. We understand that there is already an excellent entry of new students at Charing Cross, and that, in all probability, the number of new men will exceed that of previous years, though the entries of late have been remarkably large. The improvements in the hospital are great; the wards have been renovated, or rather remade, and their "comfortable" looks are remarkable. Many of our readers will be interested to learn that the great improvements in the hospital-buildings will, in all likelihood, be followed by improvements in those of the school; for the hospital and school authorities work unitedly for the good of the two institutions, and know that nothing will advance their interests more than new school-buildings.

ST. GEORGE'S HOSPITAL.

THE opening ceremony went off very quietly, but, on the whole, satisfactorily. The number of new entries is at present quite up to the average. The dinner took place at Willis's Rooms, under the presidency of Dr. Barclay, and about one hundred sat down. A very pleasant evening was spent, and some very good after-dinner speeches were made. The Chairman was especially happy in his remarks. The toast of the evening, "Prosperity to St. George's Hospital Medical School", was proposed by Dr. Pitman in an appropriate speech, and responded to by the Dean, Dr. Wadham, who alluded to several points in connection with the school. He stated that during the last five years they had entered over ninety more new students than in the preceding five years, and alluded in feeling terms to the great loss the school had sustained in the death of Dr. Noad, who had been for upwards of thirty years Lecturer on Chemistry. No great changes have taken place in the hospital during the past year, beyond the resignation of Dr. Ogle from ill-health, and the appointment of Dr. Watney, Lecturer on Histology, as Assistant-Physician to fill the vacancy thus caused in the staff. Mr. T. Edgelow has been appointed Dental Surgeon, in the place of Mr. Vasey, who has retired after holding the office for twenty years. Mr. Dent has been appointed Demonstrator of Anatomy, and Mr. Rouse will give a portion of the course of lectures on surgery in conjunction with Mr. Holmes.

GUY'S HOSPITAL.

The session was inaugurated at Guy's Hospital by a *conversazione* which took place last Monday evening in the Astley Cooper Ward in the north wing of "Hunt's House" and in the Out-patients' Rooms on the ground-floor. There was a very large collection of objects of scientific and artistic interest; and the members of the medical staff, their friends, and students, mustered in large force. Ladies had also received invitations, and came in good numbers. Amongst so large a collection of objects exhibited, it is difficult and invidious to name those of special interest; suffice it to say the entertainment provided was of a very high order. At ten o'clock, the Treasurer, Mr. Lushington, distributed the prizes and medals to the successful students at the hospital's examinations in 1876-77. He stated that at the recent examination for an Open Scholarship in Arts for a prize of £100 among freshmen, and for a similar scholarship in Science for another prize of £100, men from the public schools of Eton, Winchester, Marlborough, and the Charterhouse, had competed. Dr. Habershon and Mr. Cooper Forster proposed a vote of thanks to the Treasurer for presiding on the occasion. The company separated at about 11.30, after a most enjoyable evening.

The *Guy's Hospital Gazette* states that the governors of the hospital have been for some time discussing a plan for the erection of a college in which students may reside during session. The site selected is where the old Maze Pond Chapel used to stand, which, with the adjoining land, was purchased a short time ago by the hospital authorities. The building will occupy the angle between Maze Pond and New Street, and will face the interval between the new and old buildings. The plan, designed by Mr. Billing, architect to the hospital, represents a somewhat triangular building in red brick, with Tudor windows and entrance brought out in white stone. The difficulty of obtaining comfortable lodgings in the immediate vicinity of the hospital has long been felt by students, and they will look forward with pleasure to the time when this building may be completed. The student who lives in college will have many advantages, for he will be sure to hear of any rare case when admitted, and will be within call when any operation is about to be performed.

A series of class-rooms, examination-rooms, etc., are now being built at Guy's Hospital, in the front of the old museum building. A portion of the museum (the old model-room, more recently used for practical physiology) has been demolished; and the new portion contains six rooms of various sizes, some of which will be fitted specially for the practical physiology classes, and others for other class-teaching.

KING'S COLLEGE.

A very large audience assembled at King's College on Monday last, attracted by the Introductory Lecture of Professor Lister. Among those present were Canon Barry, Dr. Matthews Duncan, the Professors of the College, numbers of old students of the College, and many surgeons of repute, both metropolitan and provincial. The learned lecturer's remarks were listened to with great interest throughout, and through the medium of our columns will now reach a far larger circle of inquirers, who will assent to the proof therein afforded of the position which Professor Lister set himself to prove; viz., that in every fermenting and decomposing body, be it fluid or solid, there is always present a living element, the ferment, without the presence of which no fermentation occurs.

The Introductory Address was followed by a dinner, at which the staff of King's College, with the Principal and the Secretary of the college, the Chairman, Vice-Chairman, and Secretary of King's College Hospital, besides some personal friends, assembled to welcome the new Professor. During the dinner, Canon Barry proposed the health of "The Lecturers of the Day", referring in most felicitous terms to the advantages which he anticipated to the patients from the method of surgical dressing originated and developed by Professor Lister, and to the enlargement of the hospital which was being carried out, so as to give free scope for his treatment and his method of clinical instruction. Mr. Lister in reply thanked his new colleagues for the kindness of their reception, and said that he had always looked forward to becoming a "metropolitan" surgeon, but had scarcely anticipated such a hearty welcome from the staff authorities of the College. Mr. John Wood proposed the health of the Principal, and Dr. George Johnson that of the new Professor of Systematic Surgery, Mr. Henry Smith.

Mr. Smith gave his Introductory Lecture to the course of Systematic Surgery on the 2nd inst., and was received most warmly and enthusiastically by a large audience of past and present students. He dwelt largely on the career and surgical teaching of the late Sir Wm. Fergusson.

LONDON HOSPITAL.

In place of an Introductory Lecture in this institution, a *conversatione* was held in the College Rooms. The dissecting-room was ornamented by Williams's palms, Phillips and Pearce's beautiful china, and the Autotype and Berlin Company's unsurpassed photographs. Hanhart's chromo-lithographs were very striking; and Messrs. Blackie, the well known publishers, also lent engravings and the copper-plates. In the students' reading-room there was a good exhibition of microscopes by Browning, Crouch, How, Pillscher, and Steward. Messrs. Krohne, Maw, and Arnold showed many valuable instruments. Drugs were also exhibited. In the anatomical theatre, music of a high order was provided. In the chemical theatre, Dr. Tidy entertained the visitors by showing experiments in polarised light and by illuminated photographs. The visitors numbered about five hundred. The entries up to Wednesday evening were in excess of last year. On Tuesday evening the biennial dinner took place, Dr. Little in the Chair.

THE MIDDLESEX HOSPITAL.

The session opened on October 1st with an introductory address by Mr. Arthur Hensman, after which the prizes awarded during the last

winter and summer sessions were distributed by Mr. A. H. Ross, the Chairman of the Weekly Board.

In the evening, the annual dinner was held at the Grosvenor Galleries, under the presidency of Mr. T. W. Nunn, which was well attended by old Middlesex men, upwards of a hundred being present. The toast of "The Middlesex Hospital" was responded to by Mr. Ross, who proposed "The Medical College", to which Dr. Greenhow responded, and "The Health of the Chairman" was proposed by Mr. Thos. Taylor in an excellent speech. The enjoyment of those present was much enhanced by the excellent music arranged by Mr. Anderson Critchett, who was supported by Herr Ganz, Dr. F. T. Roberts, Dr. Lavie, and Mr. Wolferstan. It may be added that the Middlesex Hospital is now undergoing enlargement, and it is hoped shortly to open a Male Cancer Ward, as a memorial to the late Mr. De Morgan.

ST. MARY'S HOSPITAL.

Mr. Herbert Page opened the session on Monday afternoon by an introductory address, an abstract of which is given at page 483. In the evening, the old students and friends of the school dined at the Grosvenor Gallery, Dr. Sieveking occupying the chair. It was the first year of the annual dinner, and owing to the exertion of Dr. Shepherd and Mr. Juler, it proved an unqualified success, old St. Mary's men appearing in such force as to show that it was not only their pleasure but their duty to assist at the entertainment. After a happy condensation of the usual toasts by the chairman, the "Staff" was proposed by Dr. Mahomed. By the departure of this gentleman from the museum of St. Mary's Hospital School to the medical wards of his old hospital, Guy's, the school has suffered a loss which can only be alleviated by a knowledge of the fact that Mr. Duncan of King's College is his successor. The health of the chairman, proposed by Mr. James Lane, met with an enthusiastic reception. A favourite football song from Mr. S. G. Parkinson, and "Auld Lang Syne", wound up the meeting.

ST. THOMAS'S HOSPITAL.

The session was opened on Monday afternoon by Mr. Wagstaffe, who gave the introductory lecture. The spirits of some of the younger portion of the audience were, we are informed, as exuberant as ever, showing, at any rate, that the students' capacity for exertion is not likely to be absent during the coming session. In the evening, the St. Thomas's annual old students' dinner was held at the Pall Mall Restaurant, and about ninety old students were present. The chair was taken by Dr. Bristowe, who was supported by Dr. Barker, Dr. Risdon Bennett, President of the College of Physicians, Mr. Simon, Dr. Lockhart Clarke, Mr. Mac Cormac, and many others. The musical performances were of a high order, Mr. Lazaren and Mr. Varness being among the musicians. A telegram from Mr. Mackellar, dated Sofia, conveying the greeting of those at the seat of war, was read. Dr. Barker, Mr. Simon, Dr. Risdon Bennett, and Dr. Carpenter were among the chief speakers. Mr. Ward Jeston, an old army surgeon, and formerly a student of St. Thomas's, gave some account of his experiences in the Peninsular War, through which campaign he served. The chairman's health, proposed by Dr. Alfred Carpenter, was received with an enthusiasm which showed how highly Dr. Bristowe is esteemed by the old St. Thomas's men. Altogether, the dinner was regarded as a great success.

UNIVERSITY COLLEGE.

Dr. John Williams gave the Introductory Address, of which an abstract appears on page 485. It was closely connected with his special department. There was a good attendance, and many former students appeared upon the scene. But there was an absence of some old faces among the professors, and especially was that of Professor Ellis remarked. He has resigned his post, and has been succeeded by Mr. Thane, late demonstrator. The entire anatomical department has been reorganised, Mr. Godlee and Mr. Ottley having been appointed demonstrators, with four assistant-demonstrators. The museum has been greatly improved in its anatomical, pathological, and zoological departments. A museum of hygienic apparatus has also been recently established in commemoration of the late Dr. Parker. There has been a movement on foot to extend and rebuild the hospital, and Sir Francis Goldsmid has offered £10,000 towards this object, if £20,000 more can be collected.

WESTMINSTER HOSPITAL.

The Westminster Hospital Medical School opened the session with a hospital much improved and enlarged. The alterations that have been going on for some time past are mainly directed to perfecting the sanitary condition of the building, and consist for the most part

of new bath-rooms, water-closets, and sculleries. The nurses' quarters, too, are much increased in accommodation, and day-rooms for convalescent patients decorated in a new fashion are a prominent feature in the change. Nor have the school authorities been idle. They have copied the excellent example set elsewhere, and, wisely remembering that a school is a place where there must be teachers as well as learners, have considerably augmented their strength in this direction, and in addition to a very complete curriculum offer to the student those further aids to study which from the increasing complexity of subjects to be studied has, by common consent, come to be regarded as necessary. A tutorial staff will hold classes almost daily to aid the students in their work and preparations for examinations. By *vivâ voce* questionings and frequent written examinations, the progress of the students is tested and judicious advice may be given. Special classes will also be formed for the examinations at the London University; and, after the success recorded in this year's lists, there is a reasonable probability of this school supplying a yearly quota to qualify for University degrees. The magnificent *Materia Medica* Collection presented by the lecturer on that subject is an important feature among the advantages offered to the student in the coming year.

The Introductory Address on Monday last was delivered by Dr. Grigg; an abstract of it is published at page 486 of this JOURNAL. The Dean of the School next read over the prize-list, and stated that the Westminster Medical School was to be congratulated upon the success attained by its students in the recent examinations, and especially on having more than one on the honours list at the London University. Sir Rutherford Alcock, K.C.B. (who was in the Chair) then distributed the prizes. In the evening, a goodly number of old students and friends dined together at the Café Royal. Dr. Fincham, the senior physician, was in the Chair, supported by Sir Rutherford Alcock and the members of the staff. Some of the speeches alluded to the improvement in progress at the hospital, by which it was agreed that in a sanitary point of view it would be second to none in the metropolis.

THE ARMY MEDICAL SCHOOL.

The winter session of the Army Medical School was opened on Monday, the 1st instant. The introductory lecture was delivered by Surgeon-General Maclean, C.B., Professor of Military Medicine in the School, in the presence of the military and medical staffs of the Royal Victoria Hospital, and a few visitors from the neighbourhood. The lecturer took for his text the relations between hygiene and medical science. He depicted very eloquently and vividly the contrast between the state of things as they formerly existed in military practice when the two sciences were comparatively dissociated, illustrating his remarks by examples from personal experience—and their present condition now that the union of the two sciences has been in a great degree accomplished in all branches of the public service.

The class of candidates for commissions in the public services for the present session consists, according to the printed lists, of 29 gentlemen for the army, 11 for the Royal navy, and 20 for the Indian medical service; altogether 60 candidates. The names of two surgeons of the Indian Army, Drs. Archdale and Spence of the Madras Medical Service, are also put down for going through the course of instruction, as well as that of Dr. H. Neilson, of the Dominion Government Army Medical Service, from the School of Gunnery at Quebec.

SELECTIONS FROM JOURNALS.

SURGERY.

PERFORATING EPITHELIOMA OF THE UPPER JAW.—Dr. Reclus has described in the *Progrès Médical* two cases which have occurred in M. Verneuil's practice in the course of the same year. He points out that "the upper jaw may be the seat of an epithelioma which progresses rapidly, and which is characterised by forming a spacious cavity, lined with exuberant granulations. These cavernous epitheliomata are probably developed in the cysts so frequent in connection with the roots of the teeth. And the cysts themselves, like the common epitheliomata of the jaws, may spring from the epithelial *débris*, which remain as vestiges of the primitive dental groove from which the temporary and permanent teeth are formed."

INFRAPATELLAR HYGROMA.—Under the name of *hygroma infrapatellare profundum*, Dr. Trendelenburg describes, in the *Archiv für Klinische Chirurgie*, Band xxi, two cases of serous effusion into the

synovial bursa lying between the lower part of the ligamentum patellæ and the anterior surface of the tibia. The swelling is observed on each side of the ligament, and is rendered more distinct by the fat of the part, which is pressed outwards by the distended bursa. The change is more marked when the leg is half bent. The functional disturbance consists in impediment of active and passive flexion. At first, the motion is free; but when the leg is half bent, further flexion becomes difficult and painful. On the other hand, in cases of effusion in the knee-joint, flexion to a right angle can be borne. Other diagnostic symptoms are tenderness on the inner side of the infrapatellar region, difficulty of walking, etc. Similar swellings in this region, with some tenderness on pressure, have also been observed by Trendelenburg in cases of injury of the joint. These were most probably due to effusion of blood or serum into the bursa.—*Centralblatt für die Medicin. Wissenschaften*, September 1st. [The condition mentioned by Dr. Trendelenburg resembles that described by Mr. Robson of Leeds in the BRITISH MEDICAL JOURNAL for May 17th, p. 582.]

TREATMENT OF FISSURES OF THE BREAST BY PICRIC ACID.—M. Charrier utilises (*Cannes Médical*) the hardening properties of picric acid in the treatment of mammary fissure. He paints the fissure once a day with a solution of thirty parts of picric acid to 1,000 of water, and also immerses the nipple in a little glass filled with a solution of picric of one part per 1,000 after each time of suckling.

THERAPEUTICS.

CHOLEATE OF SODA AS A MEDICINE.—Dr. W. C. Van Biber reports five cases (*Trans. of the Med. and Chir. Faculty of Maryland*) to show that choleate of soda may act as a substitute for the bile when this secretion does not enter the duodenum. This he considers to be most desirable in cases of chronic jaundice. In these cases, the use of the remedy improved the digestion, and the author's theory is that it acted as a substitute for the bile. In none of the cases did an attack of colic occur during its administration. He recommends choleate of soda in certain cases of dyspepsia, dependent on functional derangement of the liver; and in chronic jaundice, when it is evident that a sufficient amount of bile is not poured into the duodenum. In the former, he considers that it will be quite as serviceable as pepsine in other forms of indigestion, on the principle of supplying a substitute for a physiological secretion. He refers also to the use of the choleate, as proposed by Dr. Dabney, as a preventive of the formation of gallstones.

CURE OF TETANUS BY CHLORAL.—M. Gueniot reported to the Society of Surgery in August an interesting case of tetanus developing itself twenty-two days after an amputation of the breast. It was treated successfully by a remedy which already counts a considerable number of cures in this disease. Chloral was administered very energetically (twenty-five *grammes* in forty-eight hours). From the first day, the improvement was such that cure might be hoped for; it was not, however, finally attained till the end of several weeks. About one hundred *grammes* (upwards of two ounces) of chloral were administered, sometimes by the mouth, sometimes by injection, according to the state of tolerance.

BROMIDE OF POTASSIUM IN BRIGHT'S DISEASE.—M. Chauvet has studied the effects of bromide of potassium in Bright's disease. M. Bouchard had fixed the time for the elimination of the drug at nineteen days after its administration; M. Chauvet, however, found bromine in the urine, on one occasion on the thirtieth, on another on the thirty-fifth day. The iodide eliminates itself much more quickly; in the healthy subject (M. Chauvet himself, for instance), the drug was completely eliminated at the end of one or two days. In patients suffering from Bright's disease, this elimination lasted once four days, once five days, once seven days, once twelve days. The same thing occurs in the case of salicylic acid, which is also eliminated very quickly in the healthy condition, and much more slowly in cases of renal disease. In these different cases of kidney-disease, the toxic phenomena soon appear, and do not disappear for a long time. All M. Chauvet's experiments go to corroborate M. Bouchard's proposition: That kidney diseases cause active medicines to manifest toxic properties even when administered in small doses; and it is thus that M. Bouchard explains how, in certain cases of heart-disease, the accumulation of digitalis produces toxic effects, which should be attributed to the condition of the kidneys, which are often secondarily affected.

SPECIAL CORRESPONDENCE.

THE TURKISH ARMY IN ASIA.

[FROM OUR OWN CORRESPONDENT.]

Head-Quarters of Ahmed Muhktar Pacha, Camp, Senagel, Plain of the Arpachi, September 3rd, 1877.

THE arrival, on August 14th, of Messrs. Guppy and Buckby, two junior surgeons despatched on the same mission as myself, and by the same generous individual, enabled me to set about the arrangements for carrying out my proposed plan of proceeding at once to the actual scene of hostilities. Leaving charge of my "English Hospital" in the hands of my first companion and colleague Mr. Fetherstonhaugh, who has, by his skill and assiduous devotion to his work in the early days of our undertaking, proved himself most capable of any professional charge which may fall to his lot, accompanied by Mr. Buckby, I left Erzeroum for Kars, which is about fifteen miles from this camp, on the 22nd. The taking with us of stores and necessaries involved a somewhat slow journey, as the only vehicles which can be procured are the arabas or native bullock-carts, with which a progress of fifteen to twenty miles a day is very fair indeed. These arabas are made without any attempt at springs, and their jolting and jarring on these apologies for roads is something terrible—terrible indeed to the poor sick and wounded, whose only means of transport from the battle-field to the hospital, one hundred and thirty miles away, is on these vehicles of torture. The noise alone of their ungreased axles is quite enough to put the finishing touch to the poor sufferers. Having, after much delay and much trouble, got our caravan fairly on the way, we started—a party of five—zaptieh or mounted policeman, servant and interpreter, syce or groom, and myself and companion; and here let me note that no medical man should dream of coming out to this country without bringing with him a good English saddle and bridle. Fortunately, I was able to purchase one in Constantinople, or I should have had reason indeed to regret my forgetfulness in this particular. After we had ridden on a few miles, we had the pleasure of seeing one of our arabas completely *hors de combat* by the loss of a wheel. This deficiency was made up presently, however, by the substitution of a pole of pine-wood, which dragged on the ground almost as speedily as its predecessor, and, hoping for the best, we went along in advance of our unmusical train. Very shortly, we came upon a small camp of the Redifs or second reserve; there were perhaps three hundred or three hundred and fifty men, far too old really for service, encamped here, their time being apparently principally employed in mending the road, which was in a very terrible state. I paid a visit to the bimbashi in command, and asked him if he had any sick. He gave orders for the sick to be paraded for my inspection, and, to my intense astonishment, I found a double rank of men, one hundred and twenty all told, who reported themselves in need of a doctor. Separating the sheep from the goats, I found about thirty who really were ailing; scurvy, intermittent fever, diarrhoea, and a few cases of rheumatism being the principal maladies. Fortunately, I had in my saddle-bags a small but comprehensive "medicine-chest", containing, amongst other useful things, pills of quinine, opium, and Dover's powder in practicable doses, which was most kindly sent to me as a present on the eve of my leaving England by Messrs. J. Bell and Co. of Oxford Street. Leaving a little stock of remedies in the hands of one of the captains who could speak a little French, and seemed more intelligent than the generality of his grade, we pushed along and arrived at Hassan kali, a town of some little pretensions, shortly before sunset. It was hopeless to expect the arrival of the arabas, with tents and provisions, that night, so we were obliged to avail ourselves of the shelter of a khan, which, we afterwards learnt, had been recently used as a fever hospital. A night passed in one of these khans is a thing to be remembered; nowhere in the whole world can the fleas and "creeping things innumerable, both small and great beasts", compare with those to be found in Armenia; and an evening meal, after a long day's fast and a fatiguing ride, consisting of black sour bread, hard boiled eggs, and *yahout* or curdled sheep's milk, is not conducive to feelings of hilarity. Fortunately, however, people are early risers here, and at last morning came, and we found the natives stirring, and by sunrise we were able to obtain a breakfast exactly similar to our evening repast, with the addition of coffee. We had to spend most of the day here, as the wretched arabas had not arrived, and it was of no use to go on without them; so I devoted myself to studying the diseases of the natives, partly Turks and partly Armenians, the former greatly predominating. I was greatly struck with the number of children, the Armenians in particular, who had strumous ulcers of the cornea; seven children, all identically suffering, were brought to me for inspec-

tion, and I saw at least a dozen more similarly affected, many of them being quite blind. Scrofula, in some form or other, seems to be one of the great curses of this country; but the form in which the evil manifests itself varies much in different localities. At Trebizonde, I noticed many cases of necrosis and affections of the liver and internal organs. At Erzeroum, there seems an immense amount of glandular scrofula; and further east, in this town of Hassan-kali and the villages around, this affection of the eyes seems to prevail. The Circassians, as fine a looking race of men as you can well imagine, who inhabit some of these villages, suffer to an extent which is quite proverbial from pulmonary phthisis. I cannot but think that the dark almost underground hovels which the Armenians call houses, and the absence of animal food from their ordinary diet, must have much to do with producing this dire disease. When, however (which is no uncommon thing here), it is complicated with constitutional syphilis, hereditary or acquired, the condition of its victims almost defies description. At Hassan-kali, there are some sulphurous tepid baths, which are greatly believed in and used by the people, and a bubbling spring of the same character, which they drink, a cup of which made me almost imagine myself at Harrogate for the rest of the day. At last our tents and food arrived, and we went on for a few miles till sunset approached, when we halted, pitched our tent near a farm-house, when we were lucky enough to get some fresh milk, lit our fire of dried cow-dung, a capital fuel for cooking, and, after a capital meal of fried sardines, biscuit, and tea, we spent the first night free from fleas or other disturbing influences, which had fallen to our lot since entering this region of "Eden's fair bower". Rising with the sun, we pushed on to Kupri-kui, where there was a large camp of Bashi-bazouks and infantry. Here I found a doctor, an Armenian educated at Constantinople Medical School; he informed me that from day to day wounded and sick men passed through and called upon him for treatment on their way from Kars to Erzeroum; but that he had no medicines to give them, or materials for dressing the wounds. I offered to give him a few essentials from my stock, but he declined the offer, as he said he was leaving on the following day, having been recalled to Erzeroum, he believed, in consequence of having sent a telegram to the head doctor there, saying that, as he was not a magician, he could not cure the sick without materials and medicines. I, however, insisted upon his taking a few opium pills for some soldiers of his regiment who were suffering from diarrhoea, and a few other simples for immediate use. Before I left the place, two wounded Circassians rode up from Kars; assuming, as all the natives do, that every Englishman must be a doctor, they came up to me, and I found that, in spite of their riding as if nothing ailed them, one had a compound fracture of the radius of the right arm, a gunshot-wound, which wanted dressing badly enough, and the other had a fractured rib, with a bullet somewhere in his thorax, but where it defied him to tell me, or I, after examination, to tell him. The next day, on our way, we met a train of arabas with a load of one hundred and fifty sick, nearly all cases of fever and scurvy, and five wounded, on their way to the hospitals at Erzeroum. They had been six days on their way from Kars, and I suppose it would take them about four or five days more to reach Erzeroum. Fortunately, none of them seemed very bad; but they complained bitterly of the noise, tedium, and jolting of their most uncomfortable journey. There was not the least attempt at any shade from the burning sun in any of the wagons. One officer had had his hand amputated. I was somewhat surprised to see this; but at last he informed me that it was literally blown to pieces, so that its removal was not a matter involving much deliberation. He said, however, the stump did not heal, which was not a thing to be wondered at, as the operation was a "circular one", *i.e.*, *à la Turque*, an incision made down to the bone, and the bone sawn through, the operator not troubling himself much about covering of skin or such small matters. A German doctor in Kars the other day told me that he had improved upon the "circular" method, and now always dissected back the skin, so as to leave a "lambeau" sufficient to cover the bone. He seemed rather astonished that I did not admire the novelty of *his* method.

Our journey was continued much in the same manner till we arrived at Kars on the ninth day after our departure from Erzeroum, without any incidents calling for special remark. While at Kars, I visited the hospitals there, and found them all more than full, and in a very unsatisfactory state. A more detailed account, however, I must reserve till next week, as the post leaves here in an hour's time, and I have many letters to finish and despatch.

On my arrival here, I found that there was indeed plenty to be done. The Russians, however, have retreated on to their own territory, and I hope that something may be done in the way of forming an ambulance, now that the fear of frequent and hurried retreat from station to station with literally no provision for sick transport is removed.

The camp is healthy in the extreme; but it would be surprising were it otherwise in such a naturally healthy situation. A large open plain, eight thousand feet above sea-level, surrounded completely by snow-capped mountains, among others, the venerable Ararat, which, though ninety miles away, does not appear more than ten, presents such a picture that I envy the pencil of a Haden, a Thompson, or a Buzzard. Were I possessed of their skill, I would carry home more than the life-long recollection of the most wonderful panorama the world can show.

I was most courteously and civilly received by the Mushir Ahmed Muhktar Pacha, and am receiving the hospitality and most valuable assistance of our worthy English general Sir Arnold Kemball. Next week, I hope to be able to tell you of some practical work done.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 10th day of October next, at Two o'clock in the afternoon.

FRANCIS FOWKE,

General Secretary.

36, Great Queen Street, London, W.C., September 15th, 1877.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

THE first meeting of the Session 1877-78 will be held in the Examination Hall of the Queen's College, on Thursday, October 11th. The Chair will be taken by the President, SAMPSON GAMGEE, Esq., at 3 o'clock P.M.

The following papers are promised:—Dr. Wade: Some Therapeutic Notes. Mr. J. F. West: The Removal of Foreign Bodies from the Air-Passages.

Members are invited to exhibit pathological specimens at the commencement of the meeting.

JAMES SAWYER, M.D., } *Hon. Secretaries.*
EDWARD MALINS, M.D., }

Birmingham, October 1877.

BORDER COUNTIES BRANCH.

THE autumnal meeting of this Branch will be held at Thornhill, on Friday, October 12th.

Gentlemen intending to read papers, or be present at the dinner, are requested to give notice to either of the Secretaries.

R. MACLAREN, M.D., Carlisle. } *Honorary Secretaries.*
J. SMITH, M.D., Dumfries. }

Carlisle, September 25th, 1877.

THAMES VALLEY BRANCH.

THE next general meeting will be held at the Richmond Infirmary on October 17th, at Five o'clock. Members who may be willing to read papers are requested to communicate at once with the Honorary Secretary.

There will be a dinner after the meeting at the Greyhound Hotel. Charge 7s. 6d., exclusive of wine.

F. P. ATKINSON, M.D., *Honorary Secretary.*

Kingston-on-Thames, October 1877.

WEST SOMERSET BRANCH.

THE autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, October 18th, at 5 P.M.

The following question has been settled by the Council for discussion after dinner:—"What in your opinion is the best way of managing the Third Stage of Labour so as to diminish the risk of *Post Partum Hæmorrhage*?"

W. M. KELLY, M.D., *Honorary Secretary.*

Taunton, September 15th, 1877.

BATH AND BRISTOL BRANCH.

THE first meeting of the Session will be held at the York House, Bath, on Wednesday, October 31st, at 7.15 P.M.: H. MARSHALL, M.D., President, in the Chair.

R. S. FOWLER, Bath. } *Honorary Secretaries.*
E. C. BOARD, Clifton. }

6, Belmont, Bath, October 1st, 1877.

SHROPSHIRE AND MID-WALES BRANCH: ANNUAL MEETING.

The annual meeting of this Branch was held at the Lion Hotel, Shrewsbury, on Wednesday, September 19th; Dr. S. TAYLEUR GWYNN (the retiring President) introduced J. RIDER, Esq. (the new President), who took the chair.

President's Address.—The PRESIDENT read an address. After congratulating the Branch on the success which had attended it under the presidency of Dr. Gwynn, he went on to speak of the great changes which have taken place of late years in the treatment of disease; venesection and the antiphlogistic method having been succeeded by the extreme stimulating treatment, which now in its turn is giving place to a more moderately stimulating plan.

New Members.—John Lyon, Esq. (Hodnet), and W. B. Whitfield, Esq. (Ellesmere) were unanimously elected members of the Branch.

Officers and Council.—The following were chosen. *President:* J. Rider, Esq. *Vice-President:* Alfred Mathias, Esq. *Honorary Secretary and Treasurer:* Henry N. Edwards, Esq. *Council of Branch:* The President; T. B. Barrett, Esq.; J. Bromfield, Esq.; A. G. Brookes, Esq.; J. S. Davies, Esq.; Wm. Eddowes, Esq.; S. Tayleur Gwynn, M.D.; J. R. Humphreys, Esq.; J. MacLintock, M.D.; A. Mathias, Esq.; C. E. Monro, M.D.; J. W. Roe, M.D.; A. Strange, M.D.; R. W. O. Withers, Esq.; and the Honorary Secretary. *Representatives of Branch in the General Council:* J. R. Humphreys, Esq.; S. Wood, Esq.; and the Honorary Secretary.

Vote of Thanks to Retiring President.—It was proposed by Dr. ANDREW, seconded by J. SIDES DAVIES, Esq., and resolved: "That the best thanks of this meeting be given to the late President for his valuable services during the past year."

Communications.—I. Mr. HUMPHREYS exhibited two patients who had been under his care in the Infirmary, and who illustrated the value of conservative treatment in surgical cases. The first was a case of Compound Fracture of the Leg, with Dislocation of the Ankle-joint, in which the whole articular surfaces were exposed. Reduction was made after freely dividing the internal lateral ligament. A good cure was effected. The second case was one of Smashed Elbow, caused by a load of bricks passing over the joint. No articular surface was left. A good recovery ensued, and an useful arm remains.

2. Dr. A. EDDOWES read a case of Fracture of the Clavicle treated by his Improved Air-pad, which he exhibited.

3. Dr. ANDREW read a paper on a case of Contracted Bladder, with a rugous condition of the interior, considerable thirst, and urine of low specific gravity. The symptoms were those of stone, but no calculus was found. The patient was treated by bougies, suppositories, alkalies, and finally steel. Under this plan, he sufficiently improved to return to his work.

4. Mr. WILLIAM EDDOWES read some interesting notes of Cases of Diphtheria. Considerable discussion ensued, in which most of the members took part.

Dinner.—The members afterwards dined together at the hotel.

CORRESPONDENCE.

THE PENGE CASE.

SIR,—I so entirely agree with the tendency of your article on Medical Evidence in Courts of Law, that it was my intention to state something to the same effect before giving my evidence in court. Probably, it would have been foolish and irregular, and the learned judge may have been quite right in objecting to the statement; but what I meant to say was this: That I had given to Messrs. Lewis and Lewis an opinion on this case, but made the distinct stipulation, before looking at the papers, that I should not be called as a witness. This stipulation I afterwards withdrew, in deference to Messrs. Lewis's urgent representations of the importance of the issue, as involving the fate of four persons. My reasons for objecting to be called were not special to the present case, but general—namely, that I object strongly to the present mode of calling expert evidence in the interests of either side, which inevitably puts the witness thus called in the position, more or less, of an advocate. It would be much better if expert evidence, when required, should be summoned by the court. This is what I meant to say. But while no provision exists for calling evidence in the manner just mentioned, is a medical witness to refrain altogether from expressing his conscientious opinion? The result would be that the opinions of the medical witnesses already summoned would be

accepted practically without appeal, and matters of the most serious moment might be decided beyond recall by the judgment of the first general practitioner who happened to be called in to a case; so that it may be, and often is, a matter of duty for a medical witness to appear.

But while I concur in what appears to be the intention of your article, I cannot agree that what you describe as a general practice at all represents the facts of the present case. Mr. Lewis authorises me to state that he did indeed send the papers to several eminent men, who returned them without any opinion, upon the grounds of leaving London for vacation or of press of engagements; and this fact was stated to the Lord Chief Justice when an application was made and granted to postpone the trial. One only gave an opinion, and this fact also was known to the Treasury, which department applied to him to make a report, though he most honourably refused to do so, and gave as his reason that he had already made a report to Messrs. Lewis. These are the literal facts.

Now, whether the opinion last referred to was adverse or merely neutral, I do not know, but suppose it to have been adverse; still, since Dr. Greenfield's report agreed substantially with mine, the majority would be favourable and not adverse. Moreover, the Treasury adopted precisely the same course in consulting Mr. Bond.

The system is doubtless imperfect: let us try to improve it.

78, Wimpole Street, October 1st, 1877. Yours, J. F. PAYNE.

P.S.—I leave Dr. Greenfield to answer for himself.

SIR,—Will you permit me, as a matter of justice, to state one or two facts with reference to my connection with the Penge case, which may modify the somewhat harsh judgment expressed upon my conduct in last week's JOURNAL?

1. My absence from court during the examination of the medical witnesses for the prosecution was due simply to the fact, that I received no notice to attend until the morning of the day following that on which the evidence was given; nor was I aware that it was to be given on the day in question. Had I known it, I should, on my own responsibility, have attended, although I had been informed that I should receive due notice when my presence was required, and was requested not to attend until then. The fault, or rather error, for such it undoubtedly was, was that of the solicitor for the defendants.

2. The error of the counsel (due, no doubt, to want of proper instructions), in supposing that I had been in court and heard the evidence, led to his first question, to which I could only reply in the negative, stating precisely what part of the evidence I had heard. The second question, as to what opinion I had formed upon the *post mortem* notes only of the cause of death, did not admit of a definite reply. I had already pointed this out in my written report of the case, and stated that the material for a positive opinion as to the cause of death did not exist in these notes. I could, therefore, when asked, only repeat in part the hypothetical opinion which I had already expressed; and, before I had got half through my first sentence, I was stopped by the judge.

I fully agree with you that such evidence was for the purpose entirely valueless; but at the same time I fail to see what other answers consistent with truth I could have given to the definite questions put to me. That they had no definite bearing on the subject at issue, was entirely the fault of the questions themselves.

I will not trouble you with a correction of the words which I used, which were erroneously reported in the *Times*, from which your quotation appears to be drawn; but I will ask you in justice to allow me to append the remarks made to me by the judge, as correctly reported in the *Daily News*. "Nobody at all in the least degree imputes any blame to you; and I am quite satisfied that you would have desired to hear the medical evidence in court and the cross-examination of the witnesses, so that you might have formed an opinion upon it."

With your general remarks on the subject of medical evidence I fully agree; but I think you will see that I was placed in a false position through no fault of my own. Apologising for thus occupying your space, I remain, sir, yours, etc.,

W. S. GREENFIELD.

Wimpole Street, September 29th, 1877.

* * * We had no intention of expressing a harsh judgment on Dr. Greenfield's conduct in this matter. We think, indeed, that he was entirely free from blame. The case, however, brought out very clearly some of the weaknesses of the present methods of taking expert evidence; and undoubtedly Dr. Greenfield was placed in a false position, although, as he clearly shows, by no fault of his own. Under similar circumstances, an expert would in future do well to refuse to enter the box.

OBITUARY.

S. K. ELLISON, M.R.C.S. Eng.

WE regret to have to announce the sudden death of Mr. S. K. Ellison, Medical Officer of Health to the South Division of the Poplar District. Mr. Ellison was the first medical officer appointed by the Poplar Board, and had held his office for twenty-one years, during which time he had gained the respect and confidence of all with whom he was brought in contact in both public and private life. One of the last acts of Mr. Ellison was assistance rendered in the establishment of the non-pauper Poplar Hospital. His death is felt to be a loss to the district in which he lived, and a resolution to that effect was passed by the Board at their last meeting. Mr. Ellison, at the time of his death, was sixty-four years of age, and, though he had continued his work, his health had been but indifferent for some time past. On the night of Sunday week, he retired to rest in his usual health, and, on the Monday morning, was suddenly attacked with urgent difficulty of breathing, which was not relieved till his death. A numerous body of friends, both professional and others, attended the funeral last Saturday.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, September 27th, 1877.

Boreham, Frank Squire, Lowestoft
Lyddon, Richard, Folkestone

The following gentlemen also on the same day passed their primary professional examination.

Clark, Thomas Furze, King's College
Sturge, Henry Havelock, Guy's Hospital
Whitworth, William, Guy's Hospital

At the Preliminary Examination in Arts, held at the Hall of the Society, on the 28th and 29th of September, 1877, 106 candidates presented themselves; of whom, 2 retired, 34 were rejected, and the following 70 passed, and received certificates of proficiency in general education—viz., in the First Class, in order of merit:

1. Charles S. Evans. 2. R. D. Brinton and S. C. Townsend. 4. T. W. Bullock, H. Fickling, E. O. Newland, Reginald Rygate, and W. G. Tyrrell. 9. L. M. Anderson, H. Appleton, Edith Croft, J. Dowson, W. E. Driffield, Arabella M. Kenealy, J. F. Lea, J. Sinclair, and Ernest L. Wright.

In the Second Class, in alphabetical order:

F. T. Bennett, T. Christie, J. H. Crouch, G. H. Darwin, D. J. Dixon, J. B. Dorian, S. Ellis, G. A. C. Fletcher, E. Fraser, J. C. Garman, Mary Ann Handson, J. Hepburn, M. Henry, J. Hern, J. Hick, G. F. Hobson, W. Holdsworth, W. Jeffrey, E. J. Johnson, F. R. Johnston, C. H. Jones, J. W. Jones, R. Lee-Huzzey, A. W. Low, J. S. B. McBurney, H. M. Massey, H. R. Mead, J. D. Menzies, J. Miller, A. M. Moore, J. S. Muir, E. M. E. Munns, W. Murch, A. E. Nelham, F. Oldfield, F. H. Pike, G. F. Rhodes, H. E. Richardson, F. S. Rix, J. Royston, Adela H. Ryate, J. R. Rygate, D. G. Sandeman, H. L. Smith, H. Stott, F. M. Swallow, E. C. Thomas, W. R. Tytheridge, S. Whitten, R. H. Wilkinson, W. Wilson, T. C. Winn, and Richard S. Wright.

MEDICAL VACANCIES.

THE following vacancies are announced:—

BERKHAMPTSTEAD UNION—Medical Officer for the Herts and Bucks District. Salary, £90 per annum, and fees. Applications to be made on or before the 15th instant.

CASTLE WARD UNION, Northumberland—Medical Officer to the Stamfordham District. Salary, £20 per annum, and fees. Applications to be made on or before the 13th instant.

CHINA—Medical Missionary. Salary to commence at £350 per annum, and residence. Immediate application.

EDINBURGH SCHOOL OF MEDICINE—Lectureship on Physiology. Applications on or before the 18th instant.

ENNISCORTHY UNION—Medical Officer for the Oulart Dispensary District. Salary, £115 per annum, and £15 as Sanitary Officer, and house. Applications to be sent in on or before the 9th instant.

LIVERPOOL LADIES' CHARITY and LYING-IN HOSPITAL—House-Surgeon. Salary, £50 per annum, with board, apartments, and washing. Applications to be made on or before 9th instant.

ROTHERHAM HOSPITAL—Resident House-Surgeon. Salary, £100 per annum, with board and furnished apartments. Applications to be made on or before the 15th instant.

ROYAL FREE HOSPITAL FOR DISEASES OF THE CHEST, City Road—House-Physician. Salary, £80 per annum. Applications to be made on or before the 11th instant.

ST. ASAPH UNION—Medical Officer for the Llanfairtalhairn District. STIRLING DISTRICT ASYLUM, Larbert—Assistant Resident Medical Officer. Apply to James Maclaren, Esq., Medical Superintendent.

OPERATION DAYS AT THE HOSPITALS.

- MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
- TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
- WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
- THURSDAY... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
- FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
- SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

- TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. A. E. Sansom, "On a Case of Noma, in which Moving Bodies were observed in the Blood during Life"; Mr. Furneaux Jordan, "On Two peculiar Varieties of Hydrocele of the Cord".
- WEDNESDAY.—Hunterian Society, 7.30 P.M.: Council Meeting, 8 P.M.: Mr. Hutchinson, "On certain Diseases of the Tongue, with especial reference to Syphilis and Smoking as causes".
- FRIDAY.—Clinical Society of London, 8.30 P.M. Mr. Bryant, "Cases to illustrate the behaviour of the Carbolised Catgut Ligature on Human Arteries"; Dr. Henry Thompson, "A Case of Hysterical Anaesthesia in a Male"; Dr. G. H. Evans, "Some recent Cases of Paracetesis Thoracis"; Mr. Lawson for Dr. Aikman, "A Case of Injury to the lower portion of the Spinal Cord, followed by wasting and contraction of the Muscles of the Lower Extremities".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

- CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.
- AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.
- PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.
- CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.
- WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.
- COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 39, Great Queen Street, W.C., London.

ARSENICAL POISONING.

It is insufficiently known that aniline dyes are an occasional source of arsenical poisoning. In the preparation of some of the aniline colours, arsenic acid is largely used. Aniline dyes are extensively employed in dyeing various fabrics in constant household use. It is important that it should be well known that the use of arsenic is not now confined to the preparation of the well known green pigments.

MILITIA SURGEONS.

SIR,—In the report of the annual meeting of the North Wales Branch of the Association, in the JOURNAL for August 4th, page 159, referring to militia surgeons, I see the following paragraph.

"We must all sympathise with the militia surgeons, who by successive schemes have been deprived of the privileges guaranteed to them by former warrants, and in all instances without any compensation, further than exemption from the expenses of messes and bands."

In December last, I joined the medical departmental staff of the militia, but during the training of my regiment this reason, I paid for mess and band subscriptions as usual, and, on applying to the Under Secretary of State for the War Department, I was informed that my position in my regiment was unaltered. I will feel obliged by being informed through your columns of the authority for the statement in the above quotation.—I am, etc.,

A MILITIA SURGEON.

POISONING BY YEW-LEAVES.

SIR,—It may be useful, perhaps, to add another reference to the list of cases of poisoning by yew-leaves given by Mr. Reid in his interesting communication to the JOURNAL last week. A similar case occurred at the Macclesfield Asylum last year, and is referred to in the last (31st) Report of the Commissioners in Lunacy, at page 80. There have been two or three other cases in asylums during the last few years.—Yours, etc.,

G. M. BACON, M.D.

Cambridgeshire Asylum, October 1st, 1877.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

THE PENGE CASE.

We are requested to publish the following notice to the medical profession.

At a large and influential meeting held in the City on Wednesday last, it was proposed that the opinion of the medical profession should be taken as to the justness of the sentence, based upon the evidence for the prosecution. All medical men who are of opinion that a doubt exists as to the death having taken place from starvation, and that it may have arisen from natural causes, the opinion of Dr. Payne and Dr. Bristowe, and also of Dr. Harman, who was present at the *post mortem* examination, but for some reason or other was not called for the defence, are requested to forward their names without delay to Dr. Forbes Winslow, 23 Cavendish Square, to accompany the petition now being prepared for presentation to the Home Secretary.

THE SINGLE VACCINE-VESELIC AND ITS INDICATIONS.

SIR,—A note appears in your issue of September 15th in respect to the proportion between the percentage of deaths from small-pox succeeding vaccination, and the scanty number of vaccine-vesicles. It is my belief that a certain fallacy underlies the inference drawn from the statistics of Mr. Marson; I do not mean one of fact, but a fallacy of relation. My reasons are, that in a large experience, formerly in particular, of vaccination cases, a certain proportion of children are difficult to vaccinate at all, even with good fresh liquid lymph; and, after occasionally three or four careful efforts to vaccinate by means of several punctures, only one puncture will be followed by a vesicle. Over and over again I have made an effort to increase the number by producing a second crop of vesicles, and almost never have succeeded in producing secondary and normal vesicles. My inference has been, that in these cases the system of the infant will not always, or will seldom, take on the vaccine disease kindly and exhaustively in relation to small-pox, and most likely that is the reason in such cases why the larger proportion of deaths follows the appearance or development of single vesicles. The statistics, therefore, may be correct as to the facts, but wrong in supposing that the mere number of vesicles can alter the event. It gives us, indeed, almost an artificial rather than a rational or natural inference or explanation. Then such an explanation as is here indicated would still leave this practical inference, that this first vaccination is most likely done in these cases in a system which resists, for the present at least, the full vaccine process, and only temporarily or imperfectly is secured against small-pox, and should therefore be done again in six or twelve months, or at least earlier than re-vaccination in ordinary cases, the bulk of which take on the vaccine disease with avidity and full effect.

I am not inclined to advocate the postponement by any means of ordinary vaccination contrary to the present law; but certainly we have most of us found cases which resist the action of vaccine altogether for the time and at so early a period, a second series which take it on freely, and a middle series, such as those alluded to, and which in my opinion require notice as exceptional, and which will require much earlier revaccination, and after the blood shall have had time to attain the normal state and become more mature.—I am, etc.,

September 15th, 1877.

WILLIAM HINDS, M.D.

SIR,—Mr. Hardwicke, in your paper of the 15th instant, says he is still an unbeliever in the superior value of four vesicles over one or two. Granting, for argument's sake, that vaccination either destroys that in the system which, if not destroyed, would allow the germs of small-pox to take root and generate the disease, or that the lymph *per se* has the power of counteracting the influence of those germs, then I think it will be easy to see how one vesicle has not the same power as four; for if only that amount of lymph be allowed to enter the circulation as one mark would allow, that amount might not be sufficient to fully destroy the whole of that which would allow the small-pox germ to exist, or suffice to kill the germs by its own power; but four times the amount would have a more potent effect than either once or twice, and the statistics of Dr. Collie and Mr. Denne given in your paper to-day help to prove this. Again, Mr. Hardwicke asks how is it that eight are not superior to four. Well, if four have been sufficient to nullify the power of the germs of small-pox, then no matter how many more were added, they could not do more than four, for there would be no work for them to do.—Yours truly,

September 1877.

STUDENT.

EXCESSIVE SALIVATION DURING PREGNANCY.

SIR,—I will thank some member to inform me of some remedy that will check the profuse flow of saliva in the second month of the pregnancy of a primipara aged 34. The following has been frequently ordered. A mixture of chlorate of potash with tincture of belladonna, and sinapisms to the angle of each jaw and back of the neck; also a mixture of tincture of muriate of iron with chlorate of potash, and a linctus of alum-water and honey and another of thick mucilage. The vomiting was checked with oxalate of cerium and bismuth, with extract of belladonna and muriate of morphia. She is of the bilious lymphatic temperament.—Yours, etc.,

Killeshandra, co. Cavan, Ireland, Sept. 1877. J. B. KENNY.

CALLED PILLS.

PILLS may have a verbal as well as a material coating. Mr. G. H. Wright of South-wark, writing in a recent number of the *Pharmaceutical Journal*, gives the following list of popular names for purgative pills, used in his locality: Wake-me-ups; rattlers; eye-openers; scavengers; early risers; castor-oil pills; excavators; five o'clockers; fly-away-jacks; and imperial pills.

IS LUNA AN ILLNESS?

SIR,—Under this heading you state: "As this is the first case that has occurred, and many others are involved in the question, it was resolved to carry the case to the Court of Queen's Bench." This is not, however, the first case that has occurred, as the issue was tried in the Liverpool County Court in (I believe) 1870, when Serjeant Wheeler, in a very elaborate judgment, ruled that insanity was a bodily disease, and gave his decision against the Friendly Society. I could procure you the Serjeant's judgment, I have no doubt, if you would like to have it.—Yours faithfully,

County Asylum, Rainhill, near Prescot, Sept. 24th, 1877. THOMAS L. ROGERS.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATER IN SEPTEMBER, 1877.
The following are the returns made by Dr. C. Meymott Tidy to the Society of Medical Officers of Health.—The quantities of the several constituents are stated in grains per imperial gallon.

Names of Water Companies.	Ammonia.		Nitrogen As Nitrates, &c.	OXYGEN used to Oxidise Organic Matter.	Total Solid Matter per Gallon.	Hardness. (Clarke's Scale.)	
	Saline.	Organic				Before Boiling.	After Boiling.
	Grains.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
<i>Thames Water Companies.</i>							
Grand Junction ..	0.001	0.009	0.090	0.100	20.80	13.7	3.3
West Middlesex ..	0.000	0.009	0.111	0.048	17.30	12.6	3.0
Southwark and Vauxhall	0.002	0.010	0.118	0.110	19.70	13.2	3.3
Chelsea	0.001	0.009	0.105	0.092	21.00	14.3	3.3
Lambeth	0.001	0.009	0.130	0.079	20.70	13.7	3.0
<i>Other Companies.</i>							
Kent	0.000	0.002	0.268	0.010	26.60	19.4	5.1
New River	0.000	0.006	0.090	0.037	16.10	12.6	3.3
East London	0.000	0.007	0.097	0.041	20.00	12.6	3.0

Note.—The amount of oxygen required to oxidise the organic matter, nitrates, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters, the quantity of organic matter is about eight times the amount of oxygen required by it.

SPHYGMOGRAM.

SIR,—It is not a great distinction in the world of science to be the introducer of a new term, but I think it right to state that I employed the term "sphygmogram" in a paper on the Pulse of Typhus, published in the *Dublin Medical Journal* in February, 1867, and have continued to use the term in my lectures and writings during the past ten years. I believe the term "sphygmogram" has been more frequently used than your correspondent Dr. Churton seems to think. It is, I believe, a current term, and certainly much more convenient than the clumsy phraseology now in use. I wish it could be generally adopted.—I am, etc.,

THOMAS W. GRIMSLOW, M.A., M.D.

13, Molesworth Street, Street, Dublin, September 24th, 1877.

J. N. (London). Dugli's *Diagnosis of Medical Terms*; Bristowe's or Roberts's *Practical Medicine*; Graily Hewitt's *Diagnosis of Women*; Von Trolsch's *Diseases of the Ear*; Lowrie's or Macnamara's *Manual of Ophthalmic Surgery*; Bell's or Smith and Walsham's *Handbook of Operative Surgery*.

THE RECOGNITION OF HOMŒOPATHS.

SIR,—It seems to me that every scientific physician ought to encourage in every legitimate manner the freest professional intercourse between the homœopaths and ourselves. They (the homœopaths) alone can supply us with that information which is imperatively demanded by those who are doubtful as to the efficacy of many of our present methods of treatment. We have abundant information to enable us to determine whether one method is or is not superior to another, but we have no means of knowing whether the superior method is in any way better than no treatment at all. Our great desideratum is a large collection of cases, which have been carefully watched and reported by competent medical men, and which have been subjected to no drug treatment whatever. Dr. Hughes Bennett tells us that it cost him a very considerable amount of time and labour to discover how long a case of iritis took to get well when left to Nature; and we who desire to know the natural course of many other diseases, may search medical literature in vain. We must take it for granted that any form of treatment, however rudimentary, is better than none—a conclusion which is certainly very far from axiomatic. We have few trustworthy records of disease uninfluenced by drug-treatment; nor are we likely to have this advantage unless we receive it at the hands of our homœopathic brethren. Their drug-treatment, when confined to infinitesimal doses, we believe to be neither more nor less than no treatment; and thus, if they would furnish us with a large number of carefully watched cases of any given disease, they would supply data which would do much to establish or demolish our present methods of treatment.

If the results proved that we are doing no good in our present course, then those of us who have unbounded faith in drugs would either adopt the homœopathic treatment or seek out a new method of cure, while those who believe in the *vis medicatrix nature* would have the satisfaction of "throwing physic to the dogs".—I am, etc.,

JAMES MUIR HOWIE, M.B. Edin.

UNQUALIFIED MEDICAL PRACTITIONERS.

A MAN named W. D. Stokes, and calling himself a medical herbalist, has but narrowly escaped a charge of manslaughter at the hands of a jury, presided over by Mr. William Carter, Coroner for the Eastern Division of Surrey. An adjourned inquest has been concluded on an infant a year and a half old under the following circumstances. The child's mother went to a herbalist's shop in Camberwell to get some medicine for her child, who was suffering from diarrhoea. She saw the assistant of Stokes, the proprietor of the shop. He gave her a mixture in a bottle which was not labelled. One dose was taken in the shop, another at night. Next morning, as the child was still suffering from diarrhoea, it was again taken to the shop, and the assistant gave the mother a packet of herbs to be used as a tea. Mr. J. W. Edmonds, a qualified medical practitioner, gave evidence to the effect that he was called to see the child, who was suffering from diarrhoea. He prescribed for her. On the following morning, he found her in a state of partial collapse; in the afternoon, she was taken with convulsions and died. The nature of the mixture given by the herbalist was not known, and the child appeared to have died from exhaustion, due to the diarrhoea. It was not suggested that the child died from the effects of the mixture given. The herbalist was severely blamed by the coroner for prescribing in a case of serious disease where life might have been saved by proper medical treatment.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

OPHIOPHONING OR INTUSSUSCEPTION.

SIR,—In the article on the supposed case of poisoning at Devonport, reported in the BRITISH MEDICAL JOURNAL for September 15th, it is not stated what was the condition of the mucous membrane in the invaginated portions of small intestine. In page 292 of Dr. Wilks's *Pathological Anatomy* (edition 1859, article Intussusception), he states: "My own experience is this, that I have never seen but one case of intussusception in an adult, and in this case the obstruction was never complete, and death did not occur for some weeks. In infants, however, the affection may rapidly take place, and is speedily fatal. It is only, of course, where the intussusception is permanent that symptoms occur; for it is highly probable that a slight slipping in of one portion of bowel into another is constantly taking place, if we judge from what is frequently met with on the *post mortem* table. In children especially, who have died from cerebral disease, the intestines are found contracted, and often invaginated in several places: these are readily pulled out. The occurrence in this class of cases naturally suggests a nervous influence productive of the condition: these are mostly found in the small intestine. In all the fatal cases that have come before my notice, it has been the large intestine affected; and in most instances by the inclusion, in the first place, of the ileum in the cæcum, and then a gradual inversion of the large intestine itself." This coincides with my experience—in a far more limited field, of course—and in the face of such a statement I cannot help thinking, unless the state of the mucous membrane in this particular case precluded any such conclusion, that the intussusception might still have been due to the paralytic influence of the opium.—I am, sir, your obedient servant,

SAMUEL PRALL, M.D., F.R.C.S.

West Malling, near Maidstone, September 15th, 1877.

THE REV. V. E. should be aware that his letter contains very serious charges without any proof or even explanatory detail, and in part deals dogmatically and recklessly with statements of judgment on subjects on which he can have no knowledge adequate to justify a decision.

THE STINGS OF MOSQUITOES.

MANY tourists in Switzerland and along the Rhine having complained of the stings received from mosquitoes, a correspondent forwards us (*Standard*) a prescription recommended by the German traveller Jagor, the use of which, it is stated, will secure the traveller against all insects for twelve hours. A tincture prepared simply of one part of insect-powder (pyrethrum roseum), two parts of alcohol, and two parts of water, is to be applied to the skin, and the desired end will be secured.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; The Derby Mercury; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Wilson Fox, London; Dr. J. F. Payne, London; Mr. R. T. Leslie, Liverpool; Ignoramus; Dr. R. C. Shettle, Reading; Dr. Mead, Newmarket; Our Correspondent with the Turkish Army in Asia; Dr. Dickson, Constantinople; Mr. J. S. Blythe, London; Dr. Banham, Sheffield; Mr. J. A. Nunneley, Leeds; Dr. T. C. Charles, London; Mr. Macnamara, London; Dr. Goodhart, London; Dr. W. S. Playfair, London; Mr. Herbert Page, London; Dr. W. Cayley, London; Mr. T. P. Pick, London; Mr. A. Hensman, London; Mr. W. W. Wagstaffe, London; Dr. W. S. Greenfield, London; Mr. R. Bell, London; Mr. C. F. Maunder, London; Dr. Laidlaw, Tranmere; Mr. R. S. Fowler, Bath; Mr. E. C. Board, Clifton; Dr. E. Watteville, London; Mr. J. Adams, London; Mr. A. Jackson, Sheffield; Dr. Saundby, Birmingham; Dr. Wallace, Liverpool; Our Paris Correspondent; Dr. F. Beach, Lower Clapton; Dr. Bates, London; The Secretary of the Hunterian Society; Surgeon-Major Fleming, Netley; Dr. A. W. Fox, Bath; The Registrar-General of England; Dr. J. B. Bradbury, Cambridge; The Secretary of Apothecaries' Hall; Dr. J. Milner Fothergill, London; The Registrar-General of Ireland; Dr. Orange, Broadmoor; Dr. Lee, London; Mr. Rushton Parker, Liverpool; Dr. Bassett, Birmingham; The Secretary of the Clinical Society; Dr. Joseph Bell, Edinburgh; Our Edinburgh Correspondent; Mr. J. C. Ewart, London; A Member B. M. A.; Our Glasgow Correspondent; Dr. E. Symes Thompson, London; Mr. F. A. A. Smith, Walton-on-Naze; Mr. W. Vick, Ipswich; M.R.C.S.; Dr. Sawyer, Birmingham; Dr. E. Malins, Birmingham; Mr. D. J. Hamilton, Edinburgh; Dr. de Pietra Santa, Paris; Dr. J. W. Moore, Dublin; Our Dublin Correspondent; Dr. Joseph Rogers, London; Mr. W. D. Husband, York; Dr. Philipson, Newcastle-on-Tyne; Dr. Bruce Goff, Bothwell; Dr. Meymott Tidy, London; The Secretary of the Faculty of Physicians and Surgeons, Glasgow; Dr. J. W. Moore, Dublin; etc.

BOOKS, ETC., RECEIVED.

On the Prognosis in Cases of Valvular Disease of the Heart. By Thomas B. Peacock, M.D., F.R.C.P. Being a revised reprint of a paper in the *St. Thomas's Hospital Reports*, vol. ii, 1871. London: J. and A. Churchill, 1877.
Fownes's Manual of Chemistry, Theoretical and Practical. Vol. ii: Chemistry of Carbon Compounds on Organic Chemistry. Twelfth edition. By Henry Watts, B.A., F.R.S. London: J. and A. Churchill, 1877.

AN ADDRESS

THE PRESENT RELATION OF INSANITY TO THE CRIMINAL LAW OF ENGLAND.

Delivered at the Annual Meeting of the Reading Branch of the British Medical Association.

By W. ORANGE, M.D.,

Medical Superintendent of the Broadmoor State Lunatic Asylum ;
President of the Branch.

GENTLEMEN,—In charging the jury at the trial of an insane man, in the spring of 1876, for the murder of his wife, the learned judge, Lord Blackburn, is reported to have said that he had read everything that was written on the subject, and had thought the matter over, and that he never could come to understand the precise amount of insanity that rendered a man unaccountable. I trust you do not suppose me to be labouring under the impression that I am about to lay before you a solution of this problem this afternoon; all that I propose to myself is, to consider briefly the present aspect of the law towards medical evidence in cases where insanity is pleaded, and to glance at some measures which have recently been proposed, having for their object to produce an improvement in the existing state of things. The legal notions of insanity have not, as you are aware, been always the same. No doubt, at every stage there might have been found some persons ready to declare that the then existing state of the law was perfect; but, notwithstanding this, the law has undergone repeated modifications since the time of Lord Coke. He, as you will remember, made four classes of insane persons:

1. An idiot who, from his nativity, by a perpetual infirmity, is *non compos*;
2. He that, by sickness, grief, or other accident, wholly loseth his memory and understanding;
3. A lunatic that hath sometimes his understanding and sometimes not, "*aliquando gaudet lucidis intervallis*"; and, therefore, he is called *non compos mentis* so long as he hath not understanding;
4. He that, by his own vicious act, for a time depriveth himself of his memory and understanding, as he that is drunken.

Concerning these definitions, Dr. Prichard wrote: "An attempt to enumerate the forms of mental unsoundness, which excludes, by incorrect definitions, nearly all the objects which it was intended to distribute, could hardly fail more completely of its design."

In the present century, the chief landmarks indicative of the current of opinion with respect to insanity in criminal cases are: the trial of Hatfield for shooting at the King, in the year 1800; the trial of Bellingham for shooting the Prime Minister, Mr. Spencer Perceval, in the lobby of the House of Commons, in 1812; and the trial of Macnaughten for shooting Mr. Drummond, mistaking him for Sir Robert Peel, in 1848. In the case of Hadfield, who was most ably and eloquently defended by Mr. Erskine, afterwards Lord Erskine, there was an acquittal. Bellingham was less fortunate in the counsel who defended him and in the judge who tried him, and he was convicted and executed. Macnaughten was acquitted.

The law being thus uncertain, the House of Lords, in 1848, propounded to the judges certain questions with regard to the law on the subject of insanity when it was alleged as a defence in criminal actions, the object being to obtain from them an exposition of the law for the guidance of future courts. The answers to those questions constitute the law upon the subject at the present time. I do not intend to weary you by reading them at length. Lord Justice Bramwell recently condensed them thus:

"When a man's state of mind is such that he does not know the nature and quality of the act he is doing, for instance, does not know that cutting a man's head off will kill him, like the man who cut off the head of another person in order to see how he looked when he woke; or when his state of mind is such that, although he may know what the result will be, he does not know that it is wrong, then he ought to be acquitted. So also, if he is labouring under a delusion of such a character that, if the delusion were true, he would be justified in the homicidal act, he would also be entitled to acquittal."

Lord Justice Bramwell added: "The common notion that a man may be acquitted merely because he is mad is erroneous."

It may be noted, in passing, that the statutes relating to criminal lunatics give nowhere any definition of the term insane. The definition is judicial, but not statutory. And, further, the Act passed in the year 1800, which directs the mode in which persons indicted for any offence and found insane are to be dealt with, speaks of the accused person appearing to the jury to be insane, as if this really were a matter within the competence of the jury to come to a conclusion upon. The mode of legal procedure is, however, for the judge to tell the jury that what they have to consider is, not whether the accused person is insane, but whether he is insane according to a certain definition, that definition being the one which was enunciated by the judges in Macnaughten's case. In reference to this point, Sir James Fitzjames Stephen has said that very eminent judges had greatly doubted the constitutional propriety of putting abstract questions of that kind to the judges, and getting such answers from them; and that he had heard more than one of the most eminent judges on the bench express themselves as being doubtful with regard to that authority on that ground.

However this may be, the settlement of this question is one rather for lawyers and statesmen than for medical men in their special capacity. And it is requisite that, at present, the medical witness should be fully acquainted with the legal definition or character of that degree of insanity which the judges have decided shall be admitted as evidence of irresponsibility. That this definition of the kind and degree of insanity which confers irresponsibility is defective; that it is not in conformity with the ascertained facts of medical science; and that some modification of it is now required, are opinions which, I am happy to say, are now largely shared by high legal authorities. In the year 1874, a Bill to amend the law of homicide was introduced into the House of Commons by Mr. Russell Gurney, the learned Recorder of London; and one very conspicuous amendment proposed in that Bill had reference to the plea of insanity. Instead of the existing state of the law as expounded by the judges in the House of Lords, it was proposed to enact that homicide should not be deemed criminal if the person by whom it is committed is, at the time when he commits it, prevented by any disease affecting his mind—

- a. From knowing the nature of the act done by him;
- b. From knowing that it is forbidden by law;
- c. From knowing that it is morally wrong;
- d. From controlling his own conduct;—

But that homicide is criminal, although the mind of the person committing it is affected by disease, if such disease do not, in fact, produce some one of the effects aforesaid in reference to the act by which death is caused, or if the inability to control his conduct be not produced exclusively by such disease. The proposed Bill went on to say that, if a person be proved to have been labouring under any insane delusion at the time when he committed homicide, it shall be presumed, unless the contrary appear or is proved, that he did not possess the degree of knowledge or self-control hereinbefore specified.

This Bill was referred to a select committee; and, although it was ultimately abandoned for a time, a mass of most valuable evidence was accumulated, which will assuredly not be allowed to pass into oblivion. The chief witnesses examined by the committee were Lord Justice Bramwell, Lord Blackburn, Mr. Justice Crawford, and Sir James Fitzjames Stephen. The Lord Chief Justice submitted a statement in writing, but was not examined orally.

Lord Justice Bramwell, although approving of the existing law, said, in the course of his examination, that he thought "the law lays down such a definition of madness that nobody is hardly ever really mad enough to be within it".

The majority of medical writers quite agree with this deliberate statement of Lord Justice Bramwell, that the law, as now expounded, lays down such a definition as to render it capable, if applied in its full strictness, of including only a very small percentage of insane persons, and it is well, therefore, to have this matter so boldly and authoritatively stated.

With this evidence of Lord Justice Bramwell, let us compare that of Lord Blackburn, who expressed himself thus.

"We cannot fail to see that there are cases where the person is clearly not responsible, and yet knew right from wrong. I can give you an instance. It was in the case of that woman of whom I was speaking, who was tried for wounding a girl with intent to murder. The facts were these. The woman had more than once been insane, the insanity being principally brought on by suckling her child too long; that was the cause that had produced it before. She was living with her husband, and had the charge of this girl, an impotent girl of about fifteen, who lay in bed all day; she was very kind to her, and treated her very well; they were miserably poor, and very much owing to that she continued to nurse her boy till he was nearly two years old; and suddenly, when in this state, she one morning about eleven o'clock went to the child lying

there in bed, aged 15, and deliberately cut her throat; then she went towards her own child, a girl of five or six years of age, of whom she was exceedingly fond, and the girl, hearing a noise, looked up and said: 'What are you doing?' 'I have killed Olivia, and I am going to kill you' was the answer. The child fortunately, instead of screaming, threw her arms round her mother's neck and said: 'No; I know you would not hurt your little Mopsy.' The woman dropped the child, went down and told a neighbour what she had done, that she had killed Olivia, and was going to kill Mary, 'but when the darling threw its arms round my neck I had not the heart to do it'. She clearly knew right from wrong and knew the character of her act; for some little time after that she talked rationally enough, but before night she was sent to a lunatic asylum raving mad; and, having recovered, she was brought to be tried before me at a subsequent assizes. She did know the quality of her act, and was quite aware of what she had done, but I felt it impossible to say she should be punished. If I had read the definition in Macnaughten's case, and said, 'Do you bring her within that? the jury would have taken the bit in their own teeth and said, 'Not guilty on the ground of insanity'. I did not do that. I told them that there were exceptional cases, and on that the jury found her not guilty on the ground of insanity, and I think rightly."

We find Sir James Fitzjames Stephen, when his turn came round again to give evidence, expressing himself thus.

"Baron Bramwell thinks that the law of England is such that insanity hardly ever, under any circumstances, excuses a man from crime; in fact, in one of his answers he goes so far as to say that he holds the definition of insanity to be logical and correct, but does not believe that anybody ever was mad enough to fall within it. Practically, that comes to the same thing as saying that madness makes no difference as to responsibility. Mr. Justice Blackburn says, on the other hand, that the section drawn in the Bill pretty nearly represents the existing law as it is, and, if it errs, it errs in defect, because it does not take in certain cases which ought to be taken in. He adds that, in a particular case which he had to try, thinking that the existing law was, I suppose, in a very elastic condition, he took upon himself to tell the jury that there were exceptional cases which came under no rule, and that they ought to acquit the woman who was on her trial on the ground of insanity, although no authority could be found for it; and, although Baron Bramwell, an equal authority, considers that the woman under such circumstances ought not to be acquitted, as it was perfectly certain she was by law guilty, I do not wish to follow the matter out, because I do not wish to be considered as saying a word implying disrespect to either of those learned judges. But when you find two learned judges of the highest eminence directly contradicting each other on matters of the first importance, matters on which the life and death of persons tried before them might depend, and one of them praising that state of things as a proof of the elasticity of the common law, I can only say that I feel surprised, and cannot agree with that learned judge's praise of its elasticity. Baron Bramwell speaks quite in the opposite sense, and expresses entirely my own opinions on the matter, namely, that it is eminently desirable that you should have definitions, and that those definitions should state plainly what the law is."

Where we find so high a legal authority saying of two learned judges that they directly contradict one another on matters of the first importance, it ought, I think, in some measure, to reconcile medical men to being twitted with occasional want of unanimity of opinion amongst themselves.

The report, from which the foregoing extracts have been taken, contains much matter which is of the most interesting character to medical men upon a variety of other medico-legal points; but, as I am now confining my remarks strictly to the medico-legal bearings of insanity, I will trespass upon your patience with only one additional short extract.

The Lord Chief Justice of England, in a letter addressed to the committee, expresses himself thus.

"As the law as expounded by the judges in the House of Lords now stands, it is only when mental disease produces incapacity to distinguish between right and wrong that immunity from the penal consequences of crime is admitted. The present Bill introduces a new element, the absence of the power of self-control. I concur most cordially in the proposed alteration of the law, having been always strongly of opinion that, as the pathology of insanity abundantly establishes, there are forms of mental disease in which, though the patient is quite aware he is about to do wrong, the will becomes overpowered by the force of irresistible impulse; the power of self-control when destroyed or suspended by mental disease becomes, I think, an essential element of responsibility."

These extracts are, I think, abundantly sufficient to show that, on the part of some of the most learned judges in England, there exists

the conviction that the time has now come when a revision of the law relating to insanity, as expounded in the Macnaughten case, is urgently required; and it is now, therefore, a specially opportune time for medical men to contribute as far as they can from their knowledge of the natural history of insanity, in order to secure that the change, when made, shall be such as to bring the law as nearly as may be into harmony with science. But this is not the only object which has to be attained. It is not less important that the law, in this as in every other matter, should also be in harmony with the general opinion of the public; and I can, to some extent, sympathise with the opinion sometimes expressed that, in the interests of public justice, it is almost better that persons should be punished, even when irresponsibly insane, than that there should be any widespread public feeling that justice has been evaded whenever a madman has been consigned to the asylum instead of to the gallows.

I entertain, however, no apprehension that, in the present day, so sad a course is necessary. What the public require, in order to form their opinion, is knowledge, and there is no body of men so well fitted and at the same time so well situated for diffusing this requisite knowledge as medical men who are engaged in the general practice of their profession, and who are thus brought into close relations with all classes of the community. We have seen what the English law in relation to the plea of insanity in criminal cases actually is; and we have seen what are the improvements and modifications proposed in the recent Bill, drawn up by Sir James Fitzjames Stephen, and brought into the House of Commons by the Recorder of London. Proof of the unsatisfactory nature of the existing law is to be found in abundance in all the medical text-books relating to the subject; but to-day I thought it would, perhaps, be more interesting to illustrate this point rather by the evidence of lawyers than by that of medical men, and by evidence of so recent a date as not yet to have found its way into the medical text-books, and I need not say that I am making no pretence to enter fully into the subject, but only to touch lightly upon the most salient points. If, then, the present legal tests are now, after having done duty for a generation, to be laid aside as antiquated, it becomes an interesting question whether the proposals put forward in the Bill of Sir James Fitzjames Stephen and Mr. Russell Gurney shall take their place. The formula proposed by Sir James Fitzjames Stephen possesses what is, to my mind, one conspicuous amendment. He expressly desires to introduce the principle that inability to control the conduct, if caused by any disease affecting the mind, ought to carry with it irresponsibility. This appears to me to be really the essence of the whole matter. It is curious to observe that, although conduct is the one thing with which the law is concerned, yet that, in this question of insanity, the legal tests have hitherto dwelt so entirely upon knowledge and beliefs, and have altogether omitted all mention of conduct.

The other important modification which Sir James Fitzjames Stephen and Mr. Russell Gurney propose has reference to the value of the existence of delusion as a symptom of insanity in the legal sense of the term. The clause of the Bill in which this modification is proposed has been already quoted. It is quite true that the existence of a delusion is a most important element in the diagnosis of insanity; and it is also true that, where a delusion exists, it is almost impossible to affirm the absence of any connection between the delusion and any particular act performed; and it may be added that delusions often exist without being detected; still, it must be admitted that there are certain forms, or rather stages, of insanity in which there are no delusions, or, at any rate, none in the ordinary and plain meaning of the word. And, therefore, as delusion, although a most important symptom of insanity, is a symptom which is not invariably present, it is questionable whether it would not be better to omit the clauses relating to it, lest it should come to be thought, upon the principle "expressio unius est exclusio alterius", that the proof of insanity would not be complete in the absence of that particular symptom. Another obvious objection is that, in requiring proof of the existence of an insane delusion, instead of simply requiring proof of the existence of insanity, the difficulty is only shifted, and not solved. The question immediately arises, What is an insane delusion? Are, for example, the believers in Dr. Slade to be held irresponsible for their criminal acts? It appears to me that the medical witness, if called upon to assist the court at all by his evidence, should be left entirely unfettered as to the means of diagnosis which he is to employ, and that he should be only required, first, to satisfy his own mind, and then to submit his opinion to the consideration of the court, supported by such proofs as will bear the test of cross-examination, upon the point, whether, when the offence was committed, there did, or did not, exist in the accused person such mental defect or disease as deprived him of the power of regulating his conduct in accordance with the laws of the land. To tie down the medical witness, by precise legal rules, as to the mode in which he is to form his opinion

is very much like telling a physician to make a diagnosis of lung-disease and at the same time limiting him to such information as he can gather from the pulse and the tongue, and strictly precluding him from making any use of such instruments as the stethoscope or the thermometer, upon the plea that such things are not mentioned by Hippocrates or Celsius.

I am quite aware that English lawyers have commonly expressed the opinion, and expressed it strongly, that, to leave the question of irresponsibility to be decided by the court in this general manner without some strict definition to guide it, would be attended with grave inconvenience; but this feeling, perhaps, in some measure, springs from legal tradition, and I venture to very much question whether any inconvenience could be so great as that which attends the existing practice, under which it constantly happens that the jury cut the knot by bringing in a verdict of insanity in opposition to the judge's charge, and under which the court finds itself not infrequently compelled first to pass sentence upon a manifest lunatic, and then to invoke the aid of the advisers of the crown in order to prevent the execution of the sentence.

The German penal code enacts that "an act is not punishable when the person, at the time of doing it, was in a state of unconsciousness or of disease of mind by which a free determination of will was excluded"; and the French code runs thus: "There is neither crime nor misdemeanour in an action otherwise culpable, committed at the moment when the accused was in a state of insanity." I prefer the German code to the French, inasmuch as it qualifies the degree of insanity by saying that it must be such that "a free determination of the will is excluded". Professor Casper of Berlin summed up his comments upon this point in these words, as given by his translator, "criminal responsibility (imputability) is, therefore, the psychological possibility of the efficaciousness of the penal code". It will be observed that Professor Casper does not say that the mental disease must be such that all and every kind of external influence shall be incapable of moulding, in any degree, the conduct of the individual; but that it must be such that the *penal code* is no longer efficacious. This is a very important distinction; for it is sometimes urged that, because the inmates of lunatic asylums are capable of being influenced as to their conduct and brought to exercise a considerable degree of self-control by a discipline which includes, as one of its elements, a modified system of rewards and punishments, therefore, there is no reason why the ordinary operation of the criminal law should ever be suspended in the case of lunatics. An argument of this kind shows an evident lack of the power of appreciating the proportion and relative value of things.

The discipline of the insane in an asylum, so far as the question of rewards and punishments is concerned, is very much like the discipline of the nursery. The young child is quite capable of being influenced by a discipline suited to its years, but it by no means follows that the discipline would be improved by invoking the aid of the gallows or of penal servitude; and it is thus in an asylum.

If, indeed, the punishment of insane persons were efficacious to restrain their insane acts, it might, with some show of justice, be urged that such punishment should properly be applied; but, in former times, there has been sufficient trial of that system by stripes and chains and repression on all descriptions of lunatics and in every conceivable state of circumstances, and that system has as uniformly and completely failed as a more enlightened and humane system has succeeded. It is not by any metaphysical reasoning that the conviction of the uselessness of applying the penal code to lunatics is arrived at, but it is by the simple process of the observation of actual facts. To anyone living amongst the insane, the proofs are so numerous and of such everyday occurrence that the question appears to require no argument.

It would be a mistake to suppose that the victim of insanity commonly forgets the commission of his insane acts. Excepting in those cases where very violent delirium on the one hand, or where absolute dementia on the other, is present, there is ordinarily very fair recollection. A man, now under my care, who attempted to kill his wife in the course of last year, and who was then, and is now, in a state of acute melancholia, writes thus to his wife a few days ago:

"My dear,—I do hope that you will take me home and let the gentlemen of the town tell me the laws of this beautiful world, and let me be one of God's children, and not let me be an outcast. Lord be merciful to me. What I did suffer in my head, no man can conceive, and the cause of it made me do what I did to you and myself. No man can tell the tears I shed for my sins," etc.

And, yet, the writer of this letter is so completely smitten with melancholia that common sensation is well nigh obliterated. He denudes his face by tearing out his beard hair by hair, and the practice affords him positive pleasure, instead of pain; and for many months he required the most vigilant watching to avert suicide. I cannot for a moment conceive of anyone who had watched the conduct of such

a man imagining that the fear of the penalty of death would be in any degree efficacious in controlling his conduct.

Dr. Guy, Professor of Hygiene in King's College, London, in a paper read by him last year at the Social Science Congress, examined very carefully into the statistics of executions for murder in England and Wales during the last seventy years, especially with reference to the plea of insanity. This paper is published in the *Journal of the Statistical Society* in December 1875, and the conclusion at which Dr. Guy arrives is that, as far as such a matter is capable of being measured by figures, there is an entire absence of proof that the admission of the plea of insanity during those seventy years has had any influence whatever in rendering life less secure.

The proposition, then, that underlies the whole matter of the plea of insanity asserts the existence, in certain cases, of such a degree of mental disease as excludes the free determination of the will, and renders the application of the penal code no longer efficacious. And the proper function of the medical witness would appear to me to be to make a critical examination of the individual case, with the view of ascertaining whether such a degree of mental disease does or does not exist, and then to place the result of his examination before the court in the plainest language that will suffice to convey his meaning.

It is, of course, worse than useless in a court of law to enter upon definitions of insanity in the abstract. Etymologically, the term implies the negation of something, and not a positive entity. It has been said that nobody is quite sane; and, indeed, the old Latin poet and satirist wrote: *Orandum est ut sit mens sana in corpore sano.* He did not say that a sound mind ever existed, but he said it was a thing to be prayed for.

[To be continued.]

A CLINICAL LECTURE ON CYSTS.

Delivered at St. Thomas's Hospital, London.

By FRANCIS MASON, F.R.C.S.,
Surgeon and Lecturer on Anatomy at the Hospital, etc.

GENTLEMEN,—By a curious coincidence, we have now under observation a group of cases which illustrate very perfectly the chief types of cysts that are met with in surgical practice. It will be beside our purpose to enter minutely into the development of cystic growths; but it may be convenient, in order that we may thoroughly understand their condition, to divide them into two classes, and speak first of those that result from an accumulation of the contents in a pre-existing or normal cyst, and secondly of those that commence afresh as new or abnormal formations.

In the first class, there are the so-called *retention-cysts*; and of these we have one typical example in the case of a woman aged about 40, who had between twenty and thirty *sebaceous cysts* on the scalp, which we removed between us. These cysts arise from the occlusion of the hair-follicles, and, as was the case in this woman, are very frequently hereditary. I know a lady who is a sort of martyr to such excrescences, having always one or two on hand ready for operation. Several of her family are similarly predisposed; thus her mother, two sisters and a brother, and her son, are alike subject to such cystic tumours. Their removal is very simple. The best plan, I think, is to transfix the cyst with a sharp knife, and to turn it out with a scoop, which should be carefully insinuated at the angle of the incision, and so used as to go gently round the circumference of the cyst, the operator bearing in mind the size and shape of the tumour. No force should be employed; for, simple as such operations appear, they are not infrequently followed by a good deal of inflammatory action, and occasionally by erysipelas. So much stress do I put on the importance of not using roughness, that I recommend, in those cases in which adhesions exist, that a few light touches of the knife should be used, keeping quite close to the cyst, rather than the growth should be dragged away with violence. Immediately the cyst is enucleated, a pad of dry lint should be applied; and, as a rule, the wound heals by primary union.

The diagnosis of these cysts, when they occur on the trunk or extremities, is not usually difficult. Sometimes, however, a small lump of fat, if situated on the face, especially the forehead, will closely simulate a cystic tumour; but the fatty growth is usually flatter and more doughy to the touch, whereas the cystic tumour is more dome-shaped, and there is a sensation of fluctuation communicated to the finger. In cystic tumours, moreover, a little black spot may often be observed,

which is the orifice of the obstructed duct. On squeezing the tumour, a little of the contents may be made to exude, as in the case of a girl whom we saw the other day amongst the out-patients. In this instance, the cyst was situated on the back between the scapulae. It is no unrequited occurrence to find that patients who have such cysts on an exposed part, such as the face, and who are indisposed to undergo the slight ordeal of an operation, can keep the growth within the limit of becoming decency by gently expressing the contents from time to time; but the cyst is never cured unless it be removed by the surgeon, or be obliterated by inflammatory action.

The second kind of retention-cyst, or *mucous* cyst, is exemplified in a man who is now under notice, and who had a cyst about the size of a filbert, which had been growing for eight months and was situated on the left side of the lower lip. Whether it was caused by the irritation of decayed teeth I know not; but it projected, you will remember, through a space caused by the absence of the lateral incisor and canine teeth in the upper jaw. Such cysts may be excised; but in this case I made a free incision into it, evacuating a slightly viscid fluid; and I touched the lining surface with caustic. The patient is now nearly well.

Speaking of this case reminds me of several others that we have treated, and which may be classed third amongst the retention-cysts. I allude to cases of *ranula*. If once carefully observed, a ranula will never be forgotten. Situated immediately under the anterior part of the tongue, it will be recognised as a tense, semi-translucent, bluish swelling, fluctuating, and having in some cases well-marked veins ramifying over its surface. It is generally of the size of a filbert or a walnut, but may attain an enormous size; thus M. Boinet relates a case in which the tumour filled the mouth, and a large portion projected from that cavity. The four incisors, two canine, and first molars of the lower jaw had been displaced by the pressure; and the patient, besides being almost starved to death, was more than once threatened with suffocation. In this case, the cyst was extirpated, and the patient recovered.

There is some difference of opinion as to the manner in which a ranula has its origin, and I will not occupy your time further than to say that some pathologists believe that it is simply an obstruction of the ducts of the mucous glands, precisely resembling the mucous cysts just described. Others think it is a dilatation of the sublingual or submaxillary duct; or, again, that, the duct having burst, the contents escape into the surrounding textures, and are there confined in a new cyst formed of condensed connective tissue. Other observers attribute it to an enlargement of the small bursæ that exist between the muscles of the tongue.

The treatment of these cysts consists of making a free incision into them, when the characteristic gelatinous mass exudes. To effect a radical cure, it is necessary to remove a piece of the cyst-wall, so as to prevent a reaccumulation of the contents; and, in using the scissors for this purpose, care should be taken to attack that part of the cyst which is least vascular. It is easy to open a vein of some size, and I have witnessed on more than one occasion considerable hæmorrhage by oozing after this apparently very simple proceeding.

Included in this class of retention-cysts is that in which there is an *obstruction of the ducts of the mammary glands*. We have had three such cases lately, one of some size, from which a good half-pint of creamy material was evacuated by incision. In this list, too, we may include examples of *encysted hydrocele*. It will suffice to refer to one only of the three cases that have been recently under our observation. The man was twenty-eight years of age, and had had a swelling of the size of a currant at the top of his testicle ever since he could remember. About twelve months before his admission, he received some injury to the part, and from that time the swelling gradually increased to its present size, which is about the size of a walnut. This case was interesting in a diagnostic point of view. There was no impulse on coughing; and the cord could be distinctly felt above the tumour, showing that the case was not one of hernia. The testicle could be distinctly felt below and anteriorly, indicating that it was not an ordinary hydrocele of the tunica vaginalis. But there was a distinct circumscribed swelling, apparently connected with the epididymis; and we formed our diagnosis from the position of the swelling, and anticipated the character of the fluid to be evacuated. The fluid had, as we expected, a slightly turbid appearance, looking as if a few drops of milk had been mixed with water. There was scarcely a trace of albumen in it; and, when examined with the microscope, we found myriads of spermatozoa. The treatment adopted in this case was to make a free incision and introduce lint, so as to promote granulations.

The second class of cysts is that known as the *exudation-cysts*, in which an excessive accumulation takes place in a pre-existing cyst which is unprovided with an excretory duct. The different diseases of

normal bursæ in the body may be taken as a good type of this form of exudation-cyst, and we are fortunate in being enabled to watch four cases which illustrate their nature very well. They are all affections of the bursa patellæ. In the first—a girl aged 18, a housemaid—there is a large painless swelling situated over the right patella. She has been kneeling a good deal of late, and there is considerable effusion in the bursa. This is improving by rest and the application of iodine paint. The second case is one in which the bursa is in a state of suppuration. The treatment here was to make a free incision, not in the middle line, but at the side of the swelling, so as to obviate the pocketing of matter which often occurs in such cases. The diagnosis between a suppurating bursa patellæ and an inflamed knee-joint should be particularly noted; but the two diseases may be distinguished by remembering that, in the case of inflamed bursa, the skin is acutely painful; the patella itself is masked; and that the little dip or depression on each side of the knee is more or less retained. In suppuration of the joint, on the other hand, the patella is easily recognised by the touch, and perhaps floats. The depression on each side above referred to is lost; but the chief point is the excessive constitutional disturbance that coexists. The third case is one of chronic enlargement of the bursa patellæ, which I removed by operation. So far as the tumour itself is concerned, there is nothing remarkable save the extreme thickness of the walls of the cyst; but this is by no means unusual in such cases. As regards the operation, however, you may have noted that I took care to have the limb placed on a splint before the operation, and operated with the splint applied. This may appear a small matter; but I am persuaded it is a wise precaution, as the knee-joint is kept quiet during and immediately after the operation.

Other examples of these exudation-cysts are found in cases of hydrocele, or in the so-called ganglions which appear in connection with the tendons around the wrist-joints; but, as you are familiar with their nature, I need not now refer to them.

The third variety of cyst is the *extravasation-cyst*, and you had an opportunity of seeing an example of this not long ago. It was one of hæmatocele. You will remember the man who was recently under my care with a hydrocele, and I tapped him twice. He came again in about three months with this story, that the fluid in the hydrocele had, as before, gradually accumulated; but that, the day prior to his application, as he was wheeling his barrow—for he was a costermonger—the shaft struck him on the scrotum. When we saw him, there was a tense swelling of the part, which had a bruised mottled appearance. As the tension was increasing, I made a free incision and turned out the clot, and secured the bleeding vessel. The cyst healed by granulation, and a radical cure was effected, not only of the hæmatocele, but of the hydrocele also.

And now I have to say a few words as to those cysts which have, so to speak, an independent growth or origin. You will have understood that in the cases to which I have referred there has been a pre-existing cyst; but in those of which I shall now speak there is an entirely new formation, which surrounds the growth, whether it be of a solid or cystic character. The man in Albert Ward, who had a fatty tumour on the arm, was a good example of this newly formed cyst, for the growth was included in a capsule, as such growths usually are; and this capsule was formed by condensed connective tissue. The remarks I made as to using no roughness in removing sebaceous tumours of the scalp apply with, I think, equal if not greater force in removing fatty tumours. It is usual to make one single incision, and then to tear the growth away. Here, again, I warn you as to the impropriety of rough handling, which is almost certain to be followed by considerable inflammatory action. It is better here, as in the case of sebaceous tumours of the scalp, to apply the knife lightly to any strong adhesions, rather than run the risk of bruising the parts by wrenching the growth away. Then a new cyst may form from the mere irritation of the part, such cyst or bursa being an entirely new growth. It may constitute a capsule around a foreign body, as often happens in cases of gunshot injury, in which a bullet will lie innocently imbedded in the subcutaneous tissue. I know a gentleman who can point to twelve or more shot so placed under the skin of the face. But the character of the foreign body is a matter of indifference; it may be a piece of wood, a pebble, or a thorn. Some few months ago, we had under observation a collection of extravasated blood as large as a foetal head, situated on the buttock. In dealing with such a case, it is well to try for a time to effect absorption by the application of evaporating lotions; or, if further treatment be required, to empty the cyst by a series of tapings, and, if necessary, to lay it open, so as to allow it to granulate from the bottom. We adopted the last method of practice in this case, and the patient made a good recovery.

The subject of ovarian cysts is rather too long for me to enter upon at the present time, and I will speak of this on a future occasion;

but, as bearing on this point, I may, in conclusion, refer to the so-called *congenital cysts*, which contain hair, teeth, bone, etc. Our museum is rich in such examples; but I here show you a very pretty, though small specimen of the kind, which I removed from a child's brow nearly twenty years ago. The cyst is about the size of a pea, and contains, curled up and lining the inner surface, a little tuft of hair. It is impossible to state positively the precise nature of the contents of these cysts before removal; and some of you may remember a very interesting case that was under my care some two years ago. The patient, a middle-aged man, had a swelling in the right femoral region, which was supposed to be a chronic abscess; yet, on making an incision, it turned out to be a hydatid cyst.

FŒTAL THERAPEUTICS.*

By ALFRED H. McCLINTOCK, F.R.C.S.I., M.D. (Univ. Glasg.), LL.D. (Univ. Edin.), M.A.O. (Univ. Dub., *honoris causâ*);

Ex-Master of the Dublin Lying-in Hospital; Honorary Fellow of the American Gynæcological Society, and of the Obstetrical Societies of London and Edinburgh; etc.

UNDER this short and comprehensive title, I wish to make some remarks on the possibility of medicines given to the mother acting upon the *fœtus in utero*. I have nothing original to offer but a few clinical illustrations, which I would not have deemed worthy of your notice but that I am desirous of bringing this interesting and important question under discussion, and of obtaining for it that consideration which it has had elsewhere, and which it well deserves at the hands of practical accoucheurs.

The time allowed for communications here is but limited; I must content myself, therefore, with very brief allusions to what has been already done in this field of research, and in other respects condense my observations as much as possible.

Our knowledge of the minute relations subsisting between the parent and the *fœtus*, and of the nature of the utero-placental circulation, is so imperfect that we can derive from it little or no assistance in this inquiry. We know certainly that the *fœtus* must derive its nutriment from the blood of the mother by some sort of osmosis; but physiology throws no further light on the matter, whilst the difficulties attending the experimental investigation of the subject are so many, so great, and so liable to fallacy, that I am satisfied we must look mainly to clinical experiences for information concerning it.

There are some sources of confusion and fallacy in this investigation which it may be well to point out, as they have not been sufficiently attended to by writers. For example, the influence on the sucking child of medicine given to its nurse has no bearing whatever upon the question of *fœtal* therapeutics, and cannot, therefore, be of any assistance in furthering our present inquiry. The conditions of the child in the two cases are so essentially different, that no comparison or analogy can be made between them in regard to the special point before us.

Again, the influence which diseases affecting the mother before impregnation may have on the product of that impregnation, should not, in my judgment, be admitted as evidence, even of a collateral kind, towards the solution of the questions under consideration.

Lastly, there are several dietetic and medicinal agents, as well as hygienic conditions, which we must suppose to be capable of affecting in some degree the well-being of the *fœtus*, but only *indirectly* so, and by their improving the health of the mother, and rendering her blood purer and richer. Although I lay this down, still we must admit that the distinction is a fine one, and that it may be very difficult, if not impossible, to discriminate between the effects of such agencies as those just named and of medicines supposed to act by being carried into the circulation of the *fœtus*, and thus producing their specific effects on it.

It is quite unnecessary to adduce any evidence on the *negative* side of the question before us. The daily experience of each one of us will supply instances of the complete exemption of the *fœtus* from any participation in the effects of agencies or influences—whether medicinal, pathological, mental, or physical—of which the mother may be the subject. Hence some men have gone so far as to suppose it is utterly impossible that any drug given to the mother can directly extend its influence to the child *in utero*.

Whilst fully admitting the extent and the weight of the evidence which can be brought forward in support of this negative view, there are, on the other hand, however, facts of a positive kind which no amount of negative evidence can overturn, and which do establish the

possibility of the thing. Its frequency or probability is quite another and distinct question, and one which can only be determined by a comparison of the number and weight of facts on each side.

This subject was ably discussed at the New York Obstetrical Society last January. The major part of the speakers, including Professor Fordyce Barker, expressed their disbelief in the transmission of drugs from the system of the mother to that of the *fœtus*, except perhaps in very minute quantity, and after their prolonged administration. The primary question considered in the above discussion, I may remark, had reference to the influence of opiates on the *fœtus*, and the conclusion at which Professor Barker arrived on this point is best given in his own words; viz.: "That there is no evidence which can be accepted in science that narcotic drugs administered to the mother ever produce their specific effects on the *fœtus in utero*." Dr. Gaillard Thomas stood nearly alone in speaking on the affirmative side of the question, and he maintained that thirteen cases had been submitted to the meeting, from his own practice and that of others, where narcotics administered in large doses to pregnant women had been followed by injurious and characteristic effects on the *fœtus*; and from them he concludes that, "if there be any value to be accorded to clinical evidences, these cases go to prove that large doses of narcotics (morphia and atropine) hypodermically administered to the pregnant woman may affect her child injuriously." Perhaps the most important point elicited by this lengthened discussion (which occupied the time of three meetings of the Society) was the greater risk of injury to the *fœtus* from the subcutaneous employment of the medicine than from its administration by the mouth or the rectum.

Numerous experiments have been recorded by German physicians demonstrating the possibility of certain substances, especially iodine, chloroform, and salicylic acid, when administered to the mother, finding their way into the blood or secretions of the *fœtus in utero*. Professor Gusserow of Strasburg seems to have examined with great care the subject of the interchanges between the *fœtus* and the mother. His experiments, about eight in number, on the lower animals did not yield any positive results, which may probably be accounted for by the comparatively short time the parent was subjected to the action of the medicine. In fourteen instances, he gave patients pretty large doses of iodide of potassium for some days or weeks before delivery; and then he tested for iodine in the liquor amnii and the *fœtal* urine, when these could be obtained. Specimens of the urine were got in only eleven of these *fœtuses*, and five of the specimens contained iodine, whilst in six of them it was absent. The length of time the mother had been taking the medicine seemed to influence the result of the experiment. Benicke reports giving salicylic acid to twenty-five women during labour, and found it in the urine of the children immediately after birth. In the discussion of this subject at the Leipzig Obstetrical Society, Henning and Ahlfeld mentioned having seen cases where morphia given to the mother undoubtedly injured the *fœtus*.

There is not time to make any further quotations; enough, however, have been adduced I think, to show that, under certain circumstances, drugs given to the mother undoubtedly find their way, though in small quantity, into the *fœtal* circulation. No other conclusion can be drawn from the experiments that have been reported.

In the clinical facts which I shall presently bring forward, we judge by the effect only that the medicine reached the *fœtus*. The inference that the medicine had entered the *fœtal* organism is, no doubt, open to question. This I must admit, and it would have been very desirable and satisfactory to know for certain whether the drug had actually passed through the partition which separates the vascular systems of the mother and of the *fœtus*, and had thus acted on the latter. But is it not of great importance for us, as practitioners, to recognise the fact that the *fœtus in utero* is not beyond the reach of physic; that there are medicinal agents (no matter what their *modus operandi* may be) which can exert some therapeutic influence upon it by administration to the mother? This is just the point upon which I wish to lay stress, as it is one of high practical importance and much requires careful elucidation.

The influence which mercury administered to the mother has in counteracting congenital or hereditary syphilis is universally acknowledged; and Dr. Thorburn, in his admirable paper on "The Medicinal Treatment of the Unborn Child", even goes so far as to assert, and supports the assertion by facts, "that we can beneficially treat the unborn child independently, in a sense, of the mother". His second case has a special importance on this ground; that the mother herself never had any detectable symptom of syphilis. Her husband had the disease when he married, and was for a long time under treatment. Her first pregnancy terminated about the eighth month, the child being covered with pustules and dying in a few hours. Next she had three abor-

* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

tions in succession; then a child near to full term, a pitiable object, which died in four or five weeks. She again had two abortions about the fourth or fifth month, having obstinately declined to take medicine in any form. In her next pregnancy, Dr. Thorburn managed, under various pretexts, to keep up a mild mercurial course nearly the whole time. "The event," he writes, "was in excess of what I anticipated. She has now a fine healthy boy about three years old, who has had no illness since birth."

Dr. Thorburn's experience of chloral and of nux vomica given to pregnant women leads him to believe that the former has a decidedly quieting influence on the fœtus, which agrees with my experience; whilst the latter (nux vomica) has an opposite effect, as judged of by the movements of the child. He also thinks that he has prevented the occurrence of convulsions after birth by the previous administration of bromide of potassium. These are most interesting and suggestive observations, and, though they may not carry conviction to all minds, still they are well worthy of being remembered, and afford much encouragement to the prosecution of this investigation.

It is over thirty years since Sir James Simpson published his memoir on *Placental Phthisis*, in which he recommended the free employment of chlorate of potash during pregnancy. This was certainly an original idea, and the practice has been found very successful by myself and others. Whether the chlorate acts, as Simpson asserts, by rendering the blood more rich in oxygen, and consequently better fitted for the purpose of placental respiration, or whether the salt is really conveyed to the fœtus, are questions that yet remain to be determined; but that this treatment is often successful in preserving the child cannot be doubted.

Dr. Thorburn has pointed out another group of cases in which much apparently may be done by "prenatal treatment". His description of these cases must be given in his own words. "Two parents, often healthy as far as can be ascertained, occasionally one or both somewhat delicate, but neither of them necessarily suffering under any special disease, have in succession four, five, six, or more children, every one of which, almost from birth, evinces great delicacy of constitution. They are invariably anæmic; they are almost equally invariably ailing from something; but you cannot possibly foretell whether that something will be gastric disorder, mesenteric disease, ordinary abscess, or anything else." For cases of this description, he confidently recommends large doses of iron during pregnancy; and, in the four instances mentioned by him where this treatment was carried out, there was a decided improvement in the ensuing child, and always accompanied by a deeper cast in its complexion.

The cases I am about to narrate tend to corroborate Dr. Thorburn's observations on the value of prenatal treatment, and, as a clinical contribution towards this subject, they are perhaps worth recording.

CASE I.—Mrs. R., a tall well made woman, about twenty-eight years of age, engaged me the latter end of June 1874 to attend in her labour, which she expected early in September, if she went to the full time. This was her fourth child, and each of her former children was born dead, after easy labours, in the eighth or ninth month of pregnancy. No cause could be assigned for these premature dead births. Both she and her husband seemed quite healthy, and I could not discover anything to justify the faintest suspicion of syphilis. I resolved, therefore, to try the effect of a prolonged course of chlorate of potash and the perchloride of iron. This combination she regularly took three times daily until the setting in of labour. She gave birth to a healthy male child, which she herself nursed. Her menses had left her on December 5th, and she was confined on September 12th; so we may safely infer that her pregnancy was of the normal length.

CASE II.—This lady had always been very delicate. In early life, she suffered for years under strumous disease of the hip-joint. Her first child was puny and ill nourished, and only lived a few days, in spite of everything that wealth or skill could do for it. She consulted me when in the seventh month of her next pregnancy, and I put her on the same treatment as the last patient, giving her chlorate of potash and the liquor ferri perchloridi three times a day, and advising, at the same time, a generous diet. She went to the full time, and had a living healthy boy, now a fine child nearly three years old. In the course of a year, this lady again conceived. No specific treatment was adopted, and she was prematurely confined of a dead child. She has not again proved in the family way.

CASE III.—Mrs. G. was confined of her first child when in the eighth month of pregnancy. The labour was rapid, but the child was dead and decomposed. This lady and her husband had excellent health, and neither of them presented any trace of a syphilitic taint. When she had entered the seventh month of her second pregnancy, I put her on the chlorate of potash and perchloride of iron mixture, and

continued it steadily until she fell in labour, on April 17th, 1875, exactly that day nine months from the last appearance of the catamenia. Her labour was tedious, from imperfect uterine action, and I had to deliver her with the forceps, Dr. Rutherford Kirkpatrick assisting me and administering chloroform. A male child was extracted, who is now as fine a boy of his age as could be seen. As Mrs. G. could not nurse (the secretion of milk being very scanty and of brief duration); she soon was with child again, and underwent the same medical treatment, with the same satisfactory result, except that the child was a girl, and was delivered by the natural efforts. It is now seven months old.

CASE IV.—This lady and her husband were both to all appearances strong and healthy. She was a large stout woman, and first came under my notice when in her fourth pregnancy, her previous history having been as follows; viz., her first child was born alive towards the end of the ninth month of gestation, but was a spare delicate boy of fair complexion. Her second child was born dead in the seventh month after a short easy labour, in which Dr. Churchill attended her; the third pregnancy ended in abortion at the third month. She consulted me when in the fifth month of her fourth pregnancy. I put her on Simpson's treatment, of the chlorate of potash only, and continued it for four months; in fact, until her labour came on in the beginning of the ninth month. She gave birth to a girl, who is alive and healthy, though not by any means a fine child. Soon after this, she was again in the family way for the fifth time, but miscarried before quickening. In her sixth pregnancy, she was again under my care, and with great difficulty was saved from miscarriage in the third month. Soon after the period of quickening, I put her on the use of a mixture composed of chlorate of potash, tinctura ferri perchloridi, spirits of chloroform, and infusion of calumba. This agreed very well with her, and she kept on taking it three times a day until her labour began, which it did exactly nine months and eight days from the close of the last menstruation. As I was myself engaged with another patient at the time, Dr. Denham attended her for me. This child was a strong healthy girl, and, though reared artificially, she is thriving remarkably well, and is now nearly four months old.

CASE V.—This lady I saw for the first time when in her tenth pregnancy. All her children, except one, which survived its birth for a few hours only, were dead-born at the seventh or eighth month. In her ninth pregnancy, labour was induced at the end of the seventh month by Dr. Evory Kennedy, but without the effect for which it was intended; viz., to save the child. She was about six months and a half advanced in her tenth pregnancy when I commenced treatment. At this time, she was stout and in fairly good health, but very low and despondent, as she had quite given up all expectation of ever having a living child. I should mention that, early in their married life, her husband had symptoms of constitutional syphilis, for which they both had undergone treatment at the hands of Ricord. I put her on the mixture already described, viz., the chlorate of potash and perchloride of iron, three times a day, together with a generous diet and moderate allowance of Burgundy. This course was persevered in without interruption until she fell in labour. She went to her full term. The child was a boy, alive, but lank and ill nourished. He was not deficient, however, in vital power, and, with the aid of a good wet nurse, he has grown to be a fine healthy infant, and is now over a year and a half old. This same lady is, at the present time, in the ninth month of her eleventh pregnancy. She has been taking the iron and potash mixture for nearly three months, and, when I last saw her, quite recently, she reported the fœtus to be lively and strong, judging from its vigorous movements. I shall just relate one case more, and it shall be the last.

CASE VI.—A tall woman, of a decidedly weak delicate constitution, was confined of her first child in the beginning of the ninth month. Some hæmorrhage preceded delivery, and the child showed no sign of life when born; but, whether its death was the consequence of the hæmorrhage or not, is doubtful. Her second pregnancy ended at the seventh month, when a dead, partially decomposed fœtus was expelled. Her third pregnancy ran the same course and had a like termination, in consequence of which she was advised by Dr. Drummond of Nice to have labour induced in the seventh month, should she again become pregnant. A few months after this last (third) confinement, I first saw this lady, and treated her during some months for abrasion of the os uteri and leucorrhœa, accompanied by that state of general debility and want of tone so constantly present in these cases; in fact, the *cachexia uterina* of Hoffmann and other old writers. By and by, she again proved with child, and, soon after quickening, I began to give her the chlorate of potash and tincture of the perchloride of iron; but had to vary my formula several times and try different adjuvants to reconcile her stomach to the medicine, but eventually with complete

success. A generous diet was also enjoined, with two or three glasses daily of Burgundy or Carlowitz. This lady is now in the ninth month of utero-gestation, and is daily sensible of the vigour and activity of the foetus, whilst her own health is better than it has been for years.

These cases do not require any commentary. Of course, no positive conclusion can be drawn from any one of them; but their cumulative evidence is considerable, and certainly entitled to some weight in the question before us. Besides the foregoing, I have two other patients in the eighth and the ninth months of pregnancy respectively, one of whom has had three premature dead children and the other two. Both these ladies, like the one last mentioned, have now passed the period of pregnancy at which labour occurred before, and both enjoy unequivocal evidence of the vitality of the foetus. These two, with those previously related, represent all the cases in which I have employed the same treatment for the preservation of the foetus.

Let me now, in conclusion, very briefly sum up the heads of evidence in support of the possibility and reasonableness of foetal therapeutics.

1. It is a well known fact that many diseases, *e.g.*, syphilis, measles, small-pox, scarlatina, ague, etc., contracted by the mother subsequently to conception may be communicated to the foetus *in utero*.
2. Careful investigations have demonstrated that various medicines given to a pregnant woman may reach the foetus and be found in its blood or secretions.
3. Clinical observations establish the fact that therapeutical effects on the foetus *in utero* follow the administration of certain medicines, when given to the mother for a sufficient length of time before the accession of labour.

CASE OF DEATH SUBSEQUENT TO THE ADMINISTRATION OF ETHER.

By ROBERT SAUNDBY, M.D., Edin.,

Administrator of Anæsthetics, etc., to the General Hospital, Birmingham.

As the question of ether *v.* chloroform is still *sub judice*, and as all that affects the safety of these means of narcosis ought to be known, I venture to publish the following notes.

M. C., aged 35, was admitted under Mr. Bartleet for contracted knees. On October 4th, at 12.45 P.M., I administered ether with Ormsby's apparatus; it appeared to me a very favourable case; very little of the anæsthetic was used; there were no alarming incidents; very little stertor or cyanosis; no vomiting; no obstruction to respiration, which was throughout regular and full. After Mr. Bartleet had straightened the limbs, some time was consumed in adjusting splints, during which time no more ether was given; and, as there appeared to be absolutely nothing to call for any notice at the time, I watched her with the utmost satisfaction, and allowed her to be carried out of the theatre without arousing her from the sleep into which she had fallen. She was removed on a stretcher, and was well wrapped up, but, to reach her ward, was carried about fifty yards across the open court, the day being fine. After being placed in bed, she roused and spoke to the nurse, who noticed nothing unusual about her. At 2.45, about one hour and a half after her return to the ward, she became suddenly alarmingly ill, and when seen by the house-physician (in the absence of the house-surgeon) she was cyanotic and pulseless, with *râles* all over the thorax. All attempts to rally her were fruitless, and she died at 4.15 the same afternoon.

The *post mortem* examination, made the following day, showed some œdema of the membranes of the brain; no thrombosis of the pulmonary artery; heart healthy, containing a little blood in the right auricle; ventricles contracted; lungs pale and œdematous; other organs healthy.

Remarks.—There seems to be no doubt that the deceased completely recovered from the ether-narcosis, but died from œdema of the lungs, which supervened one hour and a half after her removal from the theatre. As a rule, I completely arouse patients before permitting them to be taken out of my sight, as usually, in the hurry of the operation-theatre, they are removed pretty quickly after the operation is completed; this case, being the last, remained so long, and her state appeared so satisfactory, that I did not think it necessary to awaken her from the sleep into which she had fallen. It would be more satisfactory to me if I could say that I had seen her fully awake. It was an unusual occurrence, and contrary to the practice of the hospital, that the patient was taken out across the court; but operation cases are very rarely placed in the detached ward, and the house-surgeon being absent at the police-court, the assistant house-surgeon did not think of

making any special order. Whether this exposure was really the determining cause or not, I cannot decide. The ether used was of the specific gravity of 720.722, and I do not believe its quality can be impugned. The quantity used was very small, about an ounce being poured into the apparatus at first, and no more was required.

COMMENTS ON SELECTED CASES IN MEDICAL PRACTICE.

Being part of an Address delivered at the Meeting of the Yorkshire Branch.

By GEORGE SHANN, M.D., President.

Disease of the Spleen.—The subject of disease of the spleen is one which of late has attracted considerable attention and discussion; I will, therefore, venture to call the attention of the members to two cases of enlarged spleen (No. 5). One was that of an agricultural labourer, aged 60, who first came under my notice in 1872, anæmic and with an enlarged spleen, which could be traced into the hypogastric region; there were also enlarged inguinal glands. He came under treatment from time to time as an out-patient up to May 1876, when he was admitted an in-patient. The legs had then been swollen for two or three weeks; he had severe pain in the shin-bones, and there were reddish copper-coloured blotches on the thighs and excessive periosteal tenderness. The inguinal glands were enlarged, and he had some scalding and urethral discharge. There was some cough for a time, but not very troublesome, and the respiration was harsh over the right chest. Towards the end, the cough increased, and on one occasion there was slight hæmoptysis, and the bowels became rather relaxed. Without any serious alteration of symptoms, the strength began to fail rapidly, and he left the hospital and did not long survive.

The second case of enlarged spleen was in a female. The history was that, seventeen weeks before, after a severe premature confinement, sickness, vomiting, and pain in the hypogastric region, and also in the left breast, extending through to the back, symptoms which had existed in a less degree for a time previously, became greatly aggravated after the miscarriage. The symptoms were very severe when she was admitted, and the spleen was considerably enlarged and resting on the descending aorta, and receiving impulse from it. This patient had suffered scalding vaginal discharge and external soreness. There was a double *bruit* with the heart sounds. This patient was greatly relieved by the end of the week, and, continuing better, went out by her own desire, after being in the hospital thirteen days.

The question suggests itself: Was the existence of a specific poison in the system, in these two cases, in conjunction with enlarged spleen, simply an accidental coincidence?

Partial Paraplegia.—The next cases to which I would draw attention are two instances of partial paraplegia: one in a boy of nine and the other in a boy fifteen years of age. The younger, aged 9, had begun, four months previous to admission, to suffer from pain in the cervical vertebrae and difficulty of swallowing, followed by loss of the power of standing, though the legs could be drawn up in bed. The arms were not affected. When admitted, there was no pain in the spine, except on pressure, and the second and third cervical and first and fourth dorsal vertebrae were complained of when pressure was made on them. The appetite was wanting and the bowels were costive. I would call attention to the circumstance that there was marked improvement after commencing the use of faradisation to the limbs and spine. After ten days, the benefit was apparent, and he went out walking without assistance, having been under treatment about eleven weeks. The other case is that of a boy of fifteen, and has a much more complex history; but in this case the benefit derived from faradisation seemed equally apparent, though it is right to observe that, in both these cases, tincture of iron and liquor strychniæ, the latter in doses increased to ten or twelve minims three times a day, were given, at the same time that the galvanism was applied. This case has rather a curious history. It was as follows: That eleven months previous to admission, he began to complain of dizziness and had fainting fits; when these passed off, he suffered from severe pain in the upper part of the sacrum and in both legs, especially the left, and he gradually lost power more or less completely in both legs, at first more completely in the left. For the last seven months, he had so far regained power as to be able to walk with crutches. He began to improve after being a month under treatment, and then made steady progress towards recovery. The curious part of the history is that he was said to have been more or less œdematous, and the face puffy, from the age of two, when he had scarlet fever, followed by dropsy. He had not had rheumatism. There were

very extensive dulness in the region of the heart, extending up from the base, increased and extended impulse, a systolic *bruit* masking both sounds, heard extensively in the course of the ascending and descending vessels, heard also in the epigastrium and down the spine, on the left side, in the iliac and femoral arteries, loudest in the right femoral. There was no shortness of breath. What relation might probably exist between this state of the circulatory system and the paraplegia?

While on the subject of paralysis and the use of faradisation, I may mention, in passing, the case of an hysterical girl, aged 19, in which a single application dispelled an affection or delusion which had existed for a year and three quarters. She was said to have had epileptiform fits, and accompanied with loss of voice and sight and the power of opening her eyes. Her legs were supposed to be powerless, except that they could be drawn up in bed; and she had the catheter used constantly for six months, but not latterly. There was excessive costiveness. The catamenia were regular for six months, absent for ten previously. The eyes recovered their sight and the lids their motor power, and her speech returned at once, after a single application of galvanisation to the forehead. She went out well. Such cases need no comment.

Chorea.—I would next draw attention to five cases of chorea: four in females; one male. I am not aware what general proportion the females bear to males suffering from this affection. I allude to the cases with a view to the treatment. There appears to exist in the minds of some great doubt as to whether any treatment influences the course of this complaint, that is, any treatment by drugs. I find that in some London hospitals it is usual not to order medicine in chorea. It is to be observed that three out of the four females had a systolic heart *bruit*. In one, it was the second attack of the complaint. Two had been subject to it for five years. The boy had suffered more or less for three years; had not had rheumatism or any serious disease. He began to improve in a week, and went out fairly free. The others were severally five, eight, and ten weeks under treatment. It cannot, of course, be affirmed that the result would not have been the same had no medicine been given. I gave twelve minims of liquor arsenici chloridi, seven minims of liquor strychnie, with perchloride of iron in water three times a day. In all the cases, arsenic was given in some form; and it appears to me to be more generally beneficial than any other remedy I have had recourse to. In some of the cases, the choreal movements were entirely absent during sleep; in others, they were sometimes present, at others absent.

In a case seen by me a year or two ago, the patient seemed to be almost sinking from want of sleep; and I may mention that in this case full doses of a drachm or more of the succus conii seemed to act most beneficially in quieting the movements so as to admit of sleep, and the case did well. No. 19, one of the cases which I have placed amongst those of chorea, was of a character quite different from any I had before witnessed, and I classed it as chorea, not knowing what else to call it. No. 18 was the case of a young apparently healthy girl of nineteen. The movements commenced with a convulsive twitch in the left loin, followed by a jerking action of the left side, hip, and the thigh, which were projected outwards. This jerk was at first immediately preceded by a stabbing sensation in the region of the left kidney. No spinal tenderness existed, and no indications of hysteria, or of any feigned disease. She had had a slight attack of scarlet fever some months previously, but quite recovered. A daughter of her mistress, a child, had also had scarlet fever, and I was told that the child was similarly affected with like convulsive movements. I should be glad to know if any of our members present ever witnessed anything of this kind associated or not with scarlet fever. There was a circumstance observed in connection with these choreal cases which may be worth mentioning, viz., that in one of them, that of a young woman (No. 19), rheumatic affections of the joints came on while she was under treatment; that the choreal movements ceased so long as the rheumatic affection of the joints continued; and that this occurred several times.

Heart-Disease.—I would beg to make a few observations in reference to heart-disease. Of these, there were nine cases in which the heart-disease appeared to be the primary affection to which all symptoms might be considered referable. Heart-disease was present in a variety of other cases, but in these it appeared rather as a complication than as the primary source of the morbid phenomena. Of these, there were nine cases; in three of which (one male and two females), the origin was distinctly rheumatic. In the six other cases not connected with rheumatism, the disease could be fairly attributed to the nature of the occupation of the patient, always implying powerful effort with the arms. Of these traceable to occupation, three had been hard drinkers. How far this would apply to the other three does not appear on the face of the report. In reference to treatment in these heart-affections, it is to be noted that in three, in which the pain and distress were great,

much and continued benefit was derived from the subcutaneous use of acetate of morphia, in doses of from one-sixth to one-fourth of a grain. In another case, attended with much severe pain in the region of the heart, speedy and invariable relief for weeks was obtained by nitrite of amyl, in two-minim doses. It was not found necessary to increase the dose, and one dose was generally sufficient. The event proved this to be a case of aneurism. With respect to the presence of albumen in the urine, it was observed that it was liable to be temporary; and in one case, in which it appeared for a time, yet two days before death it was barely traceable, though the kidneys proved to be contracted and granular.

Rheumatism.—Various forms of rheumatism—acute, subacute, and chronic—amounting to sixteen cases, about one-sixth of the whole, were met with. Though the salicylic acid was occasionally used, I cannot add from experience anything worthy of record to the very valuable information on this subject given to us, at our former meeting, by one of our members, in a very able and instructive paper. Two of the cases of subacute rheumatism—one, a male aged 62; the other, a young woman of 18—were complicated with bronchitis. The urine, on being poured upon nitric acid in a test-tube, at once threw down a mass of nitrate of urea. I do not suppose that this appearance, under these similar pathological circumstances, was anything more than a coincidence; but, when a somewhat unusual event occurs, it is well to note the conditions.

Facial Neuralgia.—Had time permitted, and had I not feared to weary your attention, I purposed to bring forward a number of cases in which the croton-chloral was most efficacious in relieving neuralgia of the face and head. A few also in which it appeared that belladonna was not altogether unduly credited with efficacy in controlling excessive perspiration. One, in which the form employed was atropine, one-sixtieth of a grain for this purpose, used with advantage subcutaneously. I also purposed quoting cases in which acute and subacute inflammations sprang up insidiously, complicating the course of chronic disease—a circumstance to be constantly borne in mind, especially in consultation practice; or otherwise, an unjust suspicion of oversight in reference to a brother practitioner might be very unfairly entertained. I will only venture to refer to two more cases: one illustrating not in a chronic but in an acute disease, the insidious nature of these intercurrent affections; and the other possessing an interest in a medico-legal point of view.

Pneumonia supervening on Peritonitis.—The first of which I shall speak was a case of acute peritonitis, at the close of which, within a few hours of death, an attack of pneumonia was superadded. The patient was a gardener, twenty-nine years of age. The history he gave was that, five days before applying at the hospital, he was attacked with severe shivering and abdominal pains, attended with purging and vomiting. The purging had ceased, but the vomiting continued up to the time of admission. His breathing was so affected that he had to take breath between each word. When he came to the hospital, the pulse was 100, but excessively feeble; the respirations were 38; temperature 100.7 deg. The bowels had not acted for some hours. There was not excessive abdominal tenderness, but a sense of weight rather than of severe pain. There were no stethoscopic indications of chest affection. Between 12 o'clock, when admitted, and 8 P.M., he had taken twenty ounces of milk and lime-water and some beef-tea and brandy, and had only been twice sick, and then brought up little. When seen by me at 8 P.M., the temperature had suddenly risen to 102.4 deg.; pulse 130; respirations 50. Dulness and fine crepitation were found at the base of the right lung. From that time, he sank rapidly, and died within an hour. The *post mortem* appearances were these: The peritoneum showed signs of acute inflammation throughout its entire extent. The blood-vessels of that portion covering the intestines were distended, and there was exudation of lymph, but not to any great extent. The intestines were enormously distended with gas. The bases of both lungs were congested. I was not present at the examination, or should have examined more minutely into the condition of the lungs, especially the right, which is briefly passed over in the report.

The last case with which I shall venture to tax your patience, I quote as possessing considerable interest in a medico-legal point of view. It is that of a boy aged 12, who died of atrophy and exhaustion. His antecedents have their importance as calculated to give a colouring to the case, had it been made the subject of a coroner's inquest, which might have happened had the death occurred in the workhouse. The boy had been for two years and a half an inmate of the Whitby Union, and had been taken out by his father five or six weeks before he brought him to the hospital. The report given by the father was that the boy had parted with joints of tape-worm for six or seven years; that he was placed in the union, and had, while there, lost the

use of his limbs. When admitted to the hospital, the boy could walk, but lamely, and parted with joints of tape-worm, and, a few days after coming under treatment, a considerable length came away after a dose of the oil of male fern. After being a month in the hospital, the legs became more feeble and were painful, and were from time to time drawn up towards the chin. The bowels became relaxed a fortnight after admission, and continued to the end acting twice a day, but not largely. Three days before death, sickness and vomiting occurred from time to time, but only a little curdled milk was brought up. It was noted that, up to the time of the sickness commencing, the patient took sufficient milk. After the sickness set in, the patient fell into a dozing condition, and sank, apparently from exhaustion. The interest of the case arises from the *post mortem* appearances, medico-legally considered. The body was intensely emaciated; not a particle of fat to be met with; all the organs were drained of blood, though otherwise apparently healthy; not a particle of food was found in either stomach or intestines; only a few large joints of tape-worm. Supposing the like *post mortem* appearances to have been presented for the consideration of a coroner's jury, assembled in a workhouse for the purpose of investigating a charge of neglect and starvation, what, in all probability, would have been the inference from the facts laid before them? Would they not pretty certainly have come to the conclusion that neglect, and consequent starvation, best explained the phenomena? Yet, this natural conclusion would be a most unjust one.

I must now bring these very desultory observations to a conclusion, with thanks for your attention, and with an apology for having wearied you so long with matters of so very ordinary a character and entirely devoid of novelty.

POOR-LAW MEDICAL RELIEF IN CERTAIN OF THE NORTH-WESTERN AND MIDLAND COUNTIES, ITS ANOMALIES AND DEFICIENCIES.*

By JOSEPH ROGERS, M.D.

It occurred to me that as the British Medical Association would meet this year in this town, I would avail myself of the opportunity thus afforded of calling attention to the subject of Poor-law medical relief in the Midland Counties, with the view of showing what has been done in certain of the unions towards the establishment of an efficient system of medical relief, and what has been omitted to be done in adjacent unions, whereby the administration of such medical relief has been allowed to remain in an unsatisfactory state.

You are probably aware that in 1860, 1861, and 1862 a Select Committee of the House of Commons sat to consider the administration of poor relief. Three medical gentlemen gave evidence before that Committee—the late Richard Griffin, Dr. Robert Fowler, and myself. The first presented a voluminous mass of information relating to medical relief generally throughout the country. Dr. R. Fowler's evidence was mainly devoted to an exposition of the faulty condition at that time existing in the metropolis, since happily changed by the Metropolitan Poor Act of 1867. My own evidence was solely devoted to pointing out the advisability of securing that, instead of medical officers finding medicines from their stipends, the Boards of Guardians should supply all such medicines and appliances as were required in the treatment of the sick, and that the stipends of the medical officers should in future be wholly independent of such supply.

I regret to state that the truthful evidence of Mr. Griffin was combated by one of the Poor-law inspectors, Mr. Basil Cane, who, by a daring manipulation of statistics, contrived to show, and what was worse, to make that Committee believe, that the system of medical relief was so good that, to quote their own report, "there were no sufficient grounds for materially interfering with the present system of medical relief, which was made the subject of special and lengthened inquiries by Select Committees of this House in the years 1844 and 1854".

My friend Dr. R. Fowler's evidence was wholly ignored. The only practical gain obtained by us resulted from the evidence I gave; for the Committee "recommended that in future cod-liver oil, quinine, and other expensive medicines, should be provided at the expense of the Guardians, subject to the orders and regulations of the Poor-law Board". One would have thought that a Select Committee of the House, having brought up such a recommendation, the Poor-law Board would have hastened to communicate the same to the respective Boards of Guardians; but it was not so, the permanent officials of the

department, faithful to the traditions of the office, delayed the issue of the recommendation for thirteen months after the report had been presented to both Houses; and I have learned from Mr. Villiers, the then President, that it would not have been sent out even then, if he had not put pressure upon the permanent secretary, to make him issue it. I hold in my hands a copy of the letter which was eventually sent; and I think if you read it you will find it was studiously prepared, so as to destroy as much as possible the effect contemplated by the Select Committee. Some ten years ago, I asked the late Sir John Simeon to move for a copy of the letter and a return of what had been done by the respective Boards, so as to discover what had resulted therefrom; from that return I learnt that, out of a total of 626 provincial unions, "401 had acted wholly or partially on the recommendation contained in the said letter, and that in 225 unions they had not acted upon the recommendation in question". Nothing daunted by the apparent indifference of several of the Boards of Guardians, I have gone on, since that date, in urging the same view on the public, not only at meetings of this Association, but at the meetings of the Poor-law Medical Officers' Association, and of several Chambers of Agriculture I have been asked to address, with this result, that, by a return moved for in 1876 at my request by Dr. Lush, I learn that, instead of 225, there are now only 177 defaulting unions, or a diminution of 48, and that in many unions the Guardians have adopted in its entirety the principle of the supply of all medicines and the provision of independent dispensers. Among those that have done so, I may instance Southampton, Oxford, Birmingham, and Worcester.

It is, however, to the facts contained in Dr. Lush's return I more particularly desire to direct your attention, especially in so far as it relates to the several unions of the adjacent counties.

Commencing with *Lancaster*, 6 supply all medicines; 8 supply medicines for the indoor poor; 6 only cod-liver oil; 10 supply nothing.

Derby.—1, that of Derby, supplies all medicines; 5 supply cod-liver oil, quinine, etc.; 4 nothing.

Stafford.—3 unions, viz., Wolverhampton and West Bromwich, find all medicines for the indoor poor, and in Wolverhampton for certain outdoor districts; 6 unions supply cod-liver oil, etc.; 7 supply nothing.

Salop.—1, Clun, finds all medicines; 3 supply cod-liver oil, etc.; 6 partially, that is, only oil; 5 find nothing.

Leicester.—3 cod-liver oil, etc.; 1 oil only; 6 nothing.

Nottingham.—1, that of Nottingham, supplies all medicines; 2 cod-liver oil, etc.; 2 cod-liver oil only; 4 supply nothing.

Worcester.—2 unions supply all medicines; 3 cod-liver oil, etc.; 4 only oil; 5 nothing.

Cheshire.—1 (Birkenhead) supplies all medicines; 5 cod-liver oil and quinine; 1 cod-liver oil only; 3 nothing.

York, West Riding.—10 supply all medicines for indoor poor; 2 for out-door also; 26 supply oil and quinine; 6 supply nothing.

Now, one of the principal grounds on which I have gone in advocating the supply of all medicines by Guardians, or, as it may be better described, the adoption of the dispensary system of medical relief, is this: that, although apparently more costly, yet, in reality, wherever the system has been introduced and fairly worked, there there has resulted, after a few years, a marked diminution in gross poor relief expenditure. Such has proved to be the case in Ireland and in those parts of England and Wales where it has been adopted, inclusive of the metropolis, where, as many of you are probably aware, no medical officer now either supplies or dispenses the medicines he feels it to be his duty to prescribe for the sick.

There is another reason why, in my judgment, an alteration of the system of provincial medical relief, notably in large towns, should be made. There is no doubt that there exists a profound distrust of Poor-law medical relief among the parties who are forced to apply for it; the poor are far more quick-witted than we give them credit for, and they have come to know that district Poor-law medical officers, who, as a body, are not the wealthiest members of the profession, do not behave so liberally as to find medicines in sufficient quantity or of sufficient quality from the merely nominal stipends they too frequently receive; and therefore in the towns the sick poor make application to the voluntary medical charities, only going to the district medical officers when they wish to get medical extras, which, by law, the Poor-law medical officer is alone empowered to recommend. (The curious in such matters are referred to a brochure by Dr. Heslop of Birmingham, *On the Necessity of Medical Attendance on Sick Children in Large Towns*, Longman and Co., 1869.) These applications on the part of the sick poor to voluntary dispensaries and hospitals is one cause—I believe, the original and the most potent cause—why these charities are so much abused; for the classes above them, who ought to pay for medical attendance, join with the throng of indigent poor in applying for such

* Read in the Session of Public Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

aid. In this town alone, there are some fourteen medical charities: in 1876, there were 7,786 in-patients; 69,876 out-patients; 18,872 visited at home; 3,525 accidents, etc.; total, 101,579—separate individuals, or about one-fifth of the entire population.

This mass of gratuitous medical relief would doubtless be largely added to were it not for the fact that the Salford and Pendleton Royal Hospital, with its staff of twenty physicians, surgeons, assistant-surgeons, and apothecaries, make no report of the good work they are supposed to do.

In confirmation of the opinion I have advanced, that the imperfect system of district medical relief lays at the root of out-patient hospital abuse, I will quote from a return, moved for by the then President of the Poor-law Board, Mr. C. Villiers: it refers to sick cases in metropolitan districts, 1866—the year before the Metropolitan Poor-law Act, 1867, was passed. This return gives the number of cases of fever and zymotic disease, acute disorders, and chronic disorders, which were under treatment on January 7th and July 17th of that year. Having been at that time the medical officer of the Strand Union Workhouse, the population of which union was then 42,000, I had a personal knowledge of this union. On January 1st, Mr. H. Jones, district medical officer, had 2 cases of zymotic disease; 3 of acute disorders, and 18 chronic. On July 7th, no zymotic cases; 3 acute, and 14 chronic disorders. On January 7th, Mr. Brookes had 4 zymotic cases; on July 7th, none; on January 7th, 1 acute case; July 7th, none; on January 7th, 4 chronic cases; on July 7th, 1.

Now, it will be asked, where were the sick poor of this union? Why, with the exception of those in the workhouse infirmary, they were under treatment at the dispensaries and out-patient departments of the various medical charities which abound in that union.

That I may not be supposed to deal unfairly with this return, I may state that in the Paddington Union, Mr. R. Harper only had one patient on July 7th, and none at all on January 7th; similarly, Dr. Cook of Hampstead had only four. Now, there is no error in this return, for it was made by the medical officers themselves.

Passing from the general consideration of medical relief in the counties I have above referred to, let me contrast the population, number of district medical officers and apothecaries, of workhouse medical officers and apothecaries, the total cost of medical relief, the gross amount of poor relief, and the relation between the expenditure on medical relief and gross relief in the four Irish unions—viz., the North Dublin, South Dublin, Belfast, and Cork—and the three unions of Chorlton, Salford, and Manchester for the year 1871. Thus, Chorlton, with a population of 211,357, had 9 district medical officers, 2 workhouse medical officers; the cost of medical relief was £1,391; the cost of gross relief, £40,760; and the proportion of medical to gross relief, 30. Salford: population, 128,894; district medical officers, 4; workhouse medical officers, 2; cost of medical relief, £952; cost of gross relief, £30,308; proportion of medical to gross relief, 31¼. Manchester: population, 173,965; district medical officers, 5; workhouse medical officers, 4; cost of medical relief, £2,587; cost of gross relief, £73,457; proportion of medical to gross relief, 28½. Contrasted with North Dublin population, 135,146; district medical officers, 10, and 3 apothecaries; workhouse medical officers, 4, and 7 apothecaries; cost of medical relief, £4,360, of which £987 is cost of medicine; cost of gross relief, £30,762; proportion of medical to gross relief, 7. South Dublin: population, 206,026; district medical officers, 10, and 3 apothecaries; workhouse medical officers, 4, and 1 apothecary; cost of medical relief, £4,718, of which £620 is cost of medicine; cost of gross relief, £51,648; proportion of medical to gross relief, 11. Belfast: population, 130,668; district medical officers, 14, and 3 apothecaries; workhouse medical officers, 4, and 1 apothecary; cost of medical relief, £4,317, of which £1,355 is cost of medicine; cost of gross relief, £38,747; proportion of medical to gross relief, 9. Cork: population, 168,590; district medical officers, 19, and 3 apothecaries; workhouse medical officers, 3; cost of medical relief, £4,177, of which £733 is cost of medicine; cost of gross relief, £37,075; proportion of medical to gross relief, 8¾. Now, one of two things must be obvious: either the number of medical officers and expenditure on drugs and appliances must be vastly in excess of what is requisite in the three Irish unions; or the small number of medical officers and limited expenditure on medical relief in the three English unions must be far below what should be the rule if the English sick poor are to be properly attended to and poor-relief expenditure kept down.

Now, it will be asked what alteration do I advise? In reply, I state that which has been found to work well in Ireland, in the metropolis, and those other parts of England where it has been tried, viz., the provision of all medicines and appliances by the Boards of Guardians, and the appointment of dispensers in all populous places where sufficient work can be found for them to do. In the annual report 1870-71

will be found the following: "We have made inquiries through our inspectors as to the existence of dispensaries, exclusive of the metropolis, and we find that the system of providing dispensaries has only been established in about nine unions, in some of which it is merely for the supply of medicines for the workhouse. Where, however, it has been tried, it has been found to be working satisfactorily." In the appendix of the same report will be found the detailed reports of Mr. Peel, Mr. Basil Cane, and Mr. Farnall, who had been deputed to inquire into this subject. All three, in language more or less forcible, advise the introduction of the dispensary system, Mr. Farnall most forcibly; nor is the approval of an alteration, and therefore the disapproval of the present system, confined to officials of the English Local Government Board. The chairman of the Scotch Board of Supervision, Mr. Walker, in his evidence before the Select Committee on Scotch Poor Relief, thus expresses himself: "I think that their being called on, for a certain fixed salary, to supply whatever amount of medicine may be required throughout the year is a great mistake." And further on he again states that the salary should be exclusive of the cost of medicines. Ultimately, that Committee reported in favour of the introduction of the dispensary system into Scotland.

As, however, by the regulations which guide the reading of papers in this Section, our time is limited to twenty minutes, I feel I must now conclude, simply contenting myself with showing that the future of this question rests with the profession and the public. To the first, I would say that, if we are to succeed in bringing about reform, it will be necessary that there should be a diminution of that insane desire on the part of the younger members of it to take these pecuniarily worthless appointments; and on the part of those engaged in out-patient hospital work, not to exhibit such great zeal and anxiety to undertake their thankless labour for nothing. And to the public I would say that, if they desire to see the administration of the Poor-laws carried out on humane, Christian, and economic principles, it will be necessary for them to insist on modifications in our medical relief system on the lines I have indicated, seeing that sickness among the poor is the greatest factor in the production of the curse of pauperism.

THE USE OF DIGITALIS IN DISEASE OF THE AORTIC VALVES.*

By J. MILNER FOTHERGILL, M.D. Edin., M.R.C.P.L.,

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THE subject which you have kindly given me the opportunity of bringing before your first meeting to-day is one of great practical importance. The consciousness that many of the diseases of the heart can be subjected to treatment, with more or less benefit, it must be said, is now becoming pretty general. The hopelessness of producing any effect upon injured and distorted valves deterred the early investigators of the diseases of the heart from any attempt at systematic treatment; consequently, they confined themselves to such merely palliative measures as relieved unpleasant symptoms, and especially palpitation. But the treatment, which was at first merely palliative, gradually gained ground and grew, until now our treatment is not only capable of affording relief, but of something more; and the measures which were once but empirical guesses, or little more, have been so transformed that they have become a systematic line of treatment at once the most intelligible and complete of all our therapeutic measures. Now we do not wield digitalis—the most pronounced of all medicinal agents in its action upon the heart—in a haphazard sort of way, but with a clear and distinct conception, not only that its administration will do good, but how it will achieve such results. Much has been written upon the action of this remedial agent since Withering's famous treatise published in 1785, and even more will yet be written about it ere the subject is finally set at rest.

Withering observed that, in using this agent for the treatment of dropsy, "it seldom succeeds in men of great natural strength, of tense fibre, of warm skin, of florid complexion, or in those with a tight and cordy pulse; while, on the contrary, if the pulse be feeble or intermitting, the countenance pale, the lips livid, the skin cold, the swollen belly soft and fluctuating, or the anasarous limbs readily pitting under the pressure of the finger, we may expect the diuretic effects to follow in a kindly manner." Withering's observations are in strict accord with those of the most careful observers of the action of digitalis at the present day, and an experience of ninety years has corroborated the opinion of this acute observer. Many years after this, Dr., afterwards

* Read before the Thames Valley Branch.

Sir Henry, Holland wrote (1839): "The enlarged and flaccid heart, though, on first view, it might seem the least favourable for the use of this medicine, is not so; at least we have reason to believe that, in dropsical affections, so often connected with this organic change, the action of digitalis as a diuretic is peculiarly of avail". In spite of the prevalent opinion that hypertrophy was a morbid and undesirable overgrowth of the heart, and that palpitation was due to a too powerful ventricular contraction, and that, therefore, the indications for treatment were to lower the heart's action, true and accurate views of the action of digitalis have established themselves. This was chiefly due to the fact that digitalis, though a powerful diuretic in dropsy due to failure in the circulation, was not a diuretic when administered to healthy persons. The conviction steadily grew that this diuretic action of digitalis was the result of its effect upon the circulation. It stimulated the heart into more vigorous contraction, the consequences of which were, first, the filling of the arterial system with blood, and with this a better blood-pressure on the glomeruli of the kidneys and a better flow of urine. In the meantime, however, advancing physiology had done much to elucidate the working of the circulatory system, and enabled different observers to note more carefully the exact condition of the circulation under varying circumstances. We now know that digitalis raises the blood-pressure, and that one of its chief factors in the production of this result is its effect in inducing more powerful and more perfect ventricular contraction. Our views, too, have undergone much modification as to palpitation and hypertrophy. We now know that palpitation is usually a laborious stroke of the ventricle, and that, when it is not a mere neural affection, it is the evidence of the ventricle being overtaxed, instead of its possessing superfluous energy. Hypertrophy, too, is not a disease *per se*; it is a growth secondary to some obstruction to the blood-flow, and is thus a beneficial and compensatory change, to be conserved instead of being regarded as hostile to life.

The means by which digitalis is useful in diseases of the mitral valve, where its utility is almost universally admitted, cannot detain our attention at present. Its use in disease of the aortic orifice is the division of the subject with which we are engaged to-day.

The power of digitalis to induce more powerful contraction of the muscular walls of the heart is now generally admitted. The evidence does not rest merely upon careful clinical observation, but upon the less complex and more valid testimony of direct experiment. The weight of evidence thus furnished from these two sources is such as to be irresistible with the majority of medical men; a few, however, are still unconvinced. My own attention has been very powerfully attracted to the action of this drug for a number of years; and the more extensive my experience, the greater is my confidence in digitalis in all cases where it is desirable to induce more powerful ventricular contraction. It relieves palpitation by substituting a normal and comparatively unfeared contraction for the sensible stroke of laborious effort.

Before proceeding to explain the action of digitalis in disease of the aortic valves, we must first glance at the pathology of aortic valvulitis. The function of these valves is to close the aortic orifice and prevent the regurgitation of blood into the ventricular chamber on the aortic recoil. The ventricle at each systole throws so much blood* into the aorta, which, being elastic, is distended; the recoil or systole of the aorta closes the aortic valves, which prevent reflux of the blood, and so the blood is driven forward by the aortic recoil into the smaller arteries. When the obstruction to the blood-flow from the aorta is increased, two different actions or morbid processes ensue. First, the blood-pressure is raised and the obstruction to the flow forward of the blood on the ventricular systole is increased, and hypertrophy of the muscular walls follows. Then the ventricle is enabled to cope with the increased obstruction to the blood-flow, and the ventricle can empty itself completely at each systole. Such is the simple hypertrophy of Bright's disease in its earlier stages, and these are the patients who afford us most of the aortic valvulitis of advanced life; the aortic valvulitis induced by muscular effort is chiefly found in young men. We have then an obstruction to the blood-flow, an increased blood-pressure, and a powerful ventricle, and the result is, that the aorta is unduly distended at each ventricular systole. The rebound of the elastic aorta, commonly termed the aortic recoil, is in strict proportion to the amount of distension, and consequently, with an abnormally powerful recoil, the valves at the base of the aorta are violently closed. This gives the accentuated aortic second sound so significant of this condition. Not only that, but the powerful closure leads to valvulitis and a growth of connective tissue corpuscles in the valvular vena. Distortion, then, is thus produced, and the valves either present

an obstacle to the forward flow of the blood, or they fail to arrest regurgitation on the aortic systole; or these conditions may be found combined. Hayden gives aortic obstruction and regurgitation as the most common of combined valvular lesions. Whether contraction of the valves will follow this growth of connective tissue or not, cannot be foreseen; it is certain, however, that regurgitation from insufficiency is more common in young persons, while thickening of the valvular vena so as to constitute obstruction is more common in elderly persons.

In aortic stenosis or obstruction, the valves are not only thickened and rendered much stiffer than they are normally, so as not to yield readily to the pressure of the blood on the ventricular systole, but the process of chronic inflammation involves the base of each segment or cusp, and the growth of connective tissue there leads to contraction of the conus, and so stenosis is induced; consequently, the ventricular wall has in its contraction to overcome a new resistance in the form of stenosis with rigid valves, as well as the normal resistance of the elastic aortic walls or the blood-pressure. Under these circumstances, simple hypertrophy without dilatation is found; in aortic regurgitation, the centrifugal distending force of the aortic reflux produces enlargement of the ventricular chamber. In aortic stenosis, we have a narrowed orifice with an increase in the driving power, and thus a new balance is maintained. Pure aortic stenosis is a disease which often exists a long time ere it is discovered, and commonly its recognition takes its origin in an examination for insurance. There is usually no enlargement of the ventricular chamber, and the hypertrophied heart secures a normal circulation of blood. At other times, medical aid is sought and relief is furnished by the administration of digitalis. A first, Sir Dominic Corrigan explained this beneficial result as being due to the slower contractions induced by digitalis; and that a longer systole gave more time for the blood to pass the narrowed orifice. If this were the case, the arteries would still remain unfilled as before; and, if the ventricular contractions are more complete, they would be so many fewer in the minute, and the amount of blood passing the aortic orifice in a given time would remain the same. But digitalis does not so lengthen the systole, and Balthazar Foster says: "The diminution in the frequency of the heart's beats under digitalis always means an increase of the period of the dilatation of the ventricle. Pulse-traces readily show this." In aortic stenosis, Nature, when her efforts are sufficient for perfect compensation, does not achieve a new equilibrium by retarding the ventricular contractions, but by hypertrophy of the ventricular walls. So with the beneficial effects of digitalis, these are not the outcome of a prolonged systole, but of an increase in the driving power, brought about by more active ventricular contraction. Where, then, a left ventricle is found faltering before, or rather behind, an aortic stenosis, digitalis will restore the lost equilibrium, and, by enabling the ventricle to drive an equal quantity of blood through a narrowed orifice in an equal time, a new balance is attained, and a normal blood-flow is secured. It may be urged, and with justice, that the effect of digitalis is to produce contraction of the peripheral arterioles, and so raising the blood-pressure to create a new or additional obstruction to the blood-flow; but, practically, this is of no moment; it is not the blood-pressure in the arteries which taxes the powers of the left ventricle; it is the tight stenosis against which it has to struggle. The effect upon the heart more than counterbalances the action upon the peripheral vessels when digitalis is given.

The changes which lead to aortic regurgitation, and the subsequent alterations in the muscular walls of the heart, and the indications for treatment furnished by them, will now engage our attention.

In the form of aortic valvulitis which leads to insufficiency rather than stenosis, though very commonly these two forms are combined, it seems that the free edges of the semilunar valves are affected rather than the base. The consequence is, that the valves shrivel along their free edges, and, though not presenting the same obstruction to the blood-flow as is the case with rigid and thickened valves, they are incompetent and insufficient to completely arrest the backward flow of the blood on the aortic rebound or systole. The changes in the walls of the heart which follow aortic regurgitation are worthy of careful consideration, and teach us a most instructive lesson in the study of cardiac pathology. This hypertrophy of the heart is the means by which dilatation is arrested rather than a measure to increase the power of the ventricles, and enable it to overcome some obstruction. We are much too apt to assume that the latter is essentially the condition which evokes hypertrophy. I will arrange the evidence as briefly and tersely as the subject permits. 1. Hypertrophy does not always follow an obstruction to the flow forward of the blood on the ventricular systole. Though it is the common result, it does not always form the result. In anemic systems, in chronic Bright's disease, dilatation is found instead of hypertrophy; this is especially seen in women. 2.

*From 150 to 160 gms. (Hermann's *Physiol.*, translated by A. Garrod, page 6.)

so commonly seen in mitral regurgitation (Niemeyer, vol. i, p. 318, ed. of 1870). Again, as the same authority tells us, hypertrophy is frequent in cardiac dilatation, the result of partial myocarditis accompanying pericarditis (p. 298 of same edition), by which the dilatation is limited. In both these instances, there is no obstruction to overcome, but in each there is a dilating process to be arrested. In mitral regurgitation, the blood rushes into the left ventricle with unwonted force from the distended auricle and veins behind it, and a dilating process is so set up, which, in well nourished organisms, is limited by a growth of muscular fibre. There is no similar enlargement of the left ventricle in mitral stenosis, though there the auricle and pulmonary veins are equally distended; but then there is an abnormally small, and not an unnaturally large orifice, through which the blood can flow furiously into the left ventricle. In the case of softened walls, leading to dilatation by the normal inrush of blood, the dilating process sets up hypertrophy sooner or later: sooner in well nourished organisms, later in debilitated systems. How dilatation induces hypertrophy, cannot be given here. It is not the place, even if the time could be spared.

This brief digression will enable us all the more readily to see that, in pure aortic regurgitation, the growth of the walls of the heart is not the result of any obstruction to be overcome; for none such exists, or, if so, only to a trifling extent. But there is a dilating process to be arrested. When the aortic valves are rendered incompetent, the left ventricle is no longer filled solely by the blood coming in from the auricle and pulmonary veins—a comparatively calm current—it is also filled by a second blood-current—the blood driven backwards by the aortic rebound through the insufficient aortic valves. The distending power of this new current is a very different matter from the normal current, which is itself undiminished. There is, indeed, no diminution in the normal distending force, while there is added to it a new force of unusual and unwonted power. The ventricle is now, in fact, distended by the aortic recoil, and the regurgitant current possesses great distending force. The ventricle yields before this new force, and dilatation would soon become marked and the ventricle be placed *hors de combat*, if it were not for the hypertrophy which, coming to the rescue, arrests the dilating process and limits the dilatation. It is under these circumstances, indeed, that we find the most massive hypertrophy—the *cor bovinum* in fact. The hypertrophy is not to overcome obstruction here, but to arrest dilatation. It is necessary to be clear about this, in order to comprehend the indications for treatment. We do not, under these circumstances, require more forcible ventricular contraction—the effects of digitalis; for the powerful and enlarged ventricle is already working ruin in the arterial walls, which, at every systole, are distended by the contraction of a ventricle, not only much more powerful than a normal ventricle, but holding a larger quantity of blood. The overdistension to which the arteries are subjected produces chronic parenchymatous inflammation of their walls, or atheroma (see an article by the writer in the *Philadelphia Medical Times*, August 7th, 1875 on "Atheroma"), and to administer digitalis here is to aggravate the evil. Already the contraction of the enlarged ventricle overdistends the arteries, so that the pulsation may be seen in the arteria centralis retinae with the ophthalmoscope; and, to administer an agent like digitalis, which, as Balthazar Foster tells us, prolongs the diastole, would be injurious. By delaying the diastole, the ventricle will be all the fuller, and all the longer exposed to dilating forces; while the action of digitalis in producing a more vigorous contraction of the ventricle will only tend to all the sooner ruin the arterial walls. The agent here, if we possessed a drug of such properties, would be one which should lessen the diastole and limit the force of the ventricular systole; the antagonist, indeed, of digitalis. In the early stages of aortic regurgitation, then, digitalis is contraindicated. Such, however, is not the case in the more advanced or later stages.

In order to make this clear, it is necessary to trace the further progress of aortic regurgitation. We stopped the inquiry above at the point of massive hypertrophy; we must now follow the downward progress of this pathological process. The arteries, as we saw, became atheromatous from the overdistension to which they are subjected, and they lose their elasticity, and so the arterial recoil is diminished. This would be beneficial in reducing the dilating power of the regurgitant current, if it were not also the fact that the aortic systole is the force which fills the nutrient vessels of the heart itself. The coronary arteries, seated at the base of the aortic column, are filled by the backward flow of the blood on the aortic recoil arrested by the semilunar valves. When, then, the aorta loses its elasticity, and the recoil is lessened, this loss of arrest in the backward flow of

the blood leads to imperfect filling of the coronary vessels, and the nutrition of the heart-walls is impaired. Consequently, the hypertrophy of aortic regurgitation, though the most massive, is the least durable of all conditions of hypertrophy. Mauriac has pointed out the why and wherefore of this fleeting hypertrophy; and Balthazar Foster has given a still more brilliant illustration of the subject by showing that, when an aortic valve is ruptured by violence, the duration of the consecutive hypertrophy depends largely on which of the valves is affected. If the torn valve have a coronary orifice behind it, the compensatory hypertrophy is brief, and the downward progress of the case swift; but, if the valves behind which the coronary arteries spring are the uninjured ones, the complete valves arrest to some extent the backward flow, and so the integrity of the muscular walls is maintained and the hypertrophy is more lasting. (*Clinical Medicine*, and *Medical Times and Gazette*, December 1873.)

When the hypertrophy is being cut down by molecular decay, the consequence of impaired tissue-nutrition, the ventricle falters, and its contractions are wanting in vigour, the arteries are insufficiently filled, and the coronary flow is still further diminished, leading to still further mural decay. The muscular structure is being undermined, and the ventricle yields once more to the dilating forces of the incoming currents, and not rarely hesitates. The system is insufficiently supplied with blood, and the case progresses rapidly on its downward career. Under these circumstances, the administration of digitalis gives relief, and its use is not only permissible, but beneficial. By exciting more perfect contraction in the faltering ventricle, a fuller and better circulation is secured, and the case is tided on for a while. But that is all. When there is also intermittency in the heart's action, and there is a long diastole, during which the dilating forces are in action and the ventricle is almost paralysed by its long halt, then the administration of digitalis is very beneficial. It not only excites more powerful ventricular contraction, but it does away with the long diastolic halt, and with it the tendency to ventricular paresis. This I have seen in several instances, and notably in a case quoted by my friend Dr. Clifford Allbutt in his well known essay on the *Effects of Overwork and Strain on the Heart and Great Blood Vessels*. Here there was the common double aortic disease, where the regurgitation was marked, and at times the ventricle halted over as many as four beats. The man was already confined to bed, but the rest alone was insufficient to inaugurate improvement. Digitalis and steel soon made a marked difference: the man was up and about in a short time, and got so well that he once more went down the coal-pit to work; it must be said with the most disastrous consequences, for in a few days he was dead.

In advanced aortic regurgitation, digitalis may be given to delay the inevitable end, but more cannot fairly be expected from it. Its use in mixed or double aortic disease must be determined by the nature and indications of each case, and especially by the condition of the ventricular walls. When the ventricle falters, digitalis may be safely resorted to; till then it is better withheld. We may sum up as follows.

1. Digitalis is useful in aortic stenosis. By exciting a more powerful ventricular contraction, it enables an equal bulk of blood to be driven through a narrowed orifice in an equal time, thus establishing a new equilibrium.
2. In the earlier stages of aortic regurgitation, with massive hypertrophy, it is harmful rather than useful.
3. In the later stages of aortic regurgitation, where the heart is failing from mural decay, and especially when intermitting, digitalis may be given with at least temporary advantage.

POISONING BY NITRATE OF POTASH.

By RICHARD WOOD, L.R.C.P.Ed., Bromsgrove.

ON August 15th, about noon, I was called in a great hurry to see a woman who had intended to take two ounces of salts, but who, by mistake, had taken something that only looked like sulphate of magnesia. Whilst swallowing, she perceived the taste to be different from what it should be, but could not tell what she had swallowed. She complained of great burning pain in the stomach, and, in about five minutes, vomited some glazy fluid on the floor of the room. There was no time to be lost. I at once gave her a drachm and a half of ipecacuanha, followed by one ounce of chalk mixed with water. After this, I tried to pick up some of the vomit with a spoon; failing in my attempt, I wiped it up with my pocket-handkerchief to take home. The cup which had contained the draught was quite empty and clean. Upon rubbing my finger, however, round the bottom and applying it

to my tongue, it tasted saltish, like nitre, and not like acid. All this time, the poor woman complained pitifully of the pain in her stomach, and spoke of it as a burning pain. To help vomiting, some oil was given in milk, and immediately she brought up a quantity of brownish fluid. The pain was not relieved; she continued groaning with it, but had no convulsions. Some slight shivering and tremulous motions of the hands occurred, with an unsteady attempt at walking. The pulse was quick and feeble. The bowels acted twice within the first two or three hours. She vomited no blood; the retching continued off and on most of the night, and she could obtain no sleep or cessation from pain.

On the 16th (the next day), I ordered a mixture containing opium to allay the pain and applied poultices. I was now told that a quarter of a pound of saltpetre had been bought some time previously for curing bacon, and it was thought that the woman might have taken what was left of it. Acting upon this suggestion, I tested for nitre in the liquid I squeezed out of my pocket-handkerchief. I evaporated a drop on a glass slide, and found under the microscope rhombic prisms and acicular crystals. Some paper dipped in another portion of the fluid dried and burnt, deflagrated. I may here mention that chlorate of potash-paper also deflagrated; but, after being burnt, the ash or the charred parts of the chlorate is grey, whilst that of the nitre is black. In a watch-glass I evaporated a little more of the fluid, added two or three drops of sulphuric acid to the residue with some copper filings; upon slightly heating this mixture, reddish fumes were given off, which reddened litmus paper and blackened starched paper previously moistened with solution of iodide of potassium. There was no longer any doubt as to the salt taken by my patient.

I now come to another stage of the case. Knowing what the poison was, I ought to know what the treatment should be, but I did not. In several books which I have, I can find no treatment.

On the 17th, after another sleepless night, the woman showed signs of great and serious prostration. She herself felt her end approaching. She remained quite conscious, and could point out the exact place where all the mischief was. The pain was still a burning pain, a weight that did not leave her for a minute. She could take no beef-tea; the sight of it made her sick; she took nothing but cold milk and water. Her bowels had not acted yesterday nor to-day. An enema of warm gruel, with a quarter of a pint of castor-oil, was given, with the effect of producing a satisfactory motion. She was able to pass urine freely all the time; the urine and evacuations were free from blood. I regretted not having used the stomach-pump. I took it with me on my first visit, but was unwilling to use it before ascertaining what had really been taken. Towards the evening of this day, she fancied the pain was relieved by the medicine; but the relief must have been only slight, for she spoke with hesitation, and was very depressed in spirits.

August 18th. On my visiting her this morning, I was surprised to be told she had slept some hours, and had taken some tea for breakfast. She looked up and made an attempt at a smile. She spoke more hopefully. The pain was less intense, and had even on one occasion left her for a few minutes. She asked to discontinue the poultices. Her pulse was better; her tongue, which had been very dry, was moist, and from this day she gradually rallied.

THERAPEUTIC MEMORANDA.

NOTE ON LACTOPEPTINE.

IN the number of the JOURNAL for September 15th, reference is made to the above-named new preparation. As I have been using it extensively during the past year, it may interest some of my professional brethren to learn the extent to which I have been able to attribute beneficial results to its employment.

The first case in which I used it was on November 20th, 1876, in that of a lady suffering from uterine affection, with very obstinate dyspepsia, which had baffled all ordinary treatment. Lactopeptine, in fifteen-grain doses, given three times a day in a little water after meals, did more to restore her digestive power than anything I had hitherto prescribed; and she has persevered in its use from time to time, as the stomach appeared to require assistance. As her general health has improved in consequence, so have the uterine symptoms, under appropriate treatment.

Since then, I have used lactopeptine in a large number of cases of weakened digestion, and in the majority of cases with marked success: even in very young children, I have seen great benefit result from its employment, especially in those cases which are attended with obstinate vomiting. The composition of the preparation, which has been pub-

lished, would lead us to form a favourable *à priori* opinion of its efficacy in the cases for which it is recommended; and I have no hesitation in stating that, as far as I have used it, the combination is very materially more successful in its results than its component parts in any form in which I have hitherto employed them, while it is both more readily taken and retained than pepsine in those cases in which it is advisable to prescribe that remedy.

IVOR MURRAY, M.D., F.R.C.S. Edin., Scarborough.

THE USE OF BROMIDE OF POTASSIUM IN EPILEPSY.

DR. FARQUHARSON has, I think, done good by drawing the attention of medical men to the fact that much larger doses of medicine than those sanctioned by authority should be given to children in order to obtain their full effect. I can quite bear out his observations with reference to the doses of bromide of potassium which should be given to children suffering from epilepsy. During the time I held the office of medical registrar at the Children's Hospital, Great Ormond Street, I found that more than one of the physicians was in the habit of giving from ten to fifteen grains of the bromide in this disease, with great benefit to the patients. Since then, I have carried out and somewhat further extended the practice. I usually order fifteen grains of bromide of potassium three times daily for all the epileptic patients in this (Clapton) asylum; and this dose is continued, not only during the epileptic seizure, but for weeks and months afterwards. In some cases, fifteen grains have been given every two hours for a short time with great benefit; and, during the *status epilepticus*, I have on a few occasions, when the breathing has been much affected, injected into the bowel one or two drachms with good results. Some authorities, I am aware, are of opinion that the continued administration of bromide of potassium dulls the intellect of the patients to whom it is given. There is no doubt, however, that repeated attacks of epilepsy do more harm; and this opinion is, I find, confirmed by Professor Benedikt, who says (*Wiener Medicinische Presse*, April 1876), in reference to the administration of the bromide in epilepsy: "By this means, without doubt, some are cured; in many, there is a marked improvement as to frequency and intensity of attacks, at least for a long time. Only very seldom is there no good effect. I insist strenuously that patients shall not wholly discontinue the bromide, although it may be taken in diminished dose. In time, the bromide may effect lasting influence upon the intellectual faculties; but there is less harm done by it than by frequently repeated epileptic attacks." In this opinion I quite concur. From many of the children here the epileptic attacks have entirely disappeared, and in nearly all cases their frequency has much diminished.

My experience in the administration of iodide of potassium differs somewhat from that of Dr. Farquharson. A girl, aged 16, has been taking the drug in doses of ten grains for more than two months; at first, for the space of a week, every two hours; and since then three times daily. The girl has not only had no rash, but her complexion has become clearer, and she has gained flesh.

FLETCHER BEACH, M.B., M.R.C.P., Medical Superintendent, Clapton Asylum.

OBSTETRIC MEMORANDA.

AN INTERESTING CASE OF LABOUR.

I LATELY attended a midwifery case. My patient had been so large in the last months of pregnancy, that I expected twins. The labour lasted about seven hours, and both child and placenta came away without any trouble. The abdomen continued so large, that I made an external examination and found there was no other child. I banded my patient, and, as she complained of very severe pain over the uterus, I administered a full opiate. I left her at 1 P.M., and promised to call again in the evening. I saw her at 7 P.M., and found her quite comfortable. She said that about three hours after I left she found occasion to rise to the chamber, when she said she passed a couple of large clots, and that she filled three-fourths of the chamber utensil with the breaking of the waters as she described it, and as she well understood, having had several children previously. I had to tighten the bandage fully four inches, she was so much reduced in size. I did not see the clots, the nurse having removed them. My opinion is, that this was a case of imperfect twin-conception. I merely publish it as being interesting, and to elicit the remarks of others more experienced than myself.

JOSEPH LIGHTBURN, M.D., Rosemeunt, Newry.

SURGICAL MEMORANDA.

WOUNDING LYMPH-VESSELS.

WITH reference to the notice in the JOURNAL of Dr. Kœberlé's remarks on lymph in cicatrisation, it may be worthy of remark that the late Mr. Maurice Colles (Dublin) recommended and practised a transverse instead of a vertical incision in operating for inguinal hernia, so as to avoid wounding lymphatics of the groin, in cases where it was not likely to be necessary to open the sac.

W. H. MCNAMARA, M.D., Aldershot.

REPORTS

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS AND ASYLUMS
OF GREAT BRITAIN.

UNIVERSITY COLLEGE HOSPITAL.

RHEUMATIC FEVER TREATED BY SALICIN.

By J. SYDNEY PEARSE, M.R.C.S., L.R.C.P.Lond., Physician's Assistant.

THESE cases (second series) tend to confirm those published in the BRITISH MEDICAL JOURNAL, July 8th, 1876, as to the successful treatment of rheumatic fever by salicin.

CASE V.—A young man, aged 19, attributed his attack to getting warm and then standing in the draught. He was a Londoner, and his occupation a fruiterer. The patient had had rheumatic fever six months ago, all his joints being affected; but, as far as he knew, his heart was free from any complication. There was no hereditary predisposition to rheumatism. The patient had never had syphilis, and there was no history of anything indicating lead-poisoning. He first noticed a stiffness in his ankles on June 17th; this increased the next day, and he was obliged to keep his bed until he came under treatment (June 20th). On admission, he complained of pain in the shoulders, back, knees, and ankles, both knees being very red and swollen, much more than is usual in ordinary rheumatism. The pain in the joints was most severe in the knees and back. The surface of the body was hot; the perspiration not very excessive. Temperature 102 deg. in mouth; pulse 90. Cardiac dulness did not reach above the level of the third rib, or beyond the middle of the sternum. There were a very soft blowing systolic murmur at the apex and a hæmic *bruit* at the base; otherwise the heart-sounds were normal. The appetite was good, but the patient suffered from constipation. The patient was immediately put on salicin, and, as his appetite was good, full diet was allowed.

June 21st (twelve hours after commencement of treatment).—The pain, though great, was not so severe. The same joints were affected. The temperature was 100.6 deg.; pulse reduced to 80. The heart-complications were not altered.

June 22nd.—The temperature had fallen to 99 deg. There was only a trifling pain in the right shoulder. A copious rash of sudamina had appeared over the thorax and abdomen. The pulse was now only 66. There was no pericardial effusion. The hæmic murmur was inaudible, and the mitral systolic was only very indistinctly heard.

June 23rd.—The temperature being now normal, and the joint-affection causing scarcely any pain, the salicin was stopped, and iron, in half-drachm doses of the tincture of perchloride, ordered.

June 28th.—There had been no remission since last note. He now had no heart-symptoms, both murmurs having disappeared. He was discharged to-day convalescent.

CASE VI.—A healthy looking woman, aged 23, had an attack nine years previously, which, according to her account, was rather severe. Her father also suffered from rheumatism. There was no history of syphilis to be traced. On June 30th, the patient was seized with severe frontal headache, accompanied by swelling and tenderness of the knees, ankles, and wrists. No cause could be assigned for this attack. The pains remained, with greater or less intensity, till she came under treatment (July 10th).

The temperature was 102 deg. The perspiration had a very sour odour, and was very abundant. All the joints were affected in both extremities; there also appeared to be a good deal of muscular pain. There was no pulmonary complication. Pulse 108 deg., regular and full. There was no increase in the cardiac dulness beyond the normal

limits. There was a systolic murmur at the apex of moderate intensity. The remaining heart-sounds were perfectly healthy. The patient has the free action of the bowels.

The day after salicin was commenced, the temperature had fallen to 100 deg. The frequency of the pulse had fallen to 88, being a diminution of twenty beats. The joint-pain was confined to the right side, and was very trifling in comparison with yesterday. The perspiration was also checked to great extent. She slept better than she had for ten days. The bowels were becoming constipated.

July 12th.—The patient had only a little stiffness in one knee and shoulder. Perspiration was almost entirely stopped. Temperature 99.8 deg.; pulse 80.

July 14th.—The patient had continued to improve. The temperature was normal. Pulse 80. There was no joint-pain. The systolic murmur was hardly audible as the patient was at rest, but became very distinct on exertion. The salicin was discontinued.

This patient afterwards took iron. A little pain in the carpo-metacarpal joint of the thumb was almost instantly relieved by thirty grains of salicin.

CASE VII.—A young girl, aged 17, a week before admission, slept in a damp bed and caught cold. She had previously been healthy. Her parents were not subject to rheumatism.

June 29th.—The patient lay on her back; her face was expressive of great pain. She had dyspnoea to a marked degree, but no orthopnoea. The joints affected were the knees, ankles, and elbows. Considerable pain was complained of on movement of the lower jaw, rendering mastication difficult. The temperature was 105.8 deg., the skin being hot and dry. Respirations were 46. There was distinct dulness on the right back from the angle of the scapula to the base. Tubular breathing was audible, as were pneumonic crepitations, over the dull surface. There were mucous *râles* over the greater part of the chest. Pulse 118, quick and compressible. The impulse of the heart was indistinct, but the dulness was not materially increased. On auscultation, the sounds generally were muffled. At the junction of the third left costal cartilage with the sternum, a very slight friction could be heard.

June 30th.—The patient had now very little joint-pain. The temperature was between 103 deg. and 104 deg.; the respirations were increased to 52; the pulse was 120. Friction at the base of the heart was more audible.

July 2nd.—The temperature had not changed. The pulse and respirations had increased, the latter to 60. There was no appreciable pericardial effusion, but pericardial friction-fremitus was perceptible over the whole of the cardiac region, and loud grating friction obscured all the sounds of the heart on auscultation. The dyspnoea was increased, but the patient was not markedly prostrated.

July 4th.—The temperature was reduced to 102 deg., otherwise the symptoms had not altered. A plentiful crop of sudamina and miliaria had appeared over the front of the thorax.

The temperature remained about 101 deg. from July 4th to July 7th, when it came below 100 deg., and remained so, with one exception, ever since. The dulness in the right back disappeared, and there is now no dyspnoea to speak of.

As the temperature continued low, the salicin was stopped on July 12th, when the patient was able to get up and walk about the ward.

CASE VIII.—The patient, a young girl aged 16, had an attack of rheumatic fever four years before. She had otherwise always been healthy. She was taken ill on July 9th, six days before coming under treatment. During that time, she had no treatment, but simply kept her bed. When first seen, her face was flushed and she was perspiring profusely. The joint-pain was limited to both ankles and both knees, the effusion into each knee-joint being very considerable and fluctuation very evident. Temperature 103 deg.; pulse 132. There was no pericardial effusion. There was an apex systolic murmur, the other auscultatory signs being normal. The patient had been unable to sleep since the first appearance of fever, on account of the pain. The tongue had the characteristic creamy appearance, and appetite was very bad.

The next day (July 15th), after having taken eight doses of salicin (*i.e.*, half an ounce), the temperature had fallen to 101 deg. and the pulse to 100. The joint-pain had almost entirely vanished, only one knee being affected, and that to only a very trifling degree. The perspiration was almost entirely checked. The tongue had cleaned considerably, and her appetite was improving. She had slept well for the first time, and that without any narcotic.

July 16th.—The patient was convalescent. Temperature and pulse quite normal. There was no joint-pain. Her appetite had returned. Perspiration was not excessive.

CASE IX.—A young woman, aged 25, had had rheumatic fever twice before; there was also a strong tendency to rheumatism in the family history. When first seen, she had been ill for five days. All the joints of the lower extremities were affected. The patient had the strongly anæmic look, her mucous membranes being almost bloodless. She had, however, been confined only six weeks ago, and was now suffering from a mammary abscess in addition to her rheumatism. The temperature was 103 deg.; pulse 132. She was perspiring profusely. A systolic murmur was audible at the apex of the heart, otherwise the sounds were normal.

Second day.—The temperature was 101.5 deg.; pulse 120; the perspiration much less. Constipation, which was present from the first, still existed. The joint-pain was limited to the knees. She slept well for the first time.

Third day.—Temperature 99 deg.; pulse 88. No joint-pain. On the fifth day, the patient was convalescent. The abscess, which had been opened when she was first seen, was almost healed. The mitral regurgitation remained, and was of the same intensity throughout. It most probably was the remains of the prior attacks.

CASE X.—A Dane, twenty-nine years old, was suffering from a first attack of rheumatic fever. He dated the commencement of the disease at June 28th; he first came under treatment on July 10th.

The temperature was 101.4 deg.; pulse 100. All the joints were affected more or less, those of the lower extremity being more painful than the others. There was no cardiac complication, although the patient complained of pain over the lower part of the sternum, which prevented him from sleeping and made breathing painful. Physical examination revealed nothing. This condition lasted for four days, at the end of which time the pulse had fallen to 86, and the joint-pain was almost entirely alleviated. But the temperature continued about 101 deg. There had also been a slight increase in cardiac dulness, which, however, became again normal on the fifth day. The supply of salicin at this time appeared to be exhausted, as none could be obtained in London. Salicylic acid was substituted, but did not appear to be beneficial. After an interval of two days, salicin was again commenced. The whole duration of this case before the temperature became and remained normal was twelve days. On the fourteenth day, the patient was up and walking about.

A mitral regurgitation murmur had developed during the disease, but this became gradually fainter towards convalescence, although it did not entirely disappear.

REMARKS.—Where rheumatism was the disease *per se*, there being very little cardiac or pulmonary complication, the beneficial action of the drug was more marked even than it appeared to be in the cases first published. These cases tend to show, in addition to the beneficial results already noted, a decided and speedy diminution in the perspiration. This always occurred with a fall of temperature, and was probably due to this rather than any special action on secreting glands.

In Case V, the duration of disease was nine days, nearly half that time having elapsed before treatment. The highest recorded temperature was 102 deg. Salicin was required three days. There was no organic heart-complication.

In Case VI, the fever had lasted ten days before treatment. The first day, the temperature fell two degrees and the pulse twenty beats. The joint-pain was greatly relieved. Constipation and suppression of perspiration were marked. Within four days of treatment, the patient was convalescent. The relapse was unimportant, and only lasted a few hours.

In Case VII, the patient had pneumonia and pericarditis, with a temperature of 105.8 deg., and, although the joint-pain was relieved, the temperature kept at 103 deg. for some time. In fourteen days, however, she was convalescent and was able to walk about.

In Case VIII, the duration of fever was two days, the temperature falling two degrees a day, and the pulse about twenty-five beats in the same time. The heart remained in the same condition as when the patient was first seen.

In Case IX, the joint-pain disappeared in two days. The temperature and pulse became normal in three days. The patient had two attacks of rheumatism before, being laid up respectively three and six weeks. In the present instance, the whole disease lasted only eight days, although she laboured under the double disadvantage of suckling her child and having a mammary abscess. The anæmic complexion, which does not appear to be so marked in rheumatism when treated by salicin, was very evident, and probably due to lactation.

CASE X appeared to be a subacute case, and the most unsatisfactory of the whole; but the treatment was somewhat interrupted by the supply of the drug failing. The duration of treatment was fourteen days, which will compare favourably with the ordinary type of rheu-

matic fever. In none of these cases was there any history of syphilis, and there was no indication of the disease being due to lead-poisoning.

The patients were all put on iron, when the temperature became normal, after which there was a slight but invariable rise in the temperature.

REVIEWS AND NOTICES.

THE LUMLEIAN LECTURES ON THE MUSCULAR ARTERIOLES. By GEORGE JOHNSON, M.D., F.R.S. London: Richards. 1877.

THIS is a reprint of the course of lectures recently delivered at the London College of Physicians, and published at length in these columns; it contains an elaboration of Dr. JOHNSON'S views, many of which are new and original. He commences the first lecture by a short historical sketch of the development of our knowledge of the structure of the muscular arterioles and the function of the vaso-motor system, and refers especially to the stopcock action of these vessels regulated by that system. He proceeds to discuss the phenomena of asphyxia, and, having described at some length the increase of systemic blood-pressure followed by a fall and accumulation of blood in the right side of the heart, and, having alluded to the older explanations of Dr. Reid and Professor Draper, he proposes the following.

"The respiration being suspended, unoxxygenised black blood at first passes freely to the left side of the heart and the systemic arteries and capillaries; arrived there, either by direct stimulation of the muscular arterioles, or more probably by a reflex influence through the vaso-motor nerve and centre, the arterioles are excited to contract, and, by this action of the arterial stopcocks, the blood-pressure in the arterial trunks is increased and the left cavities of the heart become distended and dilated, as seen in the exposed heart of the living dog. The circulation through the systemic arterioles is thus impeded, but not arrested; some black blood passes through the capillaries without undergoing the usual chemical changes, and in this abnormal state it arrives through the veins at the right side of the heart and the pulmonary vessels. Reaching the pulmonary arterioles and capillaries, it excites there the same arterial contraction and resistance as had before occurred in the systemic vessels—the resistance offered by the contracting pulmonary arterioles—while, on the one hand, it tends to empty the left side of the heart, and so to lessen the blood-pressure in the systemic arteries; on the other, it causes that great distension and dilatation of the right cavities, more especially of the auricle, which are invariably found to exist when the chest is opened soon after death," etc.

From this it is plain that Dr. Johnson believes that the constriction of the arterioles is produced by the irritation of the impure blood on local terminations of nerve-fibres, and that constriction occurs only in those vessels within which black blood is circulating; but Nawalichin has proved that all these vascular phenomena occur when, "in consequence of ligature of the carotids, an accumulation of carbonic acid is produced solely in the cerebral vessels". Moreover, Lukomsky found experimentally that, whereas suffocation causes increased lateral pressure in the mammary artery and vein, it is diminished in the pulmonary artery. He infers, therefore, that the current of blood through the lungs is not impeded. The alternate engorgement of the left and right sides of the heart seems satisfactorily explained by the sequence of phenomena—spasm of the peripheral arterioles, followed by diminution in the frequency of the heart's action; and this latter may be due either to stimulation of the vagi or to the poisonous effect of carbonic acid; for it is known that when serum, saturated with carbonic acid, is passed through the heart of a frog separated from the body, its contractions diminish in frequency. The extreme capillary anæmia of the lungs noticed by Dr. Johnson is certainly not the usual *post mortem* appearance of these organs in cases of suffocation.

The second lecture treats of the relation between renal disease and hypertrophy of the heart; as is well known, Dr. Johnson first pointed out the general hypertrophy of the muscular walls of the small arterioles throughout the body in that form of Bright's disease associated with granular degeneration of the kidneys. We think there ought to be no doubt of the truth of this observation, although it is denied by histologists of such skill as MM. Cornil and Ranvier, and by Sir W. Gull and Dr. Sutton. One may see very distinct hypertrophy of the arteries without thickening of the perivascular sheaths, and, in other cases, thickening of all the coats of the vessels in the kidneys, liver, mesentery, skin, and pia mater. These observers admit the latter group of facts, but give different interpretations; for example, MM. Cornil and Ranvier see only chronic arteritis in these changes, while

Sir W. Gull and Dr. Sutton find a specific condition which they term "arterio-capillary fibrosis".

Dr. Johnson states that the hypertrophy of the muscular wall is the consequence of destruction of the renal epithelium, which, by hindering the excretion of the products of tissue-metamorphosis, loads the blood with impurities; this impure blood stimulates the small blood-vessels to tonic contraction, causing high arterial tension and increased strain on the left ventricle of the heart, with subsequent dilatation and hypertrophy. In proof of this, he relies on the influence of nitrite of amyl to diminish the arterial tension, and on Dr. Gowers's observation of constriction of the retinal arteries in certain cases. But, given a certain state of the muscular wall of the minute arterioles, not amounting to actual paralysis, the effect of their further dilatation under the paralysing influence of amyl would account for a fall of tension without presupposing a state of tonic spasm, and unfortunately, since these Lumléian lectures were written, Dr. Gowers has repeated his observations with the result that, in other cases of high arterial tension in renal disease, no constriction of the retinal arteries was present. Apart from these considerations, high arterial tension, cardiac hypertrophy and vascular changes are often dissociated from renal disease. We recollect reading a lecture by Dr. Johnson in one of the medical papers three or four years ago, in which he gave it as his opinion that the true pathology of granular degeneration of the kidneys was bound up with a functional derangement of the processes of tissue-metamorphosis, especially in the liver, and this view is endorsed by Dr. Murchison in his Lumléian lectures on the Functional Derangements of the Liver. But Dr. Johnson does not seem to believe that the resulting impurities accumulate in the blood before renal changes have set in. Every physician sees a very large number of patients who complain of general ill-health, with headache, loss of appetite, diminished energy, or depression of spirits, and objectively present a hard radial pulse, forcible heart's action, often doubling and accentuation of the heart's sounds, constipation of the bowels, but no albumen in the urine. There are perhaps two types of such cases; both have the same pathology but a different pathogeny, and require different treatment; in both, the essential cause is the circulation in the blood of partially oxidised albuminous matter in large quantities; but the first eat and drink too much for their very efficient organs, while the second have, congenitally or acquired, defective oxidising powers. In both cases, the object of treatment is to restore the balance between the oxidising powers and the oxidisable material, and to rid the blood of the excess of impurities. These are the cases which, by their frequency, account for the former popularity of blood-letting and the present large sale of the various aperient pills which all over the world cure the manifold symptoms which result from the accumulation of imperfectly oxidised albuminous matter in the blood. This condition is, as Dr. Broadbent has remarked, the prodromal stage of granular kidney, and the efficient treatment of these cases is of the very highest importance for the prevention of future renal mischief.

If Dr. Johnson's theory of the tonic contraction of the arterioles do not fully account for the increased tension, is there any other factor present capable of producing this result? Perhaps few will agree with Bartels in accepting Traube's well known opinion, that it is due to the obliteration of capillary areas in the kidney, for to English minds this explanation is ridiculously inadequate. Many may be disposed to agree with Gull and Sutton, and regard the undoubted general thickening and stiffening of the minute vessels which sometimes occur as an efficient cause; but one cannot help believing with Dr. Johnson, that this state, often presenting variations and remissions, cannot be due to simple permanent mechanical obstruction. Truly, we think, with Bartels, that the "entire volume and the character of the blood are factors which we must not leave out of our consideration in estimating the relation which subsists between atrophy of the kidneys and hypertrophy of the left ventricle". Is it not probable that the quantities of partially oxidised salts in the blood—most of them probably albuminates, and therefore of high osmotic value—would pass readily through the walls of the capillaries in exchange for water, a process which of itself would produce "the impediment in the capillaries" assigned by Grainger Stewart, Galabin, and others?

In his third lecture, Dr. Johnson denies that high arterial tension is the direct cause of the polyuria in this form of Bright's disease. He thinks that it is due to the diuretic influence of some abnormal products in the circulation acting directly on the kidney. As Dr. Johnson considers the small arterioles to be always in a state of tonic spasm, the blood must be cut off from the Malpighian tufts, and they must be anæmic or rather passively congested. It is possible that the impurities in the blood may act as diuretics in some unknown manner; but, without more proof of Dr. Johnson's theory, we are unwilling to ignore the

known influence of increased blood-pressure on the secretion of urine. Dr. Johnson speaks of the action of sugar in diabetes as analogous, and this reminds us of two things: first, that, in saccharine diabetes, the arterial tension is often high; secondly, that not uncommonly a quasi-cirrhotic condition of the kidneys has been found *post mortem*. This has not been regarded as a mere coincidence, but as the result of the peculiar and excessive function demanded of the kidneys. Moreover, Cyon and Aladoff found that glycosuria in dogs, induced by extirpation of the last cervical and first dorsal ganglia, was not accompanied by polyuria, so that it is doubtful whether sugar has a marked diuretic action. If the analogy were exact between the phenomena of granular kidney and asphyxia, the urine should be diminished. Some recent observations of Eichhorst's (*Der Einfluss des behinderten Lungengaswechsels beim Menschen auf den Stickstoff gehalt des Harns*.—*Virchow's Archiv*, May 1877) show that, in apnœa, the secretion is diminished or ceases altogether, but increases very greatly and at once on the removal of the obstruction to respiration. We believe that all the cardio-vascular changes may precede the renal degeneration, which stands more in the position of a consequence than a cause, and we hold that the observations of Galabin on the hypertrophy of the heart, and Gull and Sutton on the degenerated arterioles without renal disease, support this view; and that spasm of the muscular arterioles is sometimes present, but is not an essential factor in the production of the cardio-vascular changes.

We must pass on to consider shortly the hypothesis advanced by Dr. Johnson to explain the doubling of the first sound of the heart; he suggests that "the contraction of a dilated, and especially of a hypertrophied, auricle becomes audible, and that the first division of the double first sound in the cases under consideration is the result of the auricular systole". We are not quite sure whether he means this to apply to all cases of reduplication of the first sound, but we think he does; it seems to us that proof or disproof of the hypothesis is impossible, but we may see how far it is in agreement with the facts, and first we must point out that Dr. Johnson does not tell us that he has been able to detect dilatation and hypertrophy of the auricles in his cases of high tension by physical examination during life, while we have made careful search for evidence of this kind without success; therefore, we may conclude that at present there is no proof of the required condition being present. We cannot regard the cases of auricular pericardial murmur as proof of anything except the relations as to time of the auricular and ventricular systole; we are quite prepared to admit that a sound synchronous with the auricular systole would closely precede the first sound; but it is asking a good deal to assume the audibility of the auricular systole, especially as the ventricle itself, so much larger and stronger than any hypertrophied auricle, adds very little to the audible vibrations of the valves, and, not without reason, is often ignored altogether as a factor in producing the first sound. In both the cases cited by Dr. Johnson as those in which the auricular systole is audible, physical changes are present which rationally explain the sound; but we cannot see any true analogy between the state of the auricle in auricular pericarditis or mitral stenosis and its state in Bright's disease (even if we admitted the dilatation and hypertrophy) for the production of audible vibrations. He discusses Dr. Sibson's explanation of the reduplication by the assumed asynchronous action of the two ventricles, and objects that, if it were true the second sound also should be double, and that, in watching the exposed heart of a living animal in different stages of apnœa, with, first, distension of the left heart, and afterwards distension of the right, he observed the uninterrupted exact synchronism of the contractions on the two sides, also that, in cases of coexisting emphysema and chronic Bright's disease, although both ventricles are hypertrophied, the reduplication of the first sound was present. Dr. Sibson has himself given an explanation of the unity of the second sound in these cases by supposing that the increase of tension in the aorta allows it to catch up and complete the closure of its valves synchronously with the earlier filled but less actively distended pulmonary artery. Dr. Johnson objects to this, that, "if the greater tension of the aorta enable it to overtake the earlier but less rapidly and forcibly contracting pulmonary artery, it seems obvious that, in the normal condition, when the aorta and the pulmonary artery commence their elastic contractions at the same instant, the much greater tension of the aorta, with its thicker and stronger walls, should react and close its valves before those of the more feebly contracting pulmonary artery are closed, and the result would be reduplication of the second sound as a constant and normal condition". This is smart criticism, but is it anything more? The time of the closure of the semilunar valves must depend upon three things: the termination of the discharge of blood from the ventricle, the tension of blood in the aorta, and the resiliency of the coats of that vessel. We know that, under normal conditions, the two second

sounds occur together, and we know that very frequently pulmonary affections, valvular disease, slight hypertrophy of the left ventricle, and increased tension in the systemic vessels are asynchronous, and we infer that it depends upon changes in one or other of the three factors; that is, the coats of the vessel may have become stronger, the tension greater, or the ventricle slower in discharging itself. Again, in those cases in which they are synchronous, we may suppose that, while the tension is increased, the hypertrophy of the ventricle allows the discharge to be as rapid as normally, and that the coats of the aorta are somewhat weakened by the excessive strain from the overhypertrophied ventricle, or, that the ventricle discharging itself more slowly, the aortic coats are stronger than normal, and produce the closure in the usual time. To his second objection, that the two sides of the heart in apnoea continue to beat synchronously, we would reply that bilaterally associated movements of the ventricles continue for some time after the cessation of those symmetrically balanced conditions of tension, etc., upon which the bilateral association depended, but that permanent alterations may be expected in course of time to bring about variations in proportion to their divergence from the previous state, which is so like a truism that we are almost ashamed to have to write it. To his third objection, that obstruction to the pulmonary as well as the systemic circulation should produce a synchronous first sound, the answer is, that the right side of the heart cannot hypertrophy in the same way as the left; and that, assuming the obstruction to be equal, the powers of compensation possessed by the two ventricles are well known to differ, the right dilating much and hypertrophying little, while the left hypertrophies in proportion to, or even in excess of, its dilatation. How does Dr. Johnson explain reduplication of the second sound, which he has left out of account altogether? Some of Dr. Sibson's observations go to prove a variation in the relative intensity of the two divisions of the doubled sounds, according as the right or left ventricle was the one exposed to the increased strain, and we have been led to observe the same thing.

The many other points treated of in these lectures, renal asthma and uræmic convulsions especially, are explained on principles depending upon the main hypothesis of contraction of the arterioles. Until additional evidence is forthcoming of the actual occurrence of this condition, it is not well to speculate too much upon it, and we should not act wisely if we pursued our criticism any farther. Dr. Johnson's views, admirably argued and set forth in a pleasant literary style, will be read with much pleasure by every physician; nor do we forget the debt which the profession owes to the distinguished author for many recent observations and numerous pregnant suggestions; we know no one who deserves better than he that his opinions should be thoroughly examined.

A TREATISE ON THERAPEUTICS. By H. C. WOOD, M.D., Professor of Botany and of Diseases of the Nervous System in the University of Pennsylvania. Second Edition, revised and enlarged. Pp. 655. Smith, Elder, and Co. 1876.

This second edition of a work which has already taken its place amidst the best works in medical literature will be welcome even to those who possess the first edition, while to those who are not familiar with the book it affords an opportunity of buying a work with which they cannot fail to be pleased. On the title-page, the author says that the work has "especial reference to the application of the physiological action of drugs to clinical medicine", and the reader will find all through the book that the practical side of the question has been kept well in focus. There are many excellent works on *materia medica* and therapeutics, from the still standard volumes of Pereira to the more recent works of Stillé and Ringer. But, among them all, this book by Dr. WOOD stands pre-eminent for the amount of its information and its utility alike to the student and to the practitioner. The writer is very intimately acquainted with the literature of his subject, English and foreign, as well as with that of his own country, and with the most recent researches. The reader will find digested and arranged for him with rare profuseness the work of continental writers.

In an interesting preface to the first edition, Dr. Wood points out that the old method of ascertaining the action of remedial agents has not been quite satisfactory, and yet "to establish therapeutic facts the profession clings as with the heart and hand of one man—clings with a desperation and unanimity whose intensity is the measure of the desire for something fixed". And yet we find "experience teaching that not to bleed a man suffering from pneumonia is to consign him to an unopened grave, and experience teaching that to bleed a man suffering from pneumonia is to consign him to a grave never opened by nature". The writer then proceeds to defend the plan of adding to the results attained by clinical observation the knowledge acquired by

experimentation upon the lower animals. Dr. Wood does not for one moment forget the various sources of error which lie betwixt the results of experimentation on animals and their application to human needs, but points them out distinctly, and shows how the unwary may trip over them. Thus a dose of opium which causes stupor in man produces tetanic convulsions in frogs, an apparent contradiction which Dr. Wood meets by showing that opium acts both upon the cerebrum and the spinal centres, and consequently, as the cerebrum is most highly developed in man, so stupor follows. In the frog, the spinal system is the more highly organised, and, therefore, tetanic convulsions are induced. He also points out how the action of medicines upon the intestinal canal is modified by the anatomical structure of that part in various animals. Throughout the book, the results of experimentation on animals are so arranged as to indicate in the plainest manner how they may be utilised in every-day practice. He is equally careful to indicate the different points to be attended to in making observations in clinical medicine. Thus he shows how a drug may have an *immediate* and a *remote* action, instancing a diuretic whose immediate action is to increase urination, while its remote action is the removal of a serous effusion by the changes induced thereby in the relations of the blood to the accumulated fluid.

The work commences with Astringents, the author following the old plan of arranging drugs according to their action, and grouping them as minerals, alkalies, vegetables in their natural orders, etc. This plan has the advantage of striking the reader objectively more forcibly than the other arrangement. Tannic acid is taken first, and its action is described; after which follow, briefly described, the different substances containing tannin which belong to the *Pharmacopœia*. The writer does not disdain, *en passant*, to give a formula now and then. Thus he gives the following: "Ext. hæmatoxyli ʒi; and sulph. cam. ʒiij; tinc. opii camph. ʒiiss; syrui zingib. ad ʒii. Dose, a table-spoonful properly diluted." The action of quinine as a tonic is given with much elaborateness and attention to detail, and its different effects on the economy as an antipyretic and an antiperiodic are described minutely. In speaking of its effects upon the urinary organs, Dr. Wood somehow omits to mention the fact that quinine is apt to produce much vesical irritability, especially in elderly persons, so much so that many persons cannot take it on that account.

In the sections on Cardiac Stimulants and Cardiac Sedatives, the reader will find much excellent information. Alcohol is carefully discussed, and the writer holds that it is largely oxidised within the system, and so is a food. The consideration of digitalis is full and satisfactory. The writer regards it as specially indicated where there is "loss of cardiac power". As to its use in mitral disease, there is great unanimity of opinion; but, as to aortic disease, there is less agreement. Dr. Wood says: "Both in aortic *insufficiency* and in *stenosis*, when the heart-muscle fails and the hypertrophy is not compensatory, digitalis gives relief": a strong statement, but in accordance with clinical facts. He also says: "The use of digitalis in large doses as a cardiac stimulant in *syncope* or in *sudden collapse* from hæmorrhage or other cause is in its infancy."

The action of aconite is carefully considered, and its effects upon the heart and blood-vessels are enumerated. The doses used in the experiments mentioned seem unnecessarily large. Duquesnel is quoted to the effect that a twelfth of a grain of the crystallised alkaloid will kill a rabbit in a short time; but aconitia is a much more deadly poison than this would suggest; for a three-hundredth of a grain of Morson's aconitia administered subcutaneously will kill a three-pound rabbit in an hour or so, while a twelve-hundredth of a grain, given in the same way, will kill a guinea-pig of one pound and a half in weight in a like time. The author might have said more with advantage about the use of aconite in pyrexia, especially as no reference is made to this agent in the section devoted to diaphoretics. Hydrocyanic acid is considered at much length, and will be found by the reader to be satisfactorily given. The vegetable acids in common use are classed under cardiac sedatives. The description of veratrum viride, which is full, contains much with which the English reader is not familiar. Dr. Wood employs veratrum where Dr. Ringer resorts to aconite. Opium is described under the heading "Analgesics", and with elaborate detail. It is shown not only to act upon the highest nervous centres, but to affect lower and isolated centres, like the cardiac ganglia. Pigeons appear to be as indifferent to opium as rabbits are to belladonna. The practical use of opium is given with great carefulness, after which its derivatives, morphia and codeia, etc., are considered.

Some of the more interesting cases of poisoning are given, and it is stated that no account of any acute case of poisoning extending to a fatal termination has yet come under Dr. Wood's notice. It will be

suggestive to some readers to find that chloral is not described under the heading "Analgesics", but, further on, under "Depresso-motors". This illustrates the action of chloral as compared to opium.

Belladonna is classed as a mydriatic, but its other actions are elaborately described. The article will repay careful perusal. The use of belladonna in colliquative sweats is first attributed to Da Costa, who described such use of it in 1871, the same year that Ringer published his well known views on this subject. In speaking of chloroform, the author explains that the charges of rape often brought forward by females who have been subjected to chloroform or ether, are due to subjective erotic sensations produced by these agents. Under the excito-motors, strychnia is described. His otherwise excellent account of this agent is deficient in information about the effect of strychnia upon the heart as a cardiac tonic. The depresso-motors embrace Calabar bean, chloral-hydrate, bromide of potassium, nitrite of amyl, lobelia, conium, croton-chloral, and others. These different substances are all so well described, and with such careful pains, that we are simply at a loss what to quote; so the reader must be referred to the book itself, where he will be amply rewarded for his search. The gelseminum sempervirens is included in this class. In the Southern States, it is used largely as a vascular depressant and febrifuge in malaric fevers.

Under Alteratives, so called "because, when administered, they seem simply to alter morbid processes", are classed arsenic, mercury, iodine, cod-liver oil, phosphoric acid, and the phosphates, guaiac, sarsaparilla, colchicum, and some other less potent agents, as sassafras and dandelion. Our knowledge of arsenic rests solely upon clinical observation. When used to affect skin-diseases, it should never be given in the acute or inflammatory stage, where it is injurious. In chronic affections of the skin, it must be given for weeks or months to produce the desired results. In the consideration of mercury, no allusion is made to the practice of the synchronous administration of iron in debilitated and cachectic individuals, a practice by which the happiest results are attained; the iron apparently preventing the destructive effect of large and continued doses of mercury in such states. Dr. Wood advocates the union of iodine and mercury in the later manifestations of syphilis as preferable to the use of iodine alone. Of cod-liver oil he writes: "Cod-liver oil is especially useful in that condition of the system in which, with general lowered tone, there is a tendency to cellular hyperplasia, to the formation of 'exudations' composed of imperfectly developed cells, which, in the great majority of cases, from the very beginning are incapable of development into perfect entities, having only one potential quality, that of dying." It is especially useful in the pretubercular stage of phthisis and in the cachexia of tertiary syphilis. It is also very valuable in persistent neuralgia, especially in atonic systems. Of colchicum, Dr. Wood is in favour of the view that the amount of urea and uric acid in the urine is increased by its administration.

In speaking of Cathartics, Dr. Wood says: "A mercurial purge is especially indicated by the congeries of symptoms known as 'biliousness', a heavily coated tongue, bitter disagreeable taste, heavy headache, depression of spirits, loss of appetite, a slight nausea, and light-coloured passages." When the stools are of *potter's clay colour*, a mercurial should be given whether there is constipation or diarrhoea. In diarrhoea with acrid secretions, a dose of rhubarb is indicated. As to the relations of aloes to piles, Dr. Wood follows Oppolzer and Fordyce Barker in using it in their treatment. Oppolzer's famous remedy for bleeding piles was:—℞ Ferri sulph. ℥i; ext. aloes aquos. ℥i; ext. taraxaci q.s., in pil. 60 div., one morning and evening. There is no evidence that the use of aloes leads to the development of piles; the condition of constipation for which the aloes is taken may, however, and probably does, induce them. Saline purgatives are briefly considered, and Dr. Wood would do well to give them at greater length in future editions. Elaterium is stated to be the most efficient of all the hydragogue cathartics, producing comparatively little pain and irritation. A moderate dose is a sixth of a grain, with a grain of extract of hyoscyamus and a drop of some aromatic oil.

Diuretics are divided into three classes: hydragogue, refrigerant, and stimulating. The first increases the flow of water by the kidneys, and includes squill, not sufficiently in use as it might be, for it acts powerfully upon the heart; digitalis, scopolium, and sp. æth. nitrosi. The first three act as diuretics by their effect upon the circulation; viz., by raising the blood-pressure. The refrigerant diuretics are the various salts of potash. Chlorate of potash is eliminated from the body unchanged, and does not give up its oxygen in the body, as some have asserted. In speaking of its use in stomatitis, Dr. Wood omits to mention how much its value is increased by combining with it some of the muriate of iron. Lithia also belongs to this class. The stimulating diuretics comprise buchu, pareira brava, copaiba, cubebs, and others; "their

active principles are eliminated by the kidneys, and act upon the mucous surfaces over which they pass, for which purpose they are chiefly employed."

Diaphoretics serve four purposes:—1. To relax the skin; 2. To reduce the force of the circulation; 3. To stimulate the sudoriparous glands; 4. To fill the blood-vessels. This last is not quite clear.

Expectorants are divided into two divisions: the nauseant and the stimulating. Of the former, tartar emetic and ipecacuanha are the chief. The stimulant expectorants are chloride of ammonium, senega, ammoniacum, benzoin, squill, and tar.

Of Emmenagogues, savine stands first, then rue, parsley, cantharides, and guaiac. The following formula is a slight modification of Dewey's emmenagogue mixture:—℞ Tinct. fer. chlor. ℥iii; tinct. cantharidis ℥i; tinct. aloes ℥ss; tinct. guaiaci amm. ℥iss; syrup. ad ℥vi: a tablespoonful three times a day. The oxytocics are ergot, which is given at much length, and the root of the cotton-plant, used largely by negroes as an abortifacient. Some excellent remarks are made as to the administration of ergot in parturition; but no reference is made to its use to arrest hæmorrhage during pregnancy, for which purpose it is resorted to by many obstetricians. The other uses of ergot are carefully described.

Counter-irritants and rubefacients are next considered, and then escharotics. In the remarks on counter-irritation, no reference is made to the experimental researches of Max Schuler. A brief page of suggestive remarks is given to diluents. Under the heading of Disinfectants, carbolic acid is considered at some length and salicylic acid briefly. The work concludes with an account of the medical use of electricity. In this second edition, some agents are discussed not alluded to in the first edition. These are tea, coffee, jaborandi, gelsemium, salicylic acid, etc.

In conclusion, we may say that Dr. Wood has succeeded in writing a very satisfactory book, albeit we have pointed out some slight defects. It is well written, full of information well arranged, and can be thoroughly commended both to the student and the practitioner. It is a pleasing book to the eye, and very free from typographical errors. It ought to find its way into the book-shelves of every practitioner who takes an interest in his profession.

NOTES ON BOOKS.

DR. FERBER'S *Mod. Diagram of the Organs in the Thorax and Upper Part of the Abdomen* (Lewis, Gower Street) is a very ingenious and well-constructed model of the kind which the Germans call *situs phantom*, showing the relative position and aspect of the organs from the surface as they lie in layers and are exposed by successive dissections. The lifting up of successive layers of the phantom exposes them in the same order, extent, and manner as they are seen in a well-conducted *post mortem* examination; and his model diagram will be of great use to students and practitioners in enabling them to realise the precise medical anatomy of this important region.

MR. GODLEE, M.S., F.R.C.S., Assistant-Surgeon of University College Hospital, has issued the first part of an *Atlas of Human Anatomy* (J. and A. Churchill), excellently drawn by himself from nature, and lithographed in colours by Hanhart. It is admirably executed, and has a good explanatory text. Judging by the care and artistic skill bestowed on this first part, the whole work will, when executed, be of great value, and take its place by the side of the fine works of Ellis and Quain. The work will be issued in several parts, and will receive further notice as it progresses.

The sixth part of HENLE'S splendid *Anatomischer Hand-Atlas* (Viehweg, Braunschweig) has reached us. Nothing can well be more perfect or complete than this work, which stands unrivalled among modern anatomical illustrated works. It maintains the supremacy of the German school in such productions. This part is devoted to viscera, and contains eighty-three tables of plates, and is published at the very moderate price of five shillings.

FOWNES'S *Manual of Chemistry* (J. and A. Churchill) is now an established favourite in medical schools. The twelfth edition of the first part is reissued, completely rewritten and revised by Mr. Henry Watts, F.R.S., the author of the great *Dictionary of Chemistry*, a most eminently competent person, and who has executed his work with the conscientious care for which he is known.

The same publishers issue also a third edition of Dr. WILSON'S excellent and popular *Handbook of Hygiene*.

DR. ALFRED CARPENTER of Croydon has published, under the title of *Preventive Medicine in Relation to the Public Health* (Simpkin, Marshall, and Co.), the lectures and addresses which he has delivered

at St. Thomas's Hospital, before the Society of Medical Officers of Health, and the British Medical Association. The subjects treated range over the whole field of preventive medicine, and are treated with great vigour and ability. Dr. Carpenter is a warm advocate of sewage-farms; he has a very poor opinion of disinfection as at present practised; and on these and many other subjects of fundamental importance in preventive medicine his lectures will be read with interest and profit.

Messrs. Smith, Elder, and Co. have issued an extremely handy little book for students, entitled *The Examiner in Anatomy, a Course of Instruction in the Method of Answering Anatomical Questions*, by Mr. ARTHUR NORTON of St. Mary's Hospital, which cannot fail to be both useful and popular. It is, we apprehend, the first of a series; and, if the rest of the series be as well executed, they should constitute a very acceptable addition to the medical literature of the schools.

Dr. SAYRE of New York, in a volume issued by the same publishers, describes with all necessary details and photographic illustrations his new method of treating *Spinal Diseases and Curvature* by the use of the plaster of Paris bandage, which he recently demonstrated at the annual meeting at Manchester of the British Medical Association, and at the principal hospitals, before enthusiastic audiences. The book is one of capital importance; it constitutes an era in this department of surgery, and removes this whole class of diseases from the hands of instrument-makers and specialists, placing in the possession of every general practitioner the means of easily and successfully treating this large class of cases—even those hitherto most intractable. The study of this book is almost indispensable to every practitioner.

Messrs. Longman send the fourth edition of Dr. LIVEING's very handy little *Notes on the Treatment of Skin Diseases*; and Messrs. Hamilton, Adams, and Co., a carefully constructed series of *Physiological Tables for the Use of Students*, by Dr. E. S. AVELING.

Mr. LENNOX BROWNE's *Medical Hints for the Management of the Singing Voice* is a legitimately useful series of hints and instructions directed to vocalists, which has been favourably received by those for whose use and information it has been drawn up, having rapidly reached a third edition, so that it is now at the eighth thousand.

Dr. GURNEY's *Cancerous Tumours and Minor Operations treated without the Use of the Lancet* (H. K. Lewis) is a very trumpety production, on which we are rather surprised to see the imprint of a medical publisher of good standing.

Mr. WYNDHAM COTTLE's *Notes on the Hair in Health and Disease* is neatly written, and usefully deduced from the practice of the late Mr. Startin and Mr. Nayler, and from experiments and observations made by Mr. Cottle himself, partly with Mr. Nayler's help.

REPORTS AND ANALYSES AND DESCRIPTIONS OF NEW INVENTIONS IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SYRUPUS CHLORALIS LIEBREICH.

THE prescribers of chloral are at the present moment, and have been for some little time, placed in a difficult position. On the one hand, they know that they have in chloral a hypnotic medicine of the very highest efficacy, and a nerve-sedative of unrivalled power. In a vast range of diseases in which sleeplessness, nerve-irritation, excessive sensibility, and neuralgic pains are characteristic, in many of the worst forms of sleeplessness and neuralgia extending from ordinary insomnia to tetanoid convulsions, they find in chloral a precious and often indispensable arm. On the other hand, many circumstances have indicated that in practice the use of solutions of chloral has been found to be attended sometimes with irregular results, and occasionally unexpected dangers have seemed to arise. Over the preparations of opium, chloral has, in a great range of cases, immense advantages. In the first place, cases are well known in which its use has been borne without inconvenience for a series of years, sometimes daily, and without any necessity for increasing the ordinary dose. Moreover, the sleep and rest from pain and nervous irritation afforded by chloral are for the most part, and should perhaps always be, unaltered with the accustomed and constitutional disturbance incidental to the temporary, and especially to the habitual, use of opium. Dr. Oscar Liebreich, Professor of Materia Medica in the University of Berlin, to whom the world is indebted for the introduction of chloral into medicine, has from the first pointed out that in chloral

solutions, even more perhaps than in those of any other drug which could be mentioned, it is of the highest importance that absolute purity should be obtained, and that the solutions should be made in such a manner and with such materials as not to include any bye-products, inasmuch as the impurities and bye-products apt to accompany any but perfect specimens of chloral are of an irritating and noxious character, such as neutralises the effects of the chloral in producing sleep and in relieving excitement; that, in effect, such solutions of chloral are not only unreliable in their therapeutic effects, but are apt to produce some of the very dangers and sufferings which the chloral is intended to remove. He has insisted again recently on this point in some valuable papers which he has published in various English and foreign periodicals. It appears, however, that a large proportion of the chloral solutions in common use are made in an unreliable manner, and that the great bulk of chloral in use is of a kind to produce mischievous conditions in those for whom it is prescribed. To use his own words, Dr. Liebreich says, in the *Practitioner* for June 1877: "I am, moreover, well assured—and I wish to draw the attention of practitioners to this point—that many of the impurities of chloral, when it is not prepared with great strictness and tested with scrupulous accuracy, are of a kind seriously to detract from its uniformity of effect. Such impurities are calculated to have both a directly and indirectly mischievous effect. Directly, because some of these impurities contravene the simply hypnotic and anæsthetic powers of chloral, and confer upon the so-called chloral with which they are mixed irritating and exciting properties; indirectly, because by rendering the chloral in certain cases feebly hypnotic, they render the practitioner or the patient uncertain of the proper dose, they lead to multiplication of doses, and in consequence they tend to produce fatal results. The comparative inertness of the first dose leads to the reduplication of the dose at too frequent intervals, until suddenly a fatal result is produced. The accidents which have occurred frequently in England are, I am satisfied, largely due to the impurities and uncertainty of the many preparations, and especially of many of the solutions in vogue."

Chemical tests do not afford the means of ascertaining the purity and reliability of a chloral solution; hence, Messrs. Corbyn, Stacey, and Co. have, they inform us, made arrangements by which they are enabled to supply a syrup of chloral prepared under the personal directions of Dr. Liebreich of Berlin, and of which he has ascertained and guarantees the trustworthiness and excellence. This syrup they issue in bottles bearing the signature of Dr. Oscar Liebreich, and labelled "Syrupus Chloralis Liebreich", under which name it may be prescribed. Seeing the great importance of securing a perfectly reliable solution for use, we apprehend that they in this matter have rendered acceptable service, and practitioners who employ and order this solution will have the advantage of feeling perfect security for the welfare of their patients; and that in any case the best effects of the drug may be relied on, without any probability of the attending mischiefs which Professor Liebreich has found attached to the use of the chloral solutions of imperfect or impure character which are current.

NEW ILLUMINATING LAMP FOR MEDICAL PURPOSES.

A GOOD lamp for medical purposes has always been a desideratum, but hitherto those made have not been found very satisfactory. The lamp represented above (drawn to a scale one-third size) has been brought under our notice by Messrs. Salt and Son of Birmingham, and appears superior to others both as regards its mechanism and portability. The lamp is made of copper, nickel-plated, and the wick is fed by a sponge moistened with petroleum, burning for several hours with high illuminating power. The flame is placed before a reflecting mirror, and at the opposite side, by means of a powerful bi-convex lens, all the rays are concentrated, so that the light may be directed on any given point. The flame is enclosed in a lantern, and consequently is not affected by currents of air, or by the patient breathing. The flame being confined in a close chamber, no shade is needed. When it is added that the cost is not more than that of ordinary lamps, we think this invention will commend itself to the profession.

This lamp is, we believe, of French origin. We have seen it last year in use by M. Dieulafoy and others in the French hospitals, and have since satisfied ourselves of its great utility, cleanliness, and portability.



NEW URINARY TEST-CASE.

By RAYNER W. BATTEN, M.D., Gloucester.

EVERY medical man must at times have felt the inconvenience arising from not having the means with which to examine the urine of a patient whilst still at the bedside. The ordinary urine-cases are too large to be always carried about, whilst there is with them generally also the risk that their contents will be spilled.

I have been asked to bring under the notice of the profession a small case which can easily and safely be carried in the waistcoat-pocket, and which for the last two years I have found to answer its purpose extremely well. It consists of an aluminium case about four inches long and half an inch in diameter, resembling in appearance the ordinary pocket caustic-holder, and similarly divided into two compartments. The smaller compartment (A) has within it three vulcanite specific gravity beads, marking the extreme and mean specific gravity of ordinary urine. The larger compartment (C) contains a test-tube, within which are three or four capillary-tubes, charged with nitric acid, and a bottle for Fehling's test-solution; this bottle is closed with an India-rubber stopper, upon which the alkali has no action, and hence the copper solution will keep good and clear it as long as may be required. The screw-junction (B) uniting the two parts of the case is itself hollow, and holds, excluded from the air, the red and blue litmus paper. A wineglass, and a candle or lamp, which can always be obtained, are all that can be further required. It is, perhaps, scarcely necessary to add that, by holding the test-tube in the blue portion of a flame, all smoking of the glass is prevented. The specific gravity beads will be found to tell the specific gravity of the urine very accurately; whilst they have the advantage, a most important one at times, over the ordinary urinometer, that a very small quantity of urine, two or three teaspoonfuls even, will be sufficient for the purpose.

To those who are unaccustomed to the use of the nitric acid tubes, I may say that the best mode of using them is first to shake the acid down to one end of the tube, then to break off the other end by a sharp rap of a knife or other hard body; on inserting the open end of the capillary-tube just within the mouth of the test-tube, and heating the other end of the capillary-tube in the flame of the lamp, all the acid will be driven into the test-tube.

This pocket urine-case has been very neatly and admirably made for me, after a considerable amount of trouble on their part, by Messrs. Salt and Son, the surgical instrument makers of Bull Street, Birmingham. All its parts are made to measure, so that, at any time, the bottle, test-tube, or charged capillary-tubes, of the proper size and length, can be obtained from the makers by return of post.



FULL SIZE

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 9TH, 1877.

CHARLES WEST, M.D., President, in the Chair.

TWO PECULIAR VARIETIES OF HYDROCELE OF THE CORD.

BY FURNEAUX JORDAN, F.R.C.S. (BIRMINGHAM).

THE author commenced by enumerating the different varieties of hydroceles in the scrotum and their various combinations. He then referred to the origin of hydroceles of the cord, to which he limited his remarks. He considered them due to an imperfect obliteration of the peritoneal prolongation which took place along the cord from the internal inguinal ring to a point a little above the testis. This obliteration began at two points, at the ring and near the testis; and, if it were incomplete, fluid might collect in the unobliterated space, forming a spherical enlargement, which was movable from the testis. Transparency was present, but was distinguished with difficulty, unless in the lithotomy position. The disease was most frequent in early life, and was called "encysted hydrocele of the cord", probably to distinguish it from the so-called "diffused" variety. Of the two peculiar

varieties now referred to, the first was a so-called encysted hydrocele of the cord, connected with the abdominal cavity by a long fine tube; the second was an encysted hydrocele of the cord with a fine tubular prolongation upwards, which ceased near the external ring, not connected with the abdomen. The point of interest in the first case was the communication of the hydrocele with the abdominal cavity by means of a fine tube of unobliterated serous membrane; in the second, the existence of a tubular prolongation running upwards, but ending in a blind extremity outside the inguinal ring. In the first case, a truss was applied; in the second case, acupuncture was resorted to, and proved successful after two or three repetitions. The globular collection of fluid, with the neck-like prolongation, suggested for it the name of "water-bottle hydrocele of the cord".

Mr. RIVINGTON said that the second case described by Mr. Jordan was one which would be generally recognised as an encysted hydrocele of the cord. As regarded the first case, he thought that the term congenital hydrocele of the cord, or congenital funicular hydrocele, would be applicable.—Mr. HOLMES said that the first of Mr. Jordan's cases reminded him of the condition which was described as having been found in the body of the late Sir Astley Cooper—a narrow tubular connection between the tunica vaginalis and the peritoneum. If a portion of this became dilated, it would present the state of parts described by Mr. Jordan. The case was interesting, as showing a transition between complete patulence of the communication, such as would allow the passage of a hernia, and that which was found in the case of Sir A. Cooper. The second case appeared to be little more than a modified form of ordinary encysted hydrocele of the cord.—Mr. JOHN CROFT had had under his care for three or four months a child aged 5, who had at the lower part of the spermatic cord a swelling, the contents of which could be returned into the peritoneal cavity by steady gradual pressure. He had diagnosed it as a hydrocele of the cord communicating with the peritoneum by a very narrow canal. He asked Mr. Jordan whether he had produced a cure in his first case. In his own, he hoped to obliterate the canal by the constant use of a properly applied truss; and afterwards he would deal with the hydrocele in the ordinary way.—Mr. A. WILLETT said that it was commonly taught that all hydroceles might communicate with the peritoneum; and it might be supposed that the funicular portion of the tunica vaginalis might remain unobliterated. He would hesitate to call the second case one of encysted hydrocele. He asked whether there was any history of hernia in either of the cases, and whether the arrangement of the parts of the cord with regard to the swelling was examined.—Dr. JOHN HARLEY asked as to the connection between such cases and soft tumours. He had had under his care a patient in whom a soft elastic tumour, about as large as a walnut, existed on the spermatic cord; it could be returned as far as the abdominal ring, but in a short time after the application of a truss it would again slip down.—Mr. HULKE had some years ago examined a large number of bodies with reference to the subject of hydrocele, and had found that the process of the peritoneum very frequently remained patent. The unobliterated portion was generally in the middle; but sometimes the patency was above and below the constriction. The point of importance was the treatment. Was it safe to treat these cases of hydrocele of the cord communicating with the abdomen by ordinary methods?—Mr. FURNEAUX JORDAN said that in neither case was there any history of hernia, nor had a truss been worn. The cord lay altogether behind the collection of fluid. He had applied a truss in the first case, with the effect of entirely removing the pain on account of which he was consulted. This relief remained twelve months afterwards, but the swelling was still present. It was difficult, in treating the small cysts, to be always sure that the iodine entered the sac; he therefore passed through them a thread soaked with iodine. Dr. Harley's case was probably one of small fatty tumour; or perhaps one of hernia of a fine cylindrical cord of omentum, which would have some resemblance to a fatty tumour.

A CASE OF NOMA IN WHICH MOVING BODIES WERE OBSERVED IN THE BLOOD DURING LIFE. BY ARTHUR ERNEST SANSON, M.D.

THE history of the case showed that noma must be added to the list of diseases in which bacterioid particles in active movement were present in the blood and the fluids. These moving particles had many special characters, and had been probably hitherto undescribed. It was shown also that the fluids in the disease possessed the faculty of virulent infectiveness. Alice C., aged 4½, was admitted an in-patient of the North-Eastern Hospital for Children under the care of Dr. Sanson and Mr. Tay, on February 12th, 1876. Her disease commenced a fortnight before admission with pain in the left cheek; she had no other disorder. Very great prostration occurred, and increased till admission, when she was found anæmic and drowsy, but not emaciated.

The left cheek was indurated and the surrounding tissues œdematous. Sloughing rapidly took place; the cheek became perforated, and the inferior maxillary bone necrosed. Copious hæmorrhage ensued on the third day after admission; on the same day, broncho-pneumonia set in; on the following day, general œdema. The child died on the eighth day after admission. The *post mortem* examination revealed very extensive necrosis of the tissues surrounding the left cheek and left side of the tongue, complete sloughing of the temporal muscle, and necrosis of both superior and inferior maxillæ. The bases of both lungs were in a condition of consolidation from broncho-pneumonia. The organs generally showed no morbid sign other than extreme anæmia. Microscopical examination of the blood during life was first made on the third day after the child's admission. The white elements were in excess, their protoplasm seemed unusually granular and many existed in fragmentary condition. Examined by a high power (7 and 8 Hartnack), a large number of small highly refractile bodies were seen in active movement; these resembled minute colourless crystals; their motion was usually rectilinear, and sometimes in opposition to a current; two or three attached to a red blood corpuscle were observed distinctly to move the latter. The movements were quite dissimilar to others, evidently Brownian, observed in the same field. Re-agents acted upon them variously; whilst weak, solutions of carbonic acid and of quinine caused the particles to come to rest; weak solutions of potash and of sulphuric acid appeared to stimulate the movements. The number of these motile bodies varied greatly at different times. After hæmorrhage and fall of temperature, they were greatly reduced in number; again, when temperature had risen to 103 deg. F., they were in great abundance. When they were numerous, they tended to form groups resembling zoogloea. In size, they were about one-twentieth part of an ordinary red blood corpuscle. Shortly before death, ordinary bacteria were observed in addition to the translucent bodies. The red blood corpuscles presented great variations in size. Translucent bodies exactly resembling those observed in the blood were found in the urine examined immediately after it had been voided; and a large number were seen in the fæces. The discharges from the wound also manifested them in abundance intermixed with the usual organisms accompanying putrefaction. Investigations concerning the infective characters of the blood and the secretions were commenced on the second day after the child's death; the fluids used for inoculation having been preserved in sealed capillary tubes. A healthy mouse inoculated with a minute quantity of blood from the right auricle, died on the day following the inoculation, and on examination, showed evidences of peritonitis, the exudation containing a large number of motile translucent bodies, exactly resembling those present in the blood of the child. A like inoculation was performed on a guinea-pig, which died five days after the operation. The signs observed were those of intense cellulitis of the abdominal wall about the site of inoculation, peritonitis; the blood, especially that obtained from the vena cava and from the right cavities of the heart, was found to contain a vast number of the special translucent bodies. Inoculation of the fluids from the seat of the noma was practised upon a mouse. The animal died the following morning; but none of the characteristic bodies were found in the blood. In the case of a cat, also inoculated with a minute portion of fluid obtained from the diseased part of the cheek of the child, though intense peritonitis occurred there was a complete absence of the mobile translucent bodies from the blood. It would appear, therefore, that whilst inoculation of the fluids derived from the diseased tissue (with the decomposing matters which they necessarily contained) induced peritonitis without discoverable alteration of the blood, inoculation of the diseased blood produced septicæmia, with the manifestation of the characteristic motile particles observed in the original disease.

Dr. JOHN HARLEY regarded noma as a result of obstruction of the vessels by clots, the effect of pre-existent pneumonia; and suggested that the bodies described by Dr. Sansom were produced by the breaking up of the clots. It was, however, difficult to account for their motion.—Mr. HULKE said that the gangrene of arterial obstruction was quite distinct from that of noma.—Mr. GODLEE inquired as to the relation between the translucent bodies and bacteria; and whether they were connected with the disease, or accidental.—The PRESIDENT said that pneumonia was of very frequent occurrence in cases of noma; but it was a consequence and not a cause of the disease. If Dr. Harley's view of the origin of noma from pneumonia were correct, it ought to commence in various parts of the body as well as on the cheek.—Dr. SANSON had given a plain statement of facts, avoiding all attempt to draw a conclusion. Speaking of the physical characters of the translucent bodies, he suggested that the crystalline forms were probably enclosed in transparent and invisible masses of protoplasm, and that the organisms resembled the amœba rather than bacteria.

MEDICO CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, JULY 4th, 1877.

J. D. GILLESPIE, M.D., President, in the Chair.

THE PRESIDENT explained that, as no papers had been sent in for this night's meeting, it had been deemed best to devote the evening to the exhibition of patients and pathological specimens. The rule of the Society as to these was, that no discussion be allowed on them. On this occasion, however, they would depart from it and invite remarks on the various specimens brought forward.

Case of Knock-knee.—Mr. CHIENE showed a boy on whom he had operated for knock-knee. Previously to the operation, he had much difficulty in progression. Now the legs were practically straight. He had operated on the right leg first, and, therefore, the result was not quite so good as in the left one. Meyer and others had shown that the real defect in knock-knee is elongation of the internal condyle of the femur. Perhaps, however, the external condyle was deficient. At any rate, the practical result was, that the tibia was thrown out of its proper axis. Dr. Ogston of Aberdeen had narrated cases where he operated by sawing across the external condyle into the knee-joint and then forcing the fragment out by restoring the tibia to its proper axis. Mr. Chiene, however, was afraid that, by this plan, he might interfere with the crucial ligaments, and he had accordingly operated in the following manner. Taking the tubercle into which the tendon of the adductor longus is inserted as a guide, a vertical incision was made through skin and fascia; then, on drawing aside these, the oblique fibres of the vastus internus could be seen in front, and the periosteum exposed. The internal articular artery was next secured by a double ligature and cut between. Lastly, the wedge-shaped piece of bone was cut by chisel and mallet. By gentle pressure, it was squeezed out and the leg brought to its normal axis. In both legs, the wounds healed in a fortnight; but splints were kept on for two months. This case and that of a little girl, in whom the result was even better, were the first in which a wedge shaped piece of bone had been removed from the condyle of the femur without implicating the joint. He had feared that the neck of bone might break, but he had not found this to be the case in children. He hoped that the surgeons present would be induced to try the plan he had described. Photographs of the boy, showing the great distortion that had existed, were also exhibited.—Mr. J. BELL had been much interested and pleased with Mr. Chiene's cases. The operation was one of those becoming now more frequent, and rendered possible by three things; viz., Esmarch's bandage, the mallet and chisel, and, last but not most important, antiseptics. Without the first two, it would be impossible; without the last, it would not be legitimate.—The PRESIDENT agreed with Mr. Bell in his remarks, with the exception of thinking Esmarch's band essential. He had seen Mr. Chiene operate on the case of the little girl, and had been struck with the ease with which it was done. A good many years ago, he had used the same principle in a case of compound fracture of the leg with angular union. He had no Esmarch's band, and antiseptics were unknown at that time. The result was very successful, and he hoped at the next meeting to show a cast of the limb and the piece of bone removed. He, of course, had nothing to say against antiseptics or Esmarch's plan; but it was possible to undertake such operation without these aids.

Epithelioma of Penis.—Mr. BELL showed a specimen of epithelioma of the glans penis with more of the ulcerative character than usual. It had appeared in less than three or four months. He amputated this day week, using a modification which, he thought, was an improvement. The members would remember the difficulty often caused by the contraction of the urethral orifice. Teale and Miller had accordingly devised special methods of avoiding such contraction. The method he adopted was to save a small piece of the urethra and split it up on the lower side, folding back and everting the flap thus formed over the surface of the cut corpora cavernosa. By this means, the more the corpora cavernosa shrivelled up and contracted the more was the urethral orifice drawn open.

Surgical Lesion of the Elbow Joint.—Mr. BELL showed the bones of the elbow-joint removed by the subperiosteal method. The patient he owed to the kindness of the President. The case was one of injury seen by the President a week after the accident. The case was such a difficult one to treat that the arm became stiff and almost straight. There had been serious fracture of the olecranon and also through the internal condyle, so that a bridge of bone formed between the two. For this reason, he had to be careful in operating for fear of injuring the vessels and nerves; and at last he had to break through the bridge of bone. The case was doing well; but he had learnt from it that particularly careful drainage was required in subperiosteal

cases. He had taken out the drainage-tube on the fifth day, but subsequent retention of serum had given trouble. In a similar case, he would keep the drainage-tube longer in.

Tumour of the Thigh.—Mr. BELL showed a specimen of tumour of the thigh. He had seen the patient six months ago, who told him that it had been proposed at a hospital in London to lay open and scoop out the growth. He himself advised amputation; but the patient would not hear of it, and put himself under the treatment of a gentleman in the west of Scotland, who diagnosed exostosis of the tibia, and said he would remove it by means of belladonna and iodine. When the patient came back, Mr. Bell still advised amputation, and performed it at the hip-joint. The patient was making a good recovery, his wound being antiseptic and nearly healed.—Dr. WYLLIE said that the tumour was fibrous, with osseous and calcareous trabeculae, which had large encapsuled cartilage-cells. At the surface, there were many large cells, like those of the cartilage of incrustation in a joint. The tumour was, therefore, fibromatous and enchondromatous. The microscopical preparations he showed had been decalcified with picric acid, which also stained them, and, in addition, stained with logwood.—The PRESIDENT said that the case of injury to the elbow-joint came under his care a week after the accident with a splint on and the arm nearly straight. He took this off, put on a figure-of-8 bandage, and tried careful movement, but without any good effect. To save himself trouble, he had asked Mr. Bell to operate. The case was a peculiar one, and, if he had been in any way to blame for the result, he would have excised the joint himself, so as to keep it quiet. He had seen the patient whose leg Mr. Bell had amputated at the hip; he had a slow pulse, a clean tongue, and indeed showed no evidence of having undergone any operation.—Mr. CHIENE congratulated Mr. Bell on his case as the first one where, in a hip-joint amputation, antiseptics had been successfully carried out. Much of the good result had been due to bringing the drainage-tube out at the outer angle of the wound and accurately closing the incision near the anus. In regard to the elbow case, he mentioned that, within the last three years, he had treated injuries at the elbow-joint by attaching a weight of three or four pounds at night, so as gradually to bring the arm into full extension, and making the patient wear an elastic band during the day to get flexion as gradually. There was at present in the clinical wards a case of excision of the elbow, a bad one to begin with, where a very good result was being attained by this method. Dr. Gillespie's case was certainly a very peculiar one, and the result was probably unavoidable.—Mr. BELL replied.

Fracture of the Neck of the Humerus.—Dr. FINLAY showed a specimen of fracture at the anatomical neck of the humerus. The patient had also received other fatal injuries.

Cystic Calculus.—Dr. FINLAY showed a cystic oxide calculus passed from the urethra.

Tetanus.—Dr. WYLLIE showed a specimen in connection with the pathology of tetanus. The patient was a man aged 56, in Dr. Watson's wards, who, three weeks before, sustained a lacerated wound of the back of the hand. It healed kindly and without any trouble. The tetanus began last Thursday by lockjaw and in difficulty in deglutition and in respiration. He died next day. There were also symptoms of double pneumonia at the base. On *post mortem* examination, nothing abnormal was found in the brain and spinal cord, except some excess of hypostatic congestion in the latter. On dissecting the skin from the back of the hand, they found the wound almost entirely healed, unless at its middle third. The dorsal cutaneous branches of the radial and ulnar nerves were found below the cicatrix in the midst of indurated subcutaneous tissue, in which, on examination, were found woody tissue; viz., trachechyma, cellular tissue, and chlorophyll. It was by their irritation that the tetanus had been caused. One curious point was, that the foreign matter so retained should have led to induration rather than to suppuration.

Encephalic Disease.—Dr. WYLLIE showed a specimen of the pons Varolii and medulla oblongata of a patient who died on March 10th. The pons was smaller than usual and somewhat atrophied, consequent on atrophy of the commissural fibres between the middle lobes of the cerebellum. On the left, there was a cyst with the nerve-texture around it wanting its coarsely granular nature. This had resulted from plugging of the basilar artery in its upper half. On section, half a dozen small channels could be seen in the artery so plugged. Six years before his death, the patient had hemiplegia, but no unconsciousness. The basilar artery had probably been plugged by an embolus from an aortic aneurism, and accordingly there were anæmia, hemiplegia, and subsequent atrophic changes. One curious and important fact was, that an artery once plugged may have its lumen again partly restored.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 13TH, 1877.

SYPHILIS AND ANTHROPOLOGY.

At the recent meeting of the French Association for the Advancement of Science, at Havre, Dr. Parrot communicated an important paper on the cranial deformities caused by hereditary syphilis. The form of the cranium, he said, is either normal or abnormal. The former results from the physiological evolution of a determined hereditary type; the latter, or deformities, are either artificial, that is to say, produced purposely immediately after birth in order to give the cranium a particular form, or they result from disease. Pathological deformities have been little studied, and scarcely ever by the aid of clinical observation and pathological anatomy. Those which are produced by hereditary syphilis are among the most frequent and the most characteristic, although not till now recognised. Syphilis attacks, in the different parts of the body, the connective tissue, and more particularly the osseous system, into the structure of which connective tissue enters so largely. The bones are affected whenever the disease attacks any other part, or they may be separately diseased. Their lesions are so characteristic that they suffice, the moment they are seen, to satisfy the observer if hereditary syphilis have or have not existed in the subject to whom the bones belonged. They consist in ulcerations or osteophytes; the latter are alone interesting as regards deformities of the skull. They have a distinct location, appearance, and structure. They are found in the form of lenticular plates, more or less large and thick, on the surface of the cranium, in the peribregmatic angles of the frontal and parietal bones. Thence they may extend to other parts of the vault of the skull, excepting always the frontal and parietal protuberances. During the progress of the disease, the parts first invaded become considerably thickened, and finally two tuberosities are seen along the coronal suture, and two others on the parietal bones bordering the sagittal suture. These elevations are separated from one another by deep grooves; whence result a form and an appearance of the skull truly typical, and which only hereditary syphilis can produce. The elevated portions are distinguishable from the rest of the healthy bone by the existence of pores on the surface, by vascular grooves, and by their structure; for they are formed by osseous tuberculae and medullary spaces perpendicular to the surface of the normal bone. Besides, the histological characters differ essentially from those of healthy bone. Often, by the extension of osteophytic layers to the sutures, these are prematurely united, and thus, not only an arrest in the development of the cranial cavity may be caused, but also of the brain itself. These cranial marks of hereditary syphilis are indelible.

The skull of a young Indian of Pernambuco, eighteen years of age, and dead of marsh fever, presented all the characteristics previously indicated on the parietals, which were thickened at the site of the lesion by twenty *millimètres*. They are also found long after death, and are incontestable witnesses of syphilis. In the two skulls of children given to the Institute of Anthropology by M. Destruges, and procured by Guayaquil from the sepulchres of a period anterior to the arrival of the Spaniards in the New World, there exist lesions identical with those which M. Parrot has observed in extreme youth; and in the two skulls of adults in the collection of the Museum, procured one from Africa and the other from the environs of Lima, may be observed the typical deformi-

ties of ancient hereditary syphilis. Both came from sepulchres much anterior to the conquest. The last-named skull has a thickness of thirty-eight *millimètres* at the level of the parietal tuberosities, whilst in other parts it is but ten *millimètres* thick.

From the foregoing, then, M. Parrot concludes :

1. That hereditary syphilis deforms the skull in a typical and indelible manner.

2. That syphilis existed in Peru and Guayaquil before the discovery of America.

Dr. Lunier remarked that the excellent paper of M. Parrot had cleared up certain difficulties which had embarrassed the study of deformities of the skull. Thus, in artificial deformities, certain unilateral deformities had not been explained; these are, however, very well understood as a consequence of syphilitic deformities. To the examples given by M. Parrot of the Peruvian skulls previous to the arrival of the Europeans, which bear nevertheless traces of syphilitic deformity, M. Broca had added another, the skull of a child of Arica (Peru). In this skull, which belongs to the Museum of the Anthropological Society, it is seen very well how the pathological deformity or alteration had prevented artificial deformity from being produced, though it had already been begun. *A propos* of syphilis in America before the arrival of the Europeans, Dr. Dally did not know of any traveller or ancient chronicler who had mentioned syphilis in North America or in Mexico before the Spanish invasion.

M. de Quatrefages remembered that M. Jourdanet and Boussens de Beaubourg had ascertained the existence in Mexico of syphilis previous to the arrival of the Europeans.

Dr. Bertillon confirmed the statement of M. de Quatrefages.

M. Jourdanet cited two ancient authors who both remark on the existence of syphilis among the Mexicans as well as the Europeans. M. Broca has established that syphilis existed in Europe, particularly in the Middle Ages, long before the discovery of America; but this fact does not give a reason for believing that it did not exist also in America before the arrival of the Europeans. Men having analogous, almost similar, constitutions, it is possible for a disease to take birth at two different points. It is this bifurcation which explains why the partisans of the two different opinions—the importation of syphilis from America into Europe on one side, and the importation of this disease from Europe to America on the other—have both excellent reasons to bring forward.

Drs. Gibert and Lagneau remarked that the new views expounded by Dr. Parrot are opposed to those which have been hitherto sought. In fact, M. Parrot, in one hundred and sixty syphilitic children observed, had found that all, with the exception of two, presented osseous lesions. Formerly, it was admitted that the characteristic of hereditary syphilis was the existence of lesions of the viscera. Osseous lesions were given as exceptions. Dr. Gibert of Havre, who had had through his hands more than one thousand five hundred syphilitic children, did not see how it was possible to distinguish the lesions of hereditary syphilis from those of rickets.

M. Parrot replied that, under the name of rachitism, all osseous changes of youth had been classed. A work of separation and classification is needed. It was this work he had already commenced by separating what belonged to hereditary syphilis, a disease which was well defined and could be studied in a special manner. M. Lagneau, *à propos* of artificial deformities, remarked that they are produced among a mixed people, and that their end in the socially inferior race is to approach the superior race, and in the latter to exaggerate its distinctive characteristic and to differentiate it more and more from the inferior race.

M. Parrot's observations have both a scientific and anthropological interest; for the present, however, we fail to see that he has succeeded in establishing any typical syphilitic lesion. Competent anthropologists and pathologists, however, such as M. Broca and M. de Quatrefages, would not be likely, we imagine, to give serious attention to a differentiation which did not at least appear to have seriously special charac-

ters by which to maintain itself. Either M. Parrot has discovered a scientific mare's nest, or he has made an extremely interesting and important contribution to pathology and diagnosis. We hope that the latter alternative may prove to be the correct one; in any case, it is desirable that attention may be given to the views which he has expressed.

PRIMARY EDUCATION: ITS SANITARY AND MEDICAL ASPECTS.

THE State has decided that every child above the age of five years shall be educated, and public opinion strongly supports such a resolution. Many problems suggest themselves in developing this principle, and some appear, as yet, hardly to have been grasped either by our school-boards or by the public. The general consideration of primary education is one which at all times justly occupies the public attention, as affecting the social and moral wellbeing of the nation; and it must frequently, in some of its phases, come prominently before the members of the medical profession. We propose to consider briefly some of the sanitary and medical aspects of primary education, as exercised for the benefit of the various classes of society. We do not intend here to deal with the purely intellectual and moral aspects of the subject; but to start with the assumption that the education of the young is intended to cultivate and develop all their powers, with the object of fitting them hereafter to enter with success upon the avocations of social life as men and women.

It must be at once evident that there are many sanitary and medical factors in the educational problem, that should be well understood by the directors and teachers of our schools. It is to be feared that, in many instances, both among high and low class schools, the primary principles regulating the physical and mental health of the young are but little understood. It is too commonly assumed by the director of education, that the various subjects who pass through his system of training are all alike; and allowance is not sufficiently made for the various conditions of mental power and development, and defects in the physical condition. It appears to be a thing almost unheard of for a schoolmaster, who finds a child passionate, excessively restless, and fidgety, or given to fits of abstractedness, or frequently complaining of "being poorly", to consider what physical or moral causes may produce these conditions; and, in schools for the lower classes, cases of starvation and palpable disease are comparatively seldom detected by school authorities, and brought under suitable treatment. We have often met with cases of children, from five to ten years of age, who were at times physically unable to attend to their school lessons on account of sick-headaches then developing; but the teachers would not believe there was anything amiss, although the facial expression and family history clearly showed that inherited migraine was threatening.

We lately had our attention drawn to a little boy, eight years of age, bright and intelligent in appearance. His parents were both dead; his mother died insane; and he was living with his grandmother. Though generally affectionate and good tempered, he was liable to such strong and sudden outbursts of passion as to be uncontrollable both at home and at his day-school. From the latter he had been withdrawn as unmanageable. When removed for a month to the country, his health improved and the quasi-epileptic seizures subsided, but returned when he was again brought to London. The boy has had a few convulsive epileptic fits, and his younger sister also. The child is now neither being educated nor properly controlled; and although at present harmless, he is likely, on arriving at manhood, to prove dangerous to the community.

Should not the professional educator be aware of the commoner forms of cerebral and mental defect in young people, in order that he may bring them under the best methods of training and treatment? We do not wish in this matter to throw blame upon any, but to point out the advantage that would probably accrue to the teacher, to society at large, and to our profession, from a more intimate mutual acquaintance

with the organisation of young people, as we respectively see it from our various points of view.

The schoolmaster complains that a child is "absent minded" at times, thinking about other things, as he believes, though working well at lessons. Careful observation and inquiry, with a knowledge of the family history, indicate an inherited neurotic temperament and an exhausted or overworked brain, as indicated by restless sleep, talking, and grinding of the teeth at night, etc. Does the schoolmaster understand that such a condition may indicate an overwrought brain, or still more serious changes? A boy in such a condition, especially at a boarding-school, calls for careful observation. These symptoms may result from want of sleep, or from some unsuspected source of anxiety or fear; more often they are due to the want of proper and active recreation. Does the master observe the child during his play and during his sleep, and talk to him kindly for the purpose of inquiry to ascertain his mental state? We fancy many children, in such a nervous state, pass through times of untold misery without being able to express their feelings. Yet, we maintain that it is only by the knowledge thus gained that the master can know how best to educate the child. It is certain these cases may be improved and strengthened by wise education and constant employment; and young people of mobile nervous system frequently develop into the best or worst adults, which adds an additional interest in studying such cases, and in obtaining for them the best educational advantages.

We have several times met with cases of slight chorea, where the child had been in trouble at school because he "would not keep quiet"; the schoolmaster not suspecting that he had to deal with a case of brain-disease.

Various matters connected with the primary signs of disease, questions of diet, ventilation, and hygiene, together with the prevention of the spread of disease, have a marked bearing upon the problem of primary education; but we have not space to deal with these questions here.

All these remarks lead us to the conclusion, that it would be well for all parties if we had a more thorough acquaintance with children as they present themselves to the practitioner and to the schoolmaster respectively. The practitioner should endeavour to acquire some knowledge of the processes of education, and should seek to impart knowledge to the schoolmaster how he may early detect cases requiring special or medical attention.

VACCINATION.

In spite of the weekly returns of the Registrar-General, which constantly call attention to the fact that a large proportion of the deaths from small-pox occurs in unvaccinated persons, and this chiefly during the first five years of life, there are still many who object to vaccination, and distort returns relating to it in such a way as to make it appear that vaccination favours rather than prevents the occurrence, and therefore the mortality, of small-pox. Their chief objection to vaccination is probably the fact that it has been ordered by law, or, in other words, has been made compulsory. A second objection is the possibility of inoculating diseases other than vaccinia at the time of vaccination. Thirdly, vaccination is said by its opponents to be not free from danger either to life or otherwise. Knowing as we do that vaccination, in a very large number, probably the majority, of cases, protects from small-pox, and that, in the remainder, it mitigates the severity of the disease; and knowing also that even those people who recover from a severe attack of small-pox bear for the rest of life the marks of the illness through which they once passed—be these pitting, loss of sight, scars of abscesses, etc.—we have a right to ask the so-called anti-vaccinator not to urge the careless or indifferent to neglect a protection which is valuable as regards life, and also as regards the suffering and disfigurement of a loathsome and fatal disease. We do not say that vaccination is entirely preventive of small-pox, nor that it prevents the illness in certain cases from being severe, nor do we say that

it is in all cases absolutely protective of life; but we have ground for saying that vaccination is now-a-days the only measure available for mitigating the severity of this disease. In any two special cases, it may be that the unvaccinated patient will suffer from the milder form of the disease, whereas the vaccinated patient will suffer from the severer form; but, if the vaccination of this latter patient be of fair quality and quantity, the probability is that he will recover, even though marked by the disease; but, were the severity of the cases reversed, the result as regards the unvaccinated patient would be almost certain death. Even *revaccination* is not absolutely preventive of small-pox. During the present epidemic, we have seen one person suffering from small-pox after revaccination. In this case, it was successfully performed at the age of 45, and this patient had a mild attack of small-pox at 60, from which she made a good recovery. We have even heard of a case in which the first symptom of small-pox occurred on the eleventh day after the successful revaccination, *i.e.*, at a time when the individual would ordinarily be considered free from danger of small-pox. The total mortality from small-pox during the present epidemic will be about 19 per cent. In unvaccinated infants it is about 95 per cent., and the mortality of unvaccinated persons of all ages is about 44 per cent. In the imperfectly vaccinated, the mortality is 12 per cent., whilst amongst people bearing good marks it is only 2.3 per cent.

It is said that, by using vaccine derived from the calf, one will get rid of one of the objections to vaccination as at present performed. Even if this practice be carried out, the objection may still be raised that one might at the same time inoculate other diseases. Why not syphilis? And certainly why not foot-and-mouth disease—a disease which is said to show itself in man with a vesicular eruption, or even some of the more serious forms of disease (*e.g.*, malignant pustule) so fatal amongst cattle? Because syphilis is sometimes contracted by medical men when attending maternity cases, or because women die in child-bed, do medical men object to attend labour cases, or do women object or cease to bear children? The mortality after childbirth is greater than that from vaccination, and yet women look on childbirth as a trifling matter. It is possible to inoculate syphilis at the time of vaccination, but the number of undoubted cases is small. Mr. Hutchinson, in his evidence before the Vaccination Committee of the House of Commons in 1871, stated that, in spite of his knowledge of the inoculation of syphilis, he was in favour of vaccination. Anti-vaccinators, and unfortunately some medical men, are too ready in saying that eruptions occurring after vaccination are syphilitic, and they are equally ready in stating that these eruptions are caused by syphilis inoculated with the immediately preceding vaccination, even though there be not the slightest evidence that the so-called syphilitic eruption was brought about in the way they mention, or that it was syphilitic at all.

As at present performed, vaccination is imperfect, either in its quality or its quantity, or in both. Comparatively few people are admitted into the small-pox hospitals with undoubted small-pox who show evidence of good vaccination in three or more places; and, if three good marks are visible on any patient, death is extremely rare. In respect of the age at which vaccination is performed, it is *unfavourable*, since it coincides with the time of appearance of specific eruptions; and, moreover, it is performed at a time when mothers too often begin to give the infant other food than breast-milk, a circumstance which favours the development of non-specific eruptions. If one postponed the vaccination until the child were thirteen months old, there would be urgent reason for vaccination being compulsory, and for its being performed in spite of the opposition of parents and others, seeing that the folly of one individual would be able to give small-pox to a number of infants, who would die at the rate of 95 per cent. It is forgotten by some, and unknown to others, that, for vaccination to be successful, one ought to produce an illness, and that this very illness is the first evidence of the success of the operation. In addition to the fact that people are ill after vaccination, it is important to bear in mind that people die after

the operation, if not from the disease itself, at least from its sequelæ, notably erysipelas. Allowing that the mortality after vaccination is equal to that of inoculated small-pox (*viz.*, 3 per 1,000), vaccine inoculation is preferable to small-pox inoculation. Small-pox produced by inoculation may spread the disease indefinitely, which does not happen with vaccinia. Vaccination, as at present performed, is not preventive of small-pox. Successful vaccination is, with very rare exceptions, protective of life, and against the more severe sequelæ, except erysipelas. After puberty, however, vaccination loses the whole or a part of its protective power, and this also applies to revaccination performed before puberty. For vaccination to be effectual through life, it should be repeated after puberty, no matter what was the condition of the primary vaccination; and, judging from the statements from the small-pox hospitals, one will then be justified in saying that the occurrence of small-pox in a severe form is impossible, unless the patient, at the time of revaccination, be incubating small-pox.

DR. SCRIMSHAW, Medical Officer of Health, has reported to the Rural Sanitary Authority of Crickhowell an epidemic of typhoid at Llanelly, due to the infection of the milk-supply.

THE Harveian Lectures for the present session will be delivered in December by Dr. Graily Hewitt, on "The Mechanical System of Uterine Pathology".

UNDER the direction of the Trades Guild of Learning, a course of twelve lectures on "Life and Health" will be delivered in the Town Hall, Shoreditch, by Dr. B. W. Richardson, F.R.S., commencing on Monday evening next, at 8 P.M., to be continued on subsequent Tuesdays and Fridays. A large proportion of the seats will be reserved at a nominal charge, so as to bring the instruction within the reach of the poorest.

CONTAGIOUS DISEASES ACTS.

THE official return of the number of men admitted in 1876 for these diseases in the districts where the Acts are in force shows a further improvement in the health of the troops quartered therein on their state in previous years; whereas, in the districts where the Acts do not prevail, the health of the troops has undergone no steady improvement. In the protected districts, 33 per 1,000 of mean strength were sent to hospital for primary venereal sore; and, in the unprotected districts, 82 per 1,000 mean strength, or two and a half times as many. In the returns for gonorrhœa, the difference, though considerable, is not so marked; 68 per 1,000 from the districts under the Acts, against 89 per 1,000 from the districts where the Acts are not in force. Examination of the tables for ten years—1867-76—makes very manifest the gradual and steady decline of disease which has taken place at the stations under the Acts. At the stations not under the Acts, the amount of disease has varied much during the past ten years, now greater, now less, but on the whole only slightly, if at all, diminishing in a permanent manner. To illustrate the effect of the Acts in restricting contagion, a simple calculation from these data shows that, had the Contagious Diseases Acts been repealed last year, as Sir Harcourt Johnstone proposed, and intends to propose again next session, instead of 1,600 men, 4,000 would have been disabled of the 49,000 who now, luckily for themselves and the country, are quartered in the protected districts.

GRAVE MORTALITY OF CRIMINAL LUNATICS.

WE have received a copy of the last Annual Report of the Convict Prisons. We regret to find that the report which relates to criminal lunatics is so defective as to call for severe animadversion. In the main report, at page x, the question of the rate of mortality is touched upon; and the death-rate, with respect to the men, is stated to be 11.76 per thousand. Nothing, however, is said about the women. On searching up the figures in the Appendices, we find that amongst the women the death rate amounted to 19.24 per thousand. This is a

very high rate of mortality, and some explanation ought to have been given; but nothing is said anywhere about it. In searching for some notice of this difference in the death-rate between the men and the women, we find that none of the medical reports or statistics are signed. The medical officers of the different prisons appear to make annual reports; but the board of directors only publish as much, or as little, as they like of these reports, and they publish them without the names of the writers of the reports. In this way, the board of directors make themselves responsible for the medical details, and, at the same time, offer an affront to the medical officers. It is true that the governors and chaplains are treated in the same way, but that does not mend the matter. We find, upon looking at the former volumes of the Reports, that this plan of suppressing a portion of the reports of the medical officers only commenced in 1871. If the directors cannot trust their medical officers to write reports, there ought to be a chief medical officer to superintend the medical work in all the prisons, and to furnish annually a digest of the medical statistics for publication. The present method of preparing the statistics of criminal lunacy is far from creditable or satisfactory.

THE TREATMENT OF LUNATICS.

BEFORE the Devizes magistrates, on Thursday week, Thomas Hiscock, an attendant at the Wilts County Asylum, was summoned for assaulting an escaped inmate named John Wright. The case was watched by the medical superintendent, Dr. Burman, on behalf of the Wiltshire magistrates. The evidence showed that, on the previous Friday, a lunatic wearing the asylum dress was seen in a field by a farm bailiff named George Stone. An attendant named Day was holding him down on the ground. Day said: "I have got the fellow now. Have you seen my mate coming?" The lunatic was making no resistance. Day blew his whistle, and the defendant on coming up said to the patient: "You shall rue for this." He then caught hold of his head, and jammed it against the ground seven or eight times. He held him by the collar with one hand, and by the hair of the head with the other. The lunatic was quite harmless. Defendant twisted his handkerchief round the patient's neck five times. The patient could hardly breathe and fell down. Defendant jerked at the handkerchief three times, saying: "Will you run away now?" and the lunatic said "No". An attendant got a bunch of grass and wiped the blood from the patient's face. It transpired that the patient had escaped, and that the two attendants, Hiscock and Day, were sent after him. The patient was mounting a bank, when Day pulled him back and they fell in the stubble. Dr. Burman stated that the lunatic, six feet two inches in height, was a strong and powerful man, and scaled a wall seven feet high. It was stated he started with a stone in his pocket handkerchief. Day in his evidence said there was a good deal of blood about the patient's face, coming from his nose, which they washed off at the engine tank. He was aware that it was against the rules to strike patients or use violence towards them. Dr. Burman pleaded for leniency on the part of defendant, who had been four years in the asylum, and who would now lose his place. Defendant was fined £2 and costs; he had rendered himself liable to imprisonment or a fine not exceeding £20. The fine was paid. We doubt the advisability of the intervention of the superintendent in pleading for leniency to an attendant who employs violence towards an escaped lunatic.

A RAILWAY SANITARY SERVICE.

WE have before us two interesting annual reports, for the years 1875 and 1876, of the working of the sanitary service of the Hungarian state railways. They are issued by Dr. Lewis Gröz, the medical director of the service, and are striking, as showing how thorough and complete the medical equipment of this service is in a part of the world where Britons are apt to fancy that institutions superior to their own can hardly exist. All the Hungarian lines are under the control of a properly equipped medical service, which is directed by Dr. Gröz, and which, in extent and completeness, leaves hardly anything to be

desired. Under him as a head are placed thirty-four medical officers, each in charge of his own division of the lines; and to each of these is joined an apothecary, who supplies the materials and prescriptions required by his medical officer. These officials are not exclusively attached to the railway; they are, in fact, the doctors and druggists practising in the locality; two to six stations, with, on an average, 37.5 kilometers of line, being the limit of the territory of each. The medical officers each receive for their service a yearly honorarium of from 200 to 1,000 florins, and have charge of a number of individuals (railway employes and their families) ranging from 102 to 1,922. The railway employes on the lines and in the factories form a Society for the Aid of the Sick (Krankenunterstützungs Verein), consisting of 19,798 members, contributing funds amounting in 1876 to 108,895 florins 23 kreutzers, or between £10,000 and £11,000, for aiding the sick and infirm. The amount of good done can be estimated from the fact that in 1876 there were 12,408 cases of sickness treated, at a cost of 28,377 florins; while 15,094 florins were spent in assisting 666 cases of child-birth. These reports contain minute details of everything connected with the society, but are not such as would be of so much interest as to warrant their reproduction. The reports themselves are models of clearness, conciseness, and care, and reflect the greatest credit on their author.

OLD PRESCRIPTIONS.

THE making up of old prescriptions has just been legally interdicted to druggists in Germany in all cases in which the prescription contains any powerful drastic, emmenagogue, emetic, or narcotic component, unless the practitioner who originally wrote the prescription sanctions its reproduction by a written order. It would be well if so sensible a regulation were adopted in this country, where patients not infrequently lend their old prescriptions to their friends for maladies quite other than the specific ones for which they were ordered, to the detriment both of the profession and the public.

LAUNDRY REFORM.

IT is now some years since the attention of the profession was directed to the spread of infection which undoubtedly occurs through the ill-regulation of laundry arrangements. Among the most prominent and carefully worked out proofs of the diffusion of contagion through the laundry were those furnished by Dr. Heslop of Birmingham. In the examination of prevalent scarlatina in the Children's Hospital at Birmingham, in the course of an able and conclusive investigation which he published at the time, Dr. Heslop showed that scarlatina was spread in the wards through the infection brought by the linen returned from the laundry; and the arrangements which he set on foot for separating infected and clean linen when sent to the laundry had the result of stamping out the succession of small epidemics which had previously prevailed. Dr. Jones of St. George's Hospital established in the same way, and by a convincing inquiry, of which we published the details at the time, and which is described at length in the *St. George's Hospital Reports*, that it was through the means of linen from an infected laundry that small-pox was introduced into St. George's Hospital and a severe epidemic lighted up. Among the papers of the Local Government Board may be found the records of a local epidemic of zymotic disease traced to like causes by one of the Inspectors of the Board. Much discussion has been excited by the publication of these facts, and medical officers of health have many times called attention to this serious source of public danger. Three years ago, Mrs. Lankester, the widow of Dr. Edwin Lankester, F.R.S., Coroner for Central Middlesex and Medical Officer of Health for the parish of St. James, proposed to establish a laundry company, at which requisite means should be taken for separating infected linen and the linen of sick rooms generally from the linen of households free from disease, and for applying to the laundry business the appliances of sanitary science and the organisation which capital can command for the purpose of improv- ing the arrangements for washing linen. The

prospectus for the purpose was printed and circulated, having as its object the provision of laundry accommodation in the metropolis, with the view of prevention of disease and the proper and healthy regular performance of laundry work under improved conditions of convenience to householders and excellence of method. The project found considerable support, but it was not at the time found possible to secure adequate means for launching the enterprise of which the outlines were sketched. Recent publications have again brought this subject under public notice, and this time the oft-repeated warning has at least attracted to itself sufficient attention to make it probable that such an enterprise, vigorously conducted, will secure a large amount of public support. We have before us a renewed and revised copy of Mrs. Lankester's former prospectus, with all the machinery required for the purpose of carrying it into effect. Among the directors, we find the names of Dr. Alfred Carpenter and Dr. Corfield, affording guarantees that the sanitary side of the enterprise will be fully considered and adequately dealt with. The secretary of the new company is Mr. F. S. Schutze; the offices, 3, Lombard Court, Lombard Street. We wish this undertaking a large measure of success, for there can be no doubt that it is one of much public utility, and is, in fact, urgently called for in the light of the facts which sanitary science has disclosed during the last decade.

REMOVAL OF PATIENTS BY THE POLICE.

AT the inquest on the man Chalkley, who died after removal from St. Bartholomew's Hospital, having been erroneously charged with a burglary in the City Road, the jurors returned a verdict, in the course of which they expressed the opinion "That Detective Allingham was greatly in fault in removing the deceased from the hospital against the advice of the medical officer, and that the treatment of the deceased as a prisoner, whilst in the hands of the police authorities, was calculated to retard his recovery. They further suggest that more caution should be observed in the removal of prisoners from hospitals, and that a written order for that purpose from the hospital authorities should be obtained". In both of these opinions we concur. The resident medical officers and managers of hospitals cannot be too cautious in declining to allow their medical knowledge of what is consistent with the safety, or even benefit, of patients so charged to be overruled by the police officers. It is the duty of the police to leave the patient in the hospital so long as the medical officers consider that his presence there is necessary for his safety and physical recovery. While in hospital, he is of course subject to the surveillance of a police-officer detailed for the purpose. Any undue complaisance on the part of a medical officer in allowing such a person to be removed before his state of health fully justifies it, is likely to be visited with severe censure by any jury to whom the matter is subsequently submitted, especially if a fatal event should follow his removal.

THE LIBRARY OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

AT the recent Conference of Librarians in London, Mr. B. R. Wheatley, librarian of the Royal Medical and Chirurgical Society, read a paper called "Hints on Library Management so far as regards the Circulation of Books". His own library might be regarded, he said, as a completed section of a great public library, and on a scale which would give a million books to the general library, and of which it might be considered to be part. It is a lending library, affording facilities for pursuing studies in the quiet hours of the night: which no mere reference library could give. Of course, a printed catalogue is the cornerstone of the system of a lending library. The Royal Medical and Chirurgical Society have had a printed catalogue for half a century, and send out every year printed slips of additions to be inserted in the catalogue. There is also issued for the convenience of members a printed list of subjects. Members send notes hurriedly for books, and it is of the greatest importance to have the books always in their right places, in order to be found at once. Periodicals are kept for reference

unbound, and are accessible at once upon publication. There are laws as to the number of books allowed out at a time and the time when they are to be returned; but these laws are not stringently enforced unless other members want the books. The Society does not adopt that very aggravating form of management which requires all books to be sent in by a certain day under a heavy fine at the period of the closing of the library. When a book is required which is out, notice is sent to the member retaining it, and it is usually obtained at once. The autumn closing of the library is thus rendered less trying to the patience of such of the members as have to remain in London during that time, and who are then most inclined and most able to devote much of their time to reading and study. The library maintains friendly relations with the Royal College of Surgeons, and as in that library books are not allowed to circulate, the two libraries in a great measure supply each other's deficiencies. A great trouble is the loss of books—an unavoidable evil. Books are frequently mixed with their own in the private libraries of borrowers, and the terrible domestic operations of cleaning and "tidying" produce the certain effect that some books will with difficulty again be met with. Some books are lost temporarily, some permanently, and replaced at the expense of the losers. The books have been known to travel, by inadvertence, in the hands or the trunks of members or their friends, to the Antipodes and back again. Although thirty books a year are temporarily lost sight of, only six have disappeared entirely in the last twenty-five years.

STARVATION OR DISEASE.

DR. HARDWICKE has completed, this week, an inquest concerning the death of Joseph De Rider, an infant eleven weeks old, who died under circumstances which led to the suspicion that death might have resulted from culpable negligence. The infant was brought as an out-patient to St. Bartholomew's Hospital on September 25th, and was seen by Mr. Herbert Weiss, house-surgeon, who found a rash, apparently specific, on the child's nates, with a mucous tubercle near the anus; scars were also seen near the angles of the mouth, the complexion was dull, and the face wizened. The child was treated as a case of congenital syphilis, and grain doses of grey powder were ordered to be taken every morning. The next day the same woman came to the hospital to say the child was dead, and to ask for a certificate; the house-surgeon accordingly wrote a certificate stating that the child had suffered from congenital syphilis, and was said to have died of convulsions. It subsequently appeared that, after the visit to the hospital, the child was taken worse, and Dr. Slater of Thornhill Square was called in to see it; when he arrived, however, the child was dead. Dr. Slater made a *post mortem* examination; the body was greatly emaciated, weighing only 5 lbs. 7 oz; no trace of disease was found in the examination, and the mesenteric glands were healthy. Dr. Slater formed the opinion that the child had died of starvation, and communicated with the coroner. At the adjourned inquest, Mr. Weiss gave evidence as above, and the jury, in their verdict, did not throw blame on any one. The conflicting medical opinion was as to whether the condition of the child might be due to syphilis or must necessarily be due to starvation. The evidence of Mr. Weiss, who saw the child during life, appears conclusive as to the presence of syphilis; and it is highly probable that in such a case no signs might be found after death indicating this disease to a medical man who had not seen the child during life. In an adult subject, it is very difficult in some cases to establish the fact of death from starvation by a *post mortem* examination; and in infants the difficulties are much greater. We cannot but think that there are many objections to giving medical certificates of death otherwise than on the printed forms supplied by the registrar; and the giving of certificates of death, under any circumstances, for out-patients, without a *post mortem* examination, is always likely to lead to abuse, although, under the present arrangements of out-patient departments, the practice cannot be always avoided.

THE MEDICAL SOCIETY OF LONDON.

THE one hundred and fifth Session of the Medical Society of London will open on Monday next, the 15th instant, with a short address by the President, Dr. George Buchanan; after which, Dr. P. M. Braidwood of Birkenhead will read an epitome of his Fothergillian Essay on Pyæmia, for which the Gold Medal of the Society was awarded. Numerous specimens prepared by the author during his recent researches will be shown under microscopes; and a case containing portions of viscera showing secondary abscesses will be exhibited.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.

THE first meeting of the twenty-second session was held at the Royal Kent Dispensary, Greenwich Road, on Friday, October 5th; Dr. Creed (President), in the chair. The following members were elected officers for the Session 1877-78:—*President*: W. Johnson Smith, F.R.C.S.E. *Vice-Presidents*: John Prior Purvis, M.R.C.S.E.; Arthur Roper, M.R.C.S.E. *Council*: John Anderson, M.D.; Hughes G. Cable, M.R.C.S.E.; Thomas Creed, M.D.; Ralph Gooding, B.A., M.D.; H. W. Jackson, M.R.C.S.E.; William Lockhart, F.R.C.S.E.; Frederick Moon, M.B. *Treasurer*: Prior Purvis, M.D. *Secretary*: Harry Knight Hitchcock, M.D. *Librarian*: J. B. Saundry, L.R.C.P., M.R.C.S.E. Mr. William Johnson Smith, F.R.C.S., then took the chair vacated by Dr. Creed, and proceeded to deliver a very interesting inaugural address, chiefly alluding to pyæmia and typhoid fever.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

THE annual meeting of this Society was held in the library of the Newcastle-on-Tyne Infirmary on September 27th, 1877; Mr. G. B. Morgan, President, in the chair. The report of the Committee was a highly satisfactory one, and stated that, "during the session 1876-77, nineteen papers were read, fifty pathological specimens were exhibited, and fifteen patients were introduced at the meetings". The present number of members is one hundred and sixty-one. The following is the list of officers for the ensuing year:—*President*—Mr. J. B. Morgan, Sunderland. *Vice-Presidents*—Dr. Armstrong, Newcastle; Mr. S. W. Broadbent, South Hetton; Dr. Burnup, Newcastle; Mr. Hawthorn, Newcastle. *Secretary*—Dr. Byrom Bramwell, Newcastle. *Committee*—Mr. H. E. Armstrong, Newcastle; Dr. Arnison, Newcastle; Mr. Carr, Newcastle; Dr. Denham, South Shields; Dr. Eastwood, Dinsdale; Dr. Frain, South Shields; Dr. Hume, Newcastle; Dr. Page, Newcastle; Dr. Philipson, Newcastle.

POISONING BY YEW.

PARTICULARS of the case of fatal poisoning by yew which occurred at Hampton Wick appeared in the JOURNAL of September 8th. The prisoner has been acquitted at the Central Criminal Court of the charge of murder, but pleaded guilty to being party to the administration of a noxious drug to the deceased. Witnesses were called to prove the general good character of the prisoner. Mr. Justice Hawkins said it was well the public should know that, if they were parties to the administration of a noxious drug for a felonious purpose, they were liable to the most serious consequences; but, considering all the circumstances of this case and the high character the prisoner had received, and also believing that he had acted in ignorance of the law and with a view to save his wife, he thought the justice of the case would be met by a sentence of eleven days' imprisonment.

THE PUBLIC HEALTH.

THE return of the Registrar-General states that during the week ending Saturday, October 6th, 5,711 births and 3,149 deaths were registered in London and twenty-two other large towns of the United Kingdom. The natural increase of population was 2,562. The mortality from all causes was at the average rate of 20 deaths annually in every 1,000 persons living. The annual death-rate was 15 per 1,000 in Edinburgh, 22 in Glasgow, and 25 in Dublin. The annual rates of mortality per 1,000 last week in the twenty English towns, ranged in order from Leicester 13, to Wolverhampton 26. The annual death-rate from the

seven principal zymotic diseases averaged 2.9 per 1,000 in the twenty towns, and ranged from 0.9 and 1.4 in Leicester and Sunderland, to 5.7 in Plymouth and Wolverhampton, and 6.3 in Salford. Small-pox caused 14 deaths in London, but no death was referred to this disease in any of the nineteen provincial towns. In London, 2,420 births and 1,308 deaths were registered. The annual death-rate from all causes, which in the two previous weeks had been equal to 17.4 and 18.3, further rose last week to 19.3. The death-rate during the thirteen weeks of last quarter averaged only 19.3 per 1,000, which was 3.0 below the average rate in London in the ten preceding corresponding quarters, and was considerably lower than the rate in the summer quarter of any year since 1860, when it was only 18.5 per 1,000. In Greater London, 2,947 births and 1,530 deaths were registered, equal to annual rates of 35.2 and 18.3 per 1,000 of the population.

TEMPERANCE DRINKS.

"THE Managing Director" writes from Haverstock Hill: "May I be allowed to inform the friends of temperance that Mr. Walter's suggestions made in his speech at Reading have been partly anticipated by the Southern Committee of the Church of England Temperance Society, who have turned their attention to the production of a substitute for alcoholic liquors and of a superior class of temperance drinks, and although they are unable officially to undertake the work, the result has been the creation of a 'National Temperance Beverage Company (Limited)'—a small private company that has purchased 'Larmuth's patents', and will introduce the new beverages in a few days."

POISONED BY NICOTINE.

MR. WILLIAM CARTER, coroner, held an inquest on Saturday last, at the Pencutters' Arms, Lambeth, into the circumstances attending the death of James Shore. It appeared that the deceased was fourteen years of age, and resided with his parents at No. 9, Grove Place, Waterloo Road. For some time past, he had been in the habit of smoking tobacco to such an extent as to make him delirious. On Wednesday last, he complained to his mother of feeling unwell. On being questioned, he said that he had been smoking all the morning, and he then felt a most urgent pain in his chest. The deceased was put to bed; and on the following morning he was found dead. Death was considered to have resulted from nicotine, and a verdict to that effect was returned; but it would be interesting to have a more detailed medical report of the symptoms and *post mortem* appearances.

ANOTHER MEDICAL CORONER.

OWING to the sudden and lamentable death of the late Mr. John Ness, surgeon, Helmsley, Coroner for the Pickering District of the North Riding of Yorkshire, the Chancellor issued a writ for the election of a coroner. There were two candidates for the vacant office: Mr. Arthur Wood, surgeon, Kirby Moorside; and Mr. Arthur H. Jackson, solicitor, Malton. Through the unanimous support of the freeholders given to the former gentleman, the latter retired, leaving the vacant office uncontested. Mr. Arthur Wood was elected coroner for the Pickering District of the North Riding of Yorkshire on Friday, the 5th instant.

LONDON WATER-SUPPLY.

DR. FRANKLAND reports, as the result of his analysis of the waters supplied to the metropolis and some of its suburbs during September, that, taking unity to represent the average amount of organic impurity in a given volume of the Kent Company's water during the last nine years, the proportional amount of such impurity in an equal volume of water supplied by each of the other companies, and by the Tottenham Local Board, was: Tottenham 0.4, Kent (Deptford Wells) 0.8, Kent (Crayford Well) 0.8, New River 1.0, East London 1.9, Colne Valley 2.0, Grand Junction 2.7, West Middlesex 2.8, Chelsea 3.9, Lambeth 4.4, and Southwark 4.8. The Thames waters supplied by the Chelsea, West Middlesex, Southwark, Grand Junction, and Lambeth Companies

showed much greater pollution with organic matter than in July or August. The Grand Junction Company's water was turbid from inefficient filtration. The proportion of organic impurity showed a marked excess in the Lambeth and Southwark Companies' waters. The Lea waters supplied by the New River and East London Companies were of superior quality, and had been efficiently filtered. The Kent and Colne Valley Companies and the Tottenham Local Board delivered deep well water of the usual excellent quality; the Colne Valley Company's water was softened by Clarke's process previously to delivery.

HOLBORN UNION INFIRMARY AT HIGHGATE.

THE foundation-stone of the new infirmary in connection with the Holborn Union has been laid by Mr. William Sandland, the Chairman of the Board of Guardians, on the site at Highgate Hill, lying to the west of the Archway Road. The building, when completed, will accommodate six hundred and twenty-five patients, and will be especially devoted to acute cases of disease. The contract of Messrs. Freeman and Burt, Grosvenor Wharf, Westminster, was accepted by the Government Board in June last, and the building must be completed in eighteen months from that date. The contract price is £64,000.

CYSTS OF THE THYROID.

THE proceedings of the medical section of the Havre Congress included little of practical interest. M. Ollier directed attention to his method of treating thyroid cysts, which consists in cutting upon them, and applying caustics to produce sloughing of the wall, and subsequently using antiseptic injections, with drainage of the cavity of the cysts. His success does not, however, appear to have been as great as that of Lennox Browne and Morell Mackenzie in this country, although the method is an undoubted advance upon the tedious and painful proceeding of Bonnet of Lyons, who used to apply caustics to the skin and burn his way into the cyst: a practice still in vogue in France since the time of Maisonveuve.

COUNTER PRESCRIBING.

AT the last Pharmaceutical Conference, Mr. S. R. Atkins read a paper on this subject, in which he observed that the relations between pharmacists and the medical profession are not at the present moment in a healthy condition. The extreme behaviour of the extreme section of either party has imperilled that respect and confidence which ought to exist between them. Chemists, he says, "stand charged with counter prescribing; to a certain extent they admit the charge, and plead justification; they do not deny that there are chemists who are in the habit of encroaching on the functions of the medical man". With such practices they have nothing to do; but, he says, "they are careful to defend, as their just and inalienable right, that simple and moderate counter prescribing which has grown up without legal enactment, and, as they believe, contrary to none, but which is embedded in the habits and interests of people; and they contend for the practice of prescribing across the counter for simple ailments". He offers the following counsel to his brother pharmacists: "We have, by a combination of firmness and conciliation, to convince the public and the profession that all we desire is fair play. In order that we may accomplish this, we must be prepared to invite the most thorough inquiry; there must be no back-parlour consultations, no minor acts of surgery, no semi-professional visits, in short nothing in excess of that ordinary counter practice the meaning of which we all recognise, however difficult the exact definition of the same may be. Such rights must be defended with the united strength of the entire body of the chemists throughout the kingdom. Time is assuredly on our side. Should a hasty decision adverse to our claims be snatched on *ex parte* evidence, or even on the legal interpretation of a statute that ought long since to have been swept away, such an event will prove no permanent disaster, but only hasten the conclusion we desire. One really good case, well argued before an intelligent jury, must secure a verdict in our favour, and definitely settle the question." Mr. Atkins, however, we may ob-

serve, does not appear to have any authority for the views which he expresses. The subject seemed to be considered so thorny an one, and likely to excite so much difference of opinion at this Conference of presumably the most respectable and accomplished members of the pharmaceutical body, that all discussion was prohibited; and it was prearranged that the paper should be read, and that the Conference should not debate it, but proceed to the next business.

QUACK PAMPHLETS.

MR. CHARLES EDWARD CRAWFORD MERRINGTON, a barrister-at-law, at present residing at Ventnor, was summoned before the Newport (Isle of Wight) county magistrates for an assault on Sidney Axhorn. The complainant was engaged by a quack doctor of Ryde to distribute objectionable medical pamphlets, and the defendant, having observed him giving them away to ladies, young girls, and children, struck him several blows with a stick, and finally knocked him down. The Bench, after regretting that the law did not give them power to prevent the circulation of such pamphlets, convicted Mr. Merrington of the assault, and fined him £4:0:6, including costs. The course taken by Mr. Merrington was one which is not altogether original or praiseworthy. If every man were to take the law into his own hands in this way, the ultimate result would be an increase of brutality and crime, rather than a diminution. We believe, however, that the magistrates underrated the powers of the law, and that both Axhorn and his employer could and ought to be prosecuted and punished under Lord Campbell's Act.

QUININE FOR THE RUSSIAN ARMY.

AT a recent meeting of the "Kieff Quinine Committee", the secretary stated that 1,460,000 portions of quinine had been despatched to the Russian army up to the beginning of September, causing an outlay of 30,000 roubles (£3,400) on the part of the association. A letter from General Nekopoitichensky was read, in which the Grand Duke Nicholas thanked the committee for its assistance, and stated that 100,000 portions of quinine solution were found to be the necessary quantity of tonic required by a *corps d'armée* every month. On the motion of the chairman, it was thereupon agreed to expend 10,000 roubles more in the purchase of Peruvian bark for the army, and to urge the formation of quinine committees in other Russian towns.

SCOTLAND.

DR. J. PINKERTON, Senior Resident Physician at the Royal Infirmary, Glasgow, accompanied by Dr. Denniston, Greenock Infirmary, left last week for Erzeroum, under the auspices of Lord Blantyre.

MR. W. DITTMAR, Lecturer on Chemistry, Anderson's College, Glasgow, has been appointed additional Examiner in Chemistry for graduation in Medicine in the University of Edinburgh, in succession to Professor Dewar of Cambridge University, resigned.

LAST week, a chemist in Glasgow was charged with having sold impure citrate of magnesia, which, according to the analyst, contained lead. The chemist stated that it was impossible to manufacture the substance without some quantity of lead. The Procurator Fiscal stated that the object of the prosecution was to compel some alteration to be made in the manufacture of the article. The decision was delayed.

ON Saturday last, a Conference of Dentists was held in Edinburgh, in connection with efforts that are being made for uniting the dental profession under one common designation, obtaining for it a definite legal position, and increasing educational facilities for the dentists of the future. There was a large and influential attendance from all parts of the country. Mr. Tomes, F.R.S., of London, was in the chair, and resolutions were adopted in favour of the objects for which the meeting had been convened.

AT a meeting of the managers of the Edinburgh Royal Infirmary, held on Monday last, Dr. Angus Macdonald was elected Ordinary Physician for Diseases of Women, in place of Dr. Matthews Duncan, resigned. At the same time, Dr. Brakenridge was elected an Ordinary Physician in place of Dr. Haldane, whose term of office has expired. This leaves a vacancy for an Assistant-Physician. This vacancy, for which there are several candidates—namely: Dr. Affleck, assistant to the Professor of Medical Jurisprudence; Dr. Moinet, one of the lecturers on *Materia Medica* in the Extramural School; and Dr. Smart, late Lecturer on Physiology in the Extramural School—will be filled up on Monday, October 22nd.

THE following legacies of £100 and upwards have been paid to the Edinburgh Royal Infirmary during the financial half-year just closed. By W. Baillie, to account of residue of his estate, £3,500; by Peter Redford Scott of Redford Hill, £2,000; by S. Duncan, Leith, £100; by H. C. Barlow, M.D., Newington Butts, £100; by Thomas Grindlay, a further sum from his estate of £157; by James Whitelaw, Edinburgh, £180; by Alexander Johnston, merchant, Stirling, £1,285; by Daniel Kidd, merchant, Mark Lane, London, £500; by William Fair, Seton Place, additional to £450 received in 1874, £30; by James Mitchell of Kincairney, £1,012; making, with smaller sums, in all £8,900 in round numbers. The amount received during the previous half-year was £7,291; making the gross amount during the past financial year to be £16,190.

HEALTH OF LEITH.

THE Registrar's monthly and quarterly returns show that, during September, typhoid fever has been prevalent in the burgh. Thirty-one new cases, twenty-five in South Leith and five in North Leith, have been reported by the medical practitioners. The general death-rate, however, during the month has been very low, having only reached an annual rate of 13 per 1,000 living. During the quarter, 225 deaths have been registered, being at the rate of 18 per 1,000.

THE GLASGOW ROYAL INFIRMARY AND ITS NURSES.

THE West of Scotland Protestant Association has recently written to the Secretary of the Glasgow Royal Infirmary, calling attention to the alleged preference which seemed to be shown to Roman Catholic nurses in that institution, and asking that an investigation into the circumstances should be made. The Secretary of the Infirmary replied to the following effect: "The managers have pleasure in testifying to the absence of any attempts on the part of the nurses to influence patients in matters of religion, and to an earnest desire on their part to strictly confine themselves to their official duties.....but the managers will be obliged if you can furnish them with a good supply of women of the persuasion indicated by the name of your Association, and who would act consistently with their profession." The Association has since instituted an inquiry themselves; and in a report of considerable length, which they propose sending to the managers of the Royal Infirmary, they allege that there are no fewer than thirty-six Roman Catholic nurses in the institution, being nearly the total number; and that, in addition, the apothecary-woman, the serving-woman, the bed-woman, and the cook are Roman Catholics, while the matron is "notoriously of Popish leanings". The report concludes by expressing the hope that the managers will take immediate steps to put an end to this state of things, and thus prevent an agitation which must prove hurtful to the institution.

UNWHOLESOME FOOD.

THE CONVICTION was lately obtained at the Central Police Court, Glasgow, of a tradesman for having exposed for sale, and having actually sold, some pork-ham which was unsound and unfit for human food. The ham had been purchased by a girl for her landlady. The woman found the ham unsound, and returned it to the shop; the tradesman refused to change it, and the woman wisely handed it over to the sanitary authority. Dr. Russell, medical officer of health, gave evi-

dence that the ham was putrid and would most likely act as an irritant poison. In some cases, death had been known to result from the irritant action of meat in such a condition. The defendant was fined £5. It is much to be wished that, in all poor localities, the inhabitants themselves would report to the proper authorities any cases in which there is reason to suspect that unwholesome or adulterated food is supplied. No portion of the community has a greater interest in the due execution of the laws for preventing the adulteration of food than the poorer classes, and they should be taught to help themselves.

ANDERSON'S COLLEGE, GLASGOW.

AT the quarterly meeting of the Trustees of Anderson's College, an offer was made by Mrs. Hennedy to transfer to the College the herbarium and collection of diatoms which belonged to the late Mr. Hennedy. The authorities of the College accepted the donation.

PRESENTATION TO DR. ARROTT OF DUNDEE.

A PRESENTATION has been made to Dr. James Arrott of Dundee by a large number of friends, including many of the leading citizens of Dundee, in recognition of his worth, his high standing as a medical man, and his valuable services to the community. Dr. Arrott is the oldest medical man in Dundee, and is Physician to the Royal Infirmary. The testimonial consisted of Dr. Arrott's portrait, accompanied by a handsome purse.

THE FACULTY OF PHYSICIANS AND SURGEONS OF GLASGOW.

AT a meeting of this Corporation, held on the 1st instant, the following office-bearers were elected for the ensuing year, namely:—*President*: Andrew Buchanan, M.D. *Visitor*: R. Scott Orr, M.D. *Treasurer*: John Coats, M.D. *Honorary Librarian*: James Finlayson, M.D. *Vaccinator*: Hugh Thomson, M.D. *Councillors*: The President, *ex officio*; the Visitor, *ex officio*; the Treasurer, *ex officio*; J. G. Fleming, M.D.; Henry Muirhead, M.D.; J. D. MacLaren, M.D.; James Morton, M.D.; Andrew Fergus, M.D. *Board of Examiners*: R. Scott Orr, M.D., Medicine and Materia Medica; James Dunlop, M.D., Clinical Surgery; Alexander Patterson, M.D., Clinical Surgery; P. A. Simpson, M.D., Medical Jurisprudence; James Dunlop, M.D., Surgery and Surgical Anatomy; Joseph Coats, M.D., Physiology; Alexander M. Buchanan, M.D., Anatomy; H. C. Cameron, M.D., Surgery and Surgical Anatomy; Eben Watson, M.D., Physiology; J. G. Wilson, M.D., Midwifery; Matthew Charteris, M.D., Clinical Medicine; R. Scott Orr, M.D., Clinical Medicine; James Morton, M.D., Surgery and Surgical Anatomy; Robert Perry, M.D., Chemistry; A. Wood Smith, M.D., Medicine and Materia Medica; H. C. Cameron, M.D., Clinical Surgery; James Morton, M.D., Clinical Surgery; William MacEwen, M.D., Medical Jurisprudence; Alexander Lindsay, M.D., Chemistry; James Finlayson, M.D., Clinical Medicine; J. D. MacLaren, M.D., Clinical Medicine; R. D. Tannahill, M.D., Midwifery; Mr. H. E. Clark, Anatomy. *Examiners in Arts*: James B. Russell, M.D.; John Pirie, M.D. *Secretary and Librarian*: Alexander Duncan, B.A.

WASTE OF WATER.

AMONG the other interesting papers read in the Health Section of the Social Science Congress at Aberdeen, was one by Mr. Boulton, C.E., Aberdeen, on the Waste of Water in Towns, which shows up, perhaps to an exaggerated degree, a very common evil, and one which might very easily be lessened or altogether got rid of. His observations referred almost exclusively to the Aberdeen water-supply. He stated that the consumption for the present year was almost forty gallons per head *per diem*. He believed he spoke within the mark when he said that at least one-half of this, or 1,800,000 gallons per day, was wasted. He attributed this waste to defective pipes and taps, and to carelessness and thoughtlessness. The people thought their water-supply was inexhaustible and unlimited, and forgot that they had to pay for new works which might be necessary through the evils caused by waste. He suggested that School Boards might cause instruction to be given

in sanitary matters. In the discussion which followed the reading of his paper, several suggestions were thrown out as to the best means of preventing such waste, but none of them were of a sufficiently practical nature to meet with general acceptance.

DUNOON CONVALESCENT HOME.

THE annual meeting of the subscribers to the Convalescent Home at Dunoon was held on Monday week in Glasgow, when a highly satisfactory report was presented. It stated that at the date of last report 138 convalescents remained in the homes, and since then 1,849 had been admitted, being 185 in excess of the number admitted last year. Of the total number, 1,646 were perfectly restored, 71 were very much improved, 18 were partially benefited, 107 did not improve, 3 died, and 142 were now in the homes. The number admitted during the past eight years had been 10,309. About £2,000 had been expended for provisions, groceries, and medicines; no debt had as yet been incurred. The balance-sheet showed considerable improvement in annual subscriptions, and the industrial classes had helped more liberally than in any former year. Two months ago, an appeal was made for a building fund: £500 had been received, but ten times that amount was required, as well as increased subscription for the additional convalescents. There was a balance of £120 on the right side in the account of the annual expenditure.

DEATH IN A POLICE-CELL.

A WOMAN aged 34 was lately apprehended by the police, while intoxicated, and locked up in the police-cell at Kilmarnock. Another woman was also confined in the same cell. When the constable entered the cell the next morning, the second prisoner told him that she had been unable to make the woman speak. Further examination showed that she was dead, and blood was found oozing from the mouth and nose. The deceased had been frequently sent to jail, and had been liberated only the week before after undergoing a term of imprisonment. It was stated that the woman was in weak health, and had been in the habit of taking large quantities of laudanum.

IRELAND.

THE degrees of the Queen's University in Ireland were conferred on Friday, at Dublin Castle.

AT a recent meeting of the guardians of the Rathdown Union, it was announced that Dr. Thomas Darby, visiting surgeon, had resigned, and deep regret was expressed by several guardians on losing the services of so eminent a practitioner.

TWO deaths having recently taken place in Dublin, in which the parties were choked by a piece of meat sticking in their throat, Dr. Beveridge, R.N., writes to one of the local papers to state that a well-authenticated case of recovery from choking under similar circumstances has been detailed; the guiding principle, with the view of expelling the foreign body, being the induction of reflex action, by "blowing in the ear".

WE understand that Dr. J. Cunningham, the accomplished Demonstrator of Anatomy in the University of Edinburgh, is a candidate for the Chair of Anatomy and Physiology in the Queen's College, Galway, now vacant by the appointment of Professor Cleland to the Chair of Anatomy in Glasgow. Dr. Cunningham has very high qualifications for the post, as the list of his published papers sufficiently indicates. The office is in the gift of Sir Michael Hicks Beach, the Secretary for Ireland.

SURGICAL SOCIETY OF IRELAND.

THE election for Council of this Society will take place on the first Monday in November. The members of Council are elected by ballot, Fellows of the College of Surgeons or of the College of Physicians being alone eligible to vote.

DUBLIN ORTHOPÆDIC HOSPITAL.

At the last monthly meeting of the Committee of this institution, the desirability of erecting an infirmary upon available ground at the rear of the hospital was discussed; and it was resolved that tenders for that purpose, as well as for some necessary sanitary alterations, should be invited. A bazaar in aid of the funds will take place on November 29th.

RATHDOWN HOSPITAL.

MR. O'BRIEN, Local Government Board Inspector, last week, drew the attention of the Board of Guardians of this Union to the want of suitable attendance on the female sick in the workhouse. It appears that there were 347 patients on the books of the medical officer, excluding the patients in the fever hospital; and for the care and supervision of that number, there was only one nurse, who also acted as midwife, and was only assisted in the numerous and important duties which she was called on to discharge by an old woman of advanced years. In the male department, the nurse had no assistant, although the ward-master was supposed to look after the male sick, but could not efficiently do so considering the other duties which he had to discharge. The guardians have postponed the consideration of the matter for a few weeks; but it is obvious that it is their duty to appoint a second nurse to the female department of the workhouse, as she is urgently required, especially at night time, to assist the sick and infirm.

AMBULANCES AT POLICE-STATIONS.

At a meeting this week of the Corporation of Dublin, a communication was received from Colonel Porter of the Royal Engineers' Office, suggesting that ambulance litters should be supplied to the principal police-stations in Dublin, for the conveyance of persons injured by accident or otherwise. The form of litter Colonel Porter recommends is one patented by the Order of St. John, which he considers the most suitable for the purpose, and which can be obtained for £15. He points out the great advantage of it over the present mode of conveying cases of accident which would be derived from the use of these litters.

HOW CONTAGIOUS DISEASES ARE SPREAD.

At a recent meeting of the Executive Committee of the Dublin Sanitary Association, attention was drawn to a letter in one of the Dublin newspapers, complaining that a child suffering from whooping-cough was twice conveyed in a tram-car on the 24th ultimo, notwithstanding the remonstrances of the passengers, and requesting to be informed of the law on the subject. It was resolved by the Association to bring the matter before the Public Health Committee, transmitting extracts from the sanitary laws now in force in this country, recommending that copies should be posted in all public conveyances. These show the penalties for parties acting in similar cases, and, when the law on the subject is better known by the public, we trust we shall hear of fewer cases of this kind, which are much more frequent than many fancy.

QUEEN'S UNIVERSITY IN IRELAND.

A MEETING of Convocation of this University was held, last week, at Dublin Castle, presided over by Sir Dominic Corrigan, Vice-Chancellor. The report of the Annual Committee referred to the propriety of granting to the University representation in Parliament, the necessity for this becoming more apparent every year, and the Committee trust that ere long it will be granted, as the right of the University to representation has long been admitted by many leading statesmen in the United Kingdom. Sir Robert Kane, in moving the adoption of the report, alluded to the want of proper accommodation in Dublin for the carrying on of their business. It had always been the intention of successive Governments to provide a centre in the city for the action of the Queen's University, but the carrying out had been postponed; and now that their offices were removed from Dublin Castle, he trusted that they would not cease to press upon the authorities the propriety of erecting suitable buildings in a central position. Dr. H. Jones of

Cork, who had a notice question in reference to opening medical lectures to females, was unable to be present, and another member moved the resolution, although he had no sympathy with Dr. Jones on this subject, but thought it desirable to have the matter discussed. The resolution was seconded, but was ultimately withdrawn. The Annual Committee for the ensuing year having been balloted for, the meeting terminated.

SUICIDE: EXTRAORDINARY POSITION OF THE BODY.

A RETIRED pipe-maker, residing in Dublin, about sixty years of age, had been missed from his lodgings about six weeks before the discovery of his body under the following circumstances. In a darkened loft, at the back of his lodgings, the body was found, reduced to a mere skeleton. It was identified by property attached to it. Mr. Richard Egan made a careful examination. The contents of the chest and abdomen were completely dried up into shreds and minute particles of spongy matter. The position of the body was most easy and natural; it was that a weak and tired man would assume when at rest, and afforded evidence that no struggle had preceded death; it was particularly noted that one hand, which hung down, was pronated, the most natural position during life. There seemed no doubt that the man assumed this position, and remained in it till he died. The skull was supported by the right hand, which lay on the right knee; probably the head hung forward, and, by its weight, gradually severed the decaying muscles and ligaments that fixed it to the spine, and then slipped down the right arm and fell to the position where it was found. The advanced state of decomposition, six weeks after death, appeared to be due to the warm atmosphere of the loft. It appeared from evidence that the deceased abstained from food for a period of five days on a former occasion.

THE PATHOLOGY OF MEAT.

THE Irish Cattle Trade Association have published a report prepared for them by three gentlemen in reference to the question as to whether the flesh-meat of animals suffering from pleuropneumonia is injurious or not. The report was drawn up by Dr. Macalister, a lecturer on zoology; Dr. Reynolds, a professor of chemistry; and Mr. Macnamara, one of the surgeons to the Meath Hospital. They state that the disease is a local one, and, though contagious, yet is limited, as far as its specific nature is concerned, to the lung affected; that, on carnivores in the Zoological Gardens, the meat has produced no perceptible effects; and that there is no case on record wherein the flesh of cattle slaughtered while suffering from pleuropneumonia in any stage has ever been proved to give rise to disease in man. They believe that the consumption of the flesh of cattle slaughtered in the early stages of pleuropneumonia is perhaps harmless, and the destruction of such meat a wasteful expenditure of a material which is capable of supplying a perfectly wholesome animal food. Further, that the same remarks apply to the fresh and unchanged meat of animals which have been slaughtered in the earlier period of the second stage of the disease, as the negative evidence on this point is as strong as in the case of the meat of animals in the first stage; but they are not prepared to advocate the use of the flesh of animals markedly reduced in condition. It follows that they recommend that the flesh of animals slaughtered during an attack of pleuropneumonia may be safely consumed; and that such meat is not sensibly less in nutritive value than that of other animals unaffected by any disease; but they consider that it is of lower quality, owing to its greater tendency to undergo change, a tendency, however, which may be diminished considerably by exercising greater care than ordinary in bleeding the animal. It seems to us that, whatever discrepancy of opinion may exist about the suitability or injuriousness of meat in the first stage of pleuropneumonia, but few practitioners will assert that, in the second stage of the disease, in which the lungs are usually much increased in size, partially hepatized, and sometimes more or less infiltrated with pus, the flesh of animals in such a condition is non-injurious.

THE SICK AND WOUNDED IN THE RUSSO-TURKISH WAR.

WE have received copies of two long series of reports furnished to the Stafford House Committee by Mr. Barrington Kennett and the Surgeons of the various sections organised by that Society. We regret that want of space will not permit us to publish more than the following abstracts of those reports.

Writing from Constantinople on the 12th September, Mr. Kennett says:—All our sections have been hard at work since my last report. At one time, three sections were at work upon the field. On Sunday afternoon, I rode to Therapia and paid a visit to Mr. Layard, who had written to say that he wished to see me about that extremely unjust attack on Ahmed Vefyk Pasha contained in the *Times* of the 30th of August. It is difficult to understand how the correspondent can justify his statement with regard to Dr. Casson. He entirely ignores the help that the Stafford House has given to Dr. Casson's section, and encloses Dr. Casson's own letter as his authority. Unfortunately for him, Dr. Casson acknowledges most of the help that he has received from Stafford House in that very letter. Our soup-kitchens at Tcholoron and Constantinople work very well; and every two or three days trains full of wounded are supplied with nourishment, of which they are in such need. At the last two arrivals of wounded, Nouri Pasha, President of the Medical Council of the War Office, and other members of the Council came down to inspect our arrangements, and they one and all expressed themselves highly satisfied. It was difficult to make the wounded men believe that it was the Stafford House Committee which was providing them with soup, coffee, tobacco, etc.; they think that no one but the Sultan could supply them with such good things. At Constantinople, the cost per head for soup, coffee, bread, and, if necessary, milk, is one piastre and a half (threepence), all included. At Tcholoron, it is slightly more. My original opinion was that the greatest want which would be most probably experienced by the Turkish ambulances was that they had no proper organisation for transporting wounded on a large scale, and that we ought to come to their aid in this branch of their ambulance service. The transport services already in work are doing excellent service. Dr. Barker has just arrived with a train of four hundred and one wounded. Four wagons of the train were fitted up with eight beds each for the most seriously wounded. The train was accompanied by the special ambulance brakevan of Stafford House. At Adrianople, every man's wounds were dressed, and the worst cases were dressed again to-day by Dr. Barker and his staff. The whole of the wounded received soup and other refreshments at the Stafford House soup-kitchen establishments at Timova, Tcholoron, and Stamboul.

g. Extract of a Report by Dr. Stoker, dated Karabunar, August 23rd.—On Monday, the 21st August, 1877, with the wagons, etc., mentioned in Report I, I left Adrianople for Hain Boghaz. I thought it best to go all the way by the carriage-road, and not part of the way by railway, because it was necessary to test exactly the capabilities of our transport in crossing a rough country, and this before any sick or wounded had been received. Up to the present, all has gone well. To-morrow early we shall arrive at Yeni Zaghra, where I will make all inquiries which will influence our further movements.

h. Extract of a Report by Dr. Stoker, dated Philippopolis, September 3rd.—On the 23rd August, I arrived at Yeni Zaghra, where I learned from the military commander that Suleiman Pasha had left Hain Boghaz five days before, and was now attacking the enemy in the Schipka Pass, so I determined to go to Eski Zaghra, and from there to Kesanlik. I rode on in front to secure lodging, etc., for the horses. On entering the town, I was obliged to dismount and lead my horse; the streets were so strewn with wounded, dead, and dying, to whom it seemed not the slightest attention was being paid. I saw the head of the medical staff, who told me that there were only four doctors and surgeons to attend nearly six thousand wounded. We set to work at once, and dressed fifty cases before the night closed in. The next day, Dr. Weller stayed in Kesanlik, and dressed with his own hands over one hundred cases, and went to the camp with ten wagons and brought back thirty serious cases. The horses were very fatigued, so he was obliged to rest them the next day; while Dr. Weller and myself spent all day dressing the wounded. We performed three capital operations and innumerable small ones. I got fifty bullock-wagons from Suleiman Pasha, and started the next day for Philippopolis with two hundred and fifty wounded. For the most part, it was impossible that we could change their dressings every day; but we did as many as we could. On the third day, we arrived at Philippopolis. There was some diffi-

culty in finding a place to put the wounded in, as no preparations had been made. The Pasha seemed to think it was my duty to find a place for my wounded; but that was clearly beyond my duty, so I requested him to do so. At length, a place was found, and the wounded deposited. I telegraphed to Mr. Kennett for twenty pairs of *cacolets*, and purpose bringing ten or twenty more wagons. [Note.—I sent all I could spare, three pairs.—V. B. Kennett.] I have established two stopping places on the road, and arranged with the head man in each of these villages that, when I send him word, he will have sufficient food ready for the number I name as about to arrive. There is an urgent need of doctors here and at Kesanlik. I beg to call the attention of the Committee to the excellent manner in which Dr. Weller and Lieutenant Banfather have performed their arduous duties.

i. Extract from Dr. Busby's Letter, enclosed in a letter, dated Varna, September 4th, 1877.—We have about two hundred and eighty wounded through our hands. Our twenty arabas worked very well, removing the wounded from the field and taking part in the transfer of them to Rasgrad.

k. Extract of a Letter from Mr. Pratt, dated Schumla, September 1st, 1877.—In accordance with Mr. Barrington Kennett's request, I left Constantinople with medicine stores for Varna, accompanied by Drs. Beresford and McQueen. Mr. Young very kindly gave us a passage on board the National Aid Society's steam-ship *Belle of Dunquerque*. I found the Varna Hospital, under Drs. Cullen and Konvaros, in every way satisfactory; but at that time the wounded had been sent by the authorities. On August 31st, I saw Raouf Pasha, who at once telegraphed that wounded should be sent from Rasgrad, which wounded came down the line at last with many others, under the charge of Dr. Hayes. The authorities at Schumla and Prince Hassan having requested the formation of a Red Crescent transport, Dr. Hayes and myself thought it better to send his Varna transport to the front; and, M. Court having most expeditiously placed at my disposal twelve horses, I formed a small transport, which left Varna August 26th, and arrived in camp at Schumla at 11 P.M. on that day. It consists of two surgeons, nine wagons, twenty *cacolets*, brancards, and mattresses, etc., and eighteen men. I am much indebted to M. Court for his courtesy and promptness in providing *cacolets*, horses, and Dr. Hayes for his advice and the energy he displayed in making the necessary arrangements. After waiting Monday for orders, we proceeded at 5 A.M. on Tuesday, August 28th, to Eski Djuma; and on the road thither overtook his Excellency Mehemet Ali Pasha, who most courteously requested that we should diverge to Yenikieui, where we arrived on Wednesday morning. The village of Yenikieui having been evacuated by the Russians four days previously and the houses empty, we made what arrangements were possible for receiving wounded. Several Russian positions were captured the next day; and Messrs. Beresford and McQueen assisted Dr. Crookshank (National Aid Society) in dressing wounds on the battle-field. There were nine sick and wounded at Yenikieui; and, as there was no hospital accommodation for them, I took them to Eski Djuma, arriving Thursday morning. The Government Hospital is inadequately provided in every respect; it is in the Bulgarian school—gangrene, fever, and healthy wounded are side by side.

l. Extract from a Letter from Dr. Hayes, dated Varna, August 30th, 1877.—As regards the Rustchuk Hospital, I have sent on there what I could find of the things they required. I made a careful inspection of Ohannes Bey's military hospital at Rustchuk; and, though only a temporary one of wood, it has room for five or six hundred beds, and is well organised in all its details except sanitary matters, which are generally much neglected by the medical officers of the Turkish army. There were about five hundred sick there; but none of them (or rather very few) looked really ill. At Schumla, there is a very large military hospital, in which, at the time of my visit, there were one thousand two hundred and ninety-nine sick, including one hundred wounded. The hospital makes up two thousand beds, and there are other buildings in the town which can be adapted to hospital purposes. I have had curtains made and rings fixed in the railway carriages to place beds on for wounded. Yesterday evening, ninety-four sick arrived from Rasgrad; the military authorities were more on the alert this time than last, but they had only a few miserable carts, so they actually took hold of the town carriages, forcing the people that were in them and their luggage to get out, and then they placed sick vermin-covered soldiers in them. For this there was no excuse as almost all the sick were in a condition to have waited an hour or two without harm. I sent the only two really bad cases in one of our carts, and the stretchers had only to be used for one man. The Stafford House stores, of which we have got some, and which we guard, are really beautifully packed. Still, there is a lack of those useful astringents catechu and rhattany.

p. Extract from a Letter from Dr. Hayes, dated Varna, 10th Sep-

tember, 1877.—On September 4th, sixty-five wounded came in by train; and, on the 6th, fifty-six wounded and sick came. On the evening of the 7th, I started for Rasgrad; and on the 8th, at Rasgrad, superintended the placing of two hundred wounded in the train, and escorted them to Varna, and supervised their removal to hospitals here. On the 9th, five hundred and fifty-three wounded arrived here by train, escorted by one of my transport people. I was at the station, and supervised their removal to hospitals. I am informed that above one hundred and twenty more will arrive this morning. On all occasions, wagons and bearers have attended and rendered good service in removing the most severely wounded. I have given instructions to have soup ready at Sheytandjik for those coming from Rasgrad. The railway authorities continue to afford us every facility in their power.

m. Copy of Dr. Bond Moore's Letter, dated from Adrianople, September 8th, 1877.—Everything is going on now pretty smoothly, quite as well as we ought to expect perhaps, all things considered. I cannot make you a report as to work done very well; for the patients are moved so often that it is next to impossible to keep a list of them. And it is in this way. A batch of weary, wet, but slightly wounded arrive with six or eight days' interval of dressing. We take them in, give good food, warm beds, and clean dressing for two or three days, when they are fit to go on to Constantinople and make room for the most urgent cases. A young Englishman has telegraphed me from London, offering to pay his own passage and expenses if I take him as dresser. I have replied "Yes". Scudamore and Cowan are of great assistance to us, and to-day a French officer who speaks English fluently has offered himself gratuitously. I want urgently splints, marine lint, and carbolic acid and dressing-cases to dress amputations with, so as not to communicate erysipelas to them by the use of dirty worn instruments; two will suffice.

n. Extract from Letter from Dr. Moore, dated Adrianople, September 10th, 1877.—At present, I want nothing very urgently in the way of stores beyond bandages, marine lint, carbolic acid, etc., all of which I wrote for on Friday. The blankets will be very acceptable. I have not yet received them; but M. Morrisedt, who is very useful, has gone down now (6 A.M. Monday) to the station to see after them. Yesterday, I cleared out every patient able to go, leaving about fifty-nine only; these I have put in the corridor, and thrown the wards open for ventilation and whitewashing, etc. A month's such work in pus as they have had needs rest, and on Tuesday we fill again. My little children patients at the other hospital are all doing well. The Sultan's aide-de-camp visited us on Saturday, and caught us hard at a "bullet in the knee-joint", which luckily we extracted before he left; he expressed much satisfaction. Temple Bey came on Thursday, and I am happy to say that, in his presence, after he had stated his opinion that it was impossible, McIvor and I removed a shoulder (shot high up), I controlling the artery and McIvor the knife. [Note.—Mr. Moore has been requested by the authorities to proceed to Philippopolis and select some severe cases for Adrianople Hospital. I have telegraphed to him permission to accept this responsible mission.—V. B. Kennett.]

o. Extract from Dr. Neylan's Letter, dated from Philippopolis, September 4th, 1877.—As I telegraphed, we arrived safely here on the 2nd instant, and immediately went to work to try and spur the authorities to have some systematic arrangement in the management of the cases. We found that the wounded, to the number of two thousand, were distributed in thirty buildings in various parts of the city. At first sight, it seemed almost hopeless to attempt any system, as serious and trivial cases were being removed at random, these places being filled in the same manner. I found that some good work was being done by the local doctors (principally Greeks); but the Turkish were as usual both incompetent and negligent. At a meeting convened by Ibrahim Pacha of the various doctors, it was suggested by him, and agreed to by the others, that I should have the superintendence of all the wounded, assisted by my colleague Dr. Menassian; and that all cases of neglect on the part of the Turkish doctors and dressers, if reported by me, would receive severe and, if necessary, capital punishment. As a first step, I reduced the number of temporary hospitals to nine. This I effected by visiting all the occupied buildings, and sending six hundred of the less seriously wounded to Constantinople. The very serious cases were sent to two large schools, to be under my own immediate supervision and charge. The other seven hospitals are placed in the charge of the various local surgeons under my inspection. Seven hundred more wounded are expected from Kezanlik to-day, and I see no immediate prospect of reducing the number occupying this place below one thousand six hundred. We have already had four major amputations and numerous minor ones. We have used all the splints bought from the stores. More are urgently needed, particularly Liston's and McIntyre's splints, together with carbolic acid, as

we are completely out of it. It seems to me that more assistance is required here than at any other place near the front. The wounded have all to pass through here from Schipka, and are in a dreadful condition after a long and rough journey in arabas. Hundreds must necessarily be left totally uncared for, unless we receive more help. I think two more surgeons would be sufficient; but dressers (say half a dozen) would effect a complete change in the present aspect of the place. The other surgeons sent out in this direction, being employed solely in the transport of wounded, are not able to give any assistance whatever, and I think it is by a concentration of forces here that most benefit will accrue to the wounded. [Note.—The Brothers Colley, who were appointed by me to assist Dr. Neylan, and who were most useful in dressing, etc., speaking Turkish well, have both been taken ill, no doubt, from overwork. I am sending others to fill their places.—V. B. Kennett.]

Writing on September 14th, 1877, Mr. Kennett says:—I enclose you some extracts of reports received since my last. I shall write you fully next week on money matters, sending you detailed accounts and estimates to the end of August. I am practising every economy, but my estimates cannot be kept below £1,000 per month, and, if I am to back up Lord Blantyre's men, my outlay must be more. I have to give up a splendid service which I was organising for removing the heavily wounded from Philippopolis to Constantinople for want of funds. I hope that you can put this before the Committee. Would not some member of it subscribe a few hundreds straight off for this special object? It is such a pity that I have to reduce my operations at this critical moment simply for want of funds. Our sections are doing capitally, working on the field, while the transport services attached to them remove the wounded to the line; they are here taken up by Hayes.

q. Extract from Colonel Coope's Report of one of the Distributions at the Constantinople Soup-Kitchen, showing the System on which it is Worked.—[Note.—Nearly three thousand wounded have been received in all, and received soup, coffee, tobacco, etc., at Tcholoron and Constantinople.—V. B. Kennett.]—Pera, August 31st, 1877.—I attended at the terminus of the Adrianople railway to-day to receive a train of wounded soldiers from the front, expected to arrive at 12.30 P.M., and to organise a system for distributing to them quickly, between the time of their arrival and their transhipment for Scutari, certain refreshments supplied by me from the funds of the Stafford House Committee. I brought with me a body of zaptiehs (gendarmes), and these men I told off, so that each should take charge of a carriage immediately on the arrival of the train, count the number of wounded it contained, and when the provisions were properly issued, see that those who were unable to feed themselves were cared for. The station-master, from whom I received every assistance, kindly showed me the exact spot and line of rails on which the train would be drawn up, and at a central point were placed two large cauldrons of hot soup, which was ladled into large bowls, each containing sufficient for twenty men; these bowls were then taken up by a fatigue-party of soldiers, who were extended along the line, so that a bowl would rest opposite each carriage on the arrival of the train, and the instant the train stopped, would be deposited in that carriage; at the same time, two gentlemen commenced from each end of the train distributing small loaves of bread, being informed by the zaptieh in charge of each carriage how many men it contained; another gentleman took charge of the tobacco and another of the coffee. Thus, in a very few minutes, seven hundred and nine wounded soldiers had been served with soup, bread, tobacco, and coffee. This system seemed to me to work thoroughly, and I can recommend its adoption in other places.

r. Extract of a Letter from Dr. Neylan, dated Philippopolis, September 8th, 1877.—I am getting on very well here, and have introduced something like order into the management of affairs; and I think I may say now that every man receives some amount of attention. Two buildings which are under my special care, and contain together one hundred and thirty beds, are filled with the gravest cases. I have an operating-room properly fitted up, and I order all the cases for operation in other buildings to be sent there, that I may see everything go right. I have shared my instruments with the Red Crescent men, who arrived here utterly destitute (surgically speaking). I do not think any more surgeons are required here. Menassian is working very well; he has to-day taken an inventory of the wounded to be sent to Barker. I do not now allow any cases but trivial ones to be removed. I visit all the hospitals to see serious cases, as I have received absolute authority by the commandant here. Five hundred wounded arrived yesterday; they have been all attended to; and two hundred of the lighter cases will be sent to-day to Constantinople. The wounded brought here by the ambulances of the societies are well attended to, but those brought by the Turks are in a dreadful condition. I have

had ten large operations, and expect to have several more to-morrow. I think there must by this time be plenty of men employed in transport work in this direction. I have given Mr. Calvert some stores for the Bulgarian women and children who are wounded here. They number forty. I want waterproof sheeting and drainage-tubing very much. A couple of pocket cases of instruments to give to the local doctors here would be well bestowed, also morphia-solution for injection. In fact, any stores you may send here, if they are not required by me, can be given to the ambulances. Stoker has started again for Kezanlik. Every train of wounded leaving here for Constantinople shall for the future have a surgeon and dresser, with necessary dressing and appliances. I have made arrangements with the authorities here, and they promise that it shall be so. I have an intelligent man to take the train following Barker.

s. *Extract from a Letter from Dr. Cullen*, dated Philippopolis, September 10th, 1877.—Ahmed Vefyk Pacha received me very cordially, and when I had explained my mission to him, and asked for an order for wagons and zaphtichs, he sent for an officer, to whom he said:—"Take this gentleman to the Pacha, and say they are to give him everything he asks for." I then proceeded to the Council, and my mission was made known to them, the name of the Stafford House Committee being particularly mentioned. I received a document after waiting some time, which I was informed was an order to give me all I wanted, always understanding that it was paid for. I duly received the bale of blankets and stencil plates.

t. *Extract from a Letter from Dr. Menassian*, dated Philippopolis, September 10th, 1877.—When we came, we were introduced to a local practitioner by the Consul to show us the hospitals. He works with us every day, and is the only person who performs operations; the Turkish doctors rarely have done or do anything of the kind now. We went through some of the buildings, and could see none but a few Turkish dressers to attend the patients, some not having been dressed for days. We were told there were about 2,000 wounded, some in buildings in different parts of the city, the Bey, the Turkish head doctor, himself not knowing where they were. We at once made it a point to diminish the number here as fast as possible, and try to dress the severe cases. The Bey I speak of, who ought to act as a medical director here, has not the first idea in his head about the management of a number of hospitals, or directing surgeons and dressers, who are quite as stupid about their work and as careless. I could see that two of us could not attend over 1,000 cases every day, besides attending to those that are arriving and those going away; and, therefore, tried to confer (Dr. Neylan and myself and the civil surgeons) with the Bey to make out a list of large buildings, collect the wounded into them from all parts of the city, assign a physician and a dresser to each hospital, we taking the most central building, where we can have an operating-room to perform operations, attend to the severe cases in the different hospitals, and see to other business; for, as I have remarked, the Bey can actually do nothing in the way of directing the work, and all we say is always "Very good" and "All right" and he "Shall have it done so"; but, unless I continually run after him, there is nothing done. When we came to make a list of Turkish doctors and dressers, we then found that there were six or seven doctors and as many dressers, who, not being properly directed by the would-be medical director, were taking it easy; and I had seen none of the doctors until I told the Bey to get them all together and assign them to hospitals. The so-called doctors, however, are of no better service to us than so many additional dressers; we have to look after them to get even the dressing done. I should have mentioned that we met Ibrahim Pacha, the commanding general here, the day we arrived, and the next day the second in command, Rifaat Pacha, who gave the power to us Stafford House surgeons to oversee the work to be done here, and report any one who neglects duty, etc. I think the Bey did not like it very well; however, I smoothed the matter over by telling the Bey that we had better come together every day and confer about everything there is to be done. There were about fifteen or sixteen buildings, and we could only have a physician and a dresser for two buildings. In this way, we had the work more or less under control, although still matters were in a confused state on account of irregularities. For instance, we sent about 300 wounded to the station one day to go to Constantinople by the Pacha's orders; but the train not leaving that day, the men had to sleep that night at the station, and we only heard of it the next morning, when the Pacha sent to us for three or four dressers to go to the station to dress the wounded. Such irregularities, and many others too numerous to mention, are enough to prevent us from establishing order and a system of administration; but I am trying to see if I cannot get enough ideas into the Bey's head to have the hospitals directed from a central office; to hold the doctors in charge of hospitals responsible for their work; have them report to us any cases for consultation in time for

operations; make out morning reports, etc.; so that we may not be obliged to run all over the city every day and spend our time in vain, but be able to do more in less time; for, unless we have some system, the Turkish doctors being always anxious to get away from work, and at the same time ignorant in the profession, the men will suffer from want of care. Since we came, two Red Crescent surgeons came to remain here, one of whom went back to Constantinople to-day, his wife being ill. Other physicians came belonging to the army, two of whom asked the Bey to give them an hospital for the sick, of which there is one here; the other two having each an hospital for the wounded. Also some additional Turkish dressers have come, and we now have just about a doctor and a dresser to each hospital, although none that are very competent, with the exception of Dr. Vlashon, the civil physician here, and one or two others. The rest will do for dressers. A number of operations have been performed since we came, and there is a good deal to be done yet, even if we do not have additional wounded coming. About 450 came two days ago, and we shall send down with Dr. Barker to-day about 200. We shall then have about 600 severe cases left here, although I am not sure about the exact number, for our doctors have not yet all of them learnt their A B C about sending reports, etc. I have done a good deal of this kind of work, but never had such experience as this before; I mean the way in which Turkish army doctors manage things by not managing at all.

At page 545 of to-day's BRITISH MEDICAL JOURNAL, we also print a letter from our Special Correspondent with the Turkish Army in Armenia. These two sets of reports will keep our readers *au courant* with the latest advices by letter from the Turkish side at the seat of war.

From the Russo-Roumanian side, we are glad to know that the English Aid Societies are opening an English hospital at Bucharest for the wounded. It will be under the professional charge of Dr. Maiver, an English physician long resident in Roumania. Miss Mansfield and Mrs. Maiver are actively engaged in superintending the preparations for the reception of patients; and two English surgeons are daily expected to assist Dr. Maiver. The Roumanian hospitals at Bucharest are well fitted up, and the patients carefully nurtured. The hospital of the Princess of Roumania, on October 7th, had fifty-six patients, all bad cases, selected by Her Highness on account of the severity of the wounds.

Mr. Lloyd, of the National Aid Society, has left for London. General Richter, the President of the Russian Red Cross Society, called upon Mr. Lloyd last week, and thanked him very warmly for the timely aid sent by his Society, desiring Mr. Lloyd to convey to the Society and the English people the sincere appreciation felt by all his fellow-countrymen for their generous sympathy and aid to the Russian wounded.

Dr. McNalty arrived at Bucharest on October 8th, accompanied by Mr. Edward Pattison and Mr. P. B. Conolly, both of the Charing Cross Hospital. Dr. McNalty had considerable experience, under the National Aid Society, in the Franco-German war, and relieves Mr. Lloyd, who was preparing to leave for England. Mr. Lloyd has made arrangements for sending supplies to the Roumanian Hospitals at Turn Magurelle. The field and the transfer hospitals at Simniza, Fratesti, and Turn Magurelle are the establishments chiefly needing assistance in the way of supplies.

Mr. Lewis Farley, the Secretary to the Sick and Wounded Russian Soldiers' Relief Fund, reports that the Rev. Mr. Lamson had left London *en route* for the seat of war, taking with him a supply of money, blankets, flannel vests, woollen stockings, etc.; and that Dr. George H. Lamson has also left direct for Bucharest with a supply of medical stores and surgical instruments.

In view of the pressing needs of the sick and wounded, his Committee has resolved to solicit contributions of blankets, warm dressing-gowns, flannel vests, woollen stockings, lint, bandages, etc., which may be sent to No. 9, Great Winchester Street, E.C. (Mr. John Sands). Lady Lycett, Mrs. Hamilton Fletcher, Mrs. John Draper, Mrs. Horace Philbrick, and Miss De Winton having kindly undertaken the charge of their reception, solicit the co-operation of ladies in London and the provinces in this work.

The Committee of the Russian Sick and Wounded Fund, at a meeting held on Wednesday last, unanimously resolved:—"That Dr. Sandwith be requested to make immediate arrangement for the services of a certain number of doctors and dressers at the seat of war; and that he be further requested to arrange, in conjunction with Sir Henry Havellock, M.P., a system for the distribution of medical and other stores to be subsequently despatched." In accordance with this resolution, Dr. Sandwith, who may be seen at the Athenæum Club, is prepared to engage four or five young surgeons or advanced students to accompany him at once to Bucharest. They must come well recommended, and

be prepared to stay until the end of the war. Their fare to and from Bucharest will be paid; a surgical outfit provided for them; and a sum of £1 *per diem* paid, for which they will have to find themselves in board and lodging. That there is ample field for their services, all reports from Roumania and the South of Russia fully testify. From amongst several of these accounts, we choose the following, which is one of the most recent, and which gives a description of the state of affairs at Odessa on September 28th. "In my last letter, I informed you that 500 more sick and wounded Russian soldiers were expected here from the Danube next Sunday. I believe they are still to come, but in the meantime 500 more have arrived. That will make the total number brought here within ten days 2,500. Comparatively few of these latter arrivals are wounded. Most of them are sick, the majority suffering from fever. Hence it may be inferred that the climate of the Danubian shores commences to affect a certain percentage of the Russian army. As regards the wounded, it is probable the worst cases do not come here, Odessa being five or six hundred miles by land from the seat of war. The poor fellows have to be conveyed in ambulance waggons or country carts over rough, almost impracticable roads, from the spot where they fell to and across the Danube, and thence by railway, often in goods waggons, lying on straw, to their destination. Odessa, however, is not always that much-to-be-desired spot, for many of the invalids are conveyed on by sea to Kherson or Nicolaieff. Two hundred and fifty of those brought here on Wednesday were taken to the latter port by the steamship *Grand Duke Constantine*, and 100 of those that preceded them were transported on Tuesday to Akerman, on and near the mouth of the Dniester. They were taken in some small steamers more like tugs, under the command of Admiral Tchikatchoff. Several corn magazines in this town are being fitted up to receive patients. The members of the Odessa branch of the Red Cross Society may be said to work night and day. The lady members are engaged at the central depôt frequently till midnight, cutting linen for bandages and doing other kinds of work for their poor sick and wounded countrymen."

NOTE ON THE PHYSICAL CONDITION OF W. GALE AFTER A WALK OF 1500 MILES IN 1000 HOURS.

MR. F. J. GANT, F.R.C.S., Surgeon to the Royal Free Hospital, communicates the following report.

On October 6th, 1877, the final day of William Gale's unprecedented pedestrian feat, I visited him on his leaving the track at 3.24 P.M. He complained of feeling very cold, and his hands and arms were quite cold up to the elbows. In the recumbent position, the pulse at the wrist was 80, having risen from 70 at 10.30 P.M. on the previous night; but the pulse-wave had now become very weak and irregular, and the arterial tension was very low. This state of collapse might have been partly due to his having imprudently indulged in a cold-sluing bath, over the head and shoulders, thus affecting the heart's action, an hour before I saw him. I immediately administered a cup of brandy and egg mixture, and had the hut in which he lay cleared of all persons, except his brother and sister. In about ten minutes, some reaction commenced, and he turned on his right side, and slept for a quarter of an hour, or until the time-bell rang, when the track-attendant entered and woke him. He very readily got up, and, after walking his usual mile and a half, he had somewhat revived, and said that he then "felt the blood circulating". I gave him, however, some more egg-nourishment, with a little brandy—he dislikes all alcoholic stimulants—and sent a message requesting the brass-band to stop making a noise, that he might sleep again. But Morpheus refused all solicitation to return. On leaving the hut for the last heat, I expressly enjoined him, and he promised, not to spurt for the gratification of the unthinking vast concourse of people around the track, and who thronged the windows and roofs of the adjoining houses. But, after one or two laps, I looked out and saw him walking at quite six miles an hour, responding yet more and more to the roars of applause, and thus he completed the last mile of the fifteen hundred.

A few minutes afterwards, his physical and mental condition were as follows. He was sitting, until I laid him down, on the couch used as a bed; the head and chest were bathed in a clammy sweat, and the pulse had risen to 88; was fairly strong and quite regular, but very compressible. The heart's action corresponded, being strong and regular, and there was no murmur either at the base or apex. The temperature, as indicated by the thermometer in the mouth, registered 106.1 deg. Some slight congestion of the palpebral conjunctivæ might be observed; but the pupils were not dilated, and responded to the influence of light. He was quite rational and calm; the expression of his face was not haggard, nor was there either pallidity or suffusion,

the skin having the brownish red appearance produced by exposure to the sun and air. He looked drowsy, and readily dropped asleep, but awoke as readily. Such being the only notable particulars with regard to the general condition, little was discovered on inspecting the limbs. The calf of the left leg presented a large varicose patch, the external saphena vein having become dilated and tortuous into an eel-like form. Just below the knee, a much dilated sacculus of the vein threatens to burst. This state, of which there was, I understand, scarcely a trace at the beginning of the walk, had been increasing daily for the last two weeks; and, by my request, a strong elastic stocking was worn with great comfort; indeed, but for the relief thus obtained in walking, and the sleep thus procured, I have no doubt that Gale could not have accomplished his arduous undertaking. Beyond this lesion, the legs were sound, there being no oedema and no swelling of the knees or ankle-joints. There had been no painful spasmodic affections, which so much embarrassed Captain Barclay in his famous, but far less formidable, feat. Lastly, the feet were sound, without blister or abrasion. The toes have the marked retroversion often seen in pedestrians; and, after twenty years of previous successes, this sign characterises the feet of the champion of the "cinder-path".

THE DISSECTING ROOMS.

As will be seen from the following reports, the students of the present day are usually well provided for so far as the supply of subjects for dissection is concerned. There is none of that waiting for a "part" which was a crying evil less than fifteen or even ten years since. The modes of preservation adopted vary at the different schools, but the result attained is generally quite successful for the purpose of presenting men with parts upon which they can go to work on the morrow of the "introductory".

St. Bartholomew's Hospital.—The session began with twenty-one subjects in the deadhouse. They were all preserved with Garstin's Fluid.

Guy's Hospital.—Twenty-eight bodies had been got ready for October 1. Most of these had been prepared as long ago as June or July by the method introduced by Mr. Howse and described by him in the *Guy's Hospital Reports*, vols. xvii and xx. It consists of first injecting a quart of watery solution of arsenic, then a quart of an arsenical solution of the same, whilst finally eight quarts of ordinary glycerine are injected. The bodies soaked over with glycerine are then sealed in mackintosh and placed in ordinary shells. The general result has been extremely good, the few exceptions being those of bodies parts of which had become decomposed before they could be injected, or which had subsequently, from some accident, become desiccated. It is noteworthy that bodies prepared by the above method admit of being injected with paint three or four months after their first preparation.

King's College.—At the commencement of the session, there were six subjects, which had come in at varying periods since early in June. They had been preserved by Stirling's process, as employed for some years past, and as is usually adopted at the University of Edinburgh. The results have been quite satisfactory, and all the senior students have already been supplied with parts for dissection.

Middlesex Hospital.—Of four subjects, three are now undergoing dissection. No. 1 was received on July 16th; No. 2 on July 21st; No. 3 on July 24th; and No. 4 on September 25th. They were all injected from the aorta. Each body was first injected with at least 10 pints of a solution containing 1 lb. of arsenic and about 6 oz. of carbonate of potash. About one-third of this solution was injected very slowly by means of hydrostatic pressure. The solution being raised about four feet above the level of the body on the fourth day the "paint" was injected as usual. The whole body was then carefully covered by means of bandages soaked in carbolic oil, and was subsequently kept in a cool damp chamber. Although decomposition had fully set in, in one body, which was green and offensive before injection, it, like the rest, is sweet and in good condition for dissection.

St. George's Hospital.—There were six subjects in the dissecting-room at the commencement of the session. The arteries had been injected when they first came in through the aorta, and the bodies were then kept in a preservative fluid till the session began.

St. Mary's Hospital.—At the beginning of the session, there were two bodies in the dissecting-room. They had been preserved for nearly a month in the following way:—The stomach, small intestines,

ST. THOMAS'S HOSPITAL. *Summer Session, 1876-77*.—*First Year's Students*.—H. A. H. Fenton, £15 and Certificate; Takaki Kanehiro, £1 and Certificate; T. D. Savill, £5 and Certificate; H. Kai, A. Purkiss, F. W. Lerew, and A. V. Bernays, Certificates. *Second Year's Students*.—W. F. Haslam, £15 and Certificate; R. P. Smith, £1 and Certificate. *Winter Session, 1876-77*.—*Entomology School Scholarships*.—R. J. Williams, £60 and Certificate; H. N. Holberton, £40 and Certificate. *First Year's Students*.—W. A. Dunan, William Tite Scholarship, £30 and Certificate; H. N. Holberton, £20 and Certificate; W. W. Webber, £10 and Certificate; A. B. Carpenter, Certificate. *Second Year's Students*.—A. Newsholme, College Scholarship of £42 and Certificate; Takaki Kanehiro, £5 and Certificate; C. A. Ballance, £10 and Certificate; T. D. Savill and Ho Kai, Certificates. *Third Year's Students*.—S. J. Taylor, Musgrave Scholarship, £42, and Certificate; S. J. Taylor, £20 and Certificate; S. A. C. K., £15 and Certificate. *Physical Society's Prizes*.—G. H. D. Gimlette, Third Year's Prize and Certificate; C. A. Ballance, First Year's Prize and Certificate. *Anatomical Assistants*.—Hutton Castle, W. F. Haslam, H. J. Michael, and R. P. Smith, Certificates, *Prosectors*.—T. L. Laxton and G. S. Hutton, Prizes and Certificates. *Residents in wards*.—Wm Morgan, T. Milman, M.D., B. Pitts, M.B., and R. Maples, Certificates. *Solly Medal and Prizes*.—W. H. Battle, Medal and £15; C. W. de Lacy Evans, Medal and £5. *Surgery and Surgical Anatomy*.—H. U. Smith, Cheselden Medal. *Practical Medicine*.—G. B. Longstaff, Mead Medal. *House-Surgeons*.—B. Pitts, R. Maples, C. C. Smith, and W. Edmunds, Certificates. *House-Physicians*.—T. Twining, M.B., J. F. Nicholson, J. R. Leeson, and W. H. Page, Certificates. *General Proficiency and Good Conduct*.—C. E. Sheppard, Treasurer, Gold Medal and Certificate.

UNIVERSITY COLLEGE. *Winter Session, 1876-77*.—*Physiology*.—Gold Medal, Bilton Pollard; 1st Silver, equal, Francis Gotch, V. A. H. Horsley, W. R. Parker; Certificates—5. A. Atmarang; 6. J. E. Hine; 7. R. Spence Walton. *Anatomy*.—Gold Medal, C. J. Bond; 1st Silver, P. E. Shearman; 2nd Silver, John Edward Hine; Certificates—4. James Isaac Paddle; 5. A. E. Permewan; 6. W. H. Neale; 7. A. E. Buckell; 8. F. H. Saunders; 9. G. E. Twyman; 10. H. P. Miller; 11. R. Warburton. *Junior Class—Silver Medal*, Henry Maudsley; Certificates—2. R. H. Firth; 3. James Norrie; 4. H. R. Gatley; 5. A. W. Dingley; 6. D. W. Donovan; 7. H. W. Newsholme; 8. E. D. Evans; 9. T. W. J. Allen; 10. William Clarke; 11. C. J. Pike. *Chemistry*.—Gold Medal, J. Sakurai; 1st Silver, C. W. Watts; 2nd Silver, Charles E. Cassal; Certificates—4, equal, P. N. Bose of Calcutta, A. G. Bourne, John Hodgkin, A. H. Mason; 5, equal, S. H. C. Martin, W. N. Macarnter; 6, equal, R. T. Plimpton, E. M. Crookshank, F. M. Young, L. H. Edmunds; 7, equal, H. Kurobe, H. E. Harrison, Theodore Beck; 8, equal, J. R. Day, A. J. G. Barker, Richard P. Roberts, Edwin Devis; 9, equal, S. J. Hickson, L. A. Lawrence, J. S. McDonagh; 10, equal, George Patterson, Howard Downes, H. W. Newsholme, Henry G. Blyth, S. C. Hill; 11. S. F. Sainsbury. *Medicine*.—Gold Medal, F. L. Benham; 1st Silver, N. S. Whitney; 2nd Silver, R. S. Miller; Certificates—4, equal, W. Gristock, H. Yoshida; 6, equal, A. H. Robinson, H. R. Dale; 8, Brian Rigden. *Surgery*.—Gold Medal, G. C. Henderson; 1st Silver, J. P. A. Gabb; 2nd Silver, J. S. N. Boyd; Certificates—4, equal, R. S. Miller, J. R. Salter, K. R. Smith, W. S. Tuke; 8. H. Yoshida; 9. H. R. Dale; 10. Brian Rigden. *Practical Physiology*.—Gold Medal, W. H. Neale; 1st Silver, V. A. H. Horsley; Certificates—3. C. J. Bond; 4. James Isaac Paddle; 5. Bilton Pollard; 6. W. R. Parker. *Comparative Anatomy and Zoology*.—Gold Medal, S. J. Hickson; 1st Silver, equal, E. W. von Tunzelmann, Alfred G. Bourne, W. G. K. Barnes; Certificates—5. E. M. Crookshank; 6. Howard Bendall; 7. Charles Downing; 8. H. Champ. *Clinical Medicine; Fellowes Medal*.—Gold, Richard S. Miller. *Junior Class; Fellowes Medal*.—Silver, Alfred A. Lendon; Certificates—2. J. E. Neale; 3. J. H. Oldroyd; 4, equal, W. Boulting, K. R. Smith; 6. H. R. Dale; 7, equal, C. M. Maxwell Dawson Williams; 8. T. F. Bullock; 10. J. M. Beggan. *Medal*.—G. C. Henderson. *Senior Class*.—William Banks. *Winter Session, 1876-77*.—*Midwifery*.—Senior Class—Gold Medal, D. F. Dymott; Silver Medal, K. R. Smith; Certificates—3. N. S. Whitney; 4. W. S. Tuke; 5. Dawson Williams. *Junior Class*.—Silver Medal, equal, C. J. Bond, I. F. Easton; Certificates—3. J. T. Mitchell; 4. A. E. Permewan; 5. A. Warburton; 6. J. H. Fialho; 7. W. F. Thomas; 8. A. J. McC. Roth; 9. E. W. Farmer; 10. G. E. Twyman; 11. George S. Grant. *Practical Physiology*.—Gold Medal, J. S. N. Boyd; 1st Silver, W. S. Tuke; Silver Medals, equal, J. S. N. Boyd, W. S. Andrews; Certificates—4. J. E. Neale; 5. Dawson Williams. *Practical Chemistry (Senior Class)*.—Gold Medal, James Isaac Paddle; 1st Silver, F. W. Mott; 2nd Silver, Henry Maudsley; Certificates—4. R. B. Yardley; 5, equal, P. E. Shearman, W. M. Hope; 6, equal, T. Hoskin, Donald T. Hoskyn; 7, equal, J. E. Squire, H. M. Murray, R. Pratt; 8. A. E. Buckell; 9, equal, A. W. Dingley, D. W. Donovan, Ernest A. Parkyn; 10, equal, M. F. Sayer, R. S. Walton. *Junior Class*.—Gold Medal, A. G. Bourne; 1st Silver, Wm. Case; 2nd Silver, Howard Bendall; Certificates—4. T. W. J. Allen; 5. E. Cotterell; 6. M. J. Jackson; 7, equal, J. J. Fletcher, P. G. Hullard, E. G. Morris; 8, equal, L. A. Lawrence, W. F. R. Weldon, H. W. Newsholme, R. P. Roberts; 9, equal, L. H. Edmunds, H. V. Knaggs; 10, equal, Lionel P. Purton, E. M. Crookshanks, F. Weck, H. E. Harrison; 11, equal, W. Clark, C. J. Pike, A. J. G. Barker; 12, equal, A. A. Carr, H. H. Crawley, P. F. Moline, E. Laurent; 13, equal, L. E. Shaw, S. A. Russell, W. S. Barnes, J. W. Inger, S. C. Hill; 14, equal, J. G. L. Stephenson, R. H. Firth, S. H. C. Martin, C. Vise, T. Beck, W. H. Evans; 15, equal, H. E. Williams, F. G. Penrose. *Materia Medica*.—Gold Medal, Bilton Pollard; 1st Silver, equal, R. H. Firth, Henry Maudsley, L. C. Ponsford; Certificates—5, equal, T. Hoskin, C. B. Hill, E. Cotterell, H. M. Murray; 9. M. F. Sayer; 10, equal, G. R. Matheon, James Marshall, T. W. J. Allen. *Medical Jurisprudence*.—Gold Medal, Kenneth R. Smith; Silver Medal, C. J. Bond; Certificates—3. J. H. Fialho; 4. W. D. C. Whittier; 5. E. W. Farmer; 6. Nemo. *Botany*.—Silver Medal, P. N. Bose. *Hygiene and Public Health*.—Silver Medal and Prize, Dawson Williams; Certificates—2. R. W. Greenish; 3. W. S. Tuke; 4. J. Sakurai. *Ophthalmic Medicine and Surgery*.—Silver Medal, H. Ridley; Certificates—1. B. Knibb; 2. H. V. Knaggs; 3. H. P. Miller. *Prizes (Class)*.—Prize, I. F. Williams; Certificate—2, equal, N. S. Whitney, A. Warburton; 4. A. Blair; 5. J. T. Mitchell.

WESTMINSTER HOSPITAL. *Winter Session, 1876-77*.—George D. I. Mottram; (Houldsworth) J. W. Batterham. *Mr. Davy's Prize for Diligence in the Dissections*.—C. Glassington and W. H. Quicke, equal. *Prizes for the Junior Class Subjects*.—J. W. Batterham; obtained Marks qualifying for Exhibition, W. H. Quicke. *Prizes for the Senior Class Subjects*.—A. H. Bampton and A. M. Davies (equal). *Frederic Bird Prize and Medal*.—W. J. Foster and W. J. Quicke (equal). *Prizes for the Junior Class Subjects*.—1. W. H. Quicke, J. W. Batterham, and C. Glassington. *Junior Class Subjects*.—1. J. W. Batterham and W. H. Quicke; 2. A. W. Veness and Charles Glassington. *Chemistry*.—1. J. W. Batterham; 2. W. H. Quicke. *Senior Anatomy*.—A. H.

Bampton and A. M. Davies (equal), and John Smith; 2. G. Gubbin and Sydney Smyth (equal), and G. H. Butler. *Senior Physiology*.—1. A. H. Bampton, G. H. Butler, and A. M. Davies (equal), and G. Gubbin; 2. J. Smith and S. Smyth (equal). *Histology*.—1. A. M. Davies, G. H. Butler, A. H. Bampton, and Sydney Smyth.

BRISTOL MEDICAL SCHOOL.—*First Year's Prize*, William A. Day and Thos. A. P. Marsh; *Second Year's Prize*, not awarded; *Third Year's Prize*, Geo. M. Smith; *Prize for Practical Anatomy*, Campbell L. Young.—ROYAL INFIRMARY. *Supple Medical and Surgical Prizes and Gold Medals*, Wm. R. Williams; *Clark Prize*, George M. Smith.—GENERAL HOSPITAL. *Lady Haberfield's Prize*, T. Chalmers Norton; *Sanders Scholarship*, not awarded; *Clarke Scholarship*, F. T. B. Logan and John H. Parry.

LEEDS SCHOOL OF MEDICINE.—*Winter Session, 1876-77*.—*Surgeon's Prize (Clinical Surgery)*.—1st, value £10, W. S. Porter. *Medicine*.—Medal, J. H. Thorp; Certificate, E. P. Pickersgill. *Surgery*.—Medal, R. B. Morley; Certificate, Godfrey Carter. *Anatomy (Senior)*.—Medal, J. W. Oglesby; Certificate, Norman Porritt. *Anatomy (Junior)*.—Medal, J. H. Oates; Certificate, J. C. R. Husband. *Physiology*.—Medal, J. W. Oglesby; Certificate, N. Porritt. *Physiology (Book Prize)*.—W. M. Hurtle. *Chemistry*.—Medal, Joseph Harrison; Certificate, J. H. Whitham.—*Summer Session, 1877*.—*Thorp Prize (Forensic Medicine)*.—2nd, value £6, N. Porritt; 3rd, value £4, J. W. Oglesby. *Forensic Medicine*.—Medal, N. Porritt; Certificate, J. W. Oglesby. *Midwifery*.—Medal, J. W. Oglesby; Certificate, W. M. Hurtle. *Materia Medica*.—Medal, J. Peché; Certificate, Walter Spencer. *Botany*.—Medal, T. H. Smith; Book Prize, Walter Spencer. *Practical Chemistry*.—Medal, J. Harrison and Walter Spencer (equal); Certificate, J. Peché.

LIVERPOOL ROYAL INFIRMARY SCHOOL OF MEDICINE.—*Winter Session, 1876-77*.—*Junior Year Subjects (Medicine, Surgery, and Pathology)*.—W. T. Clegg, Silver Medal; Thomas Bickerton, Bronze Medal. *Second Year Subjects (Advanced Anatomy and Physiology)*.—R. Bredin, Torr Gold Medal; J. D. Hayward, Bronze Medal; A. C. Rich and A. Meeson, Certificates. *First Year Subjects (Elementary Anatomy and Physiology, and Chemistry)*.—R. Honeyburne, Bligh Gold Medal; D. Collingwood, Bronze Medal; W. Renner and F. J. Laimbeer, Certificates.—*Summer Session, 1877*.—*Prizes for the (Botany, Materia Medica, and Practical Chemistry)*.—J. H. Kyles, Silver Medal; F. J. Laimbeer, Bronze Medal; R. W. Barrow and D. Collingwood, Certificates. *Comparative Anatomy and Zoology*.—T. M. Porter, Prize; Histological Prizes, G. Rice and J. D. Hayward. *Royal Infirmary Clinical Prizes*.—Physicians' Prize, W. T. Clegg; Surgeons' Prize, —Huey. *Students' Debating Society's Prizes*.—1st Essay, R. Bredin; 2nd, C. Steele; 3rd, G. Harrison; *Clinical Reports*, W. T. Clegg.

UNIVERSITY OF DUBLIN COLLEGE OF MEDICINE, NEWCASTLE-ON-TYNE.—*Winter Session, 1876-77*.—*Anatomy*.—Medal and 1st Certificate, H. T. Bowman; 2nd Certificate, J. R. Dodd. *Dissections*.—Medal and Certificate, T. C. Sqaunce. *Physiology*.—Medal and 1st Certificate, J. R. Dodd; 2nd Certificate, T. C. Sqaunce. *Chemistry*.—Medal and 1st Certificate, W. G. Black; 2nd Certificate, J. F. Mackenzie. *Surgery*.—Medal and 1st Certificate, T. G. Ainsley. *Medicine*.—Medal and 1st Certificate, Mark Malvin; 2nd Certificate, Lewis Eastwood.—*Summer Session, 1877*.—*Chemistry (Practical)*.—Silver Medal and 1st Certificate, T. Babst. *Botany*.—Silver Medal and 1st Certificate, T. Babst; 2nd Certificate, John F. Mackenzie. *Materia Medica and Therapeutics*.—Silver Medal and 1st Certificate, Lewis Eastwood. *Midwifery*.—Silver Medal and 1st Certificate, T. C. Sqaunce. *Medical Jurisprudence*.—Silver Medal and 1st Certificate (not awarded). *Pathological Anatomy*.—Medal and 1st Certificate, C. M. Goyder. *Practical Physiology*.—Silver Medal and 1st Certificate, J. F. Mackenzie; 2nd Certificate, W. G. Black.

SPECIAL CORRESPONDENCE.

THE TURKISH ARMY IN ASIA.

[FROM OUR OWN CORRESPONDENT.]

Head-Quarters of Ahmed Muhktar Pacha.

AFTER a careful examination of the resources of this army, one cannot fail to be convinced that, without a thorough reorganisation of the Army Medical Department, very little indeed can be done to put it at all on a par with that of any other civilised country in the world. First and foremost, the want of transport is in itself fatal to any effectual work. On every hand, you will be told that they have not means of transport for warlike stores, guns, and ammunition. So, in this country at any rate, where medicine and surgery are looked upon as necessary concessions to the professed civilisation, but are considered by nine-tenths of the population merely as a species of sorcery or magic, entirely subservient to that almighty regulator of Ottoman affairs, *Kismet*, it is hardly to be wondered that any efficient means of transport for the wounded or sick soldiers should be a thing never once thought of by those who are responsible for the management, or rather mismanagement, of this campaign. After an engagement, as a rule, the wounded man, when he can "pull himself together", makes off, as well as he is able, to the nearest town, which may be, take, for example, Kars in this instance, eighteen long, very long, miles away. How these men do contrive to get to towns and villages after being wounded as they are is a thing almost incredible. A compound fracture of the ankle, for instance, I can say of my own knowledge, in more than one case, does not prevent a Turkish soldier from finding his way to where he thinks help may be obtained, let the distance be what it may. The idea of waiting on the field till a party of "sick-bearers" may come with proper appliances for his removal, seems never to enter his head; and perhaps it is as well that this is so, for I fear that wait as long as he might, such help would never come. There is

one very good feature, among very many others, about the Turkish soldier; he thinks nothing of carrying a wounded comrade on his back for miles, if necessary; indeed, this is the general way in which the patients arrive at the apologies for ambulances which are now established. With this difficulty of transport of the sick themselves, of course, comes equal difficulty in obtaining medical stores and comforts. I must say that the Mushir, or Marshal commanding, Ahmet Muhktar Pacha, who is now a deservedly victorious general, sees as forcibly and regrets as deeply as anyone possibly can, the sad shortcomings of the Medical Department, and I feel convinced that if he should once be in a position, as he probably will be at some future time, to insist upon its thorough reconstruction, a great change for the better will be the result. Here on the field, or with his staff, there is nothing in the shape of a "Principal Medical Officer", and no sort of organised plan or arrangement is made for the treatment of the wounded when an engagement takes place. I am hoping to have ready before another battle, some sort of ambulance for the first dressing and care of the wounded. The Mushir is giving me every assistance in his power, and gives every possible consideration to any suggestions I make; but I fear, as he says, that he will be unable to do more than furnish a limited number of tents. At present, I find the only work I can do is to go from camp to camp and dress any wounded I can discover after the slight skirmishes which for the time, at least, are the only engagements taking place. As a rule, the wounded are sent off to Kars, on horses and on the wretched bullock *arabas* of which I have previously written. I am strongly of opinion that they would fare much better here in tents, in spite of the cold which is daily expected, as well as the utter want of bedding, blankets, apparatus, and, in short, everything, than in the vitiated, and I may almost say pestilential, atmosphere of a Kars hospital. At any rate, I hope to be able to try the experiment before long. If we had only here a regularly equipped ambulance, such as the Red Cross Society had in many places during the Franco-German war, and even later in Serbia, much good could be done. As it is, here I am, with one assistant, the first and only English doctor with this large army actually at war, provided with a few necessary drugs and a very incomplete "surgical" *menage*, but for what I have let me express my gratitude to the Stafford House Committee, who have furnished me with the best they had, and have sent me money whenever it was asked for. I hope soon to receive more stores from this Committee, of a kind more serviceable for ambulance work. At present, through the hitch in arrangements about which I spoke in my Trebizonde letter (BRITISH MEDICAL JOURNAL, July 21st), all *matériel* supplied has had to be purchased at Constantinople. Now, at Constantinople, there exists a certain official of high rank, whose duty it is to entirely manage the supply of drugs and medical stores for the Turkish army, giving the orders for their purchase, and, I am told, auditing his own accounts. At any rate, any complaint as to quality would have to be made through him and his department. *A la mode Turque*, this gentleman is the admitted proprietor of the largest drug warehouse in the sublime city, and it is a curious fact that all the drugs and such like things are supplied from this establishment. Comment on their quality would be superfluous; suffice it to say, that every doctor or *pharmacien* of the Turkish service whom I have asked about the quality of the very few drugs which they possess, replies with a smile and a shrug of the shoulders, together with a narration of the facts above mentioned. The father and predecessor of this official rendered himself historical (*vide* Sandwith's *Siege of Kars*) twenty years ago, by sending to Kars as military medical and surgical stores, while that city was in a state of siege, and there was the direst want of medicines and surgical instruments, boxes of "eau de Cologne, scents, and midwifery instruments"! Things are not quite so bad now, but I can trace in the supplies I have had, which perforce Mr. Kennett was obliged to obtain there, from the failure of English supplies, a strong family likeness between father and son.

When I passed through Kars a week ago, as I said in my last letters, I paid a visit to the hospitals there, and what I saw convinced me that it would be a very dangerous thing to send even a very slight case of gunshot wound there for treatment. I am sorry to say that the great majority of the slightly wounded, who would do very well if they could be attended to daily while remaining with their regiments in this really wonderfully healthy camp, are sent there, or, in time, on to Erzeroum. It seems to be thought necessary that a wounded soldier, in whatever part or however slightly he may be wounded, must necessarily go into hospital and stay religiously in bed. One has the greatest trouble in making the patients of our hospitals get up and enjoy the fresh air; indeed, in Erzeroum, I found that so uncommon was the custom, that it was, until I interfered, impossible for the poor fellows to do it, as immediately on admission all their

clothes, with the exception of their shirt, when they had one, were taken from them and locked up in a store room. Consequently, all the hospitals are full to overflowing, a large percentage of their inmates being cases which never ought to have been admitted as in-patients at all, if other means could have been devised for their support and attention elsewhere. From the immense number of funerals I saw during my one day's stay in Kars, and from what I saw and smelt in its hospitals, I should say that these institutions claim many more victims than the most sanguinary battles that have ever been fought in Asia.

The principal hospital is established in a building which in itself, making all allowances for the ordinary conditions of Turkish life, and the extraordinary conditions of war, is fairly satisfactory. In some of the wings of this building, which was intended for a cavalry barrack, however, where patients in large numbers were lying without bed or bedding on the bare ground, in rooms almost destitute of light, and still more destitute of ventilation, and in the awful want of sanitary precautions in the numerous closets about the place, everything is most unsatisfactory. I was told there were eight hundred patients here, but I should say the number was understated by at least 50 per cent. I was also informed that about thirty operations in all had been performed, principally "disarticulations", but that the results had not been on the whole satisfactory. Of the actual treatment of the cases, I can say nothing, as I was not asked to look at the individual cases, but I was pleased to see one young German working with great zeal, and, as far as I could judge, with an amount of skill which struck me as specially noticeable in one of the "foreign legion" of doctors in the Turkish service. On my way to the hospital, I put my head inside a khan used as a temporary hospital, where I was informed there were from sixty to seventy wounded. This khan had formerly been used as a stable by the Persian muleteers, and had never undergone any cleansing or disinfecting process before being converted to its new use. This fact, in addition to the most gross breach of all sanitary observances on the part of its inmates, and the gangrenous and putrid condition of their wounds, accounted for an atmosphere which I can only describe as indescribable. The medical man in charge—an Austrian, I think—admitted that the air was not what it ought to be; in fact, that it was so bad that he could not stay in it long at a time himself. I asked him if he had no disinfectants, chloride of lime, sulphur, or, in fact, anything. He replied that perhaps he could obtain them, but that he had not taken steps to do so, and gave, as a most extraordinary reason for his not doing anything in the matter, that he had received neither pay nor rations for more than, I think he said, eight months. "*Enfin, que voulez-vous faire?*" I replied that his case, in common with that of most of his colleagues that I have met, was a hard one; but that, while he consented to do his work at all under such dispiriting conditions, let him, in the name of common humanity, if for no higher motive, do that work efficiently and conscientiously. "*Ah, Monsieur,*" he replied, "*sans argent il n'y a pas beaucoup de cette chose!*" I have it, on the authority of the German to whom I have alluded, and who was aware that I was taking a note of the fact, that after the engagement of Kesil-tepi on August 25th, three hundred and seventy wounded men were admitted into this very khan out of about eight hundred who arrived in all at the Kars hospital. My informant says of his own knowledge that they were left without the visit of a surgeon or physician for three whole days; and that during that time, with the exception of a little water, no food whatever was given to them, those of them who had any money of their own buying food for themselves, the others going without. The same gentleman informed me that the day before my visit, the large hospital, of which I have spoken, was left for a whole day without any supply of water whatever. I have every reason to believe that these statements are perfectly within the limits of exact truth.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

Catholic Nurses in the Royal Infirmary. — The Flora Maclean Case. — Presidency of the Faculty. — Lectures on Public Health.

SOCIAL matters of interest are exercising the minds of the medical public at the present time. One of our Glasgow newspapers has taken on itself the care of the various charitable institutions of Glasgow. It is certainly a good thing that these should be looked after; and the more the attention of the public is directed to them, the better both for the institutions and the public. But there is a right way and a wrong way of going about such matters, and we are sorry to find that this paper habitually adopts the wrong way. In fact, it is quite evident

from its style that it has much much concern in presenting a fine racy bit of sensational writing than in improving the institutions concerned. This was very strongly manifested in the case of Flora Maclean, which may be in the memory of your readers; and it is again coming clearly out in an investigation which is being made in connection with the Royal Infirmary. Some time ago, a paragraph appeared in a Belfast paper in which it was said that most of the nurses in the Glasgow Royal Infirmary are Roman Catholics, and that they use their influence to favour their coreligionists in every way. It was also stated that they occasionally tried to make proselytes, urging patients to see the priest rather than the chaplain, and showing very little diligence in sending for the latter when requested by patients. The Protestant Institution of Glasgow seems to have taken up the matter, and sent a communication to the directors. The directors answered, giving an extract from a report by the chaplain, in which he states that he has never found any evidence of favouritism on the part of the Catholic nurses, and has always been called with the utmost readiness to see patients who needed attention. The publication of this by the Secretary of the Infirmary seems to have been rather premature, as the Protestant Society is desirous of conducting a full inquiry. The newspaper referred to has now stepped in, and is engaging itself with publishing rumours and statements which are only calculated to prejudice the public. It should not be lost sight of, that it matters not what the religion of nurses may be, if they do their duty as nurses and do not interfere with the religious convictions of the patients.

In connection with the Flora Maclean case, Dr. Tannahill, the Physician to the Maternity Hospital, was some time ago arrested on the charge of a breach of the Anatomy Act. He was immediately liberated on bail. On Monday last, the sympathy of the profession was to some extent shown for him in re-electing him an Examiner in Midwifery at the Faculty of Physicians and Surgeons. At the same meeting, the Faculty elected as President Dr. Andrew Buchanan, lately Professor of Physiology in the University. Some doubt the wisdom of this step, considering the advanced age of Dr. Buchanan; but it must be regarded by every one as a graceful act to bestow this honour on one who has so long been deservedly esteemed. We believe that the contest would have been a much closer one had it not been for the injudiciousness of the correspondent of a contemporary, who, in a way that irritated many of the Fellows, discounted any opposition, and gave it out that the appointment was virtually settled.

The institution of a qualification in Public Health by Glasgow University has been followed by the announcement of lectures on this subject. Dr. Simpson will give a course in the University. It is announced that Dr. Christie will give a course during the ensuing session. The profession is looking for some intimation from Dr. Russell, the medical officer of health, that he intends to begin a class. There can be no doubt that, from his position, such a class would be doubly instructive.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Plombières.

I HAVE just returned from a short holiday excursion, and on my tour paid a visit to Plombières. While there I was much surprised to learn that the place is little frequented by British invalids or tourists. This may be accounted for in some measure by its being little known in England, for in the latest editions of some of the works on the Spas of Europe Plombières is not even named. From what I have seen of the place, I consider it worth being brought more prominently to public notice. For the little I know about Plombières and its spas I am indebted to Dr. Bontentuit, one of the consulting physicians, who kindly showed me over the place, and explained to me the composition of the different springs, and the maladies for which they are best suited. Indeed, Dr. Bontentuit has brought out a neat little book entitled *Guide des Baigneurs aux Eaux Minérales de Plombières*, from which intending visitors, whether for health or pleasure, can obtain most useful information as to the topography of the town, its antiquities, its baths, the composition of its waters, and the maladies in which the latter are indicated. Plombières is beautifully situated at the bottom of a valley in the Vosges mountains, and, although its waters were well known to the ancients as possessing certain medicinal properties, it does not seem to have been much resorted to by invalids until within the last fifteen or twenty years, when Napoleon III made it what it now is, one of the most attractive pleasure resorts of France. The climate of Plombières is temperate, and the air bracing and pure; but, from its altitude, which is one thousand three hundred and ten feet above the level of the sea, it is subject to frequent changes of tem-

perature, which necessitate certain precautions in the way of clothing, etc. The population is about one thousand eight hundred, and almost every house in the town is either an hotel or boarding-house, and from this circumstance, notwithstanding the smallness of the town, visitors experience no difficulty in finding lodgings. Its principal source of revenue is its mineral waters, which alone produce not less than £40,000 a year. Nothing is neglected to render the town as attractive as possible, and, besides the various forms of amusement got up for the season, visitors will find other inexhaustible sources of pleasure in the numerous promenades and places of excursion with which the surrounding country abounds. The waters are obtained from twenty-seven springs, which, according to Dr. Bontentuit, yield seven hundred and thirty cubic metres of mineral waters in the twenty-four hours, the temperature of which ranges from 50 deg. Fahr. to 163.4 deg. Fahr. For the sake of convenience, Dr. Bontentuit divides the springs into four groups:—1. Ordinary cold water; 2. Chalybeates; 3. Saponaceous mineral waters; 4. Thermo-mineral waters, and, from the most recent analysis, the waters of Plombières may be considered distinctly alkaline and chalybeate, the degree of mineralisation varying according to the spring from which they issue. They are chiefly used as baths, but they are also taken internally to a considerable extent, and the maladies for which they have been found useful are diseases of the stomach and intestines in every variety and form, diseases of women, gout, rheumatism, diseases of the nervous system, and diseases of the skin.

The season opens officially on May 15th and closes on September 15th; but, if the weather be at all fine, it is prolonged even to the middle of October. Plombières, which is about twelve hours' distance by railway, including the diligence from Paris, is easily accessible to travellers; but, in order to render it still more so, the diligence is to be done away with, as the railway will be extended to the town, and will be completed in time for the next season.

Plombières will certainly repay a visit, as it seems to me to possess all the requirements necessary for the comfort and happiness of its residents; it is comparatively cheap, quiet, remarkably healthy, and endowed by nature with some of the most beautiful scenery in the world; so that travellers, whether in search of health or pleasure, always leave it with a desire to return to it again and again.

I may mention, *en passant*, that it was in this town that Robert Fulton, the celebrated American engineer, taking advantage of the presence of the Empress Josephine in 1804, tried his first two experiments with his liliputian boat on wheels on the Eaugronne, a small stream issuing from the mountains and running through the town, to show the power of steam as a progressive agent even uphill or against a strong current.

ASSOCIATION INTELLIGENCE.

THAMES VALLEY BRANCH.

THE next general meeting will be held at the Richmond Infirmary on October 17th, at Five o'clock. Members who may be willing to read papers are requested to communicate at once with the Honorary Secretary. Papers are already promised by Mr. G. F. White and Dr. Atkinson.

There will be a dinner after the meeting at the Greyhound Hotel at seven o'clock. Charge 7s. 6d., exclusive of wine.

F. F. ATKINSON, M.D., *Honorary Secretary*.

Kingston-on-Thames, October 1877.

WEST SOMERSET BRANCH.

THE autumnal meeting of this Branch will be held at the Railway Hotel, Taunton, on Thursday, October 18th, at 5 P.M.

The following question has been settled by the Council for discussion after dinner:—"What in your opinion is the best way of managing the Third Stage of Labour so as to diminish the risk of *Post Partum Hæmorrhage*?"

W. M. KELLY, M.D., *Honorary Secretary*.

Taunton, September 15th, 1877.

BATH AND BRISTOL BRANCH.

THE first meeting of the Session will be held at the York House, Bath, on Wednesday, October 31st, at 7.15 P.M.: H. MARSHALL, M.D., President, in the Chair.

R. S. FOWLER, Bath. } *Honorary Secretaries*.
E. C. BOARD, Clifton. }

6, Belmont, Bath, October 1st, 1877.

SOUTH-EASTERN BRANCH: EAST AND WEST
SURREY DISTRICTS.

A CONJOINT meeting of these Districts will take place at the Red Lion Hotel, Dorking, on Thursday, October 18th, at 3.45 P.M. Mr. CHARLES W. CHALDECOTT in the Chair.

Dinner at 6 P.M. precisely. Charge, exclusive of wine, 7s. Gentlemen intending to be present at the dinner are requested kindly to give notice by October 15th to Mr. Napper, Broad Oak, Cranleigh.

JOHN H. GALTON, } *Honorary Secretaries.*
A. ARTHUR NAPPER, }

October 1877.

STAFFORDSHIRE BRANCH.

THE fourth annual meeting of this Branch will be held at the Railway Hotel, Stoke-upon-Trent, on Thursday, October 25th, at 4 P.M. An address will be delivered by the President, Dr. ARLIDGE.

Dinner at 6 P.M. precisely. Tickets, exclusive of wine, 7s. 6d. each. Members intending to be present are requested to communicate as soon as possible with one of the Honorary Secretaries.

VINCENT JACKSON, Wolverhampton. } *Honorary Secretaries.*
RALPH GOODALL, Silverdale. }

Wolverhampton, October 1st, 1877.

SOUTH MIDLAND BRANCH: AUTUMNAL MEETING.

THE twenty-first autumnal meeting of the South Midland Branch was held at the Infirmary, Aylesbury, on Thursday, September 27th; W. MOXON, Esq., President, in the chair. About twenty gentlemen were previously entertained at a sumptuous luncheon given by Robert Ceely, Esq., and Charles Hooper, Esq., Honorary Surgeons to the Infirmary. There was a numerous attendance of the members of the Branch.

Thomas Wynter, Esq., of Winslow, was proposed in due form as a member of the Association.

HENRY TERRY, Esq., then brought before the notice of the meeting the British Medical Benevolent Fund, and urged the members to support so valuable an institution.—ROBERT CEELY, Esq., and CHARLES HOOPER, Esq., supported Mr. Terry; and several subscriptions were collected in the room.

In reference to the appointment of a Co-Secretary at Bedford, Mr. KIRBY SMITH agreed to continue the duties of the office without assistance until the next annual meeting.

Dr. BUSZARD then read an interesting case of Spinal Meningitis simulating Rheumatic Fever.—A short discussion followed.

G. F. GOLDSMITH, Esq., related a case of Spinal Caries without Curvature, causing Paralysis.

Dr. DICKSON read a Peculiar Case of Strangulated Hernia, in which, after reduction by taxis, perforation of the bowel took place from ulceration. The specimen was shown to the members.

Dr. DICKSON also related a case of Rheumatic Fever, in which salicine was administered without benefit. Rapid improvement took place after frequent doses of the tincture of perchloride of iron.

KIRBY SMITH, Esq., read an interesting case of Malignant Disease of the Clavicle, in which he was compelled to remove the whole bone.

CHARLES HOOPER, Esq., exhibited some remarkable specimens of Biliary and Renal Calculi, etc.

The usual votes of thanks were passed.

Dr. O. FARRELL, in a brief and appropriate speech, proposed a vote of thanks to Robert Ceely, Esq., and Charles Hooper, Esq., for their kindness and hospitality in entertaining the members at luncheon.—This was seconded by H. TERRY, Esq., and carried unanimously.

The meeting then terminated.

Some of the gentlemen afterwards visited the wards of the Infirmary, where some cases of interest were shown by the Honorary Surgeons.

The next meeting will be held at Peterborough, under the Presidency of Dr. T. J. Walker, in May or June 1878.

NORTH OF ENGLAND BRANCH: AUTUMNAL
MEETING.

THE autumnal meeting of this Branch was held at the Council Chamber of the Town Hall, Stockton-on-Tees, on Tuesday, September 25th; he President, S. W. BROADBENT, Esq., occupied the chair; and there were present thirty-three members and three visitors.

At noon, a number of the members met at the Stockton Hospital, and were conducted over that institution by Dr. R. W. Foss of that

town and Dr. Laidler of South Stockton, who explained the plan of the building.

New Members.—Five new members were elected.

Papers.—The following papers were read.

1. The PRESIDENT: Short report of a case of Embolism of the Superior Vena Cava.

2. Dr. LAIDLER: Short account of a case of Extraction of a Foreign Body (Pen-case) from the Left Bronchus. This case occurred at South Stockton, where a lad aged 13 (who was present at the meeting) had, in playing, swallowed a small pocket pen-case, which was extracted, after some difficulty, by Dr. Laidler, by the aid of the bronchial plummets, which he has invented, and which was shown.

3. Dr. MURPHY exhibited and explained a retractor for keeping open the incision after tracheotomy while a tube is being introduced or a foreign body extracted. He also read a paper on Uterine Catarrh.

4. Dr. ANDERSON read a report of a case of Intestinal Paralysis, successfully treated by the constant electrical current and strychnine.

Notice of Infectious Disease.—Dr. EASTWOOD brought forward the subject of the importance of giving early information to sanitary authorities in cases of zymotic diseases. He read a portion of the report of the Committee on the Registration of Diseases of the Association, which was adopted at the annual meeting at Manchester, and stated that the matter had become a local one in consequence of having been brought before the Darlington Rural Sanitary Authority, of which body he was the Chairman. The question, he said, had been referred to the Darlington Board of Guardians, who were about to present a memorial to the Local Government Board praying for a Royal Commission to inquire into it. In conclusion, he asked the meeting to support the Committee on the Registration of Disease of the Association, and proposed the following resolution:

"That the members of this Branch cordially support the action of the Committee on the Registration of Diseases, passed at the annual meeting of the British Medical Association; and, whilst being ready to give every assistance in the suppression of zymotic diseases, they distinctly recognise that it is the proper duty of every householder to give notice to the sanitary authorities of the existence of such diseases."

Mr. S. E. PIPER seconded the resolution, which was supported by Drs. Philipson and Mackie, and carried unanimously.

Patients were introduced by Drs. Dale, Laidler, Foss, and Philipson.

Votes of Thanks.—Mr. JOHN FARQUHARSON proposed a vote of thanks to the readers of the papers, which Dr. MOORE seconded, and which was carried by acclamation.—Dr. GIBSON proposed, and Dr. EASTWOOD seconded, that the best thanks of the members be given to Drs. Foss and Laidler for their kindness in showing them round the hospital.—On the motion of the PRESIDENT, a vote of thanks was also accorded to the Mayor and Corporation of Stockton for the use of the Council Chamber for the purposes of the meeting.

Dinner.—The members and their friends afterwards dined together at the Black Lion Hotel; the President in the chair, and Dr. Philipson in the vice-chair; there being also present the Rev. D. R. Falconer, vicar of Stockton, the Rev. Thomas Law, vicar of St. James's, Stockton, and Mr. Coroner Settle.

READING BRANCH: ANNUAL MEETING.

THE twenty-second annual meeting of this Branch was held at the Athenæum, Reading, on Wednesday, September 26th. There were twenty-one members present.

Dr. SHEA (President) read a very able address on Public Health; for which the cordial thanks of the Branch were accorded him, with a request that it should be published.

The usual business of the Branch having been transacted, the members adjourned for dinner to the Queen's Hotel.

ST. ASAPH (RURAL).—Dr. Lloyd Roberts states that, although no necessity had arisen for legal proceedings, yet he had, with the inspector of nuisances, visited various parts of the district for the purpose of considering special plans for its better sanitary regulation and of giving directions as to the best methods for preventing the spread of zymotic diseases. He points out, in common with some other Welsh medical officers, that a large proportion of the deaths of children under one year are uncertified, the proportion in his district having increased to 60 per cent. In common with most other localities, the death-rate in 1876 was low; but in one parish—Llanfairtalhaiarn—diphtheria had been prevalent, especially amongst young children. He considers that much benefit would accrue to rural districts if the power of making by-laws for the regulation of buildings were extended to them. The death-rate for the year was 19.92, and the birth-rate 30.21.

CORRESPONDENCE.

THE PENGE CASE.

SIR,—I must still crave permission to say a word or two in reply to your leading article of last week, not on the scientific question, which I have already treated, but with regard to the duties of medical witnesses.

Your article appears in one place to throw upon the medical witnesses for the defence the responsibility of an acquittal disastrous for society (had such an acquittal resulted), and, in another place, to suggest that this evidence could have little weight, since, even admitting its truth, the case would have been one of serious crime. These objections might almost answer one another. They suggest, at all events, very strongly that a medical witness would greatly err who allowed his statements to be influenced by a consideration of how they might weigh with the judge and jury. That is not the witness's province. It could only become his if he confounded, as your article appears to me to do, *evidence with defence*. Evidence is a statement of fact or opinion; defence is the use made of this statement by counsel. The evidence which I offered in this case (reinforced by the immense authority of Dr. Bristowe, and virtually by that of Dr. Greenfield) was urged by the counsel for the defence as a reason why his clients should be acquitted, or at least why their offence was less than the worst they were charged with. Some lawyers thought, I believe, that, even if our conclusions were accepted, they constituted a weak defence; others thought that the mere fact of two responsible persons holding such a view would influence the verdict. These were speculative opinions, but their divergence was quite enough to show the entire impropriety of a medical witness being influenced in giving or withholding his opinion by any conjectural estimate of its forensic value. In the end, the judge thought our evidence of so little weight as compared with that for the prosecution, that he did not (according to the newspapers) even take the trouble to instruct the jury what verdict they ought to return in case they admitted its correctness, and the jury apparently accepted the estimate of the judge.

Of course, the verdict was against us; but I cannot admit it as a *reductio ad absurdum* "that the coroner's jury, after a most elaborate inquiry, the grand jury of the county, and the judge and jury of the Central Criminal Court, after a seven days' trial, have all fallen into a fatal error".

It may be very presumptuous to question the verdict of a judge and jury; but, put the case for a moment that our conclusion should happen to be true, has the verdict altered its truth? If it be true, then I say not any number of coroners' juries, grand juries of the county, juries of the Central Criminal Court, with all the judges and committing magistrates to boot, sitting and delivering judgment till the day of doom, can ever make it otherwise.

The question has, however, been badly stated. The real opposition is not between the evidence and the verdict, but between the evidence and the premises of the verdict. The most perfect legal machinery cannot evolve correct conclusions from unsound data, and, on our view, a most unsound piece of evidence has been at the bottom of all the verdicts up till now; viz., that in the body of Harriet Staunton there was not evidence of disease sufficient to cause death; and, further, that the appearances of the body were such as starvation alone could produce (not merely, in your words, "such as starvation would produce").

Speaking for myself individually, I can only say that, when I had once, in whatever way, arrived at the conviction that the medical foundation on which the proceedings were based was unsound, I could not do otherwise than say so. To keep silence from a feeling of delicacy to the gentlemen who had conscientiously given that testimony, or from any wish to avoid the "conflict of medical evidence" which you deprecate, would have been, in my opinion, sacrificing justice to peace; and, had judgment gone by default, so to speak, on the medical question, I at least should have had abundant and painful reason for regret and self-reproach.—I am, sir, yours,

78, Wimpole Street, October 9th, 1877. J. F. PAYNE.

SIR,—The reports on the Penge case furnished by Drs. Payne and Greenfield, and published in your last issue, contain statements of facts and opinions which in the interests of justice and science ought not to pass unchallenged. Considered as instruments for the express purpose of upsetting the medical evidence given in a great criminal trial, and for influencing the course of justice, these papers are of the highest importance, and should be subjected to the closest scrutiny before their authors' conclusions are accepted.

In offering the following strictures on the statements referred to, I beg to premise that I have not read one word of the reports of the trial nor of the depositions taken before the magistrates, my knowledge of the case being derived wholly from papers in the current numbers of the *Lancet* and the *JOURNAL*; I have approached the subject, therefore, with an unbiased mind and with a view bounded exclusively by its medical aspects.

In his opening remarks, Dr. Greenfield proposes to himself certain questions on the chief points for investigation, and I am free to admit that his method of procedure is a model of exhaustive analysis and admirably adapted to the present inquiry; but whether his performance equals the intention, or whether he will be found—

"To keep the word of promise to the ear,
And break it to our hope,"

will be seen in the sequel.

In charging the medical witnesses with certain omissions at the *post mortem* examination, Dr. Greenfield contends that they should have sought for cancer of the gullet and for disease of the larynx as being possible causes of the emaciation. Obviously, such examinations were uncalled for in this case, when the stomach was found to contain solid food in the form of bread, meat, and egg, a fact which at once negated the idea of any mechanical obstruction to the passage of food. Dr. Greenfield next adverts to the omission to examine the urine for sugar, so as to determine the existence of diabetes as another cause of wasting; but he forgets that the empty state of the entire intestinal canal was inconsistent with the presence of a disease characterised by a "ravenous appetite" as well as by "rapid wasting in spite of large quantities of food being taken". Again, as to his suggestion of Addison's disease having existed, but remaining undetected, because the suprarenal capsules were not examined, it is sufficient to observe that we are not told of any discolouration of the skin being seen other than that caused by dirt, and it is hardly conceivable that a colour so peculiar as the bronzing in Addison's disease could be mistaken for dirt by medical men possessing ordinary powers of observation. Dr. Greenfield asserts that such mistakes have been made; but I must be allowed to say that I have seen four cases of that disease, and in all it would have been impossible to confound the discolouration with dirt of any kind or amount. To argue the existence of Addison's disease in the present case, as Dr. Greenfield would do, simply from an expression used by Mr. Longrigg, that "the face was bronzed with dirt", is rather "sharp practice" even in forensic experience.

I come now to the consideration of the tubercles said to have been seen in the pia mater; and this is a point to which the most prominence has been given by both writers, and more especially by Dr. Payne, who brings a considerable amount of erudition to bear on it, with the result, it is to be feared, of increasing the obscurity that hangs over this part of the inquiry. The question as to whether the tubercles were of old or recent date is decided by both these authorities in favour of a recent origin, though on what grounds is not sufficiently explained. But it would seem that the existence of acute tubercular deposits on a brain invested by membranes which are agglutinated by old adhesions, and having a pulp of unusual firmness, presented some difficulties even to these accomplished pathologists, not to be solved either by subtle reasoning or by reference to a long array of special authorities. The real question at issue, whether these tubercles would account for an extreme degree of emaciation as well as being an efficient cause of death, is differently handled by the two writers. Dr. Payne, who showed a wise discretion at the trial in declining to ascribe the extreme emaciation to tubercular meningitis, now invokes the aid of tubercular disease of the intestines as a concurrent cause, the signs of which he thinks may have been overlooked at the autopsy, though it seems incredible that a tuberculosis which lasted long enough to produce excessive wasting, should have left no obvious trace in the abdomen either of adhesion or effusion. Dr. Greenfield, on the other hand, would attribute the emaciation partly to tubercular meningitis and partly to the tubercular deposit in the apex of the left lung; but he evidently labours with his subject, and finally resorts to much supposition as to symptoms during life which might have been present to produce the wasting, but of which he adduces no evidence whatever. The conclusion of all this speculation is that we are asked to believe that some small patches of miliary tubercle in the membranes of the brain, together with a small deposit of crude tubercle in the apex of one lung without any concomitant disease, are to account for an extreme degree of emaciation, an emaciation which in life must have been truly appalling, which had reduced a woman over middle height and of mature age to a weight of only 5 st. 4 lbs., and had shrunk the solid viscera of the abdomen to little more than half their normal bulk and weight.

The next question, as to the *post mortem* evidences of starvation, to which all else should have been subordinated, receives but scant attention from Dr. Greenfield, who contents himself with disputing the *norma* adopted by the medical witnesses for the weights of the abdominal organs as well as for the body-weight; but if he mean to insist that the weights assigned to the liver and kidneys in this case are not highly abnormal, I believe he will stand alone in his opinion.

It is to Dr. Payne that we must look for the chief arguments against the theory of starvation. Certainly, nothing more remarkable is to be found in the whole of these dissertations than Dr. Payne's mode of dealing with this most essential part of the medical testimony for the prosecution. After enumerating the signs of death from starvation, as they are presented by the stomach and intestines of persons destroyed by cancer of the œsophagus, in whom these organs are found to be "pale, anæmic, perhaps contracted and attenuated to the last degree", Dr. Payne flatly denies that these conditions were present in the body of Harriet Staunton. It is true, that nothing was said in evidence as to contraction of the intestines; but they are certainly described as being "pale and exsanguine" as well as being entirely empty of food and fæces, while Mr. Longrigg spoke of the walls of the stomach being thin. There is something almost disingenuous in Dr. Payne's remark that the congestion of the stomach and duodenum was "evidence that the digestive organs had been in use", when he knew and admitted that this congestion was due to the stimulus of food that had been recently taken. His contemptuous dismissal of the suggestion made by the Attorney-General, that untimely or excessive feeding after starvation might produce inflammation of the peritoneum (of the stomach and duodenum), naturally provokes the question, what experience Dr. Payne may have had of starvation and its treatment; and why it is that persons rescued from shipwreck or from long imprisonment in a flooded mine are always fed at first with so great caution as to the quantity and quality of the nutriment given. What are the dangers to be apprehended from overfeeding in such cases, if gastritis be not one of them? And if gastritis, why not peritonitis? The step from inflammation of the mucous membrane of the stomach to that of its serous coat is not generally considered an improbable sequence. And may we not regard it as highly probable that undue feeding with solids in the last few days of Harriet Staunton's life had the principal share in hastening her death, and that it affords a rational explanation even of the cerebral symptoms that preceded dissolution, and which bore some analogy to the convulsions of children from overfeeding? If this view be correct, it disposes of Dr. Payne's assertion, that "the symptoms before death were inconsistent with death from starvation alone".

In regard to the other evidences of starvation, Dr. Payne is strangely silent, never so much as alluding to the atrophic state of the liver and kidneys; but he asserts that "there is no evidence of any special atrophy of the digestive organs from disease", though the precise meaning of this assertion is not at all clear, as atrophy *from disease* would not imply an effect of starvation. Nor is any allusion made to the ecchymoses and petechiæ found on the trunk and lower limbs, notwithstanding that these are recognised signs of the dyscrasia resulting from bad or insufficient food.

It is needless to pursue the argument farther. I venture to think that enough has been said to show that when every deduction has been made for incompleteness in the examination after death, and for want of precision in recording all the appearances, the results of that examination still afford very strong presumptive evidence that the subject of it died from starvation and neglect. It may not be a typical case of death from starvation; it may not have exhibited all the pathological changes ascribed to that mode of death; but it afforded data that were consistent with the general evidence, and completed the chain of proofs against the prisoners.—I am, sir, your obedient servant,

Guildford, October 10th, 1877.

HENRY TAYLOR.

OBITUARY.

HENRY LAWSON, M.D.

THE death of Dr. Henry Lawson, Assistant Physician and Lecturer on Physiology at St. Mary's Hospital, is announced. Dr. Lawson graduated with distinction in the Queen's University, Ireland, and subsequently applied himself to the study of biological science both as a writer and a lecturer. He held the office of editor of the *Monthly Microscopical Journal* for the Royal Microscopical Society, and was for some years editor of the *Popular Science Review*, and for a short time of the *Practitioner*, in connection with the late Dr. Anstie. Dr. Lawson had for very many years suffered severely from time to time from painful forms of neuralgia, and has published a valuable work on

the treatment of sciatica and other similar nerve-affections by the subcutaneous injection of morphia, based in the first instance upon his own case.

MILITARY AND NAVAL MEDICAL SERVICES.

SURGEON-MAJOR ALFRED CLARKE has been appointed to succeed Surgeon-Major J. A. Marston in the Sanitary Branch of the War Office. Dr. Marston has sailed for India to take up the appointment of Secretary to the Surgeon-General of India.

MEDICAL NEWS.

MEDICAL VACANCIES.

THE following vacancies are announced:—

- BERKHAMSTEAD UNION—Medical Officer for the Herts and Bucks District. Salary, £90 per annum and fees. Applications to be made on or before the 15th instant.
- BRENTFORD UNION—Medical Officer for the Ninth District.
- CASTLE WARD UNION, Northumberland—Medical Officer to the Stamfordham District. Salary, £20 per annum, and fees. Applications to be made on or before the 13th instant.
- CHARING CROSS HOSPITAL—Assistant Physician and Assistant Surgeon. Applications to be made on or before November 2nd.
- EDINBURGH SCHOOL OF MEDICINE—Lectureship on Physiology. Applications on or before the 18th instant.
- HOO UNION—Medical Officer of Health and Public Vaccinator. Salary, £120 per annum and extras. Applications to be made on or before the 24th instant.
- LOCHGOILHEAD and KILMORICH, Parish of—Medical Officer. Salary, £60 per annum and fees. Applications to be made on or before November 1st.
- MANCHESTER TOWNSHIP—Assistant Medical Officer for the Workhouse Hospital.
- ROTHERHAM HOSPITAL—Resident House-Surgeon. Salary, £100 per annum, with board and furnished apartments. Applications to be made on or before the 15th instant.
- ST. ASAPH UNION—Medical Officer for the Llanfairtalhairn District.
- STIRLING DISTRICT ASYLUM, Larbert—Assistant Resident Medical Officer. Apply to James Maclaren, Esq., Medical Superintendent.
- WESTMINSTER GENERAL DISPENSARY—Physician. Applications to be made on or before the 20th instant.
- WESTMINSTER HOSPITAL—House-Physician. Applications to be made on or before the 20th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

- *CASSELLS, James Patterson, M.D., appointed Aural Surgeon to the Glasgow Royal Infirmary, and Lecturer on Aural Surgery in the Royal Infirmary Medical School.
- *LAMB, Joseph, M.R.C.S., appointed Medical Officer to the Post Office, Birkenhead.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

TUCK.—On October 2nd, at Seaford, Sussex, the wife of *Euckmaster Joseph Tuck, M.R.C.S., etc., of a daughter.

MARRIAGE.

RICHARDS, WILSON.—On the 4th instant, at All Saints', Bromsgrove, by the Rev. and Hon. Adolphus Massey, *J. Peeke Richards, Medical Superintendent of the Middlesex County Asylum, Hanwell, to Harriott Wilson, younger daughter of John Wilson, Esq., of Greenwich.

M. JEAN PAUBLAN has bequeathed ten thousand francs in aid of the movement now on foot in Paris for the nursing of new-born infants.

M. NOEL GUENEAU DE MUSSY has been made Officer of the Legion of Honour; and M. Denis Dumont, Physician to the Hôtel Dieu of Caen, has been made knight of the same order.

MEDICAL CORONER.—Mr. Wood, Surgeon, of Kirkby Moorside, who has been ten years Deputy Coroner for the North Riding of Yorkshire, was last week elected Coroner for the same district at Pickering, in place of the late Mr. Ness.

DR. BELL FLETCHER has presented to the Birmingham Art Gallery a picture by Guido of St. Sebastian, as a memorial of his gratitude to the borough for the great kindness he had experienced during forty years in Birmingham.

WESTMINSTER HOSPITAL MEDICAL SCHOOL.—The following gentlemen have gained the Entrance Scholarships, the examination for which were held on the 2nd, 3rd, and 4th instant: 1. Hibbert (Houldsworth, £100); 2. Walsh (£50); 3. Pratt (£20).

ST. MARY'S HOSPITAL MEDICAL SCHOOL.—The following gentlemen have been elected: Mr. R. H. S. Spicer to the Scholarship in Natural Science; Mr. J. B. F. Eminson to the Exhibition in Natural Science; and Mr. F. H. Butler to the Extra Scholarship in Natural Science.

OPERATION DAYS AT THE HOSPITALS.

- MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
- TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
- WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
- THURSDAY... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
- FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
- SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

- MONDAY.—Medical Society of London, 8.30 P.M. A short Address by the President, Dr. George Buchanan. Dr. P. M. Braidwood (Birkenhead), "On Pyæmia" (epitome of Fothergillian Essay).
- TUESDAY.—Pathological Society of London, 8.30 P.M. The following Specimens will be shown by—Dr. Wickham Legg: 1. Aneurysm of the Left Ventricle of the Heart; 2. Aneurysm of the Anterior Communicating Artery of the Brain; 3. Free Balls of Fibrin in the Left Auricle, with Mitral Stenosis; 4. Complete Obliteration of the Aorta. Dr. P. Irvine: 1. Destructive Pneumonia from Pressure on Bronchus; 2. Two Cases of Abdominal Aneurysm. Mr. Christopher Heath: Conclusion of Case of Cystine Calculi. Dr. Barlow: Aneurysm of the Anterior Cerebral Artery. And other specimens.
- THURSDAY.—Harveian Society of London, 8 P.M. Dr. William Squire, "On Cases of Acute Pneumonia in Children".
- FRIDAY.—Medical Microscopical Society, 8 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

- CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.
- AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.
- PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.
- CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.
- WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.
- COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

CHANCERY VISITORS.

SIR,—A few lines, if you will allow me, to say that my letter on the above subject in the JOURNAL of September 15th was neither intended as a complaint or accusation, but, as I said, to corroborate, as I thought, Dr. Winn's remarks in a former letter (date April 28th), which I beg to refer you to, and the questions which I put were intended for him to answer or not, which he did clearly and to the point. In the concluding editorial remarks which you have favoured me with, you seem, I think, to have quite missed the actual bearing of the question at issue, which I look upon as this: "Is it desirable or not that," as Dr. Winn says, "it should be in the power of a single visitor to send in a report, without any further reference to the Masters of Chancery or any appeal (as thought desirable by a writer on this subject in a former number of the JOURNAL), as it might lead to abuse, as it would be in his power to materially injure any proprietor against whom he had a prejudice?" Now the object of my letter was to bring forward a case which happened about five or six years ago, and which I thought tended very much to prove—from the very exceptional manner of the visit and conduct of the visitor—was an instance where there was such a bias or prejudice, not a personal spite: and my opinion is, that the visitor in question, in giving his report, trusted not so much to the actual facts he saw as he did to his preconceived prejudiced imagination. Whether I am justified in thinking as I do, or whether the visitor was justified, as you say, is not the question. The real question, as I take it, is whether it be desirable for the public, or fair towards the asylum proprietors, that a single visitor should have this power without any reference whatever; and it is a question of very great importance as affecting a great number of the members of our Association who are proprietors of asylums, and therefore I consider Dr. Winn deserves thanks for bringing this matter forward for consideration.—I am, yours obediently,

October 8th, 1877.

RESIDENT PHYSICIAN AND SUPERINTENDENT.

D. A. (Hull).—The Coroner's Court is an open one, and whoever feels interested in the evidence given has a right to attend.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

THE IDENTIFICATION OF PATIENTS.

SIR,—May I be allowed to call your attention to a practice, which is followed by some of the leading London and provincial medical men, which is injurious in its results, and entirely contrary to all professional rules? The practice I allude to is to be found in the relation of cases when the real initials of the patients consulting them are inserted in their reports in the medical journals, with their occupation, their position in life, and often the county in which they live. Such a practice is utterly wrong in hospital cases; but in recording the cases of private patients, who are well known in their own neighbourhood, and whose friends have access to the club to the medical papers, it is very injurious and annoying. Every patient has a right to expect that his case is as private in the hands of a leading London physician or surgeon as it is in the hands of his own medical man; and does not expect, because he happens to be a clergyman, a county J.P., a D.L., or a nobleman, that in the report of his case (often carelessly reported) his initials, his position, or his county, shall be publicly printed in the medical journals, which come into the hands of every medical man in his district, and often into the hands of his non-medical neighbours and friends. There are some leading medical men in London and the provinces to whom, from their following this practice, it is perfectly unsafe to send a patient.—I am, dear sir, yours faithfully,

ARTHUR JACKSON.

Sheffield, October 1877.

* * The practice to which Mr. Jackson refers is undoubtedly reprehensible. We apprehend that those who fall into it do so from negligence. We frequently in such cases strike out characteristic initials—indeed, whenever the necessity is apparent. But medical authors ought to exercise great care never in relating cases to identify their patients in any manner which could be disagreeable to them, or unless they have express authority.

THE NATIONAL FUNDS INSURANCE ASSOCIATION.

If the gentleman who in the number of the BRITISH MEDICAL JOURNAL for September 8th asked a question respecting the above subject, will send his name and address to the editor, he shall receive a reply, giving him the information of which he is in quest.

DR. J. G. DAVEY, of Northwoods, Bristol, forwards to us a pamphlet dated 1856, in which, in considering the subject of the defects in medical legal inquiries, he urges the appointment of medical arbitrators as assessors.

THE LATE SUSPECTED CASE OF POISONING IN COMBE-DOWN.

SIR,—In a notice of the late suspected case of poisoning in Combe-Down, in your paper of September 22nd, you state that "the presence of copper was not satisfactorily proved". If chemical tests have any value whatever, then not only was the presence of copper in the viscera of the deceased submitted to me for analysis proved, but abundantly and indisputably proved, and samples containing the copper produced in Court. These samples are still in my possession. It would have been more convincing had you pointed out the fallacy in the scientific evidence showing whether its unsatisfactory character rested either in the tests applied or in the method of applying them. Not being a medical man, I have not presumed to offer any opinion as to the cause of death, my only duty having been to search for the presence or absence of poison. In connection with this case, the following facts should be borne in mind.

1. A quantity of copper, equal in weight to .63 grain of cupric oxide, was extracted from those portions of the viscera actually analysed, giving a total of 4.36 grains for the whole of the viscera sent for analysis. This, it may be remarked, is certainly more than the few hundredths of a grain mentioned in your notice.
2. This amount could only have been a fractional portion of the total taken, as the greater part was expelled, probably by vomiting and evacuations.
3. The poison found was actually absorbed in the tissues, and was therefore in the system some days before death.
4. The collar of a night-dress, proved to have been one which the deceased wore during her illness, was stained with a salt of copper.
5. A bottle containing a salt of copper (not the one produced in Court) was proved to have been sent to the premises of the deceased, and to have been left there about May last. This bottle has entirely disappeared, the last person who owned to having seen it being the man who took it there.

Till these facts are satisfactorily explained, the case must at least be regarded as one of great suspicion, and worthy of the closest investigation.—I am, sir, your obedient servant,

J. W. GATEHOUSE, Public Analyst for the City of Bath.

36, Broad Street, Bath, October 1877.

* * We could nowhere find in any of the reports that copper had been obtained in the metallic state from any of the parts examined; and, considering the facility with which this metal may be separated as such if really present, we hold the analysis to be unsatisfactory. A greenish colour of the ash, and the production of a blue colour by the solution of a dark residue in ammonia, are neither sufficient nor satisfactory in a medico-legal case. Salts of nickel produce the last-mentioned reaction. Nothing short of the production of metallic copper should be relied upon. As to quantity, our correspondent intimates that he extracted only 0.63 grain. The 4.36 grains are based on an arithmetical calculation which may be right or wrong.

SIGMA.—1. We are not aware of any reputable American or Colonial Medical Schools which grant degrees to persons out of their own countries; and in any case, no such degrees would be recognisable in the United Kingdom. 2. A registered person is not required to pass the minor examination of the Pharmaceutical Society before carrying on the business of a chemist and druggist.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

INQUIRY WITH OUT INQUEST.

SIR,—Inquests without inquiry appear to be common enough; but where the inquiry, including a *post mortem* examination of the body, precedes the inquest, will you favour me with your opinion as to the legality thereof?—I am, etc.

October 3rd, 1877.

A MEMBER B. M. A.

. We do not understand the difficulty. Inquiry always precedes inquest, unless the facts are *prima facie* such as to call for immediate inquest. A coroner must ascertain by inquiry whether in any doubtful case an inquest is called for.

OUR attention has been called to a correspondence in the *Wrexham Guardian* relating to an inquest held on a patient who died at the Wrexham Infirmary from injuries received in a railway accident. Dr. Pearce, the coroner, called as witnesses the house-surgeon of the infirmary and another gentleman, a surgeon unconnected with the infirmary, but who had witnessed the accident in the first instance, and who had from time to time seen the deceased at the infirmary by courtesy of its officers. In explanation of this course, it is alleged that the coroner has a feud with the medical officers in the infirmary. We do not know how this may be; but, even if it may be true, it does not necessarily follow that it influenced the coroner in the course he pursued. But, in any case, it was obviously wrong and improper, if he needed other evidence than that of the house-surgeon, not to have called the visiting surgeon under whose care the patient was, and who performed the operation which his injuries necessitated. The strictures of "Observer" in the *Wrexham Guardian* appear, therefore, to be not uncalled for.

A CAUSE OF INFANT MORTALITY.

SIR,—Under the above heading I observed in the *British Medical Journal* for September 29th, page 454, that a child said to be fed on tops and bottoms, biscuits, arrowroot, oatmeal, cornflour, cow's milk, condensed milk, and aniseed, was said to be literally starved to death. If this by the way to cause starvation, I do not think I have ever known a child during my professional career that ought to have escaped death from starvation. I have always advised mothers who consulted me on the matter to beware of a diet of starchy food, but was not aware that farinaceous food, with milk included, was equally dangerous. The fact is, in my experience, that most children are fed much in the same way as the one referred to was said to be starved. I should be very much pleased if this letter causes some discussion on the very important subject of infants' feeding. In the meantime, with so many facts (plump infants) in my experience, I feel rather sceptical as to the above being at all a ready means of starvation.—I am, etc.,

L.R.C.S.

SIR,—On page 454 you say that cow's milk, arrowroot, and oatmeal are not proper food for children, and that a child was starved at Islington for want of proper food. My little girl is fed with the above-named articles and thrives very well. Will you be kind enough to tell me what better food I can give her? and you will oblige

Brecon, South Wales, October 4th, 1877.

A FATHER.

L. M. (Knottingley).—The following might answer the purpose stated. *Medicine: Handbooks of Aitken, Bristowe, or Roberts. Pathology: Handbook of Sieveling and Jones, revised by Payne. Midwifery: Playfair or Leishman. Therapeutics: Sydney Ringer, or Synopsis of Brunton. Forensic Medicine: Taylor, or Woodman and Tidy. Toxicology: Taylor, and Reese.*

A MILITIA SURGEON will see that the question was asked last week. If not answered, he had better write to the Secretary of the Branch in question.

HOMEOPATHIC PRACTICE.

ONE of the busy practitioners of Philadelphia has, by an odd coincidence, recently been called to three serious cases, all of which had previously been in the hands of homeopaths, and in each of which had been made a most stupid error in diagnosis. One of these cases was a nephritis of severe type, but which had not been recognised by the homeopath, who had not made a single examination of the patient's urine, which was found by the regular physician to contain three-fourths albumen. Upon questioning the patient's wife as to the diagnosis of the homeopath who had been treating the case over six months, he was told that "the doctor said it was sloughing of the liver and decomposition of the bowels". It never has been satisfactorily explained why it is that homeopaths, aside from their peculiar dogma, are generally so poorly educated in medicine. But this fact may explain the unwillingness of homeopaths when ill to be treated by one of their own school.—*Rector, Medical and Surgical Journal.*

E. R. D.—It would afford us great pleasure to do what is suggested, not only for one but for all the services; but the difficult problem is how to find space for such long lists.

JOHN O'GAUNT (Lancaster).—The presence of arsenic as an impurity in aniline dyes is, we believe, due to the use of defective methods and substances in the process of manufacture. It is not a necessary ingredient, but a frequent impurity.

PETROLEUM AS A PREVENTATIVE OF PLUMBISM.

SIR,—I have looked in to-day's *JOURNAL*, with some interest, for a theory to account for the alleged value of petroleum as a preventative of plumbism, as mentioned in the *JOURNAL* of September 29th. I have been in the habit of recommending small (5j) daily doses of Epsom salts to those who seem particularly susceptible to the poison, with the view of neutralising the lead as it enters the system; and in some factories I believe that it is the custom to have a supply of diluted sulphuric acid from which the men may drink. But if the petroleum should really prove reliable, I should be glad to spread the fact amongst the sufferers from this painful complaint.—Yours obediently,

J. B. E.

We are much obliged to Mr. Smithers for his communication.

MEDICINE FOR THE FACE.

SIR,—I would be very thankful to hear of the experience of others in removing moles off a lady's face. What is the best plan to secure the least disfigurement and mark during and after the removal? What are the respective advantages of nitric acid, a ligature, and scalpette?—Yours truly,

A MEMBER.

LEECHES.—According to *L'Union Médicale*, leeches may easily be kept alive by the following method. They should be placed in water, to which a solution of salicylic acid of the strength of three per cent. is added, in the proportion of thirty drops to the *litre* of water.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the *BRITISH MEDICAL JOURNAL*, should arrive at the Office not later than 10 A.M. on Thursday.

A DIET OF RICE.

SIR,—A gentleman living in this neighbourhood is very fond of rice, and lives on it to a great extent. During the last year or so, he has found his sight becoming worse; and, on mentioning it to a friend, he was told that it was in consequence of eating rice, and that giving rice to poultry caused them to go blind. Can any of your readers give any explanation of such an idea being entertained? and, as to the poultry, if there be any truth in the assertion?—I am, etc.,

Richmond, Yorkshire, October 1877.

THOS. CARTER.

DR. BOYD MUSHET (New Brighton, Cheshire) is desirous, on behalf of a brother medical practitioner, of obtaining the present address of Dr. Brown-Séguard.

A CENTENARIAN.

DR. D. E. FLINN of Brownhills communicates the following case of longevity which he lately met with in his practice.

"Mary Egerton, widow, mother of ten children (nine still living), the eldest being over eighty-one years of age, died at Brownhills, Staffordshire, on the 22nd ult., in her 110th year, in full possession of all her faculties. She was able to take part in household duties up to within ten days of her decease. Her age can be authenticated by three of her children, who reside in the immediate district.

IN reply to various inquiries which have been addressed to the office during the last few weeks, we are informed that Dr. Marion Sims's present address is 2, Rue d'Albe, Paris.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; The Derby Mercury; The Preston Guardian; The Scarborough Express; The Jewish World; The Scotsman; The Cork Constitution; The Freeman's Journal; etc.

. We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Braxton Hicks, London; Sir William Smart, Haslar; Dr. C. Theodore Williams, London; Mr. F. J. Harvey, Rochester; Mr. C. Steele, Clifton; Dr. W. B. Mushet, New Brighton; Dr. H. S. Purdon, Belfast; A Member: Dr. Russell, Glasgow; A Father; Osborne and Co., Woodhall Spa; Dr. Bacon, Fulbourn; Mr. Vincent Jackson, Wolverhampton; Dr. Francis Warner, London; Mr. J. W. Gatehouse, Bath; Dr. F. B. Atkinson, Edinburgh; Dr. R. Gooding, Blackheath; Our Dublin Correspondent; Dr. Cassells, Glasgow; Dr. D. E. Flinn, Brownhills; Mr. F. Vacher, Birkenhead; Mr. H. R. Gaskoin, London; Inquirers; Dr. Lloyd Roberts, Manchester; W. W.; Our Edinburgh Correspondent; Dr. N. Tyacke, Chichester; The Registrar-General of Ireland; Dr. W. Ogle, Derby; Dr. R. W. Batten, Gloucester; E. P. W.; The Registrar-General of England; M.; Mr. A. Napper, Cranleigh; Dr. Clifford Allbutt, Leeds; The Secretary of Apothecaries' Hall; Dr. Wallace, Liverpool; Our Paris Correspondent; Dr. J. Lloyd Roberts, Denbigh; Our Correspondent with the Army of Ahmed Mukhtar Pasha; Dr. Robert Saundby, Birmingham; Dr. Donovan, Ballinacoley; L. N.; The Secretary of the Medical Society of London; Mr. C. T. Aveling, London; Dr. Goldie, Leeds; Mr. J. V. Richards, Hanwell; Dr. A. R. Radclyffe Hall, Torquay; Mr. H. A. Satchell, Groombridge; J. B. E.; Dr. R. A. B. Lithgow, Wisbeach; Dr. W. V. Ireland, Larbert; Dr. Levinge, Stapleton; Rev. V. Edlin, Norwood; An Audacious Practitioner, Torquay; Dr. Tripe, Hackney; Messrs. Chapman and Co., London; Dr. Byrom Bramwell, Newcastle-upon-Tyne; Dr. Thin, London; Dr. D. Pike, London; Mr. W. W. Wagstaffe, London; Dr. H. K. Hitchcock, Lewisham; Mr. Arthur Cooper, London; Dr. George Shann, York; A Militia Surgeon; Mr. Thomas Carter, Richmond, Yorkshire; Dr. Clement Godson, London; Mr. Arthur Jackson, Sheffield; Dr. Walter Bernard, Londonderry; Dr. Robert Lawson, Banstead; Mr. S. R. Holdsworth, Wakefield; John O'Gaunt, Lancaster; Resident Physician Superintendent; Mr. E. R. Denton, Leicester; Mr. T. E. Amyot, Diss; Mr. F. J. Gant, London; Mr. Berkeley Hill, London; Dr. Gowers, London; Mr. N. A. Humphreys, London; The Secretary of the Medical Microscopical Society; Mr. Grant, Birmingham; Dr. Howard, Paris; Dr. Abercrombie, Bradford; Dr. Bourneville, Paris; Mr. Lardner Green, Salisbury; Mr. H. N. Smithers, Kirby Moorside; Mr. Groves, London; Dr. Elgar Buck, Leicester; Dr. John Dougal, Glasgow; Dr. Churton, Leeds; Mr. Manley, Brandon; Dr. Shepherd, London; Dr. Styrup, Isle of Man; Mr. Kent Jones, Vochriew; Associate, Landport; Mrs. Morgan, Cricklade; Mr. Wright, London; Dr. Lilly, Hatton; D. A., Hull; Dr. Joseph Bell, Edinburgh; etc.

BOOKS, ETC., RECEIVED.

Th *Philosophy of Laughter and Smiling*. Second edition. By George Vasey. London: J. B. Baillière, 1877.
The *Hair in Health and Disease*, partly from Notes by the late George Nayler, F.R.C.S. Eng. By E. Wyndham Cottle, M.A. Oxon., F.R.C.S. Eng. London: J. and A. Churchill. 1877.

AN ADDRESS

ON

THE PRESENT RELATION OF INSANITY TO THE
CRIMINAL LAW OF ENGLAND.*Delivered at the Annual Meeting of the Reading Branch of the
British Medical Association.**

BY W. ORANGE, M.D.,

Medical Superintendent of the Broadmoor State Lunatic Asylum ;
President of the Branch.

MERE depravity must be carefully distinguished from actual mental disease. The term moral insanity is, I think, better avoided in a criminal court of law. In almost all forms of insanity, as Esquirol long ago pointed out, the moral faculties become impaired, more or less; and, in some cases, the impairment of the moral faculties is disproportionately greater than that of the intellectual faculties. Moral perversion also is sometimes the earliest noticeable symptom of the invasion of insanity; and it is often also found, strongly marked, in some members of a family, of which other members are actually insane. In forming his diagnosis, the medical witness must then give to moral perversion its due weight as a symptom. But, unless connected with such moral perversion there be found other distinct evidence of mental impairment, it would appear to be better to speak of absence, or defect, or obliteration of the moral faculties, and not to make use of the term insanity at all. The proper mode of dealing with persons who are apparently bereft of all moral qualities forms a separate subdivision of the subject of criminal science.

Moral depravity, it has been said, cares not for law; moral insanity cares, but cannot obey; but then, even if this were admitted as a correct definition, it might still be urged that such inability to obey arises from defect of judgment, or of will, or of self-control, and that therein consists the insanity.

As the law now stands, however, the medical witness is usually not permitted to place his opinion before the court in the manner above described, but is required to answer a certain set of queries; and thus, if the case be one of homicide, he will be asked probably—1. Whether the accused knew that the act of stabbing, or shooting, or whatever it may be, would produce death; 2. Whether his state of mind was such that he did not know that it is wrong to kill; or 3. Whether, if he be suffering from a delusion, it is a delusion of such a character that, if it were true, the act of killing would be justifiable. With regard to the first of these questions, it has already been observed that, only when raving delirium or utter dementia is present, is there real unconsciousness of the act done. Such an instance occurred lately in the case of Robert Edwards, who, whilst an inmate of the Norwich Hospital, killed three boys, who were also inmates, by striking repeated blows on their heads with a pair of tongs in the middle of the night. That man was shortly afterwards removed to Broadmoor, and he is there still, in a state of acute insanity. It is probable that, at the time of getting out of his bed at night and killing the boys, he had no distinct or clear idea of what he was doing; but cases of this description are the exception; and, in the majority of cases, the person knows quite well whether the act he is committing is likely to cause death or not.

The second point, namely, whether, at the time of committing the act, the person knew that it was a wrongful act, is one which is not so easily settled. We have already seen how greatly dissatisfied some of the most eminent legal dignities in the country are with this "test", as it is called; but, as it still exists, it must be dealt with, and the medical witness must be prepared to give a definite opinion with reference to its application to the particular case under investigation. If this test be applied in its full strictness and according to the plain meaning of the words, the opinion of Lord Justice Bramwell is, as we have seen, that hardly anybody is really mad enough to come within it. If, however, the words are not taken in their strict and plain sense, it would be difficult to assign any limit to the extent to which legal ingenuity is capable of enlarging them. Indeed, the mode in which this test has been explained by some writers is such as to make the knowledge of right and wrong equivalent, to all intents and purposes in effect, to the power of

refraining from the act in question; that is to say, to the power of controlling conduct. I do not, however, think that the knowledge that an act is wrong in the ordinary sense is by any means the same thing as the want of power in consequence of mental disease to refrain from doing it. If, upon the last occasion of being spoken to previously to the commission of the offence, and also upon the next occasion following after the offence, the accused person is believed by those who have seen him and spoken to him to have been in a state to understand the nature of the deed done by him; as, for example, in all those cases, and they are very numerous, in which the accused himself gives information of the act done by him, it can be only a matter of speculation or inference on the part of the witness, and not a matter of fact, if he testify that, in his belief, the power of appreciating the nature of the crime was absent at the exact time of its commission. Such an opinion appears to be based upon this manner of reasoning—I believe the accused, from his history and from my examination of him, to be insane; I know that insane persons constantly do commit acts as the result of their insanity, which, at ordinary times, they know to be wrong; I assume that they would not commit such acts if they knew, at the moment when thought was passing into action, that the act was wrong; and I, therefore, arrive at the conclusion that the accused did not know that the act committed by him is wrong. That is to say, instead of ascertaining as a fact, in the first place, whether the person knew right from wrong, in order from that fact to deduce the presence or absence of legal insanity, this method reverses the order of things, and ascertaining, in the first place, by some independent method, that the person is insane, it argues that, because he is insane, therefore, he cannot distinguish right from wrong in the same manner as a sane man would. Surely, it is better to abandon such an obsolete test than to apply it thus.

The next point in the existing legal tests is the presence of delusion. This is a most important symptom of insanity, and it should be searched for with the greatest perseverance and care. But the existing law expressly declares, as we have seen, that the existence of any number of delusions is not sufficient to render a person irresponsible unless they are of such a nature that, if true, they would justify the commission of the act. This legal dictum supposes that an insane man is able to think and act reasonably with respect to his delusions. What shall we say, then, of those cases where a man kills his wife and children under the insane delusion that they are likely to die from want because he believes himself to be ruined? Even if he were absolutely ruined, that would be no justification for killing anybody, if he were sane. And yet we find, over and over again, juries returning a verdict of not guilty on the ground of insanity in such circumstances without a moment's hesitation. These cases are very common, but a marked example occurred last year. A clerk in a house of business in the city, thinking that he could improve his position, resigned his situation. His schemes failed, and he became more and more embarrassed in circumstances. He worked early and late, but he could earn little; he became anxious and worn, his sleep became fitful, and, at last, he sank into a state of melancholia, and the idea constantly presented itself to his mind, that his only way out of his difficulties would be to kill his wife and children and then himself. For many nights, he awoke soon after midnight, after a short and troubled sleep, and this thought was always present to his mind when awaking. At last, the thought was transformed into action. He rose early one morning, first killed his wife, then one of his children aged 7, then he attempted to kill two other children, and lastly he made an unsuccessful attempt on himself. Some days previously, he commenced a letter hinting at what he had in his thoughts, and he finished it directly after he had killed his wife and child; and this latter portion of the letter contained these words: "I would never have done it, if I had not thought to put them all in heaven before I went to hell." At his trial, the judge charged the jury in the usual terms, and finished by saying that, even at the risk of appearing to sun up against the prisoner, he must tell them that it was not enough for them to be satisfied that the prisoner was insane, but that he was so insane as not to know what he was doing, or, if he did, that he did not know he was doing a thing contrary to law. The jury, without any hesitation, found the prisoner not guilty on the ground of insanity. The man was, and is, unquestionably insane and irresponsible; but, in the face of his letter, begun some days before the act, and finished immediately after it, in which he writes about going to hell, it is difficult to see how, in the ordinary acceptation of the words, it could be said that he was ignorant that to kill is wrong; and assuredly, although he had other delusions, he was not under the delusion that his wife and child were going to kill him. It would be easy to multiply, almost indefinitely, instances of this description, in which juries have acquitted persons manifestly insane, yet whose insanity did not come within the strict legal definitions.

* Concluded from page 511 of last number.

The true value of the existence of delusions as a symptom of insanity is the evidence which they give of a grave defect of the reasoning faculties. If there are many delusions, and if they are of recent origin, they afford evidence that the faculty of judgment is acutely deranged; whereas, if the delusion be limited to one, or to a few closely kindred subjects, and if it be of long standing, it perhaps is possible for a person so afflicted to be capable of exercising fair judgment upon matters not immediately connected with the delusion. Still, wherever it is possible to demonstrate the connection between a known delusion and a criminal act, it is satisfactory, to the jury at any rate; and this connection can be found more frequently with time and patience than might be anticipated.

In the case of the American surgeon, who shot a man in the streets of London about four years ago, the connection between the delusion and the act was very strikingly marked, although this connection was not made out at the trial. The poor man, who was the victim, was on his way to his work at the Lion Brewery, between three and four o'clock in the morning, when he was suddenly shot dead; his assailant firing four times at him. His assailant then gave himself up quietly to the police, saying that they would soon find out that he was quite justified in what he had done. After he became an inmate of Broadmoor, he gave me a most vivid account of the matter, from his point of view. He was under a delusion that he was the victim of a conspiracy, and that his enemies had determined to slowly torture him to death by sending one of their number into his bedroom in the middle of the night to wake him out of his sleep. He provided himself in consequence with a revolver, which he took to bed with him, intending, as he said, to shoot his persecutor whilst actually in his bedroom. He woke up with a start, in the usual manner during the night, and imagined that he saw his persecutor at the foot of his bed; but, before he could lay his hand on his revolver and take aim, he thought he saw the man pass out through the bedroom door. He followed as quickly as possible, and fancied he saw the man on the staircase; but, again, before he could aim, the man had, as he thought, passed down to the next flight. He still followed, and again he thought he should have been successful in shooting his persecutor at the front door, but again he was too late. Still following the image that his delusion had conjured up, he rapidly opened the front door, and, on the opposite side of the street, he saw a man, whom he immediately shot.

In a case which was tried at Maidstone in 1875, and which obtained some notoriety in consequence of the strong summing up of the judge in favour of a conviction, but in which the jury returned a verdict that the man was insane, there was also a very close connection between the man's delusions and his act, although here again the connection was not clearly ascertained until after his trial. The man had killed a fellow workman in the Chatham Dockyard by splitting his skull with an adze. After the man became an inmate of Broadmoor, he told me that, some years before, he had received the Holy Ghost; that it had come to him like a flash; that his own eyes had been taken out and other eyes like balls of fire had been substituted. This, by the way, was doubtless a slight epileptiform seizure. He went on to say that, after this, he was able to see people when they were not there, and that he could tell whether they wanted to "make him go down to the grave". He said he often felt very ill, as if he were losing his senses, and that sometimes he could tell who it was that made him feel so, and sometimes he could not. Upon the day when he killed his fellow-workman, he suddenly felt severe pain in his head. His eyes told him that it was his mate who caused this, and he struck him dead. There was no doubt whatever that the man was quite mad, and he is now steadily going on towards a state of paralytic dementia.

In this case, had it been possible before the trial to ascertain the close connection which existed between the man's delusion and his act, and to make the point clear to the court, I cannot think that any doubt would have been felt in returning a verdict; but it must be remembered that the exact bearing of any delusion can often only be ascertained with certainty through the statements of the accused himself; and, when, either on account of increasing dementia, or from any other cause, the accused is disinclined to enter into conversation, the point must necessarily remain in the region of conjecture and probability. Still, it would appear from the case just cited and from numerous other similar cases which might be adduced if time permitted, that the absence of direct proof of the connection between any delusion and any insane act ought by no means to be interpreted as being equivalent to evidence that no such connection exists.

Turning now to another point, it must be noted that the absence of sufficient and adequate medical evidence of insanity laid before the court not infrequently leaves the judge no alternative but to pass sentence, even in opposition to his own better judgment. But happily there exists, even then, a last resource by which justice may be done,

through the intervention of the Secretary of State. As an illustration of the kind of cases in which the Home Secretary is called upon to consider the advisability of recommending the reprieve of the sentence of death, I will ask your permission to lay before you very briefly the particulars of a recent case of this nature in which I was engaged. A woman of the labouring class killed another woman who lived in an adjoining cottage by striking her on the head with a shovel. There was no evident motive. No one was near at the time, and there was no evidence, either that there had, or had not, been a quarrel. At first, the perpetrator of the act was not discovered; but the next day she accused herself. She said she had often thought of killing the old woman, her neighbour, and at last she did it. It was ascertained that there had been an alteration in her conduct for some time, but her relatives were too poor and too ignorant to take any proper steps for her defence. She lay in the gaol from January till April, when she was tried. At her trial, it was given in evidence that during this interval she had fallen into a dull lethargic state, taking little notice of anything and evincing no interest whatever in her approaching trial. The counsel assigned by the court to defend her elicited that she was forty-five years of age, and that there had been no appearance of the catamenia in gaol; but that, at intervals about a month apart, she had been unusually restless and irritable and unable to sleep. She persisted in saying that she killed her neighbour, or, as she termed it, that she "hit her", and, upon her own confession, she was convicted and sentenced to death. The judge then reported the case to the Home Office, with an expression of his opinion that a further medical examination was desirable. In conjunction with Dr. Briscoe, the medical inspector of prisons, I was instructed to visit her. We found that she was suffering from climacteric insanity of a most pronounced and decided character, and that she was wretchedly haggard, worn, and emaciated. Her weight was only eighty-eight pounds. We had no hesitation in certifying that she was unquestionably insane. She was admitted into Broadmoor Asylum a few weeks later. It was then evident that death was rapidly approaching. Shortly after her admission, she was attacked with convulsions, which lasted almost uninterruptedly for twelve hours; and, although she then rallied somewhat, her general condition gradually deteriorated. At each recurrence of the monthly period, corresponding to the time at which the catamenia would have appeared, convulsions returned; and she died a few days ago during one of these periods. Her brain is here, and it shows the lesions resulting from subacute meningeal inflammation, together with the highly congested condition of the vessels which accompanies mania occurring upon the cessation of the catamenia. In this case, there was abundant material upon which very conclusive evidence of insanity might have been founded and submitted to the court. The unfortunate woman was poor, and her friends were ignorant. Had it been otherwise, and had judicious medical aid been invoked when an alteration in her conduct was first perceived, at the time of the cessation of the catamenia, it is not a little encouraging to reflect that, in all probability, her condition would have proved amenable to remedial measures, and that thus the sad act which this poor creature committed would have been averted, as well as her own sad end. It is in instances like this that the connection between the science of medicine and those diseases of the brain and nervous system which lead on to insanity is strikingly seen. But, in all other forms of insanity whatsoever, it is equally certain that this connection exists, although it may not always be so apparent, and although the medical art may not always be equally powerful for good.

You, gentlemen, who are engaged in general practice amongst the population at large, could tell me more about the early symptoms of insanity than I can tell you. Suffice it for me to say that no diseases are more interesting than affections of the brain and nervous system, which, when unchecked, lead on to mental alienation; nor, I believe, are there any in which early and judicious medical aid, commenced, it may be, in childhood, and steadily continued through adolescence and adult life, is more fruitful of good results. To no class of diseases, indeed, are the words of Ovid more appropriate—

"Principiis obsta. Sero medicina paratur
Cum mala per longas convaluere moras."

HASTINGS.—Mr. Ashenden reports that during the last quarter there had not been any death registered in the town from small-pox, measles, or scarlet fever, or in the corresponding quarter of 1875. A few cases had occurred, but they had been either judiciously treated at their own homes or isolated in the sanatorium. Several houses had been inspected, and the necessary orders for cleansing, etc., been issued, all of which had been obeyed. The annual birth-rate was 28.8 and the death-rate 16.8 per 1,000 population, so that the public health of the town may be considered satisfactory.

CLINICAL LECTURES

ON

THE VARIETIES OF PHTHISIS.

*Delivered at the Hospital for Consumption and Diseases of the Chest, Brompton.*By C. THEODORE WILLIAMS, M.A., M.D., F.R.C.P.,
Physician to the Hospital.

LECTURE II.—ACUTE TUBERCULOSIS AND ACUTE TUBERCULO-PNEUMONIC PHTHISIS.

GENTLEMEN,—The second acute variety of consumption which I wish to bring before you is acute tuberculosis, the most fatal of all the forms of phthisis, which, while it is characterised by the outburst of tuberculation in the various serous membranes and in the parenchyma of the lungs and of various other organs of the body, displays so little of the localised features of phthisis, and so many of the general symptoms of the infective fevers, as to be classed by one authority,* not as a variety of phthisis, but as a fatal complication of the disease. Acute tuberculosis, however, only differs from other forms in the area of the system involved; the pathological products are identical with those of the more chronic varieties of phthisis, and it is the completeness of the self-poisoning, as I would call it, *i.e.*, the omnipresence of tubercle in the system, which gives to this form its characteristic features.

A patient is attacked with pyrexia, with cough and scanty viscid expectoration, with extreme oppression and overwhelming weakness, the symptoms much more resembling those of continued fever than of consumption. The tongue becomes red, with brownish centre, the bowels are costive; the appetite is entirely wanting; the skin becomes hot, the temperature ranging from 103 to 106 deg. Fahr., sometimes even higher, and less marked by remissions than in scrofulous pneumonia; the urine is scanty and high coloured; the pulse is rapid, varying from 120 to 140. Sordes appear on the lips and teeth. But the most prominent feature is the marked dyspnoea, the respirations being 40, 50, and 60 a minute; and even the countenance testifies to the obstructed state of the breathing. The patient wastes rapidly, and is often delirious.

Physical examination of the chest shows marked resonance over the anterior surface, and a lesser degree of the same over the posterior surface. The natural respiratory sound is everywhere replaced by bronchitic rhonchi and fine crepitus, the latter, though fine, being more scattered in character than the crepitation of croupous pneumonia. In spite of all remedial measures—and a long list of strong ones is generally tried on these unfortunates—the breath grows shorter and shorter, the face and nails become livid, the prostration increases, clammy sweats break out, the sounds in the lungs become more and more liquid, the patient grows weaker, and dies, often of apnoea, owing to the great pulmonary obstruction. When death supervenes in this way, the temperature falls considerably some time previously, and a morning record of only from 95 deg. Fahr. to 96 deg. Fahr. is often recorded, though the evening one keeps up to the last.

Frequently, however, other organs besides the lungs are attacked, though generally secondarily to the lungs. The patient complains of severe headache, is seized with vomiting, becomes excited and delirious; has twitching of the extremities, squinting and double vision, though not necessarily any loss of power; the pupils are somewhat contracted. Ophthalmoscopic examination shows the fundus oculi to be congested, and sometimes detects granulations. Then follow the symptoms of effusion into the ventricles; the pupils are dilated, the patient becomes comatose, passes motions under him, and cannot pass water, which has to be drawn off, or, on the other hand, he passes it unconsciously, and he gradually sinks, the temperature falling rapidly before death, and the pulse becoming very weak. Or the abdomen becomes the seat of mischief. Diarrhoea sets in, accompanied by vomiting and marked tenderness, the diarrhoea being uncontrolled by any kind of treatment; the tongue is red and glazed, the pulse rapid, the temperature very variable, emaciation continuous, and thirst great. The stools are loose, and sometimes contain blood, and we have the symptoms of ulceration of the intestine with or without peritonitis.

Post mortem examination of cases of acute tuberculosis shows the lungs disseminated with fine miliary tubercle, grey and white, the

granulations being generally soft and easily squeezed out, showing their recent formation. Sometimes they are aggregated and present centres of caseation, and sometimes, where the outburst is extensive, the lungs seem to be packed full of these nodules, so as to offer the appearance of consolidation. In these cases, the intervening tissue is hardly visible, and section of the lung shows a greyish surface with numerous yellow centres. When, however, it is visible, we find a great variety of conditions in different patients. In some, it is in the stage of simple engorgement; in others, in that of red hepatisation; in others, again, it is highly emphysematous. The pleura is the seat of fine glistening granulations, and the bronchial glands are swollen and hardened, while under the microscope we distinguish in all these lesions a large amount of adenoid hyperplasia. Where the symptoms have indicated abdominal complications, we find fine granulations scattered throughout the peritoneum and its various processes and involutions, especially on the under surface of the diaphragm, in the great and small omenta, and on the peritoneal surfaces of the liver, pancreas, and spleen. In the intestine, we may find fine miliary tubercles in the solitary glands and in Peyer's patches standing forth in bold relief from the mucous surface, or more commonly the well known tuberculous ulcers of various sizes and shapes, with thickening of the peritoneal coat in their neighbourhood.

Where tuberculosis has involved the meninges of the brain, the appearances are very characteristic. In addition to flakes of lymph on the hemispheres, fluid in the ventricles, and softening of the adjoining structures, we find granulations, varying in size from a pin's head to a millet-seed, sprinkled over the surface of the pia mater and its various and numerous processes, the choroid plexus, etc., and invading the optic disc. The hemispheres are gorged, and there is considerable arachnitis and effusion of lymph at the base of the brain, and especially in the neighbourhood of the circle of Willis, the fissure of Sylvius, and the longitudinal fissure, and following the course of the vessels.

Acute tuberculosis is sometimes primary, sometimes secondary. It supervenes on various fevers, on old scrofulous disease of various organs, or on chronic phthisis. We have lately had a good instance of this last form—*viz.*, acute tuberculosis, supervening on chronic phthisis, in which the brain was the seat of outbreak, and, as the notes have been most carefully recorded by my clinical assistant Dr. Ritchie, it will be profitable to give the case in full.

Anne Charlotte D., aged 17, single, by occupation a teacher, was admitted into my wards on May 1st, 1877. *History.*—Subject to winter-cough for years. Cough continuous now for six months, accompanied at first by yellow expectoration, night-sweats, and emaciation. For the first four months, she suffered from dyspnoea.

On admission, she complained of great lassitude. Her aspect was pale, but she was not very thin. Cough hacking, rather troublesome, and with little or no expectoration. Tongue coated; bowels regular; appetite fair. Catamenia absent for four months. Pulse 80. *Physical Signs.*—Dulness existed over the whole left chest, most marked over the upper half, which was somewhat flattened. Cavernous sounds were audible from the first to the third ribs; scattered crepitation was heard below and also over the whole posterior region on the left side. Tubular sounds in the first interspace on the right side. Weight 7 st. 2 lbs.

The evening temperature was taken on May 3rd and 4th, and each time found to be 101 deg. Fahr. The temperature was noted five times daily—*viz.*, at 8 and 11 A.M., and 2, 5, and 11 P.M.—the observations being taken in the mouth, and continued for eighteen days, from May 11th to May 28th inclusive. The course was somewhat irregular, and, on the whole, more febrile, the evening observations ranging from 98 deg. to 101 deg. Fahr., but rarely above 100 deg.; the morning, especially at 8 A.M., falling to 98 deg., 97 deg., 95 deg. Fahr., and on one occasion to 93 deg. Fahr.

During the first month of her stay in the hospital, with the exception of diarrhoea lasting two days and slight hæmoptysis, she improved and gained three pounds in weight, and became stronger. On May 22nd, while the temperature was still low, the blood was examined microscopically, and found to contain large granular masses varying in size from three to seven times the diameter of a leucocyte. The leucocytes and the red globules were normal.

June 18th. She continued to gain weight; but her cough was worse and expectoration had increased; dry crepitation with friction-sounds were audible over the lower left front chest.

July 17th. Patient gaining flesh, and cough not so troublesome; expectoration slight. She complained of severe headache. *Physical signs.*—More flattening on the left side. Cavernous sounds were audible in front as before; but, posteriorly, coarse crepitation was heard over the upper half and gurgling at the angle of the scapula. Right side quiet. The blood was examined; no granules could be detected.

* Dr. R. Douglas Powell, *Pulmonary Consumption.*

The patient complained of great pain in the lumbar region of the spine, and there has been slight menstrual discharge.

July 23rd. The patient still complained of headache and sickness, and had vomited several times. The temperature had risen slightly, being at night 100 deg. Fahr. The patient's manner was strange and variable; sometimes very apathetic and at other times excited and violent, and occasionally she was incoherent. She complained of pain in the cervical region. She slept a good deal. Tongue white and indented; appetite bad; bowels open; pulse 100; urine passed involuntarily. No photophobia. Pupils normal and responded to light. Ophthalmoscopic examination showed nothing abnormal in the fundus oculi.

July 24th. She had been delirious for three hours in the night, muttering and singing; was now semi-comatose and recognised no one. No photophobia; pupils normal; jaw clenched, and she apparently had dysphagia; was fed by nutritive injections. Uneasy twitching of the hands. Six leeches were applied to the back of the neck, and a soap injection administered. The leeches drew well, and the patient also had epistaxis. The bowels acted freely. Pulse 120; respirations 45.

July 26th. The patient was better, and took nourishment by mouth freely. She was quite conscious, and recognised everybody. The blood was examined, and contained granules and granular masses in abundance.

July 28th. She was delirious, and had had no sleep. The urine was passed as before. Pulse 135; respirations 40; bowels open.

July 30th. She was constantly muttering to herself and picking at the bed-clothes. Last night, she was much excited and bit her hand. Consciousness was decidedly less. The conjunctivæ were less sensitive; the pupils variable, but for the most part dilated. Jaws firmly closed. The patient could not be roused from stupor. Bowels open. She took food. Pulse 140. Ordered four leeches to the neck.

July 31st. Free bleeding from the leeches was followed by a short sleep. The patient was extremely restless and constantly moaning. She vomited once. She took food, and the bowels were open. Ordered ice-cap to the head.

August 1st. She had convulsive twitching of the muscles of the neck and face, with some lividity. She was sensible at times to-day, and put out her tongue when required to do so. She took liquid food; slept very little, and her face was always turned to the left. The bowels were not open. The abdomen was tympanitic. She vomited this morning.

August 2nd. She was moaning and almost entirely unconscious. The pupils were dilated and responded very little to light. The urine was drawn off; its specific gravity was 1025; it was acid, and contained no albumen or sugar. The conjunctivæ were hardly sensitive.

August 3rd. She appeared more unconscious; had had several convulsive attacks; these consisted of a drawing down of the angles of the mouth and a contraction of all the muscles attached to the hyoid bone. The respirations varied greatly in number, and were attended by moaning, and sometimes by a gurgling sound. When spasm came on respiration almost ceased. The chest-movement was very slight; little or no air passed in and out. The spasms lasted about fifteen seconds; the muscles then relaxed and breathing became rapid and shallow, with slight flapping of the dependent cheek.

August 4th. She was more comatose; the convulsive attacks were more frequent; the pupils were dilated; a shallow ulcer had appeared on the right cornea. The urine was passed involuntarily, but the bladder was not distended. The labia majora were enlarged. She died at 3.50 P.M. of coma.

The temperature record, which was carried on five times a day as far as practicable, did not, even in the periods of great excitement, manifest any marked rise; the few high temperatures were apparently occasional and very fitful in occurrence. The course was, as a rule, normal, occasionally subnormal. The average of the ten days preceding death was as follows:—8 A.M., 98.8 deg.; 11 A.M., 99.6 deg.; 2 P.M., 99.9 deg.; 5 P.M., 98.9 deg.; 9 P.M., 99.4 deg. Fahr.; the maximum being 102 deg. Fahr., the minimum 97 deg. Fahr.

Autopsy, six hours and a half after Death.—Permission could only be obtained to examine the brain. The calvaria were thin; the convolutions were flattened; the superficial vessels were congested; both ventricles contained slightly turbid fluid, not exceeding an ounce in quantity; the septum lucidum and commissures of the third ventricle were softened and almost diffident; the puncta vasculosa were very distinct. The pia mater at the base of the brain contained numerous fine granulations, especially the processes in the longitudinal and Sylvian fissures. The granulations were about the size of a pin's head, and crowded close on each other; the arachnoid was thickened and very opaque. In the neighbourhood of the pons Varolii, there was a thick layer of plastic lymph completely concealing the basilar artery and circle of Willis and all the structures contained therein. Processes of the

lymph could be traced in the Sylvian fissures; the lymph-masses in the transverse fissures joining formed a well marked process, which extended for about two inches along the middle line of the cerebellum, on its upper aspect.

This patient exhibited a larger amount of cerebral disturbance than I have usually noticed in acute tuberculosis, and this may be accounted for by the hemispheres and medulla being early affected, as shown by the delirium and stupor preceding the convulsive twitching of the extremities and spasms of muscles which are generally referred to affection of the membranes. The loss of consciousness was gradual, and great improvement followed the first application of leeches, which unfortunately did not appear when the experiment was repeated. The temperature is worth notice; for, though Dr. E. Long Fox,* in his admirable *Clinical Observations on Tubercle*, states that the temperature in meningitis seldom rises above 102 deg. Fahr., many physicians hold that the supervention of tubercular meningitis necessarily raises the temperature very considerably. In this case, we have during the period of greatest excitement a record very little above normal and often below it.

In most of these patients, the supervention of meningitis is very obscure, and twitching of the muscles, with a certain degree of stupor, are the only symptoms to draw attention to the important change. In one case under my care, the first symptom was bladder-paralysis, which continued to be the sole indication for some days of brain-mischiefs, though the usual impairment of sensation and convulsions followed at a later date.

Acute tuberculosis, when secondary, may be considered to arise from some infective centre in the system, whether a caseous mass in the lungs or in some gland, or a vertebral abscess, or an ulcerating intestine, or necrosis of some bone, as in the bones of the skull after scarlet fever, and resembles in its origin pyæmia, though it differs very greatly from that disease.

The diagnosis of acute tuberculosis is not always simple, as it is sometimes mistaken for typhoid fever, and sometimes, on account of the early physical signs, for capillary bronchitis. From the former it is separated by the development of the lung phenomena, from the latter by the higher temperature and the progressive emaciation.

The prognosis is hopeless. The duration varies from a few days to a few weeks. This is true of acute tuberculosis, but I do not intend to include under this heading the duration of chronic consumptive cases, in which tuberculosis suddenly supervenes, as here the date of the tuberculosis, and not that of the primary symptoms of phthisis, should be regarded as the beginning of the fatal illness. The mode of death varies greatly in many patients; where the eruption of miliary tubercle in the lungs is rapid, death takes place by apnoea through pulmonary obstruction; in others, where diarrhoea comes on, death occurs by exhaustion; and, where tubercular meningitis appears, coma closes the scene.

The treatment must be that of symptoms, as we know no agent to stem the tubercular outburst. The dyspnoea may be relieved to some extent by measures calculated to relieve congestion, such as linseed and mustard poultices, and by ether and ammonia draughts. The meningitis and cerebral congestion admit of temporary relief by leeches and by blisters; but it may be safely stated that we can only comfort the patient, and not arrest the disease.

Acute tuberculosis contrasts in the following points with the subject of our last lecture; viz., scrofulous pneumonia. 1. In the dyspnoea; 2. In the absence of expectoration; 3. In the physical signs; 4. In the smaller tendency to breaking down of the pulmonary tissue; 5. In the fact of other organs, such as the meninges of the brain and the peritoneum, becoming affected.

The third acute variety is *acute tuberculo-pneumonic phthisis*, which may be described as a link between the first two varieties—scrofulous pneumonia and acute tuberculosis—as it presents some of the clinical and pathological features of each. It resembles the latter in so far that tubercularisation takes place rapidly in the lungs, and sometimes involves other organs, as occasionally, the intestines; it resembles the former in the fact of a pneumatic process being also present, and excavation soon following on consolidation. The pathological differences it presents when compared with the other acute varieties are:—1. The tubercle is aggregated and tends to rapid caseation; 2. The cavities are formed by the breaking down of tuberculous masses in the lung, and not, as in scrofulous pneumonia, through a breaking down of the pneumatic products. Whilst, however, excavation is taking place in one part of the lung, fresh tubercularisation may be proceeding in another, and total disorganisation of the pulmonary area soon takes place.

After death, we find in the lungs large tracts of catarrhal or croupous

* *St. George's Hospital Reports*, vol. iv, p. 87.

pneumonia surrounding small and large racemose masses of aggregated tubercle. These masses are generally more or less yellow in colour from the process of caseation, and present in some parts excavations of evidently recent date. Scattered miliary tubercle is generally present, though the aggregated form is more commonly met with. In this variety, we find occasionally ulceration of the intestines and the presence of tubercle in the solitary glands; but the serous membranes are free.

The clinical symptoms may be described as those of chronic tubercular phthisis in an exaggerated form. The cough is very troublesome, and is early accompanied by large expectoration; anorexia is generally present; the tongue varies, but is sometimes red and irritable in appearance, and, as may be seen in the following case, diarrhoea often occurs. The pulse is rapid, varying from 100 to 130, and the respirations are hurried and count between thirty and forty.

The temperature is distinctly pyrexial, with occasional but rare periods of collapse, the high figures being maintained more uniformly towards the end than is the case in scrofulous pneumonia, the reason probably being that excavation is accompanied by fresh tubercularisation even during the last weeks of the patient's life.

Let us take an instance of this form.

Maurice A., aged 22, married, was admitted into the South Branch of the Brompton Hospital on April 7th, 1874.

History.—He had lost several maternal aunts, of phthisis. He had suffered from general weakness and prostration for eight months, and for the last four had had cough, with expectoration, accompanied by loss of flesh and night-sweats. He complained of pains in the back and indigestion after meals. His aspect was very anæmic; cough troublesome; expectoration mucopurulent; tongue furred; appetite moderate; weight 9 st. 7 lbs.

Physical Signs.—Dulness, flattening, and cavernous sounds were detected on the right side as low as the fourth rib.

April 30th. He had gradually become worse; the temperature and pulse had risen and the appetite had fallen off. He had lost three pounds in weight. In addition to the above signs, crepitation was audible under the left clavicle, and tubular sounds in the second intercostal space. He was transferred to the main hospital and confined to bed.

May 8th. The cough was worse; the temperature, which was taken five times a day, was 100 deg. Fahr., except at 8 A.M., when it fell to 98.4 deg. Fahr.; the respirations were 30; pulse 104. The crepitation-sounds had increased in extent on the left side, and cavernous sounds were audible below the fourth rib, on the right side.

May 24th. He had wasted considerably. Slight diarrhoea came on yesterday, there being two or three loose motions in the twenty-four hours. The temperature was somewhat higher, being 101.2 deg. Fahr. at 8 P.M. Respirations 102; pulse 120.

June 4th. The bowels were still relaxed, motions passing twice a day. There was œdema of the left foot; no albumen in the urine.

June 17th. Weight 8 st. 4½ lbs., showing a loss of 1 st. 4½ lbs. since April 13th. He complained of much pain under the right nipple; the skin was perspiring. *Physical Signs:* On the right side, dulness was present over the upper half; dry cavernous sounds to the fourth rib; croaking sounds below. On the left side, tubular sounds were audible over the upper fourth in front; marked dulness over the upper two thirds.

June 22nd. The breath had become very difficult; aspect pale and anxious; tongue red, furred in the centre. Pulse 120; respirations 48. Crepitation was audible over the whole right side. The left leg was swollen and œdematous. There was a lump in the pleopit space, tender on pressure, due probably to plugging of the vein.

This patient died on the 26th. Below are the averages of the day temperatures from 8 A.M. to 12 P.M., taken for a period of about three weeks.

SUMMARY.	8 A.M.	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Averages	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4	99.4
No. of observations	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Observations were hourly taken during the night on two occasions, and the result was, that the temperature was maintained at 100 deg. Fahr. until about 7 A.M., when a distinct fall commenced, reaching as low on one occasion as 96 deg. Fahr. The greater part of the observations were, however, high.

Autopsy, twenty-four hours after Death.—Both lungs were somewhat collapsed. The right lung weighed 2 lbs. 11 oz., and was firmly adherent; the upper lobe was completely excavated; the lower and middle lobes were consolidated, with aggregations of miliary tubercle in which centres of softening were visible; the middle lobe contained a cavity of recent formation. The left lung weighed 2 lbs. 5 oz.; the pleura was adherent; the upper third was consolidated, with aggrega-

tions of miliary tubercle caseating in parts, with some small cavities, one the size of a walnut. The lower lobe contained a few grey aggregations, the rest being in a state of red hepatisation. The liver, nutmeggy, weighed 4 lbs. 7 oz. Intestines: The solitary glands of the ileum were caseous; some had broken down and formed ulcers; the cæcum was a mass of ulceration.

This case only lasted altogether six months and a half, and it may be safely affirmed that the principal changes in the lungs and intestines took place during the two months and a half the patient was under observation in the hospital. The tubercularisation of the left lung, the pneumonia of the lower lobe, the fresh miliary tubercle in the right, and the rapid extension of the cavity, were all noted during the last few weeks of life, while the regular thermometric record enabled us to compare this phenomenon with the lung-changes. The high temperature so continuously maintained was probably due to the various and successive fresh crops of tubercle being formed, and the diarrhoea to the ulceration of the cæcum, though, considering the extent of surface involved, it is remarkable that the flux was not more profuse. The prognosis in most of these patients is gloomy, as the lung-disorganisation proceeds generally to utter destruction; but, in some instances, the fever diminishes and the tubercular masses remain quiescent, during which time the patient regains strength and flesh, and may live on in a precarious state.

TUBERCULAR MENINGITIS.

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THE subject of tubercular meningitis has become invested with some special interest at the present moment by the recent Penge case, and, without presuming to offer any opinion upon the facts, far too few in themselves, observed by the medical witnesses at that trial, it is possible that a further knowledge of the clinical symptoms attached to some undoubted cases of tubercular meningeal disease in adults might engage the attention of medical practitioners.

In a previous clinical lecture upon the same subject published in the JOURNAL of January 22nd, 1876, page 97, I directed notice to two hundred and sixty-seven well authenticated cases of this affection placed in a table, from which it became easy to infer the relative frequency of the disease at different periods of life. Of those cases, 25.8 per cent. occurred in children under five years of age, 17.2 per cent. befell children between six years and ten years of age; between the ages of eleven and fifteen years, the disease became exceedingly rare, 7 cases only out of 267, or 2.6 per cent., only presenting themselves; whereas between sixteen and twenty years of age 31 cases were recorded, and, again, a similar number between the ages of twenty-one and twenty-five, or at both periods of life respectively, 11.6 per cent. Furthermore, as life advances, not only are the symptoms attached to the disease far less distinct than when it occurs in childhood, but the malady begins and pursues its fatal course with singular insidiousness, and is frequently misunderstood even by well experienced medical men until the autopsy reveals its true nature.

The following cases which I have collected together establish my statement.

CASE I.—In June, 1867, a young woman between nineteen and twenty, comely, well nourished, fair-skinned, but having rather coarse black hair, was admitted by one of my colleagues into Faith Ward. She complained of various aches and pains. Headache was her chief trouble, and she appeared generally nervous and excitable. She had walked to the hospital from some little distance; was fatigued, answered questions precisely and rationally, but was brusque to rudeness in her manner. There was no account of vomiting; no constipation, no irregularity of pulse; but her temperature was 102 deg. Fahr., and this important fact determined her admission. She walked upstairs without assistance; became drowsy directly after getting into bed; but was easily roused up by the nurse to take her nourishment, which she swallowed without difficulty. Six hours later, she was found in a state of profound coma, out of which she could not be stirred, and, thirty hours after her admission, she died.

POST-MORTEM EXAMINATION.—The body was more than usually plump. There was a large amount of fat about the heart. Extensive pericarditis was found on both surfaces, presenting layers of thick butter-like lymph. Several whitish fibrinous bodies, like warts or papillary growths, stood out from the muscular substance of the heart, growing apparently from interfibillar hyperplastic connective tissue roots that were deeply interpolated between the muscular bundles of the ventricular walls. Microscopical examination of them showed

identity of structure with ordinary tubercle-growths; they consisted of small cells and fine granules closely packed together. The convolutions of the brain were slightly flattened; some excess of clear serum existed in the ventricles. Granulations were found upon several vessels of the choroid plexus, with some lymph attached here and there to their surfaces. There was lymph also in the subarachnoid spaces upon the upper surface of the brain. The base of the brain was the seat of extensive fibrinous lymph-exudation, especially in the cleft of both Sylvian fissures.

CASE II.—William Fuller, aged 45, a fire engine-driver, was admitted under my care in Radcliffe Ward in 1867. He was a spare, sallow-complexioned, black-haired man, with flushed face and injected ferret conjunctivæ. He had been ill for a few days only, complaining of pain in his head and being feverish, wandering in his talk at night, and being excessively prostrate. Three nights previously to his admission, he had driven his engine to a fire, and had been out all night and drenched to the skin. At my examination of him, he was clear and precise in his account of his illness, which he attributed to a feverish cold; but his manner was nervous and excited; his answers to all my questions curt and ill-tempered. His skin was hot (102 deg. ?); tongue furred and dry; pulse quick, 108, but regular. There were some mucous râles in both lungs, but no evidence of pneumonia. The heart-sounds were clear; the abdomen was not full or tender; the urine was scanty, containing no albumen. He had no appetite, and was not very thirsty; he vomited what he drank. Typhus was at that time epidemic in London, and his case was suspected to be fever; but no rash was observed, and no diagnosis was made.

On the same night, September 27th, the patient became violently delirious, and was with great difficulty restrained in bed. On the 28th, he was seen by Mr. Wood, our resident apothecary at that date, who ordered a large blister to the nape of his neck. He was believed to have complained of pain at the back of the head and of stiff neck. He became comatose, and died the following morning. The *post mortem* examination discovered general tubercular meningitis, with tubercle in the lungs and other viscera. The only notes I possess of the case are very imperfect, but not wholly without value.

CASE III.—James Reed, 29, cook on board a steamboat, was admitted under my care in Luke Ward on November 12th, 1868. He was a thin, small-made, sallow-complexioned man, with lank brown hair and a razor-ridged nose. *History.*—The patient had been complaining for eight weeks, with loss of appetite, constant inclination to vomit, frequent sickness, and supraorbital headache. He had emaciated much, but still had been able to work a little up to three weeks before his admission.

Condition on Admission.—He was thin and feverish; the tongue was furred in patches and inclined to be dry; he had a foul taste in the mouth; the bowels were constipated, the abdomen retracted, the skin dry; urine high-coloured, scanty, specific gravity 1032, non-albuminous. The right testicle was swollen, hard as a stone, but not tender, and entirely painless. He had not noticed when it first became enlarged, but thought it had been so for some weeks. The heart-sounds were feeble, but normal; the respirations hurried; no moist sounds could be heard over the lungs; there was increased resonance over the left thorax. The nights were sleepless; intelligence was perfect; temperature 100.5 deg. (?) The real character of his nights was ascertained after he had been in a few days: he was restless the early part of the night, then slept heavily for an hour or two, and woke up complaining of his head; he frequently remarked upon his headache being aggravated by sleeping and by lying on his left side. *Treatment.*—He was ordered milk, lime-water, and ice, and a simple enema to open his bowels.

The testicle was carefully examined by me, and formed the subject of some clinical remarks; it felt hot and hard; the epididymis chiefly was the seat of enlargement; examined by candle-light, it was seen to be no hydrocele; it was not simple inflammatory orchitis. He was aware of no blow or injury that had provoked it; there had existed no previous urethral discharge. In size it was scarcely more than half as large again as the left or sound testicle, and the enlargement was not general, or the induration of that stony hardness which usually betokens scirrhus. Further, the inguinal glands were enlarged solely upon the affected side, and were neither so hard as syphilitic, nor so large as cancerous glands usually are. Against the hypothesis of cancer was the absence of pain and tenderness. Against syphilitic gummata was the feel of the testicle and the situation of the enlargement. Syphilitic growths commence usually in the interstitial substance in the body of the testis, between the seminal tubules; they spread to the periphery and protrude the tunica albuginea at some one prominent spot. Tubercular disease begins usually as an epididymitis that spreads from the wall of the vas deferens inwards; at an early stage, the epididymis

feels hard, swollen, and clay-like, but it is some time before the body of the testis is implicated. Exceptionally, I am aware that tuberculous disease may originate in the interlobular structures of the body of the testis; it would then be difficult to distinguish from syphilitic disease. The history, the slow progress, the absence of pain, the local heat, the small tenderness, the situation of the principal enlargement, all favoured the diagnosis of tubercular disease of the testis; and the general symptoms—the fever, the headache, the vomiting—indicated some secondary deposit of tubercle in the substance of the brain or its membranes.

Course and Progress.—Three days after admission, a thick, yellow, slightly blood-stained discharge came away from his right ear; there was no pain or tenderness, or sign of inflammation in the external meatus; the headache appeared temporarily relieved by this discharge. The discharge, which amounted to from half a drachm to two drachms in the twenty-four hours, continued; and it was observed that he was freer from pain and vomiting when it was more abundant. A week after his admission, the testicle began to give him pain; indeed, as the pain in the head subsided, the pain in the testicle began and increased. The intellect remained clear; the appetite continued indifferent; the temperature usually between 100.5 deg. and 102.5 deg.; pulse regular, 96, small; bowels costive. He felt giddy upon attempting to rise up suddenly; but this passed off, and he was able to get out of bed without help. He was usually sick, once daily, early after his breakfast. Subcutaneous injections of morphia were administered on most nights.

The following notes were made on December 14th:—His appetite improved; he had eaten a mutton chop; the tongue was cleaner; he slept better; he had not vomited for two days; the testicle remained in the same state; there was a continual slight purulent discharge from the left ear; pulse 108.

December 17th. He was feebler and more drowsy all day; but could be roused, and then answered questions rationally; he recognised and spoke to his wife, and got out of bed by himself.

December 22nd. He was completely insensible since early in the morning; pulse 84, irregular; the mouth was slightly drawn to the left side. He was believed by the nurse to have had a fit, though there was no distinct evidence of his having been convulsed. The sphincters were relaxed; no reflex movements were excitable.

December 23rd. He remained in an unconscious state; but swallowed mouthfuls of fluid well and easily. Reflex movements of both arms and legs were excitable. The abdomen became tympanitic, and he gradually sank and died, without having recovered consciousness, on December 25th, the morning of the third day from that on which he had lost consciousness.

The *post mortem* examination showed general tubercular meningitis, an excess of turbid serum in the ventricles of the brain, which escaped upon its being opened; adherence of the Sylvian fissures; tubercular lymph at the base of the brain; the brain-substance very soft, in parts almost diffuent. The cerebellum was firm, but containing three distinct globular tubercular masses of greenish yellow colour, each about a quarter of an inch in diameter. The left lung was the seat of extensive military tubercle scattered generally throughout its substance; the pleura was universally adherent; the epididymis of the right testicle was much enlarged and breaking down throughout into caseous pus; some portions of the body of the testis were becoming involved in the degeneration.

REMARKS.—Although very imperfectly recorded in my own notebooks, I attach much value to this case, illustrating as it does the insidiousness of the cerebral symptoms in a very remarkable manner. Looked at pathologically, the cerebellar masses and the tubercular disease of the epididymis might have been of about the same date. The lung-mischief and the meningeal must both, I think, have begun after his admission into the hospital. But here was a man able to stand and help himself, although feeble, rational, with no paralysis of motion or sensation, possessed of faculties of sight and hearing (the latter having been only partially affected upon the left side) to within three days of his death.

CASE IV.—Maria Mason, a general servant, who had been hard worked, was admitted on September 18th, 1875. She was a careworn woman, with an antero-posterior spinal curvature; there was some thickening in the lumbar region, prominence of spines of the lowest dorsal and first and second lumbar vertebræ, and tenderness upon deep pressure over them. Her face was flushed and her manner excited. She had been supported, but not carried, upstairs. Her temperature was high. There were abundant flea-bites over her trunk, and some few raised spots, that were supposed by some who had seen them to be pathognomonic of typhoid fever. Her tongue was dry and furred, and there were sordes both upon her lips and teeth. It is only fair to state that she was admitted as a case of typhoid fever. The account given

by her friends was that she was strange in her head, had been slightly delirious at night for some two or three nights, and had talked nonsense by day as well; that she took very little food and vomited frequently. Her own account of herself was given me with much precision: she remembered dates and facts accurately; and, as I found afterwards, her history of her past and present illness corresponded with the accounts given by those with whom she had lived.

She had been laid up in her situation for more than a week, but had had no diarrhoea: her chief complaints had been pain in her head and back, and almost constant sickness after every kind of food; her catamenia had been irregular for some months. She was aware that her back was rather bent, and that she stooped in consequence of it, but was sure that this had only taken place in the course of the last eighteen months. She had been housemaid to a family where a good deal of water had to be carried upstairs for baths; and a year and a half previously she had fallen upstairs while carrying two heavy water-cans, and then strained her back severely. She was able to continue at her work that same day, but was shortly afterwards laid up with pain and tenderness in her back; and then left her place, returning home to her mother's house, where she was laid up in bed for three months. During those three months, she was paraplegic; and her account of this paraplegia was as precise as could be; thus, first she had hyperaesthesia in the right leg, then loss of power of motion in the same leg; and, within a few weeks, the same sequence of events occurred in the opposite limb, although the ultimate loss of motor power in this left leg never was so complete as it had been in the right. For three months, she was quite unable to stand or lift herself, and at night-time her legs used to wake her up by their involuntary startings. Her sphincter ani never was affected, but she was occasionally unable to retain her urine.

After complete rest in bed, without doctor or physic, but with the most careful nursing upon the part of her mother, she gradually recovered power, first to move herself, and then to stand, and finally to walk. She obtained another situation, and had held this for twelve months, working very hard up to the commencement of her present illness. Curiously enough, as showing family predisposition, she had a sister suffering with chronic spinal disease.

Examination of the Patient.—She lay chiefly upon her back, I was told; but was rather curled up upon her right side when I first saw her, and nearly always afterwards assumed this posture by preference. She moved very little, but had complete capacity of motion, and perfect sensation in both arms and legs. There was slight ptosis of the upper eyelid of the right eye: her eyesight, she said, was bad; but she saw and correctly described objects upon the opposite wall of the ward. Both pupils were of equal size, and reacted naturally to light; the conjunctivæ were red and injected. There were occasional twitchings of the facial muscles. There was no fulness or tenderness of the abdomen, which was rather empty; no increased dulness over either liver or spleen. She had slight occasional cough, but no abnormal chest-sounds. The heart's action was regular, its sounds clear. She complained to me of a feeling of constriction across her chest, and of dull heavy pain in her occiput and down the back of her neck. Pulse 104, regular; temperature 101.6; respirations 23. Vomiting, headache, nape pain; previous (strumous?) vertebral disease; the nature of the fever; a morning temperature of 100.8, an evening of 101.6; no symptoms of typhoid fever, except continued fever with night delirium; no evidence of pneumonia—these things, taken all together, guided me to the opinion I gave that the case was probably one of tubercular meningitis, the tuberculosis being secondary to some caseous pus collection in connection with her former spinal disease. The treatment consisted of milk, essence of beef, and one drachm of bromide of potassium every six hours.

Course and Progress.—September 19th. She had passed a quiet night; had had no vomiting. Fluid nourishment had been taken at frequent intervals of time in small quantities, and was well supported. Urine occasionally passed in her bed; but she appeared at once aware of this, and called the nurse's attention to it. There had been one action of the bowels, loose, dark coloured. The lips were dry and peeling; tongue red and dry. Morning, pulse 96, regular; temperature 101.4; respirations 20. Evening, pulse 105, regular; temperature 102.4; respirations 36.

September 20th. She had had a restless night; her mental condition was unaltered. She answered questions correctly. The skin was dry and harsh-feeling. The bowels acted once daily; the motion was dark and loose. Morning, pulse 110; temperature 101; respirations 40. Evening, pulse 96; temperature 101.4; respirations 32.

September 21st. Her posture was unchanged; she was quite constantly lying upon her right side, and curled up, resting her head upon her right hand, and complaining of pain at the back of her neck when her head was moved. She answered questions deliberately, though

not always correctly, forgetting recent things. When asked to show her tongue, she did so. There was more marked ptosis of the right eyelid, with increased secretion from the eyes. The pupils were equal, and equally sensitive. She swallowed what food was given her easily and well, but would not attempt to feed herself. The tongue was dry; the bowels acted once *per diem*; urine passed chiefly unconsciously under her. Morning, pulse 100; temperature 101.2; respirations 24. Evening, pulse 99; temperature 102; respirations 40.

September 22nd. Simple semiautomatic acts, like putting out the tongue and taking nourishment, were fairly well performed, but no more complex intellectual acts. The patient lay in a drowsy, half-dreaming state, in which she occasionally muttered. She groaned when disturbed. The skin appeared hypersensitive to impressions of cold or touch: the slightest touch of the soles of the feet was responded to by the drawing up of her legs. The eyelids were much gummed together, but she was still able to open the left; she did not appear to see with either eye. There was no reflex movement when her eyes were rapidly approached with a finger. She was restless, tossing about the limbs, throwing off the bedclothes, and clutching and picking at the coverlet. No action of the bowels had taken place. The urine passed involuntarily. Morning, pulse 100; temperature 101.6; respirations 60. Evening, pulse 105; temperature 100.6; respirations 30.

September 23rd. She was not quite so drowsy nor so restless. The tongue was cleaner and less dry. Nourishment was taken more readily. She had no sickness, and opened her eyes. The ptosis of the right lid was scarcely noticeable; vision doubtful; abdomen more sunken; any movement of the head was followed by evident signs of pain. Morning, pulse 104; temperature 101.4; respirations 30. Evening, pulse 100; temperature 99; respirations 36.

September 24th. She remained in the same semicomatose state. The pupils were dilated, not reacting to light. The eyelids were half open. Occasional movements were made by all her limbs. She was setting aside imaginary objects with her hands; but these motions were tremulously performed and badly coordinated. The muscles and tendons of the hands were twitching much when I held her hand to count her pulse. She mumbled indistinctly to herself when roused, and called out sharply when her pillow was moved. Pulse 120; temperature 98.8; respirations 30.

September 25th. The coma became more profound; swallowing impossible; the breathing quicker, and at times catching and irregular; the pulse irregular, and scarcely perceptible at the wrist. A slight convulsion shortly preceded death.

At the *post mortem* examination, twenty hours after death, old caries of the second lumbar vertebra was discovered, with a collection of caseous pus upon its anterior aspect. The spinal cord had evidently been compressed in some measure by this old abscess, and the sheath of the cord still bore distinct marks of pressure-thickening in this situation. The cord itself was here very soft, and easily broken down; but there was no evidence of recent disease visible either in the cord or theca. Scattered miliary tubercle was found in both lungs, and in the sheath of the bronchi, but no extensive deposits; also in the kidneys. There was abundant lymph at the base of the brain, with matting together of the nerves; some excess of fluid in the ventricles, but no flattening of the cerebral convolutions, and therefore little compression.

There remain two more cases to narrate and some remarks to append, which must stand over for a second communication.

A CASE OF STARVATION.

By THOMAS ELLIOTT, M.D. Dub.

THE difference and diversity of medical opinion exhibited in the Penge case induce me to record the following case, which I trust may interest such of the readers of the BRITISH MEDICAL JOURNAL as notice medico-legal questions. It was not alleged, in this case, that the deceased had not received food; but it was clearly proved at the coroner's inquest that it had been insufficient. For five or six months, though she complained at times to her husband of not having enough to eat, she remained in this sad plight; and when at length relief from the parish official came, it proved to be of little avail. It not being a case of acute starvation, the *post mortem* examination did not reveal anything particular beyond the extreme emaciation.

Ann G., aged 57, a married woman, was admitted from South Nor-manton into the Mansfield Union about 6 P.M. on Thursday, September 27th, 1877. Being extremely deaf, it was impossible to elicit any history of the case from her. As gleaned from the coroner's inquest, it appeared that, her husband being short of work, they had lived in a destitute condition for five or six months, and she had been without

sufficient and proper food, her diet consisting of bread and milk, tea and sugar, and occasionally a little butter. On the 13th September, relief, consisting of four pounds of bread, one pound of sugar, one ounce of tea, and one pound of rice, was given her by the relieving officer of her district. Again, on the 20th September, further relief—bread, tea, sugar, meal, milk, and meat (three pounds)—was given her; and on the 27th September she was removed into the workhouse by order of the Board of Guardians. Her condition at my visit the following morning was as follows. She was very feeble; her eyes and cheeks were sunken, the bones projecting, and the whole body greatly wasted—in short, only a framework of skin and bones. As stated before, she was extremely deaf. This deafness had existed for years, as subsequently learned. Her mental powers appeared to be tolerably clear, as in reply to a question she correctly informed us she came from South Normanton. When leaving her home, she said to her husband, "I shall go to the union; you must keep on the house, and if I get better I shall soon come back". There was no paralysis. Her heart and lungs were apparently healthy. There was no cough. The abdomen was so sunken that the abdominal aorta, near its bifurcation, could be plainly seen thumping against the parietes. Examination revealed no cancerous or other disease. The pulse was somewhat quickened, but full; the tongue red and parched. There was no difficulty in breathing or swallowing. When food was given, she ate and drank ravenously. The bowels were costive.

Diet.—Four ounces of bread and butter, with three-quarters of a pint of tea, had been given her the previous evening on admission; and for breakfast this morning she had had the same amount of bread and butter with a pint of tea. She was ordered, in addition to this, as much milk as she could take, two eggs, four ounces of rum (at her own request), and a little mutton, if she could take it; but this she could not.

Sunday, September 30th. She was much weaker, and inclined to sleep a good deal. The bowels were moved. On Tuesday, October 2nd, she was very much weaker, apparently falling into a state of coma. She died early on Wednesday morning, October 4th.

The *post mortem* examination was made on Thursday, October 4th, twenty-eight hours after death. Rigor mortis was well marked. There was extreme emaciation, but no external mark of violence or injury. The height of deceased was 5 feet; and weight, 46 lbs., or 3 stone 4 lbs. The *abdomen* was first examined. The parietes were extremely thin, with almost an entire absence of fat; and the muscular tissue was pale and wasted. The omentum contained but little fat, and was transparent. All the abdominal veins were very full and prominent—in fact, were congested. The stomach was pale, and contained about four ounces of partly digested food in a fluid state. There was nothing remarkable about its coats. No disease or stricture of the pylorus existed. The intestines were pale, and required to be removed carefully, as at parts they were easily torn. The duodenum internally was abundantly stained with bile. The small intestines contained a little chyle, and the large intestines semiliquid feces. No disease could be detected in either small or large intestines. The liver was healthy and of a fair size. There was plenty of bile in the gall-bladder. The spleen was small. The kidneys were healthy, and suprarenal capsules absent. The bladder was empty and healthy; the uterus healthy, three inches in length; os uteri patulous, with muco-gelatinous fluid exuding from it. The right ovary was a small, hard, nodulated tumour, apparently the result of fibrous transformation; and on section, which was with difficulty made, was found to contain a little thick brown secretion. The left ovary was a cyst of about two inches in diameter, filled with a light brown fluid, and having upon its external surface several small membranous cysts, and also a small warty or cauliflower growth, which cut like cartilage. The aorta was free from aneurism or other disease. *Thorax.* The heart was small; its right ventricle contained fluid venous blood; the left ventricle was contracted, and contained a large firm clot. There was no valvular disease. As regarded the lungs, there were old pleuritic adhesions on both sides. The lungs were otherwise tolerably healthy and free from tubercle. The *oesophagus* was free from stricture or other disease. *Head.* No inflammation of the membranes was found; but there was effusion on the surface of the brain, and the veins were full and prominent. The effusion was of a slightly milky hue, most likely due to the albumen in the fluid. There was no sign of recent or old lymph, of pus, or tubercle. No flattening of the surface of the brain was present. The brain-substance was tolerably firm. The lateral ventricles contained a little fluid.

REMARKS—In arriving at a conclusion in this case, we are not much helped by the *post mortem* examination, beyond the fact that it did not reveal enough in any organ to account for death. The effusion on the surface of the brain, as judged from the general appearance and *ante mortem* symptoms, was looked upon as mere oedema of the mem-

branes, and but the sequel of the case—the secondary, but not the primary, cause of death. The emaciation and previous history alone remain to guide us; and we are, therefore, forced to the conclusion that it was a case of malnutrition, or, in common parlance, chronic starvation.

WHY DENTAL CARIES IS SO GENERAL, AND HOW TO PREVENT IT.*

By ALEXANDER STEWART, F.R.C.S.ED.

I HAVE endeavoured in this short paper to show that dental caries has but one proximate cause, and can be largely, if not altogether, prevented by means so readily available that they would no doubt come into general use if generally known; and, as the condition of the teeth now enters, or ought to enter, into the consideration of every case of chronic constitutional disease, the general prevention of dental caries is obviously a subject of great practical importance. It should, I think, find a place in every medical text-book; as dental works are not in the hands of the profession generally, and treating fully the cure of dental caries by operative means, they give scant space to its prevention. Further, its operative cure being delegated by them to dental practitioners concerns medical men but little, whereas its prevention as a matter of hygiene concerns them greatly.

Knowing, from former experience in medical practice, that the medical attendant is frequently consulted in cases of toothache—cases of children and those who are unable or unwilling to go to a dental practitioner—and that they, therefore, have great opportunities of inculcating the necessity of prevention; and that the medical officers of hospitals, dispensaries, and other public institutions where cases of ill-health from chronic toothache are daily observed have still greater opportunities, I have been induced to bring this subject before the Association by the hope of making the members allies in spreading a knowledge of the preventive means I recommend, as they are simple and rational, and have for years been advised by me in the special treatment of the teeth, with unflinching effect.

In recent dental works (Tomes's *System*, 1873, and Sewill's *Guide*, 1876), the chemical origin of dental caries—the destruction of the calcareous enamel by acidity—is fully discussed and acknowledged; and all who are engaged in treating the teeth have daily evidence of its truth. The following proofs of the solution of the calcareous salts of the teeth by the acids to which they are exposed in the mouth are taken from the works I have named. Some teeth placed in a cider-cask disappeared entirely. The enamel of teeth kept for two years in a solution of lactic acid (1 to 100), and of citric acid (1 to 1,000 of water) had become friable and easily reduced to powder. Fluid containing ordinary food was found to produce effects precisely similar in appearance to caries of teeth in the mouth, acetic and other acids being formed by decomposition. Teeth placed in water containing a small quantity of saliva with fragments of bread became softened in twenty days. With solutions of sugar, the naked-eye appearances of dental caries were exactly imitated; the solutions acquired a distinctly acid reaction.

Mr. Tomes discusses the subject at length in an appendix, and fully proves his conclusion, "that dental caries is an effect of external causes in which so-called 'vital' forces play no part, and that it is due to the solvent action of acids".

The chief sources of the acids that destroy the teeth are: the fermentation of food left on and between them after meals; acid drinks; some articles of food, as fruit, cooked and uncooked, salads, pickles, etc.; mineral acid mixtures; acid mucus from the gums; acid saliva from pregnancy and diseases of the system; acid fumes in some processes of manufacture, etc.

Premising that some few have teeth with enamel so dense that it is almost indestructible, that it is more often so thin and permeable as to be readily destroyed; and that most teeth, being unequally enamelled, have one or more parts of their surface thinner than the rest, and so the first to be acted on, I shall introduce a few cases and observations from my note-book showing the action on the teeth of acidity from some of the abovenamed sources.

Mrs. M., aged about 40, in somewhat delicate health, with teeth remarkably beautiful in shape, colour, and arrangement, had suffered from facial pain of a neuralgic character for some months. Warm and cold liquids in the mouth brought on paroxysms; and all the teeth, but more especially the upper incisors, were sensitive to cold

* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Manchester, August 1877.

air. They had been carefully examined by others, but no caries was found, nor could I detect it anywhere at first. Knowing, however, that the teeth are rendered sensitive by acids directly applied to them, I inquired whether she was in the habit of taking any; and being told that, having had lemon-juice prescribed for her general health with advantage, she had continued ever since to put a slice of lemon in her mouth at night, keeping it in contact with the palate and backs of the upper front teeth till about to fall asleep, I was led to examine these teeth behind more carefully, and found underneath the slightly congested gum, where caries is extremely rare, an elongated carious cavity in the neck of every front tooth, unseen till I pressed up the palatal gum. The highly sensitive condition of the teeth showed that the enamel had everywhere been permeated by the acid, and the dentine—the second defence of the nerve-pulp in its centre—acted on.

Captain G. consulted me on July 30th about his teeth, several having broken up within the last two years, when all were apparently sound. The cavities were characteristic of the action of acid applied directly to the teeth, the dentine much softened before the enamel gives way. I found that, when at sea, he took an ounce of lime-juice in water every day, without rinsing his mouth after it, or any other precaution; and, on telling him that the acid had destroyed his teeth, he replied: "Then that is why all sailors have bad teeth."

On my monthly visit to an orphan school, the first Saturday in May of the present year, several of the children were brought to me on account of toothache since my former visit, whose teeth were found, on examination, apparently sound. As the pain had not been severe, or frequent, or lasted long, I suspected that some acid had readily passed through defective enamel to the dentine and nerve-pulp; and, on inquiry, I found that rhubarb had formed part of the school diet for two or three weeks, and that the children brought to me were very fond of it.

Toothache is supposed to be more frequent in winter than in summer; but such is not my opinion, cold in winter producing, I think, fewer cases than the acid of summer fruits.

On May 25th, this year, Mr. P. consulted me about his upper front teeth, which, having been very fine, had become dull and flattened, the enamel looking as if a file had been used on it. The teeth, he said, were covered over with a thick whitish substance every morning; and, although he had brushed them as usual, I found patches of most adhesive mucus on them near the gums of an acid reaction, and, on its removal, the enamel it adhered to was as described. He had long suffered from dyspepsia.

I have since seen a similar case of corroded enamel by acid mucus; and, if its accumulation in many diseased states, as fever, be considered, it must be set down as a not infrequent cause of caries, being secreted between as well as on the teeth.

Acidity, gastric and salivary, common in pregnancy, is destructive to the teeth. Histories of the loss of one or two in every pregnancy are familiar to us all; but many more are lost from this cause than are ascribed to it, as the acidity then prevailing may permeate the enamel generally and sow the seeds of future destruction: the teeth breaking up, often several about the same time, so long afterwards, that their loss is not attributed to pregnancy.

The destructive effects of mineral acid mixtures on the teeth are of daily observation. They become deteriorated in colour, and, in most cases, sensitive to changes of temperature, not only when cold or warm drinks are taken, but when cold air is breathed—so sensitive in some, that I have had to advise a respirator to be put on before going from a warm into a cold atmosphere. They are also rendered sensitive to articles of food that are either sweet or somewhat sour. Sooner or later, caries shows itself, the dentine being generally extensively softened by the loss of its salts before the enamel breaks in. From mineral acids, as from the acidity of pregnancy, it may be so long before the teeth break up, that prescribers have not the opportunities dental practitioners have of observing the injurious effects of acid medicines on the teeth.

On July 24th, two patients called my attention to their teeth, which, formerly very transparent looking, were now dull and comparatively dark. One had taken mineral acids largely for two years; and, besides the discoloration of the front teeth, the molars had almost disappeared. The other, whose teeth had become deteriorated in colour since I examined them six months before, had been taking nearly ever since not more than ten drops of sulphurous acid in water three times a day; apparently the mineral acids were still present.

On July 25th, Mr. W. consulted me about the loss of his upper molar teeth. The enamel had broken in, and the dentine was so completely softened that, but for the nerve-pulp, it might readily have been picked out, leaving only the enamel standing. I inferred that only some acid directly applied could have produced so much softening, and

learned that two years ago he had taken for a lengthened period very strong acid medicine from a homœopath now deceased.

Cases of opaque-looking discoloured enamel, with sensitiveness of the teeth, are frequent from a strong acid having been used to hasten the removal of tartar through ignorance or want of principle in the operator.

As the ordinary expedient of a glass-tube is seldom used so effectively as to prevent the acid reaching the teeth, other means must be used to prevent its ruinous effects on them; and, being confident from long experience that the neutralisation of the acid by a weak alkaline solution is invariably effective, I hope the time may soon come when every prescription containing an acid will be accompanied by an injunction to rinse the mouth immediately after every dose with a solution of the kind.

The form I have always recommended is a teaspoonful of bicarbonate of soda and a tablespoonful of eau de Cologne in a quart (a wine-bottleful) of water, a little hot water being added, if required, to warm the small quantity poured out for use. This is agreeable, easily remembered, and readily renewed. In hospital and dispensary practice, and by the poorer classes, a small piece of camphor may replace the eau de Cologne, and will serve quite as well to make the solution agreeable. This or some similar solution should be used to rinse the mouth, at least every night at bedtime, but better after every meal, whenever there is a suspicion of acid acting, or having acted, on the teeth, and may be relied on to preserve those that have not been permeated; and I think that dentinal softening of recent origin and small extent may be arrested by its continued use. It should be used several times a-day from the commencement of every pregnancy. The mouth should be rinsed with it not only after every dose of mineral acid medicine, but also as soon as possible after acid fruits and whatever tastes acid in the slightest degree.

In cases of serious illness, when the teeth are likely to be invaded by acidity from various sources, it may be possible to use it as a preventive when the tooth-brush cannot be used; and in addition to it when it can. And, as it is more than a preventive of caries, often sufficing to keep threatening cavities quiet till they can be treated by operative means, it will be found so far serviceable during pregnancy and illness.

The toothache of childhood, arising chiefly from acid-forming farinaceous and saccharine food, is very amenable to an alkaline solution as a mouth-wash frequently repeated, and such should be used regularly after meals whenever the temporary teeth show signs of decay, it being most important that they be preserved till the period of replacement.

The general prevalence of dental caries is chiefly owing to food remaining on and between the teeth after meals—from breakfast-time till the following morning, when, according to custom, the teeth are brushed; brushed, but probably not cleaned, as the brush is more often used to polish the surface merely than to assist in removing what has accumulated between them. Experiments have been referred to that prove the solvent action of weak acids on the teeth; and I think it will be conceded without proof that, were portions of our ordinary food, mixed and moistened as in mastication, kept during a night at the high temperature of the mouth, the compound would be sour. It follows that dental caries must continue to prevail as now, while it is the custom to allow the food to remain in contact with the teeth all night.

The following observations show the dependence of caries on food remaining in contact with the teeth. When the teeth are wide apart, food is not retained, and they generally remain free from caries. The lower front teeth are seldom attacked by caries when, as is generally the case, the spaces between are closed to the entrance of food by tartar. The backs of all the teeth, upper and lower, being kept free from food by the tongue, are seldom affected by caries. Lodgment of food takes place between the bicuspid, between the molars, in the depressions on the masticating surface of these teeth, and on the buccal walls of the molars, and these are the chief seats of caries. While mastication is performed by the molars and bicuspid, the upper front teeth remain free from food and from caries; but, when they themselves are made to do the work of lost or diseased molars and the food gets between them, caries is certain to follow before long.

Further proof cannot be required that, if no food remained in contact with the teeth after eating, they would be free from caries, unless acted on by acidity from one or other of the sources previously enumerated.

The only indications, therefore, for the prevention of dental caries are the neutralisation of acid applied to the teeth and the removal of food before it has become acid. The neutralisation of acid by the alkaline solution recommended has been sufficiently dwelt on. The food should be removed after every meal, and all who have not the opportunity of doing so should not fail to remove it thoroughly every night at bedtime by rinsing, as the brush cannot be trusted to remove the food from between the teeth.

The means I wish to see in general use are three.

1. Rinsing the mouth thoroughly with water after the last meal of the day to remove all food.
2. Rinsing immediately afterwards with an alkaline solution to neutralise any acid or its effects.
3. Moderate brushing in the morning to remove any mucus secreted during the night.

I do not hesitate to affirm that, were these simple means in general use, toothache would be as rare as it is now common.

The chief obstacle to overcome is the prevalent belief that morning cleaning is all that is required for the preservation of the teeth, a belief I find best attacked by drawing attention to the uncleanness of going to bed having a part of every kind of food that has been eaten during the day about the teeth, how disagreeable it must become, and how inconsistent it is with care of the teeth to leave them in such a state all night.

In conclusion, the illustrative cases I have introduced having occurred in practice within the past few weeks, I am sanguine that I shall not be thought to have occupied the time of the members unnecessarily.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

ST. THOMAS'S HOSPITAL.

TRAUMATIC ANEURISM OF THE PALM: FAILURE OF TREATMENT
BY COMPRESSION: LIGATURE OF THE BRACHIAL ARTERY
WITH CARBOLISED CATGUT: CURE.

(Under the care of Mr. SYDNEY JONES.)

FOR the following report we are indebted to Mr. CHARLES E. SHEPPARD.

Joseph Newman, aged 15, farm-labourer, was admitted on May 7th, 1877. Fourteen days previously, a pint and a half black bottle broke in his hand, inflicting a wound in the left palm about three-quarters of an inch long. There was much hæmorrhage at the time; the blood was bright, and spurted about a foot and a half. A medical man first saw him two days afterwards, and made a small incision into a soft fluctuating swelling on the inner side of the middle of the palm and below the level of the annular ligament.

Five days after the accident, there was considerable bleeding, which had several times recurred. Some inflammatory swelling in the palm had occurred principally two days before admission.

When admitted, there was a traumatic aneurism corresponding in its projection in the palm to the size of a filbert; it seemed to correspond with the superficial arch, pulsated freely, but was easily controlled by pressure on the radial and ulnar arteries. There was some inflammatory effusion, with tenderness, amongst the neighbouring structures. A small wound, occupied by clot, still existed at the site of the original injury, and gave exit to an opaque serous blood-tinged fluid. Graduated compresses of lint were placed over the radial and ulnar arteries; the fingers were bandaged separately, and the whole secured on a straight back-splint. Over the bandage cork pads were placed on the radial and ulnar arteries, being secured by an improvised tourniquet. The arteries were thus entirely secured. Oiled lint was applied to the palmar wound.

It was found difficult to keep these pads accurately adjusted. The skin, too, became tender and the hand swollen. The boy was unable to bear flexion at the elbow-joint, or pressure on the brachial artery.

On the 13th, six days after admission, a pad with sulphate of zinc lotion was applied to the wound. It had been found necessary to change the situation of the pads frequently, on account of pain, several morphia injections having been used. To-day, there was swelling, with redness in the axilla; and, on May 14th, an axillary abscess was opened. The parts where the pressure had been applied were very tender; the hand and fingers were swollen, and the latter were œdematous.

On May 15th, Mr. Sydney Jones decided to tie the brachial artery. This he accordingly accomplished, under the influence of ether, at the junction of the middle and lower thirds. The artery was small; but pressure completely controlled pulsation in the aneurism and in the radial and ulnar vessels. Carbolic catgut was used, the ends being

cut close, and the edges of the wound were brought together by wire sutures and covered with oiled lint. The limb was secured on a splint and covered with cotton-wool. The brachial wound did not heal by first intention. It was found desirable in a few days, on account of its unhealthy appearance, to apply lint with chloride of soda lotion.

May 21st. Pulsation, at first slight, and after a few days stronger, appeared in the radial and ulnar arteries. No pulsation recurred in the palmar aneurism after ligature of the brachial; the hand and fingers rapidly improved, and the wound in the palm healed.

May 28th. The brachial wound appeared healthy, and was filling up.

June 7th. The wound of the palm had healed; no return of pulsation occurred; the axillary abscess had healed; the brachial wound was nearly healed.

June 18th. All the wounds were healed. The patient left the hospital in a few days with the hand perfect and the movements of the tendons complete.

RIGHT POPLITEAL ANEURISM: ARREST OF PULSATION BY APPLICATION OF ESMARCH'S BANDAGE: RECURRENCE OF PULSATION: SECOND APPLICATION: CURE.

(Under the care of Mr. SYDNEY JONES.)

For the following report we are indebted to Mr. L. MAYBURY.

James Maw, aged 31, dairyman, formerly a carpenter, was admitted into St. Thomas's Hospital on June 20th, 1877. He had previously been under the care of Dr. Biddle of Kingston. He stated that he was quite well until two months ago, when he felt some stiffness at the back of his right knee. An examination of the ham disclosed a round soft swelling about the size of a walnut, which retained nearly the same size for about a month. Three weeks before admission, he was laid up with "acute rheumatism"; his illness lasted ten days; both knees and ankles became painful and swollen. At the same time, the tumour in the ham grew larger, and was diagnosed by Dr. Biddle as popliteal aneurism.

On admission, there was a soft elastic swelling in the right ham, about the size of a cricket-ball, with expansive pulsation in all directions, the pulsation being readily controlled by pressure on the femoral, and the size of the swelling materially diminished by that pressure. The aneurism did not seem to contain much clot, and some parts of its walls appeared very thin and pouched. There was no swelling of the leg, and but little inconvenience, and that mechanical, was experienced from the presence of the aneurism.

The right knee measured fifteen inches, the left thirteen inches and a half in circumference.

June 22nd. The patient having been kept quiet since admission, Mr. Sydney Jones determined on the use of Esmarch's bandage. At 9.50 A.M., this was applied, with moderately firm pressure, from the toes upwards to the lower limit of the aneurism; the aneurism was avoided and only lightly covered with cotton-wool. The elastic bandage was carried upwards above the aneurism to within a few inches of Poupart's ligament, where it was secured by a safety pin; the elastic tube not being employed. Some cotton-wool was placed over the toes, and the limb was raised and supported on pillows. After application of the bandage, all pulsation in the aneurism ceased. The patient complained of numbness in his toes and leg. The application of the elastic bandage was completed at 9.55 A.M., and it was kept on until 11 A.M. During this time, he complained of much aching and numbness of the limb; he sweated much; the pulse varied from 68 to 84; the respirations from 24 to 32; the temperature in the axilla remained about normal; at the end of half an hour, a subcutaneous injection of one-third of a grain of morphia was used; towards the end, he suffered much pain and grew very restless. Before the elastic bandage was removed, a tourniquet was applied over the femoral artery in the groin, and, after the removal of the bandage, a second tourniquet was placed lower down, so that alternating pressure was kept up continuously until 1.15 P.M. (three hours and twenty minutes from the first application of the Esmarch bandage). At 1.15 P.M., pressure being relaxed, pulsation was still felt in the aneurism. Pressure to be continued. At 3.30 P.M., pulsation was felt in the tumour by Mr. Sydney Jones. The tumour, however, was much firmer and pulsated less. Digital pressure was directed to be used instead of that with the tourniquet. This was carried on by relays of dressers, each dresser compressing for ten minutes. At 7.45 P.M., the patient was seen by Mr. S. Jones. The sac was firm, and no pulsation detected, *i.e.*, nine hours and fifty minutes after the commencement of the treatment. It was thought advisable to continue digital pressure for a short time longer, the patient suffering but little inconvenience from it. It was kept up until 11 P.M., when Mr. Sydney Jones again saw him. There was no pulsation in the sac; collateral circulation might be felt on the

inner and outer sides. Pressure to be discontinued. A quarter of a grain of morphia was subcutaneously injected.

June 23rd. His night had been somewhat restless. At 10 A.M., it was thought by the house-surgeon that some slight pulsation could be traced; digital pressure was, therefore, applied until 3 P.M., when no pulsation was evident.

On June 24th, at 3 P.M., pulsation was again detected in the sac; a tourniquet was applied, and four minims of tincture of aconite were ordered to be given, and to be repeated according to its influence on the circulation.

On June 25th, only very slight pressure was kept up with the tourniquet. In the afternoon, this was quite discontinued, Mr. Sydney Jones determining to give him a rest until the morning, and then reapply Esmarch's bandage.

June 26th. (10.9 A.M.) The aneurism was pulsating pretty freely, although it was very much firmer than when the treatment was started on the 22nd instant. Esmarch's bandage was applied a second time in the same manner as before. The sac was not subjected to pressure. The bandage was perhaps carried a little higher in the groin. At 10.50, a third of a grain of morphia was injected. At 10.58, the bandage was removed, having been on forty-nine minutes. Digital pressure was then commenced. At 1.15 P.M., Mr. Clutton could not detect any pulsation on removal of pressure; this, however, was kept up until 3.6 P.M. (four hours and fifty-one minutes after this second application of Esmarch). The tumour was then firm and hard, and there was never any recurrence of pulsation in it.

June 30th. The tumour was smaller and more consolidated. The pulsation of the collateral circulation was easily felt at the back and sides. A flannel bandage was applied to the limb. The man was kept quiet in bed for a few days longer, much against his will, as he felt no pain or inconvenience. He left the hospital on July 10th.

A CASE OF TRAUMATIC TETANUS: TREATED BY PROFUSE SWEATING: CURED.

(Under the care of Mr. WAGSTAFFE.)

W. R., aged 27, an asylum attendant, whose occupation was originally that of a painter, and who continued to superintend a good deal of the painting work at the asylum, was sent by Dr. Rayner to Mr. Wagstaffe, and admitted under his care into St. Thomas's Hospital on April 23rd, 1877.

It seems that, about three weeks before this, he had fallen over some timber in the dark and cut the side of his head severely. The left ear was almost torn off, and there seems to have been a good deal of hæmorrhage. For the next two or three days, he could eat and drink quite properly, and the wound began to discharge. On the fourth day, he says, his mouth felt stiff on the left side when he tried to eat. On the fifth day, his teeth were clenched, and he could only take fluids. The jaws gradually became more closed, and left facial paralysis came on very shortly. Soon he began to feel pain in the left side of his neck, extending from the ear along the sterno-mastoid muscle; and this, with the progressive rigidity of that muscle, had been one of his greatest troubles. For the past week, pain had gradually extended along the spine. His bowels had been regularly open; his water passed in fair quantity; and there had been no marked intermittent spasms. His family and personal history were good. He had only once had any symptoms of lead-colic, and those of the mildest kind.

When seen first by Mr. Wagstaffe, on April 23rd, the following was his condition. "Countenance anxious; jaws set, but the mouth could be opened slightly by forcing the chin down. Both masseters were hard. The neck was stiff, owing to contraction of both sterno-mastoid muscles, but especially of the left. The abdominal muscles were very hard; there was some contraction of the lumbar spinal muscles. Left facial paralysis was apparent, but not very marked. There was a granulating wound two inches in length along the upper attachment of the left ear, extending backwards and downwards over the mastoid process. This was not especially tender. There were no spasms induced by manipulation. He could swallow liquids. The pupils were equal, acting. Temperature 99.2 deg."

On the first day of treatment, he was freely purged. On the second, he had a belladonna plaster placed on the wound. On the third day (April 25th), he remained in the same state as at first, certainly not improved, except that he had rather less pain in his neck and back.

Treatment by sweating was now begun. A covered iron sack was adjusted to the bed, and hot air passed inside by means of a tube connected with a heated cylinder. The temperature was raised to 140 deg., and maintained for rather more than three-quarters of an hour,

by which time he became faint. The head was covered during this time with blankets, leaving him only breathing-room through them to the external air. He continued to sweat profusely for about two hours after the bath, and during this time was covered with blankets. The sweating was repeated in the evening; and this treatment by morning and evening sweating was persevered in for twenty-three days—*i. e.*, till May 18th—after which time it was only used once a day for a week.

He began to mend rapidly, and on April 28th it is noted that "he opens his mouth much better in the bath".

On May 3rd, the report states: "He can open his mouth much better. No pain down spine for last two days. Sterno-mastoids and abdominal muscles almost absolutely relaxed for the same time. Masseter of left side alone hard, but an hour after the bath he can put tongue out one inch. Left facial paralysis still evident to a slight extent."

On May 11th, the left masseter was rather rigid before the bath, but he could open his mouth an inch when it had been manipulated a little. He ate solid food, and was up for an hour.

On May 18th, there was no stiffness of the muscles. He could open the mouth slowly. The wound was granulating and small.

During the treatment, his wound was at first covered with a linseed poultice, and afterwards with warm-water dressing. His bowels were kept regularly open by laxatives, and towards the end of his time he took a simple bitter tonic. He left the hospital on May 22nd.

REMARKS BY MR. WAGSTAFFE.—The case was one of considerable interest, but especially from the rapid improvement following the use of the hot-air baths. That it was a case of tetanus, though of not a severe type, is, I think, unquestionable; but it is one of the features of interest about it that, although the first symptoms of trismus appeared so soon after the injury (four days), the progress was undoubtedly very slow. As a rule, it has appeared to me that the earlier the appearance of symptoms of tetanus, the more acute and fatal is the disease; but it was not so here. The cicatrization of the wound, too, was not interfered with; and one can hardly imagine that the single application of belladonna produced any permanent effect, for there was not, I believe, any affection of the pupils. I was led to adopt the sweating plan of treatment upon the ground that if, as seems probable, the symptoms of tetanus are the result of the absorption of some active poison developed in a wound, the modes of counteracting this must be reduced to either a complete and early removal of the focus, or to administering some positive antidote, or to assist the elimination of the poison from the system. The first of these could only have been done early in the case, and, as far as my experience goes, has not proved of any value. The second I have in vain tried for, and have not succeeded in finding, though as early as 1865 I tried Calabar bean, and last year pushed nitrite of amyl to its physiological limits. For eliminating purposes, I do not know anything so likely to be efficacious as the profuse sweating caused by hot air; and I therefore determined to give it a fair trial, and the result would induce me to use it again in more acute cases. The apparatus used was a very simple one, which has been long in use at St. Thomas's Hospital, and consists of a light wicker frame, covered with the ordinary blankets. At the foot-end is a tube leading from a copper cylinder which is heated by a spirit-lamp; and from the middle of the frame a chimney rises, and in this a thermometer is hung. The face is left exposed, and is moistened from time to time. After about three-quarters of an hour, the patient found he could not comfortably continue in the bath, and he was then covered with blankets and allowed to continue his sweating.

I saw him on July 23rd, and found him perfectly well.

BRADFORD INFIRMARY.

ACUTE TUBERCULOSIS: DEATH IN THE FIRST STAGE.

(Under the care of Dr. REGINALD G. ALEXANDER.)

JULIA B., aged 26, a weaver, was admitted into the hospital August 8th, 1874, with no hereditary family history of phthisis. She had married seven years previously, had had four confinements, and had menstruated regularly. She was well until two years previous to admission, when she had a severe attack of rheumatic fever, followed by two milder attacks. Since Christmas 1873, she had felt weak; but six weeks before her admission she had been confined, and had rapidly grown worse since this time, weakness, shortness of breath, cough, and a constant diarrhœa having been the prominent symptoms. She had a pale watery expectoration, and hæmoptoe. At the end of three or four long, thin, wire-drawn, translucent, and dry cylindrical sputa. Inspiration all over both lungs was rough and dry; its intensity was increased, as also the intensity and duration of expiration. The rales were so loud that the cardiac sounds could not be heard.

August 9th. Evening temperature 101.4; pulse 132; respirations 50 per minute. She was ordered carbonate of ammonia and the brandy mixture. The patient lingered in the same condition for nearly a week, when she died exhausted.

Autopsy, twenty-six hours after death.—The body was not extremely emaciated. On opening the chest, firm adhesions existed between the pleuræ on the right side, and easily separable adhesions on the left. The surface of both lungs had a greyish mottled appearance, and the lung-tissue was imperfectly crepitant, especially in the upper three-fourths. Upon section, the lungs were found closely studded with miliary tubercles, which became fewer in number (although very numerous) towards the bases of the lungs, and were somewhat soft and friable at the apices. There were no cavities in the lungs. The heart was filled with a *post mortem* clot; the interstices between the columnæ carneæ were occupied by greyish-white curdy masses of various sizes, which could be easily pressed out of their beds. The pulmonary and tricuspid valves were healthy. The aortic valves had a narrow fringe of vegetations along the free edge of their cardiac surfaces; and vegetations were also seen on both surfaces of the mitral valves, but were more numerous on their auricular surface. There was no tubercular deposit upon the pericardium. On opening the abdomen, the great omentum was found partly adherent to the peritoneum, and partly to the small intestines. There was a large deposit of tubercle in the mesentery, and a few scattered granules existed on the exterior of the ileum, but no deposit or ulceration on its internal surface. The liver was healthy. The vagina contained a trace of purulent matter, and the finger could be passed into the uterus, which was somewhat sub-involved, with its internal surface rough and congested; the opening into the Fallopian tubes could not be discovered, and these tubes, when cut into, were filled with semifluid pus.

REMARKS.—Two years before the death of this woman, she was in good health, but about that time she had a severe attack of rheumatic fever; two other similar attacks in 1873 further injured her, and left vegetations on the valves of the heart. Then came her confinement, which took place when she was already in bad health, and her decline became very rapid after this. Treatment directed towards improving the general health subsequent to the rheumatic fever might have saved her life. Pure air, suitable nutritive diet, attention to the function of the skin, less work and worry, would have been the means indicated to restore the general health, whilst iodide of potassium might have caused the absorption of the vegetations which existed on the mitral and aortic valves. Since these notes were taken, several cases of acute tuberculosis have come under my notice, both in hospital and private practice, where death has occurred without the least breakdown of the lung substance, and where there has been entire absence of cough and expectoration. In some of the cases, auscultation revealed but little beyond rough and hurried respiration. The danger in such cases might have been overlooked; but the thermometer was of signal service, the rapid respirations, feeble, quick, *sharp* pulse, profuse sweating, etc., made the diagnosis not difficult. In one case, of a middle-aged man, seen by me in consultation with Mr. Thomas of Hebden Bridge, the chief symptom was uncontrollable diarrhœa; in another case, of a young lady, with Mr. Lodge of Bradford, there was no diarrhœa, and nothing but a high temperature, rapid pulse, and extremely hurried breathing, death taking place before any alteration in her face or body could occur. To a casual observer, the girl looked well to the time of her death, the disease extending over so short a period.

WHITECHAPEL.—The population of this district is estimated at 76,573, the number at the last census. The births were 2,754, and the deaths 2,348, or, excluding those of non-residents, 1,857; the deaths of residents in the London Hospital (205), 335 in the workhouse, and 6 in the District Small-pox Hospital, making a total of 546, or more than 20 per cent., in public institutions, which is in excess of that for all London. The death-rate was 23.9, or, deducting *all* deaths in hospitals, 21.3, per 1,000 living. There were 229 deaths from epidemic diseases, 8 of which were from small-pox, 16 from measles, 18 from scarlet fever, 57 from whooping-cough, 103 from diarrhœa (a very large proportion), and 27 from fever. Amongst the cases of illness in the workhouse are included 33 of lead-poisoning. Mr. Liddle objects to the death-rates of places being taken *per se* as indications of their sanitary state, as he considers the death-rate to be materially affected by the birth-rate, sex, age, occupation, relative care of children, the social condition of the population, and excessive use of intoxicants. Mr. Liddle also refers to the vaccination statistics, which are by no means satisfactory; and expresses his opinion that it is desirable that vaccination should be carried out under the supervision of the medical officer of health. The sanitary work performed during the year appears to have been eminently satisfactory.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 12TH, 1877.

GEORGE W. CALLENDER, F.R.S., President, in the Chair.

Cases illustrating the behaviour of the Carbolised Catgut Ligature upon Human Arteries.—Mr. BRYANT read a paper upon this subject. He said that the carbolised catgut, as made by the Apothecaries' Company, Virginia Street, Glasgow, had now been so freely employed since its introduction in 1869 by Professor Lister that the time had come when an estimate of its value might be arrived at. He, therefore, introduced the following cases supplied from his own practice, together with four preparations and drawings, in order to assist in solving the question. The first preparation was from a man in Guy's Hospital, who had had ruptured aneurism of the right common femoral artery, with ulcerative endocarditis. A catgut ligature was applied to the external iliac artery, but the man died of the heart-affection fourteen hours subsequently. The inner and middle coats of the artery were then found completely divided by the ligature, and the external coat also divided in parts. Some clot existed above and below the ligature, and the catgut was intact. Preparation No. II was from a right common carotid artery, to which a ligature had been applied twelve days before death for supposed aortic and innominate aneurism, with the effect of relieving pain and other urgent symptoms. In this case, the artery had been completely severed; there was clot above and below the point of separation, but it was not firmly adherent. The ligature had disappeared. Preparation No. III was that of a right subclavian artery ligatured with catgut thirteen days before death for ruptured traumatic axillary aneurism. The man had died from lung trouble; all the parts about the wound having gone on satisfactorily towards repair. After death, no suppuration was found about the wound; the artery and vein were normal, except that the former was ligatured. There was a firm clot in the vessel for half an inch above and the same distance below the ligature. All the coats of the artery had been divided and afterwards repaired. The knot of the ligature alone remained. Preparation No. IV was from a right common femoral artery, ligatured nineteen days before death for elephantiasis Arabum of the leg. Death ensued from gangrene of the limb. Very little suppuration occurred at the wound. All the coats of the artery had been divided and repaired, and good clots existed above and below the ligature, the knot of which, with perhaps some of its loop, remained. In all these cases, the inner and middle coats of the vessels had been probably divided at the time of operation, as would be done by any permanent ligature, the external coat afterwards by an ulcerative process, though in the first case this was partially accomplished in fourteen hours. Mr. Bryant stated that he had also ligatured ten other large arteries in their continuity with catgut, viz., five femoral, four external iliac, and one subclavian. One of these cases had died on the tenth day; in two, there was secondary hæmorrhage; and in the other cases an uninterrupted recovery, with little or no suppuration, ensued. In one of the femoral cases, the wound healed by primary union, without one drop of pus. In no case was the antiseptic spray used. Rest, moderate pressure over the site of operation, and dry lint or water-dressing were alone employed. In the single fatal case, death ensued from pyæmia and cardiac disease. The inner and middle coats of the artery were there divided, and the outer coat ulcerated. Only the knot of the ligature remained. In the subclavian case, a little hæmorrhage took place on the fourth day, but was arrested by pressure, and the wound then healed. In one external iliac case, the wound, which had almost healed, bled on the twenty-ninth day, but pressure arrested the hæmorrhage, and all did well. These further cases led one also to conclude that the ligature at first divided the middle and inner coats, and then excited ulcerative action in the external coat. "If, therefore," said Mr. Bryant, "I cannot indorse what the distinguished introducer of the catgut ligature claimed for it in 1869, 'that by applying a ligature of animal tissue antiseptically upon an artery, whether tightly or gently, we virtually surround it with a ring of living tissue and strengthen the vessel where we obstruct it,' yet I may express my belief that, as the loop of the catgut ligature dissolves within an uncertain period, and there is not of necessity any sloughing or ulceration of the whole coats of the constricted artery, as must ensue where a more permanent material is employed, we have in the carbolised catgut the best ligature at our disposal."

Mr. MAUNDER said it would be in the recollection of many that some years ago Mr. Lister advocated by precept and practice the use of carbolised silk for the ligature of an artery in its continuity. Soon after the

notification of this he, (Mr. Maunder) had ligatured the common carotid with silk, with antiseptic precautions. The wound had quickly healed over the ligature, and he was delighted with the result. From silk Mr. Lister progressed to catgut. Mr. Maunder had tied nine arteries antiseptically, but only five with catgut, to which he would confine his remarks. He personally had been quite satisfied with his results; but, about three years ago, he delivered some lectures at the Medical Society of London upon the Surgery of the Arteries, and on making inquiries concerning the use of catgut in the hands of other surgeons, he learned that several accidents of a most serious and fatal character had attended its use. He had then stated that the fate or behaviour of a given antiseptic catgut ligature, applied to the continuity of an artery, could not be foretold. Since then other accidents of a serious character had reached his ears. It appeared to him that, if it were shown that certain casualties happened in connection with the use of catgut, but which were not known when the time-honoured silk was employed, then the former ought to be discontinued. Serious consequences, such as solution, slipping of the knot, division of the coats of the artery in one instance, immunity from this in another, while death had followed from early hæmorrhage and embolism, had decided him an enthusiast in its favour as he once had been, never to use it again. It was obvious that no such accidents attended the use of silk.—Mr. BARWELL had had no dissecting experience of the use of catgut, but he agreed with Mr. Bryant rather than with Mr. Maunder as to its value. He had had five cases tied with catgut, all of which were quite successful. The division of the external coat so rapidly as in Mr. Bryant's first case was to him quite unique. He thought the surgeon should not use too great a force in tying the knot, and that he should see that the second knot was tied securely. The ends must not be cut too close, so that if the knot slipped it could be tied again. If the catgut were kept too long in oil before use it dissolved very quickly when applied to an artery. After the use of silk there was necessarily a fistulous opening leading down to the artery, in which the accompanying vein often lay, and the phlebitis likely to be set up in it often produced pyæmia. This was not so liable to occur with catgut. He had eight weeks previously ligatured a carotid and subclavian artery; the wounds had healed at once; both arteries were still perfectly occluded, and the arm was warm.—Mr. SYDNEY JONES had applied carbolised catgut in ligaturing small arteries, as in removal of the breast. He thought they were absorbed slowly, sinuses often remaining. What was the time required for solution of the catgut?—Mr. BRYANT, in reply, said that all his remarks had reference to the ligature of vessels in their continuity. In two of his preparations the knot was still undissolved after 19 and 13 days respectively. He believed catgut behaved at first exactly as other ligatures. It first divided the internal and middle coats, and then, perhaps, ulcerated through the outer coat of the vessel, whereas with silk this ulceration must necessarily occur. With ulceration secondary hæmorrhage was possible. The ligature should be tied tightly, and long ends left.—The PRESIDENT said that in one case of ligatured artery the catgut had given way, and the pulse had returned in the sac of the aneurism. In three other instances pulsation had returned in the vessel within a few days after the operation with catgut.

Recent Cases of Paracentesis Thoracis.—Dr. GEORGE H. EVANS read notes of three cases of pleural effusion which had recently been under his care, in which he had performed paracentesis thoracis; and which cases seemed to illustrate some of the advantages of that operation. I. A groom, aged 23, was admitted into Middlesex Hospital on April 24th, 1877. His previous health had been good. Three weeks before admission, he had caught cold; sixteen days before admission, he had felt pain in the right side of his chest, and had become short of breath. On admission, his temperature was 101.6 deg.; the respirations were 36. The right pleural sac was obviously full of fluid. On April 26th, paracentesis was performed with Coxeter's aspirating syringe, and seventy-two ounces of clear serum were removed. He improved rapidly in health, and was discharged recovered on May 18th. II. A saddler, aged 29, was admitted on September 6th, 1877. He had caught cold in November 1876; was then in bed for four months, and had not since been fit for work. On admission, his temperature was 98.2 deg.; the respirations were 20. The right lung was healthy; the left pleural sac was full of fluid. On September 7th, he was punctured with Coxeter's syringe (the syphon action only being used), and thirty-five ounces of rather cloudy serum were removed. Fat globules were found under the microscope in the fluid. He progressed rapidly to health, and was discharged convalescent on September 26th. III. A porter, aged 32, of previous good health, was admitted on May 24th, 1877. His illness had commenced in December 1876, with pain in the left side. On admission, the left pleural sac was full of fluid, which had probably occupied it for some months. Temperature 98.6 deg.; respirations 32. He was tapped on May 26th, in the seventh inter-

space (Coxeter's aspirating syringe), but only fifteen ounces of serum were removed. On June 9th, he was again tapped in the next interspace above, and fifty-five ounces of clear serum escaped. He then gradually improved in condition, and seemed to be doing well, when Dr. Evans ceased attending the hospital at the end of June. On July 24th, he was discharged relieved, and made an out-patient. On Dr. Evans's return, the man was attending as an out-patient; and on August 15th, his left chest was found to be fuller than before. Being readmitted on August 16th, he was tapped on the 17th, and fifty-five ounces of serum were removed, with immediate improvement in the condition of his chest. He gradually improved in health and condition, with occasional suspicious signs at the upper part of the overworked right lung, which, however, had all disappeared, so that he was now convalescent, and rapidly gaining health and weight. Dr. Evans remarked that, having been for some years a strong advocate and admirer of the operation, he had been surprised to hear of and to read lately observations of much older and more experienced physicians rather in disfavour of the operation than otherwise. Of course, he must admit that, in many cases of effusion of serum into a pleural sac, the fluid disappeared without being artificially removed; but he believed that nobody would deny that this process involved usually a considerable amount of time, during which almost absolute rest was a necessary part of the treatment. Now, he could not see why one should not considerably shorten this interval by an operation of a very simple and, as far as he had been able to ascertain, harmless description. He believed that the old doctrine suggesting that the admission of air into the cavity during or after the operation would probably lead to the serous effusion becoming purulent was now exploded. At all events, he had never seen nor heard of such a case, though he knew of certainly one and probably two cases in which the delay or neglect of paracentesis had been followed by a change from serum to pus, indicated in the one case, which he had followed throughout, by a rigor and afterwards a constant hectic temperature. As to the advantage of shortening the period during which fluid remained in the chest, one of the cases, No. II, afforded an instance. The day before he was seen by Dr. Evans, he had, by the advice of his medical attendant, consulted an eminent hospital physician, whose advice was to the effect that he should rest at home for a month and then see him again, with the view of some action being taken in case the chest should be still occupied by fluid. Owing to the advice of a friend whom he met in the street, he came as an out-patient to the Middlesex Hospital, where, being admitted, he was at once tapped, and, in three weeks afterwards, sent out in good health.

The PRESIDENT said that if one might judge by the diverse opinions heard at the bedside of such patients it was probable the views expressed at that meeting would be also very diverse.—Dr. CAYLEY said that another reason for early tapping was that one thus prevented the development of tubercle, as in children with pleurisy was so very liable to be the case, due, probably, to the great and long continued hyperæmia of the other lung.—Dr. THEODORE WILLIAMS quite agreed with Drs. Evans and Cayley as to the advisability of early puncture. In a boy in whom he had advised it, and the parents refused, it had taken four years for the fluid to be absorbed, though in other cases he had seen the same result arrived at in three or four months. Amongst hospital patients who had lived under bad hygienic conditions suppuration in an inflamed pleura set in early; for them he used early aspiration. He never saw any accidents ensue. In one case the lung appeared to be punctured, and blood came away, but no harm ensued. By tapping early one prevented the onset of tuberculosis or phthisis. But he thought it was not the opposite lung which was primarily so affected in pleurisy, but the lung of the same side, whence the disease spread to the other. In a patient of his tapped twice at the Charing Cross Hospital, excavation of the same lung had occurred.—Dr. SOUTHEY thought the real question was as to the advisability of operative interference while the fluid was still serous; probably all physicians would agree that, if the fluid were purulent, tapping as soon as possible was necessary, although possibly the purulent fluid might be absorbed. But one wanted to know the exact clinical symptoms which should guide one in operating, as the fluid was in so many instances naturally absorbed very quickly. And if one tapped very early one could not tell that the fluid might not have been absorbed if let alone. The signs for early tapping which guided him were anxiety of the patient, a continued high temperature, great displacement of the organs of the chest, and a gradually diminishing quantity of urine. In a few cases of acute pleurisy, he had tapped after four or five days from the beginning of the illness, leaving always some of the fluid behind in the chest. The urine then increased, and the feverishness went. One of the drawbacks attached to the use of the aspirator was that the pain in the chest, during and just after its use, was often severe, and that if blood

were poured into the pleural cavity serious trouble might ensue. He himself used a fine trocar with a tube attached which ran into water. He let as much fluid run off as would evacuate itself, which was as much as the organs in going back to their places would simply push out.—Dr. J. E. POLLOCK had had several cases in which paracentesis had been successful. Before operating, he would in most cases wait a month; if then the patient were unrelieved, the fluid not absorbed, and organs displaced, he would operate. For this purpose he should give the preference to Dr. Southey's plan with the trocar and tube running under water. He had only had one unsuccessful case. If one deferred drawing off the fluid too long, the lung would not come down, being then kept up by pleural adhesions. In advanced cases, the patient was certainly relieved, but true breath sounds did not then return over the lower part of the chest. His experience was that it was the opposite lung which became tuberculous.—Dr. GOODHART said that in his experience also the opposite lung became tuberculous, owing to its hyperæmic state.—Mr. G. BROWN had seen the effects of operative treatment in several children in the North-Eastern Hospital for Children. The children did not come to the hospital in the early stage. In those cases that came in early the quickest and best cure resulted where the operation was done early. In the cases where the operation was done at a later stage, often more aspirations than one were required. In one extreme case, about thirty ounces of pale serum were drawn off, and the child was well and discharged from the hospital in about eight days.—Dr. LEESE was glad at the unanimity exhibited favour of early tapping. From a child ill one week, and then tapped, about eight ounces of serum were removed. The child was then left one month, during which it had hectic temperatures. It was tapped again, but the fluid was not purulent, as had been anticipated, but simply serum. Tapping was not, therefore, likely to convert serous into purulent fluid. After tapping, fine crepitation was found over the whole lung in front, in one case, probably the serious pleurisy which was found after death was produced at that time. As regards the danger of wounding the lung, a few drops of pus in one case were brought away, and then blood passed and was coughed up, but no other bad results followed.—Dr. EVANS, in reply, said that in his case the left lung had been strapped, and the right lung then displayed crepitation. The strapping was taken off, and the crepitation ceased. Supposing the serum in any case might be absorbed in a month, why not aspirate at once and save even that month? That very day Dr. Evans had found at the hospital a man severely suffering with pleuritic effusion, from whom he at once drew off 66 ounces, to the patient's great relief. As to the mode of using the aspirator, he never exhausted with it. He put a long tube on to the instrument, and it did not require even water to run into. The serum was poured out at once, and the end of the tube was almost directly immersed in it. He used only the syphon action of the aspirator, not its full exhausting power.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, OCTOBER 16TH, 1877.

CHARLES MURCHISON, M.D., F.R.S., President, in the Chair.

New Volume of Transactions.—On taking his seat at this the first meeting of this session, the PRESIDENT congratulated the Society upon the present volume of *Transactions*, which will soon be in the hands of each member of the Society.

Aneurism of the Left Ventricle.—Dr. WICKHAM LEGG first showed an aneurism of the left ventricle, which occurred in a sailor aged 38, who had been seventeen years in the Royal Navy, but in whom there was no history of syphilis. On the wall of the ventricle was to be seen a bulging, which consisted of a growth of firm, white, cartilaginous structure. There were several of such growths in the heart. At the edge of these growths, under the microscope, were to be found large nuclei in a matrix consisting of an almost transparent or fibrillar material. At the centre, there were a few nuclei. Was this a syphilitic gumma? There were no other evidences of syphilis. There was no scar on the penis; and, though there were some scars on the upper portion of the right thigh, they were not related to the inguinal glands. In answer to a question from the President, Dr. Legg said there was no clinical history, as there was no suspicion of syphilis in the man's lifetime.—Dr. DOWSE asked if the capillary vessels of the brain had been examined, and if there was any atheroma of the vessels of the base.—Dr. LEGG replied that the aorta was atheromatous, but only so far as was normal in a man of his age. He had lately seen a child, aged 2, with specks of such change in its aorta.

Dr. LEGG then showed a specimen of this lesion from a man aged 20. He had been half starved for eleven weeks, and then had a full, indeed a

large, meal. He soon became excited, danced about, then sat down, became insensible, and never recovered. On *post mortem* examination, extensive meningeal hæmorrhage was found. He threw water into the carotid, and then the mass showed itself. It was about the size of a hemp-seed. It was unruptured, and was not the cause of the hæmorrhage. There was no heart-disease, and the kidneys were sound.—Dr. C. J. HARE asked if there was any other aneurism.—Dr. LEGG replied that the water escaped about the pons, and so there must have been another aneurism, but it was not discovered. There was no evidence of syphilis.

Aneurism of the Anterior Cerebral Artery.—Dr. BARLOW exhibited a case of the same lesion. It was different, however, from that shown by Dr. Legg. It was a military aneurism on the anterior cerebral artery, and occurred in a man aged 52, in whom there was no history of syphilis, but who had been a hard drinker, and who suffered from scirrhus of the stomach. He had some not well marked nervous symptoms on one side. Then he had a fit; it was not specialised, and was a general convulsion. At the *post mortem* examination, the hemiplegic symptoms might be accounted for by a patch of yellow softening at the optic thalamus. As to the last fit, there was found apoplexy in the right anterior cerebral lobe; it was within the brain-substance, and had not burst through, so the surface of the brain was not disturbed. The aneurism was of the size of a hemp-seed, and was on a very small vessel, which vessel was a little dilated on its proximal side. There were two other specks of change elsewhere, and the circle of Willis was atheromatous. The kidneys were contracted, and the left ventricle enlarged. Are these small aneurisms the factor in apoplexy? or is there local vascular disease?—Dr. DOUGLAS POWELL said he once brought before the Society a specimen for Dr. Quain, where there was a group of small aneurisms in a girl aged 20. The case agreed with that just related by Dr. Barlow.—Dr. HILTON FAGGE said there were difficulties in Dr. Barlow's views. Charcot and Bouchet found the kidneys healthy in nearly all their cases. Before the aneurism, there exists a patch of yellow softening; the vessels are thus not sufficiently supported by the surrounding tissues, and so they give way. Was the aneurism the cause of apoplexy in many cases? His experience was not sufficient to enable him to come to a conclusion.—Dr. GREENFIELD said that he had seen a case where there was a military aneurism in a sulcus which tore through the white substance of the brain, and did not burst until it reached the ventricle. What were the other conditions, not being aneurism, which caused cerebral hæmorrhage? In aneurism, there might be dilatation of the cerebral vessels without atheroma. The vessels were often rigid, patent, and translucent. It was not certain that atheroma accompanied these military aneurisms. Were aneurisms due to emboli?—Dr. COUPLAND asked if the kidneys were diseased in the cases where the vessels were altered. The answer was in the affirmative.—Dr. GOODHART said that hyaline fibroid changes were distinct from atheroma. Embolism was not the only cause of aneurism; nobody, in fact, had ever asserted that it was. Ligatures of arteries did not usually cause aneurism. He referred to a case where the external coat of a vessel was thickened in aneurism from embolism.—The PRESIDENT stated that in cerebral apoplexy there were usually disease of the vessels, with a hypertrophied heart and contracted kidneys. The age of the patient had much to do with it. Apoplexy in young persons was usually due to an aneurism. In nine of Dr. Peacock's eighty-seven collected cases, this was the case. In Dr. Legg's case, there was probably another aneurism besides the unruptured one.

Balls of Fibrine in the Left Auricle in Mitral Stenosis.—Dr. WICKHAM LEGG showed three such balls, which were discovered in a man aged 20, who was found dead in the street. At the *post mortem* examination, these balls fell out when the auricle was opened. There was an old clot. The stenosis was very complete; and a ball had plugged the front of the orifice and killed the man. A clot formed, and, remaining in the ventricle, waxed in size. A specimen was then exhibited from a female, who died slowly of mitral stenosis, when a ball as large as a walnut was found. These balls resulted from fibrine washed in from the pulmonary veins. In a like case in St. George's Hospital, where the ball was cut across, the nucleus was seen to be very irregular; but, as fibrine was deposited around it, the surface became smooth.—The PRESIDENT said there was a similar specimen in the Middlesex Hospital Museum.—Dr. HILTON FAGGE said that, in two cases of mitral stenosis, an *ante mortem* clot blocked the orifice. In one, a ball of fibrine had grown to the mitral valve; it softened in the middle, broke, and fell over the mitral orifice, closing it entirely.

Clot in the Left Auricle.—Dr. EWART exhibited a case of clot in the left auricle. It came from a female aged 37, who had suffered from rheumatic fever. There was chronic heart-disease, with a mitral systolic murmur. The dyspnoea was intense, and the cyanosis became

deepened. On *post mortem* examination, there was found mitral and tricuspid stenosis, the mitral most marked; it would not admit the tip of the little finger. When the auricle was cut into, a little fluid escaped. There was also found a clot adherent to the heart-wall. Death occurred from gradual extension backward of this clot into the pulmonary vessels.

Complete Obliteration of the Aorta.—Dr. WICKHAM LEGG brought forward such a specimen. It occurred in a man aged 20, who was found dead. At the *post mortem* inspection, the large size of the internal mammary artery excited attention. It was found that there was complete obliteration of the aorta for about one quarter of an inch, after which it assumed its natural size. The ductus arteriosus would admit a fine bristle. The compensating anastomoses were chiefly of the mammary and superior intercostal vessels. Only twelve or fifteen such cases were on record. There were two alleged causes of this condition put forward. One was that the contraction of the ductus arteriosus extended to the aorta. In a child but twenty-one days old, a clot was found in the ductus extending into the aorta, and accompanying it was commencing closure. The other view was that of Rokitanski and Peacock, that there was a congenital vice. In some cases, the ductus was found patent, and other defective malformations existed, as hare-lip, etc. In most cases, the aortic valves consisted only of two cusps.—Dr. COUPLAND related some particulars of such a case observed, but not diagnosed in life. It was thought to be a multiple cirroid aneurism, and was located about the middle of the scapulae. The man died of fatty degeneration of the heart. The constriction was not quite complete: it looked as if a cord had been tied around the aorta at the point of junction of the ductus arteriosus. The arteries above and below were enormously enlarged. The first intercostal artery was as large as an ordinary brachial. The internal mammary was also very large.—Mr. SYDNEY JONES said that long ago he showed to the Society a specimen where the transversalis colli and the intercostals were greatly enlarged. There was complete occlusion for half an inch going on from the ductus arteriosus: it was an extension of the closure going on in the duct.—Mr. WAGSTAFFE asked if there were any signs pathognomonic of such a condition.—Dr. COUPLAND replied that it might be suspected if the cirroid condition of the arteries was local and on both sides.—Dr. WICKHAM LEGG said Oppolzer had once made a successful diagnosis of it; and this had been done five or six times in Germany and in Holland.—Dr. HILTON FAGGE said it had once been diagnosed by Dr. Walshe.

Case of Cystic Calculi.—Mr. CHRISTOPHER HEATH then related further particulars of a case which he had brought before the Society two years ago. Then the specimens consisted of two calculi from the urethra and one from the bladder. The patient was cut, and got well. Since then, he had been relieved by lithotrity, and lost sight of. He was brought into the hospital in a dying state. The bladder was inflamed, and one kidney was full of pus. The *post mortem* calculi in the bladder were softer than those removed by operation. In answer to a question from the President, Mr. Heath said no other member of the man's family had cystic oxide calculi.—Dr. C. J. HARE said cystine was persistently found in the urine in such cases.—The PRESIDENT spoke of a case of cystic oxide in a gentleman who had it for twenty-five years. The cystine was always present in the urine, yet the patient was in good health.

Destructive Pneumonia from Pressure on a Bronchus.—Dr. PEARSON IRVINE exhibited a specimen of such destructive pneumonia in a man aged 43. He had been ill for some months with hoarseness and other symptoms of an aneurism. There was no history of syphilis. There were dyspnoea, pain over the left side, and then dullness over the back. The right lung was resonant. At the *post mortem* examination, there was found an aneurism of the ascending aorta, which had grown backwards so as to compress the left bronchus at its origin. There was an ulceration of the bronchial wall. The portion of the lung compressed by the aneurism was the most healthy piece of the whole lung. The pleura was thickened. The lung contained cribriform cavities filled with a yellow grumous fluid. The right lung was healthy. There was no existing description of the exact disease. Last year he had shown a like case. It might arise in this way: there was gradual and at first slight emphysema of the lung; and then, as the pressure on the bronchus increased, neither air nor secretion could pass; and, the secretion being retained in the lung, the destructive process was set up. There was scarcely any clot in this aneurism, and he had observed that aneurisms with little clot in them exerted greater pressure on parts around than aneurisms containing much clot. In the case of destructive pneumonia shown by him last year, the bronchus was closed by contraction from syphilis.—The PRESIDENT asked as to the nature of the fluid in these cavities.—In reply, Dr. IRVINE said it consisted of blood, pus, and disintegrated blood-cells.—Dr. BARLOW

had seen a case where a pen was lodged in the bronchus of a child. Ulceration followed; the products went down the bronchus, and a destructive pneumonia followed. The contents of the ragged cavities were purulent. Sir William Gull thought this form of pneumonia due to pressure on the vagus.—Dr. GREENFIELD said accumulated secretion and suppuration followed pressure on a bronchus. Pressure on the vagus might have something to do with it.

SELECTIONS FROM JOURNALS.

SURGERY.

TREATMENT OF PARTIALLY RUPTURED PERINEUM.—Dr. Jenks (*Detroit Medical Journal*, June), at the annual meeting of the Michigan Medical Society, described an operation for the cure of partially lacerated perineum, original with himself, substantially as follows. The patient is anaesthetised and placed on the back, and two assistants hold the labia apart. The operator passes two fingers of the left hand into the rectum, and spreads out flat upon them the recto-vaginal septum. In his right hand he takes a pair of scissors, sharply pointed and slightly curved, and passes them beneath the mucous membrane at a point where it meets the skin of the left labium majus. A portion of the mucous membrane on that side is dissected up without once allowing the point of the scissors to emerge, and the same process is continued right across the median line, and the membrane on the right side dissected up in the same manner, until the points of the scissors are brought around to the place of entrance. No blood flows during this procedure, except where the handles of the scissors pass beneath the mucous membrane. The part dissected up is then removed with round pointed scissors, and should resemble in shape a butterfly with the wings spread, the head of the insect pointing upwards in the vagina. Sutures are then applied, and the operation is complete. It is sometimes necessary to narrow the anterior wall of the vagina for cystocele as the result of laceration of the perineum, and this should be performed but a short time before the operation on the perineum, as otherwise the same condition soon results again for lack of support. Instead of a V-shaped piece, the author removes a T-shaped piece, the arms being at the junction of the uterus and vagina.

THE ACTUAL CAUTERY AND ITS EMPLOYMENT IN CUTANEOUS SURGERY.—In an article in the *Charleston Medical Journal and Review* for January 1877, Dr. Piffard recommends the employment of the actual cautery in cutaneous surgery as being specially adapted for some kinds of tumours and vascular growths. Its employment has been, he believes, much facilitated by galvano-cautery batteries of American construction, patented by Dr. Dawson and Dr. Byrne, and one not patented by the Galvano-Faradic Manufacturing Company of New York. In acne rosacea, he recommends that the enlarged veins should be just touched by a wire heated to whiteness. The vessel is obliterated, and the infiltration around it is reduced, only a minute punctate scar being left. In the greatly hypertrophied condition, the wire should penetrate the whole depth of the thickened integument. He has in several instances secured obliteration of enlarged veins of the leg by bringing the white hot platinum (heated by electricity) almost in contact with the vein. The platinum should not quite touch the skin, and should be held in position for a minute or more. Certain forms of angioma and naevus are also conveniently treated by cautery. The tendency to spread in the orbicular variety of erythematous lupus can be checked by applying a fine white hot wire along the outer edge of the infiltration and burning through the whole depth of the skin. Dr. Piffard has found the treatment of soft chancre by one good white hot cauterisation result in a speedy cure.

THERAPEUTICS.

PARENCHYMATOUS INJECTION OF ERGOTINE.—Dr. L. Collins, of Guildford, Indiana, in the *The Clinic*, speaks favourably of injecting a solution of ergotine into the tissue of the cervix in cases of subinvolution of the uterus and chronic engorgement of the neck of the organ. He uses a needle about four and a half inches long, attached to a hypodermic syringe; operates through a common glass speculum, first producing local anaesthesia by placing a pledget of cotton, saturated with chloroform, against the os; and throws into the cervical tissue a solution containing two or two and a half grains of S. pabli's ergotine. The injections are repeated every six days. Very little local irritation is said to follow, and the pain, if any exist, soon assumes an intermittent character.

BRITISH MEDICAL ASSOCIATION :
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 20TH, 1877.

POST MORTEM INSPECTIONS FOR CORONERS'
INQUESTS.

WE do not hesitate to say that the general practitioners of England are placed at a great disadvantage in reference to the performance of medico-legal duties. Under the Medical Witnesses' Act, they are compelled by the order of a coroner to make the *post mortem* examination of a body, and to give evidence at an inquest, for a fee which does not remunerate them for the loss of time and for the trouble thus legally thrown upon them. They cannot decline to undertake this often vexatious duty, except for some sufficient reason, without incurring a penalty of five pounds. It is not surprising, therefore, if this duty is often performed in a hasty and imperfect manner. Yet, when we consider that there are throughout England and Wales nearly one thousand inquests weekly, in about one-half of which *post mortem* examinations are probably performed, it is creditable to the general practitioners of the country that cases in which complaints of inefficiency and neglect are made are very rare. One reason for this may be, that the inquests excite but little general interest, and there is no reason for criticising the medical evidence or disturbing the verdict. But cases do now and then present themselves in which an accurate report of the *post mortem* inspection is necessary in order to enable others to form a judgment of the cause of death. A person in good health may die suddenly. His life may be insured in an office in which the policies are rendered void by the act of suicide. Death may be assigned by the inspectors to apoplexy, whereas it may have been due to narcotic poison. Certain facts, such as the purchase of poison shortly before death, may not be known at the time the inspection is made; and, in looking to the report of appearances in the body, some serious omissions may be found. In this case, the insurance company may suffer a great loss. On another occasion, a charge of murder may be involved in the result; and at the subsequent trial of the accused, if the body of deceased present the appearances of disease as well as those which indicate poison, the *post mortem* report will undergo a minute and searching criticism. It may, perhaps, be pronounced by some as worthless, and as showing no adequate cause of death; or the report may be accepted, and different conclusions drawn from it. The general practitioners, who have acted *bonâ fide* and in accordance with law and custom in drawing it up, may be described as incompetent, and unqualified to give a professional opinion. This picture is not exaggerated, as those can testify who have been compelled to pass through this hostile criticism.

It is quite time that some steps were taken by the authorities to prevent this conflict of medical evidence on matters of fact and opinion. General practitioners would, no doubt, readily agree to be divested of this legal responsibility, and they would gladly see some official inspectors appointed to a district to conduct all the *post mortem* examinations required for the purposes of inquests. We should not then enviously remove, but we should limit, the scandal thrown on the profession by these extreme differences of opinion among its members. It is not to be supposed that even a pathological professor would so conduct a *post mortem* at an inquest as to satisfy a counsel for the accused, if the report were adverse to the case of the latter. He would

soon be able to find another pathological professor, of equal experience and skill, to assist him in overthrowing the opinion against his client the prisoner. In fact, it is a general belief among lawyers that there is no opinion given by one member of the profession which you may not find another of equal standing to contradict. In the medical evidence given in actions arising out of railway accidents, we have some illustrations of the correctness of this statement.

We have had a remarkable illustration of some of the matters here considered in the Penge trial. Beginning with the inquest, the medical men who performed this duty have been condemned as incompetent general practitioners—their report pronounced imperfect and worth nothing, except to guide expert pathologists to widely different but more correct conclusions.

Lastly, when we are required to believe by one set of medical experts, as a conclusion from this report, that death was owing to cerebral disease, and by another set to starvation, we may well ask with the public: Of what use is medical science to aid the law, if it can only be produced in this antagonistic form?

In another article, we shall have an opportunity of referring to a true copy of the report for the Penge inquest, and consider how far the complaints made against the inspectors and their report are justified by the facts.

AN ACTUARY ON VACCINATION AND SMALL-POX
STATISTICS.

UNDER the title of "Does Vaccination afford any Protection against Small-pox?" Mr. T. B. Sprague, a Vice-President of the Institute of Actuaries, has contributed to the journal of his Institute a paper which is doubtlessly intended to afford assistance in supplying a conclusive answer to the question asked. Unfortunately, vaccination statistics are in themselves viewed with such suspicion both by pro-vaccinators and by antivaccinators, that it seems almost hopeless to fix upon statistical bases acceptable to both parties, however desirable this might be. Mr. Sprague commences his paper by saying that a satisfactory answer to the question he asks can only be got by means of an examination of statistics carefully compiled. This cannot be disputed. Inasmuch, however, as the compiler will always have, at any rate, the credit of being a friend or a foe to vaccination, so does it seem fated that the compiled statistics will be accepted or rejected as trustworthy by the disputants in accordance with their agreement or disagreement with preconceived impressions. This state of things, however, affords no excuse for ceasing all attempts at a statistical settlement of the question; and Mr. Sprague's contribution to the discussion may be useful, although, unfortunately, he does not appear to have had a sufficient acquaintance with available statistics to enable him to deal altogether successfully with the subject.

The main portion of Mr. Sprague's paper is devoted to a translation and discussion of the now notorious report of Dr. Leander Joseph Keller, Chief Medical Officer of the Imperial Austrian State Railways. This report is the sheet-anchor of anti-vaccinators in the matter of statistics; and Mr. Sprague acknowledges his obligation to Mrs. Hume Rothery, the Secretary of the Anti-Vaccination League, for a copy of the report in the original German. It will be necessary briefly to state the contents of this report, in order to appreciate its bearing on the subject. The Austrian State Railway has in its employ, as Dr. Keller's report informs us, thirty-seven thousand officials, porters, and workmen, forming, with their wives, children, pensioners, and others, a population of nearly sixty thousand persons. For the medical attendance of this population, the railway provides eighty medical men, of whom Dr. Keller is the chief. Each of these medical men is bound to keep exact records of the sickness and deaths occurring among this population, and to forward to the chief medical officer both monthly and annual statistical reports. Dr. Keller's report specially relates to the sickness and deaths from small-pox among this population of rail-

way officials and their families in 1873; it states that the number of small-pox cases was 2,054; and that the deaths were 385, or equal to 18.7 per cent. of the cases. Among the 1,337 vaccinated cases, the mortality is given as 16.4 per cent.; among the 596 unvaccinated, as 24.8 per cent.; while among the revaccinated, among those who had had small-pox, and among the doubtful cases, the mortality is given as 15.2, 18.2, and 14.1 per cent. respectively. The interest of the report centres in the comparison of the percentages of mortality among the vaccinated and unvaccinated cases. Dr. Keller shows that, although the percentage of mortality among the cases at all ages was higher by 8.4 among the unvaccinated than among the vaccinated, the percentage among the vaccinated was higher at nearly every age than among the unvaccinated. It is pointed out that the apparent greater mortality among the unvaccinated is simply due to the fact that among them the greater number of attacks occurred in the first two years of life, during which a much higher mortality universally prevails. Excluding the first two years of life, Dr. Keller points out that the proportional mortality to cases was almost identically the same among the vaccinated and among the unvaccinated. On the other hand, in the first year of life, Dr. Keller gives the mortality at 60.5 per cent. among the vaccinated, and only 45.2 among the unvaccinated; in the second year of life, at 54.1 among the unvaccinated, and but 38.1 among the vaccinated. The whole gist of Dr. Keller's report is the great excess of mortality among his vaccinated cases, compared with his unvaccinated cases; and the curious statistical fact to which he calls attention, namely, that the great preponderance of infants among the unvaccinated caused the average mortality at all ages to exceed that among the vaccinated cases, although he shows in his tables that at nearly every age, taken separately, the mortality among the vaccinated considerably exceeded that which prevailed among the unvaccinated. Dr. Keller dwells upon the extreme importance of the element of age in all small-pox statistics, and urges that, as the observations upon which his figures are based were made by a variety of medical men, they acquire a greater value than attaches to reports from individual hospitals, which "are not unfrequently coloured to support the private views of their authors, even when the facts are faithfully given". We are at a loss to see how the report of Dr. Keller can be held to be free from a similar suspicion of being coloured to support the private views of its author, although Mr. Sprague sees no reason to doubt that Dr. Keller's statistics are "entirely trustworthy".

Mr. Sprague, indeed, points out that Dr. Keller's statistics afford no clue to the proportions of the population under observation, vaccinated and unvaccinated. Hence it is impossible to test the value of vaccination as a protection from an attack of small-pox; and the fact that 278 cases occurred in this population in 1872-3 among unvaccinated infants under two years, against but 89 among the vaccinated, should have been more definitely explained than by the loose remark that there are many more unvaccinated than vaccinated children in the families of these railway officials.

Let us now briefly refer to the statistics of the 14,808 cases of small-pox treated during the epidemic of 1871-2 in the Metropolitan Asylum Hospitals, which, it may be remarked, afford a basis seven times as large as the basis of Dr. Keller's statistics. These carefully arranged statistics, of the existence of which Mr. Sprague appears to be unaware, give the fullest particulars of the proportional mortality at eight different groups of ages. It is worth noting, in the first place, that the total mortality at all ages was 18.7, the same as among Dr. Keller's cases; while, however, among the vaccinated at all ages the percentage was only 10.2, it was 44.8 among the unvaccinated. Avoiding all possibility of the disturbing element of the age-distribution of the cases, these tables show that, excluding the children under five years of age, the vaccinated mortality was 10.0, while the unvaccinated mortality was 40.8 per cent. If we look at each group of ages, we shall find exactly the

opposite result to that reported by Dr. Keller: the mortality at each age, as well as at all ages, was very much higher among the unvaccinated than among the vaccinated. It is only necessary to notice one group of ages. Under five years of age, Dr. Keller reports that the mortality was 33.3 per cent. among the unvaccinated, and 38.6 among the vaccinated; while according to the report of the Metropolitan Asylum Hospitals it was 61.2 per cent. among the unvaccinated, and only 19.5 per cent. among the vaccinated. The teachings of these two sets of statistics, each sound in construction, are diametrically opposite. The question important to decide is, first, whether it be possible that both sets of figures are correct; and, if not, what is the source of error which makes one set untrustworthy. The statistics of the Metropolitan Asylum Hospitals are the more readily acceptable, because they agree in the main with the statistical results of all previous hospital experience of small-pox, not only at home, but abroad. Dr. Keller's statistics, however, stand alone; and the fact that they are diametrically opposed to all previously existing statistics on the subject seems to render some corroborative evidence desirable, as well as necessary to their acceptance. We should like to know something of the antecedents and qualifications of Dr. Keller, and whether he was previously known as an ardent opponent of vaccination. Further, it would be interesting to know something of the nature of the vaccination practised in that part of the Austrian empire in which these railway officials reside, which seems not only to afford no protection from small-pox, but even to intensify its fatality.

In the meantime, we venture to hope that Mr. Sprague will give his attentive consideration to the small-pox and vaccination statistics published in the reports of the Metropolitan Asylum Hospitals, which are fully as elaborate as those of Dr. Keller, and have a still stronger claim to be accepted as trustworthy on account of the far broader basis on which they rest. We hope to be in a position shortly to throw some additional light upon Dr. Keller's remarkable statistics.

HOSPITAL MORTALITY.

WE have received a printed statement, put forward by the Committee of the Birmingham General Hospital, which will require an answer from Mr. Lawson Tait, whose credit as an author is vitally concerned in the result. All things in the present day—from the best and strongest down to the worst and weakest—are exposed to an indiscriminating, and often an ignorant, criticism. The good and strong emerge from it better and stronger; and this is eminently the case with our great hospitals; they laboured at first under the mere ignorant prejudice of the vulgar, who looked on them as places where "the doctors" tried their experiments on the "corpora vilia" of the poor. Then they were assailed by writers like Miss Nightingale and Dr. Farr, who used the fallacious test of the general death-rate as a means of comparing the healthiness of one institution with that of another. Latterly, a school of writers has arisen, of whom Sir J. Simpson is, if not the first, the best known, who use the death-rate of operations (usually amputations) as a test *per se* of the salubrity of the buildings in which they are performed. The utter inadequacy of such a test has been exposed *usque ad nauseam*, and all its sources of error have been laid bare, so that we are surprised that any surgical writer should still resort to it. But, at any rate, arithmetical accuracy and statistical fairness should be scrupulously observed in its application, and more especially by a distinguished surgeon, whose utterances must, of course, command a respect from the laity which would be denied to a mere statistician. Now, what is here charged against Mr. Lawson Tait is that, in the first place, he has taken so little care in working his figures that he has charged against the Birmingham Hospital a death-rate after amputations of 34.49 per cent., which his own figures show to be only 27.72. We have not the figures before us, but must believe that the committee of the hospital and their auditor are right in their arith-

metic, and that Mr. Tait has been betrayed into an error which cannot too soon be acknowledged.

When serious charges are founded on arithmetical data, it is the duty of the author to take precautions against miscalculation. The other charge which the Committee make against Mr. Tait is more difficult to deal with. It is that he compares sixteen years of the experience of the Birmingham Hospital with six years of the hospitals set in comparison with it. The Committee allege that the construction and other circumstances of their hospital have changed during that period, and that the changes have rendered the hospital more healthy, so that the comparison is thereby vitiated. We can easily believe that the comparison is fallacious without distinctly perceiving the statistical unfairness of comparing a certain number of operations performed in one hospital during sixteen years with another number performed in a second hospital during six. The truth is, that such mere arrays of death-rates are of very little practical value at all, being subject to so many causes of error, that they are liable to lead to the most erroneous conclusions when manipulated by persons who have not seen the cases treated, and more especially if such persons start with a preconceived bias. Nor must it be forgotten that the very common assumption which treats it as self-evident that a high death-rate after operations is a proof of unsuccessful practice, or of insalubrity in the building where it occurs, is quite arbitrary. A high death-rate, whether over all cases or over a certain class of them, is a legitimate cause for inquiry; but it is quite consistent with perfect salubrity in the hospital and perfect success in the practice. In this instance, the Committee of the General Hospital at Birmingham appeal to the results of thirty-six continuous amputations (only including those higher than the wrist and ankle) with only two deaths, and neither of these from hospital causes, as a proof of the salubrity of their building and system. And we can hardly help admitting this as a much stronger proof of the fact than any reasoning founded on death-rates could be of its negative.

On the whole, we hope Mr. Lawson Tait will be able to bring the controversy to an end by a frank admission that he has been misled, and that the hospital is deserving of the public confidence which it has so long enjoyed.

And we trust that the time is not far distant when these pseudo-statistical arguments will cease to be used as a method of discrediting the most valuable of all our public charities.

WE are happy to be able to state that the rumours which have been published, that the Duke of Connaught has been attacked with bilious fever, are without foundation.

THE friends of the late Dr. Basham are informed that his funeral will take place at Brompton Cemetery on Saturday morning, the 20th instant, at 11 o'clock.

THE bronze statue of the late Dr. Livingstone has been successfully cast by Messrs. Cox and Sons of Thames Ditton, from the model by Mr. J. Mossman, sculptor, of Glasgow, in which city it will shortly be erected.

MR. ERASMUS WILSON has issued an interesting little pamphlet on the Egyptian obelisk, Cleopatra's Needle, in which he gives an account of the history of the obelisk and explanatory details indicating its historical interest.

It is announced that more than one-third of the governors of St. Thomas's Hospital have been induced to sign a requisition to Mr. Alderman Stone to become a candidate for the office of Treasurer to St. Thomas's Hospital. If this be so, the hopes of the reform party must be at a very low level indeed. The administration of St. Thomas's Hospital has long been known to be very unsatisfactory, and a continuance of a régime of which the results have been so mischievous will leave little hope for any radical improvement.

WE are very pleased to hear on going to press, that the following telegram has just been received by Mr. Erasmus Wilson, from Lloyd's agent at Ferrol, Spain, dated October 18th: The English steamer *Fitz-Maurice*, from Middleboro for Valencia, has secured at sea Cleopatra's Needle, 90 miles north of Ferrol.

WE understand that, at the meeting of the Council of the Royal College of Surgeons of England to be held this (Thursday) afternoon, it will be proposed by Mr. Hancock that for the future the students of the various medical schools shall not be required to register themselves at the College. This step will be in perfect accordance with the views we have frequently expressed and advocated upon this question.

DR. SANDWICH left London yesterday (Thursday) morning direct for Vienna, accompanied by five surgeons and dressers, who had been selected from a large number of candidates for the post by the Committee of the Russian Sick and Wounded Fund. His destination is Bucharest, and he is to be joined at Vienna by another English surgeon who served last year during the Russo-Servian campaign. The field which is now opening for British aid to the Russian and Roumanian sick and wounded is most extensive. It is the intention of the Committee to send out also properly trained hospital nurses to Bucharest to assist in the care of the sick and wounded, if the funds should shortly permit of the necessary outlay.

DR. J. LAWRENCE HAMILTON suggests that Cremorne and the adjoining Ashburton Estate, covering about eighteen acres of land, are admirably adapted for a general hospital and medical school. The sites of some of the existing metropolitan hospitals are unfavourable for hospital purposes, but of immense value for building land; and they might probably be removed with advantage and without additional cost. The district surrounding Cremorne Gardens is becoming densely populated, and is not well provided with hospital accommodation.

THE PENGE CASE.

THE following is the text of the memorial presented to Mr. Cross in this case, drawn up and signed by Sir William Jenner, Dr. Wilks, and many other eminent men. The memorial, it will be seen, is drawn on purely professional grounds, on the supposition that the verdict was due to the medical evidence. They considered this to be so imperfect, that it was the duty of those who knew better to protest. The memorial was prepared and circulated on Saturday among some of the most eminent medical men in the metropolis. It was presented to Mr. Cross on Wednesday, the 10th instant.

"We, the undersigned hospital physicians and surgeons, having from our position enjoyed special opportunities of observing the changes which disease and inanition respectively induce in the human body, beg leave to state our opinion that the morbid appearances described as having been observed *post mortem* in Harriet Staunton's body are such as indicate death from cerebral disease; and that such symptoms as were recorded during the last few months of life, and especially those which are described by Dr. Longrigg as immediately preceding death, are not the symptoms which starvation could have induced, but are usual and characteristic symptoms of certain forms of disease of the brain."

THE ILLNESS OF MISS KNOLLYS.

DURING the recent stay of the Prince and Princess of Wales on board of the *Osborne*, Bonnermain, the Prince's under-cook, and Miss Knollys, in attendance upon the Princess, both, as it is supposed, contracted typhoid fever. The former died on the 11th instant, and the latter, as we are sorry to learn, now lies seriously ill at Abergeldie Castle. Miss Knollys' illness has been severe, but hitherto without complication. Her highest temperature has been 105.5 deg. Fahr.; and with all the reservations which, of course are necessary in such a case, she appears, according to our latest intelligence, to be progressing favourably. This (Thursday) is now the twenty-third day of the illness. The highest temperature yesterday was 101 deg. Fahr.;

the patient has had a good night; and this morning (Thursday) the temperature was normal, and pulse 84. Notwithstanding, however, that the progress of the malady has so far been favourable, yet the condition of Miss Knollys cannot fail still to occasion grave disquietude to her many friends for some days to come, the course of typhoid fever being proverbially uncertain. The kindly anxiety of the Prince and Princess of Wales for the patient knows no bounds.

PATHOLOGICAL SOCIETY OF LONDON.

THIS Society held its first meeting of the session 1877-78, in its rooms in Berners Street, on Tuesday last. The President, Dr. Charles Murchison, F.R.S., occupied the chair. He congratulated the Society upon its progress, and said the *Transactions* of the past session would soon be in the hands of each member. This, the twentieth volume of their *Transactions*, contains 457 pages, and a number of beautiful drawings. Its contents equal in interest those of any former number. There was a good attendance of members.

THE INCREASE OF LUNACY.

THE statistics of the thirty-first report of the Commissioners in Lunacy, just issued, are rather alarming. In 1859, the population of England being 19,686,701, the lunatic population was 36,762, giving a mean of one lunatic in every 534 persons. On January 1st, 1877, the population is estimated at 24,547,309 persons, whilst the lunatics number 66,636, or one in every 369 persons. Of the total number of lunatics, 59,039 were paupers; the relation of the number of pauper lunatics to lunatics of the wealthier classes has, therefore, not varied; but the increase of known lunatics in proportion to the total population has almost doubled. It remains for our well informed specialists to ascertain how much of this increase is due to more accurate registration and the more general practice of certifying lunatics at present generally prevailing; and how much of it represents an increase of lunacy. If there be any such increase, the details of the forms and causes of lunacy must be a study of the deepest importance, and one which calls for very comprehensive and accurate investigation.

COST OF SMALL-POX.

THE hospital bill for the last epidemic of small-pox, or at least so much of it as affected the pauper classes, and is represented by the mere cost of their maintenance at the public expense in hospitals, is now about to be sent to the Board of Guardians, and it is likely to be a very large one. The managers of the metropolitan asylums, with a view to the explanation of the largeness of the pecuniary demands which they will have to make on the metropolitan parishes, have just prepared a return showing the number of cases received into the hospitals during the year ending October 1st. The total number for London was 7,333; of those, 808 were drawn from Lambeth and 733 from Hackney parishes. Possibly, the payment of this bill will have the advantage of quickening that part of the intelligence which resides in the pockets, which is said to be very well developed in boards of guardians, and may lead to some active and complete method of carrying out the provisions of the Vaccination Acts. If there be anything certain in public medicine, it is that, by a system of complete vaccination of infants, coupled with re-vaccination after the age of fifteen, small-pox might be effectually stamped out, and the whole of this enormous expenditure of life, health, and money once and for all removed from the nation whose records it now stains.

MILK OF TOWNS.

THE Metropolitan Board of Works have resolved, in respect to cow-houses, that the business of cowkeeper be declared an offensive business under the third section of 37 and 38 Vict., cap. 67. Two further measures are, however, necessary for the protection of the public health. The first is: the dairies and premises of milk-sellers in towns should be brought under sanitary inspection, and the by-laws drawn up by the Society of Medical Officers of Health be duly enforced therein; and, second, that the premises of dairy-farmers vending milk

from rural districts should be also subjected to sanitary supervision in respect to the quality of the water used for "cleansing" utensils. It will then only remain to provide that the Adulteration Act shall be so modified that it will be no longer permissible, as at present, for milk-sellers to vend milk half-skimmed and 25 per cent. below the normal standard of richness, sheltering themselves under the excuse, which the magistrate willingly accepts, that it was probably furnished by a very impoverished cow, and is just within the limits which indulgent analysts have considered to be possible from a pathological animal.

THE TRAINING OF IMBECILES.

AT the meeting of the Metropolitan Asylums Board, in Spring Gardens, on Saturday, the 6th instant, it was decided to erect on the ground at Darenth, near the School for Imbeciles, detached blocks, into which to remove those children who have arrived at the age of sixteen years, in order that their industrial training may still be continued. This, it is hoped, will lessen the cost of maintenance, and at the same time render more complete the scheme for the education and training of imbeciles.

THE DEATH-RATE OF MADRAS.

THE weekly returns supplied by the Sanitary Commissioner for Madras bring into strong relief the terrible effects of the famine. The estimated population of the municipality for the year is 397,552; of whom 3,613 are Europeans, 12,013 East Indians, 330,962 Hindoos, 50,964 Mahomedans. The weekly deaths in the previous year up to the beginning of December averaged less than 300, and in the third week of November only 266 deaths were recorded; at the end of December the weekly deaths increased to 515. Cholera set in; diarrhoea and dysentery followed; then fever and small-pox. The deaths rose to 1,237 in the last week of February. The fatality from these epidemics subsided in spring and summer, and the weekly deaths fell to 829 in June; in July they rose again to 1,150, owing to dysentery, diarrhoea, fever, and other zymotic maladies. The deaths in the last return received were 923, so that the mortality had somewhat subsided. The annual rate of mortality through the year was 127 per 1,000. In London, the annual rate of mortality in the same period was 22. In Madras, 33,065 deaths were recorded in the 34 weeks. The population of London is nearly nine times (8.888) the population of Madras, and had the mortality been at the same rate as in Madras, the deaths in London in the 34 weeks, instead of being 51,218, would have amounted to 293,892. The Commissioner said in January the "death-rates in Madras are influenced by famine", and added, "a large number of the famine-stricken inhabitants of neighbouring districts have flocked into the town". After allowing for this disturbing element, the mortality is above anything of which London has had recent experience; yet the mortality of Madras is not half what the mortality was here during some plague years; so much is London indebted to sanitary improvements, of which Madras is still sorely destitute.

A CAUSE OF INFANT MORTALITY.

WE lately recorded a case where we believed the death of an infant had resulted from careless and injudicious feeding. Some correspondence having followed in the JOURNAL in connection with the subject of feeding infants, we subjoin a few remarks on the general diets suitable for infants. If an infant under seven months be deprived of its mother's milk, hand-feeding of some kind must be resorted to, unless the services of a wet-nurse can be obtained. The most convenient method of administering food in such a case is by means of a feeding-bottle. The character and mode of preparation of the food have now to be considered. Up to the age of six months, little or nothing should be given besides milk, fresh, warmed, sweetened, and diluted with one third or fourth part of water or lime-water, the latter being preferable when there is any tendency to offensive and loose motions or to vomiting; three or four ounces of the food being given every three hours or less, according to circumstances. But in all cases the times of feeding should be fixed and rigidly adhered to. In some cases,

baked flour, rusks, etc., may be given with advantage under six months; but with most children such a diet is but ill borne, causing gastro-intestinal irritation, as evidenced by vomiting, with loose and offensive motions. After the age of six months, and towards the time when teething may be expected to commence, other food may be added to the diet, such as one tablespoonful of baked flour, either home-prepared or in the form of Ridge's food. The heating renders the farinaceous food partially soluble. Fatty food may be given with advantage once a day, in the form of yolk of egg beaten up with milk, or mutton-suet melted in milk by gentle simmering, two ounces of suet being used to thicken one pint of milk. The mixture, being sweetened and strained, can be taken through a feeding-bottle. Important as is the subject of infants' diets, we must not dwell longer on the subject, but refer our inquirers to the suggestions given in Dr. West's work on the *Diseases of Infancy*, and in Dr. Eustace Smith's *Clinical Studies of Disease in Children*, and in works by other authors. Referring once more to the case on which we commented, it appears that death resulted from injudicious feeding, the child being as truly starved to death as if all food had been withheld. We are at the same time well aware that some children, naturally of a strong digestion, may live and thrive on almost any food.

SCARLATINA AT STAFFORD.

We are indebted to Dr. Cookson, Stafford, for information that scarlet fever is still prevalent in Stafford, but not quite to the extent it had reached a week ago. It is principally confined to the poorer classes, and where proper sanitary measures are difficult, and indeed impossible, to be carried out. Isolation, he says, is out of the question; consequently, whole families are ill at one and the same time. Disinfectants can be obtained from the sanitary authorities, but many will not take the trouble to obtain them. The type of the disease is severe: most of the cases are children; out of about one hundred and twenty cases now in Stafford, eleven only are adults. Scarlatina anginosa is the form it takes five times out of six. Many of these die from the simple fact that, in consequence of their surroundings, very little can be done for them in a medical point of view, and thus the mortality is very high. There are very few cases amongst the well-to-do artisans, and it is only in the lowest and worst parts of the town where the disease is at all prevalent. The town authorities have given orders to cleanse and whitewash all houses where the disease has prevailed.

HARDENING THE MILITIA.

A RECENT number of the *Graphic* contained a series of sketches entitled "Camping-out in Scotland", giving such an account, with pictorial illustrations, of the unnecessary hardship, involving serious danger to health and efficiency, inflicted upon the men of the 2nd Royal Lanark Militia, that it seemed desirable to make some inquiries as to the effects upon the health of the men of such unnecessary sufferings. In reply to the inquiry addressed to him, we have the following communication from Dr. Maxwell Adams, surgeon-major of the regiment.

"I am compelled to acknowledge that it would be difficult to overstate the discomforts and hardships to which the officers and men of the Lanark Regiment of Militia were subjected during the last annual training when under canvas on Lanark moors. Torrents of rain, as stated, fell almost every day, and about seventy-five of the tents were, as also stated, 'old, unserviceable, torn, worn, and leaky'. I at once made a requisition for new tents to replace the old; but, before all the necessary forms had been gone through, about two-thirds of the training was completed.

"I may here mention that, for several years, I have emphatically stated, in writing to the authorities, that, to take men from their close airless homes in the slums of Glasgow, where we derive most of our recruits, and to camp them out under canvas for a month (the recruits for two) on a breezy common in the very uncertain weather of our Scotch summers is much too great a tax upon the constitutions of the men, and likely to lead to serious after-consequences; for let me here explain, that it is not so much during the training period that the men develop their diseases as afterwards. The catarrh with which they leave develops into bronchitis, or mayhap something worse; the rheu-

matic pains into acute or chronic rheumatism very often. From forty to sixty men are discharged by me annually as temporarily and totally unfit for service, and I have no hesitation in saying that the large majority of the cases of rheumatism and bronchitis so discharged are the result of camping out under canvas; and that the numbers might be reduced by more than one-half were the regiments comfortably housed in huts. It, then, remains to be answered why huts have not been erected long ago, and I believe the real answer to this is the question of expense. The money formerly given for the annual billeting of militia regiments would, however, far more than meet the interest of the money to be expended on huts; and, when I mention that about one-half of the recruits enlisted never turn up, and that desertion in this way might be very considerably diminished were the men properly and comfortably housed, then, I think, I have given weighty reasons, both sanitary and economic, for the authorities looking after the comfort of these militia regiments. It may appear that my opinions are too dogmatically given, and that my deductions may be incorrect; but my long knowledge of the men of the regiment both on and off duty, and statements that have been made to me by medical men in Glasgow who have attended men professionally after the training period, make me confident that I have only adduced simple facts. In conclusion, however, I must deny one statement made in the cutting from the *Graphic* which you sent me; viz., that Lanark moor is situated in the coldest and rainiest district of Scotland. It, no doubt, is often very breezy; but, as to the rainfall, I beg to refer you to the tables annually compiled by G. J. Symons, Esq., F.R.A.S., which prove that Lanark is very far removed from being the most rainy district, being in fact amongst the least rainy of our Scotch districts. Another inference from the sketch in the *Graphic* is, that the sick are all treated under canvas, whereas I only treat the more simple cases in the hospital-tent, and all the more grave ones in a house in town rented by Government as a militia hospital."

RELICS OF THE PAST.

WHEN the columns which supported the portico of the old Hôtel Dieu were removed, between the first and second stones of one of them were found one gold and three bronze medals; two coins bearing the effigy of Napoleon, First Consul, dated 1803; and a parchment on which were inscribed the names of those who took part in the laying of the first stone of the old hospital.

A CONVALESCENT HOME.

THE Marquis of Salisbury last week opened a convalescent home, which has been erected at Rawdon, a few miles from Bradford, by Mr. H. W. Ripley, M.P., the junior member for the borough. The noble marquis testified to the great munificence in the cause of charity of the well-to-do portion of the people of England, and pointed out that there is no channel in which that munificence can better flow than that by means of which the gap which exists between the cure of the hospital and the state of perfect health, to which it was necessary a patient should be restored, can be supplied.

PROVIDENT DISPENSARIES.

AT the recent Church Congress, this subject was discussed in a spirit which indicates that many of the clergy, at least, are beginning to understand that the indiscriminate medical charity afforded by hospitals exercises a debasing influence on the poor, and is an abuse of benevolence. Among the most judicious of the speakers was Dr. Fairlie Clark, who said it was not charity to do that which weakened self-reliance and turned a man unnecessarily into a pauper. With respect to London alone, he could say that more than half a million sterling was spent annually by the medical charities, most of it in a recklessly open-handed manner. The expenditure was out of all proportion to the real needs of the people. More than half the applicants to the London Hospitals could pay a few shillings a year for that which they now sought in *forma pauperis*. A payment of three halfpence or two-pence a week would secure to a working man and his entire family medical aid throughout the year. What was wanted was such a concurrence of opinion among the managers of medical establishments that they would lend their aid to the establishment of provident dispensaries, and be content to relieve those who, being proper objects of charity, would not be degraded by receiving it. The present free dis-

pensaries ought to be turned into provident dispensaries, and many more of those excellent institutions ought to be established. Manchester had gone far in this direction. Birmingham was following the good example, and Liverpool was considering the question with a view to doing likewise. He was happy to say that in London, also, the number of provident dispensaries was increasing; but it was urgently needed that much more should be done. The clergy could give most valuable aid in the movement. They were often influential as members of the Managing Committees of hospitals, and they could also help in setting on foot provident dispensaries, and in their intercourse with working people could do much in the way of explaining the advantages of those institutions and recommending them to widespread support. To raise and strengthen those who were in danger of being debased and pauperised was surely a work in which the ministers of a national Church might well take part. Such views as these, received with applause at a Congress of clergymen, will, we hope, filter into the minds of managers of charities generally, and will do something to arrest the evil influence which the out-patient departments of hospitals in great towns are now exercising in pauperising the population and teaching them to consider gratuitous medical relief as a sort of national birthright of the improvident.

RELATIONS OF MIDWIFERY TO MEDICINE AND SURGERY.

An action was tried in the High Court of Justice on October 11th, in the Rolls Court, before Mr. Justice Lopes, of some interest to general practitioners in reference to the alleged right of assistants to attend midwifery cases, on the ground that to do so does not involve practising the business or profession of a surgeon or of a doctor of medicine or apothecary. The plaintiff is a surgeon and M.D., practising at Wandsworth, and the defendant, Ferrant, was until recently an assistant in his business. The agreement between the parties was determinable by a month's notice, and contained a provision that on the termination thereof the defendant would "not at any time practise the business or profession of a surgeon or doctor of medicine or apothecary within three miles" of the plaintiff's residence. On the 17th of July, the agreement was terminated by the plaintiff giving the defendant a month's pay in lieu of notice. Since that date, the plaintiff alleged that the defendant had been going round to some of his patients stating that he was going to set up in business for himself within half a mile of the plaintiff, and that he had actually attended some of these patients and given them medicines. A motion for an injunction was now made to restrain him from committing any breach of the agreement. The defendant, who is not a qualified medical practitioner, denied that he had acted as a surgeon or doctor of medicine or apothecary, and that he only intended to attend midwifery cases, which were outside the agreement. Mr. Justice Lopes was clearly of opinion that the plaintiff had proved sufficient to entitle him to an injunction in terms of the notice of motion and following the agreement.

YELLOW FEVER.

A DISCUSSION is now, we read, being carried on among medical circles in the United States as to whether yellow fever, which has appeared in Florida, is of necessarily exotic origin, or whether, like typhoid fever, it finds in certain localities the requisite conditions for its production. An official report to the Surgeon-General, by Surgeon Alfred Woodhull, U.S.A., gives some striking information on the subject, tending to show that a disregard of sanitary precautions in the matters of drainage, drinking-water, etc., led to the Savannah outbreak of last summer. Surgeon Woodhull, who was present on the spot, was, says the *Pall Mall Gazette*, at first inclined to share the general belief in Savannah that the disease was imported in ballast brought in Spanish vessels from Cuba and used for a railway embankment; but, after a careful investigation of the circumstances, he came to the conclusion that there was no evidence of importation of yellow fever in the epidemic; that, if it were imported, no system of quarantine could have guarded against it; and that the spread and

virulence of the epidemic were closely connected with air and soil pollution, whether this pollution be considered as a sufficient explanation of the origin of the disease or not. He contends that the Bilbo Canal, which is in fact an open sewer, was a far more probable cause of the fever than any suggested. The recklessness of the inhabitants of Savannah as to sanitary arrangements arises in great measure from confidence in the sandy soil on which the city is built; but Surgeon Woodhull points out that "permeable soils like this allow from 60 to 90 per cent. of falling water to penetrate, and also allow effluvia from contained decomposing matter to pass through them for long distances". The cleanliness of sandy places is, therefore, often greater in appearance than in fact; and these characteristics may possibly have an appreciable effect upon the public health.

SANITARY CONGRESS AT LEAMINGTON.

AT the first annual congress of the Sanitary Institute of Great Britain, held this month at Leamington, an exhibition of sanitary appliances also took place in the same town. Mr. Chadwick, C.E., was in the chair. Dr. B. W. Richardson gave the inaugural address, dwelling principally upon his theory of the origin and course of the various epidemic diseases. In contradistinction to the "germ-theory", Dr. Richardson holds that these diseases are produced by poisons originating in the subject affected; in fact, he looks upon the origin of these diseases, not as a "germ" introduced from without, but as a perversion of the force of secretion in the organism, whereby a poison is produced in the body, just as in the cobra a poison is produced by secretion. Dr. Richardson considers that in some cases external forces, such as starvation, bad food, overcrowding, etc., may give rise to such a change in the secretion, that it becomes poisonous, independently of any inoculation of poison introduced from without. When, however, such poison has originated in a given subject, it may be communicated to another individual. Surgeon-major De Chaumont read a paper on the Influence of Climate on Health; Mr. H. C. Bartlett discoursed on Water for Domestic Use; Mr. W. Eassie contributed a paper on the Effects of Growing Vegetation upon Human Health; Miss Rose Adams dealt with the question of Woman's Work in relation to Sanitary Science; Dr. E. Slade King read a paper on Sanitary Work in English Watering-places; and the Rev. Wyatt-Edgell contributed an interesting and curious paper on The Diminution of Insanity which took place during the Political Commotion in France in 1870-71. On the second day of the conference, Mr. Brudenell Carter delivered an address on The Present Possibilities of Sanitary Legislation; two papers were read on The Treatment of Town Sewage; Dr. Stevenson (Paddington) contributed a paper on The Public Conveyance of the Infected Sick; Dr. Russell of Edinburgh read a paper on The Necessity for a Diffusion of Knowledge of the Laws of Health amongst Plumbers and Builders; Dr. Baly, Medical Officer of Health for Leamington, read a paper on the Sanitary Condition of the Borough; Mr. Eassie delivered a short address on Cremation; and Mr. H. Burdett another on The Dwellings of the Poor in Large Towns.

SCOTLAND.

TENDERS to the amount of upwards of £35,000 have been accepted by the Directors of the Dundee Royal Lunatic Asylum, for the erection of a new asylum at West Green, Lochee.

It is expected that the Home for Incurables for the Border Counties will be opened for the reception of patients this month.

PROFESSOR JOHN H. BALFOUR, M.D., has, we understand, resigned the Deanship of the Medical Faculty of the Edinburgh University, an office which he has held for a great many years. Dr. Balfour has ever performed the duties of the office with the utmost zeal and efficiency; and, at the Edinburgh examinations, his familiar face and voice will long be sorely missed.

A SCHEME has lately been set on foot for the purification of the Leven water. It has been agreed by the Water Trustees to lay a pipe to carry off the polluted waters from the various mills on the water, at an estimated cost of £26,000. A Bill for the purpose is to be brought before Parliament next session.

THE GLASGOW TRIAL.

THE Maternity Hospital case comes on for trial on the 22nd instant. Dr. Tannahill is indicted for a breach of the Anatomy Act; and this case will be tried separately from the others. A subscription has been raised among the medical men of Glasgow for the defence of Mr. Stevenson, the medical student concerned in the case.

THE CHAIR OF CLINICAL SURGERY IN EDINBURGH.

THE Chair of Clinical Surgery in Edinburgh has at length been filled up by the appointment of Mr. Annandale. Mr. Annandale is one of the surgeons to the Royal Infirmary, and has for the last six or seven years been a lecturer upon clinical surgery. Formerly, he lectured upon the Principles and Practice of Surgery. The readers of the BRITISH MEDICAL JOURNAL have of late years frequently benefited by Mr. Annandale's valuable contributions to the records of clinical and operative surgery. We think the University is to be congratulated on its new professor. It will find in him a highly accomplished surgeon and a most acceptable lecturer. It will, however, be a difficult task to fill adequately the chair of Lister and Syme.—A Glasgow correspondent writes: The appointment to the Chair of Clinical Surgery in Edinburgh was preceded by rumours that a Glasgow professor was likely to get it. We have some authority for saying that this gentleman was communicated with on the subject, but, as was to be expected, preferred to retain his assured position in the commercial metropolis of the west.

ABERDEEN UNIVERSITY.

AT a meeting of the Aberdeen University Court last week, a letter was read from Sir Louis Mallet, Secretary to Lord Salisbury, asking what special provision the University would make for superintending the conduct of students selected for the Indian Civil Service during their two years of probation. In reply, the Court adopted a motion, in which they resolved respectfully to inform the Secretary of State for India that the University could not undertake to institute any separate or severer system of oversight or discipline for one class of students than for another, and that the present system had been found in practice to be perfectly effectual in securing the steadiness, moral training, and good behaviour of the students. A memorial from the University Council, asking the Court to take steps to institute evening lectures in science and art, was referred to the Senatus for a report.

SCOTCH LUNACY COMMISSION.

IT will be learned with regret that Dr. George Paterson has felt himself called upon to resign the office of Deputy Commissioner in Lunacy, the duties of which he has discharged with great efficiency for more than fifteen years past. During the whole of the time, Dr. Paterson was actively employed in the visitation of single patients; but latterly the fatigue and exposure of travelling in remote districts of the country proved too much for his strength. This leaves a vacancy in the Scotch Lunacy Board, for which there will doubtless be no lack of candidates. The salary attached to the office is £600 a year, that of a full Commissioner being £1,000.

DISPOSAL OF SEWAGE.

THE following preliminary arrangements have been made for the disposal of the town sewage of Forfar. Mr. Willet, C.E., the engineer of the scheme, proposes to separate the sewage and the "storm-water", the latter being allowed to flow through the town in open conduits. The sewage will be conveyed to a pumping-station near Orchard Bank, and discharged into a settling-pond before falling into the well. Orchard Bank and Whitewells, both belonging to the town, furnish 110 acres

of land available for irrigation. As the cheapest and most certain method of rendering the effluent water pure and admissible into the loch, the engineer recommends irrigation and downward filtration, similar to that in operation at Kendal. The cost of the scheme, exclusive of the cost of preparing the land for irrigation or filtration, is estimated at £6,000. A report has been received from a competent authority as to the best method of distributing the sewage over the different fields. He recommends a speedy commencement of the works, and expresses his belief that there cannot exist, for sewage irrigation, a case of a more promising character.

LEAD IN CITRATE OF MAGNESIA.

THE Glasgow stipendiary magistrate has found that the charge of selling adulterated citrate of magnesia, which, as we mentioned last week, was brought against two chemists, has not been proved. It was true that the article contained an infinitesimal proportion of lead, the contamination coming from the vessels in which the citric acid was manufactured; but then it was also shown that the article could not be manufactured without using leaden vessels. In these circumstances, a conviction could not be obtained, which is not, perhaps, altogether satisfactory to the consumers of citrate of magnesia.

IRELAND.

AT the examinations held last week at the College of Physicians, Miss Frances Jane Butler passed the previous examination for the licence in Medicine.

HER Grace the Duchess of Marlborough visited the Meath Hospital a few days since, and expressed herself much pleased with the arrangements, cleanliness, and appearance of the wards; leaving behind her a quantity of flowers and fruit for the inmates.

AT a meeting of the Council of the Dublin Hospital Sunday Fund, held last Monday, an application was received from the Dublin Orthopedic Hospital for participation in the division of the Fund this year, and after some discussion, a resolution was adopted to admit the Hospital to the advantages of the Hospital Sunday Fund.

AT a late meeting of the Oulart Dispensary Committee, Dr. Kelly, being unopposed, was unanimously appointed Medical Officer of the Oulart District, also Sanitary Officer and Registrar, at a salary of £90 *per annum* as dispensary doctor, £15 *per annum* as sanitary officer, and £25 *per annum* as medical officer to the Oulart Fever Hospital.

DR. WM. HUME HART having resigned the office of Assistant-Physician to the Rotunda Hospital, to which he was appointed in January last, the Board of Governors at their last meeting adopted unanimously a resolution expressing their regret at the necessity he felt of severing his connection with the Hospital.

CONVALESCENT HOME, THRONE LANDS, BELFAST.

IT has been arranged that the foundation stone of this institution, which will be in connection with the Belfast Royal Hospital, shall be laid on the 18th instant by Sir Richard Wallace, Bart. An hospital of this kind was urgently required in Belfast, for by it patients can be transferred from the wards of a crowded hospital to the purer air of the Throne Lands, where the new institution will be situated.

BELFAST HOSPITAL FOR SICK CHILDREN.

THE Committee of this Hospital have accepted a tender for the erection of the new hospital in Queen Street, and the foundations will be proceeded with at once. It is intended that the institution shall be three storeys high, and part will comprise board-room, matron's apartments, kitchen, servants' and nurses' hall, etc., besides apartments for special patients or for lady pupils, as may be decided upon. This portion will be connected by means of staircase and corridors with the

block—partly isolated and placed toward the rear, to ensure greater quiet, etc.—which is to form the hospital proper. On the ground storey of this will be the out-patients' department, with waiting-room, doctors' room, and dispensary, and from which the in-patients as admitted will be conducted by a special stair in the rear to the wards, which will occupy the two upper storeys of the block. Here will be rooms for reception, baths, and large general wards to accommodate seventeen or eighteen beds on each floor, small special wards, nurses' kitchen, etc. There will also be an operating room, mortuary, wash-house, laundry, and other conveniences. The hospital will accommodate about fifty patients, and every care will be taken to make the arrangements complete and adapted for the special purposes required.

THE PATHOLOGY OF MEAT.

LAST week we referred to the report drawn up by Professors Macalister, Macnamara, and Reynolds in reference to the use as food of cattle affected with pleuro-pneumonia, and we learn that the Dublin Sanitary Association have reported on the subject, and have come to the following conclusions. That epidemic pleuro-pneumonia is a specific contagious fever, affecting the entire system, including its flesh and milk; that the flesh is especially prone to become putrid, and is therefore dangerous; that there is no evidence of a scientific character to prove that the flesh of cattle affected with the disease has not produced injurious results; and that the proposal to sell it at a reduced price, and to render it less liable to putrefy by careful bleeding, is, if carried out, calculated to seriously endanger the health of those consuming it. These deductions are, we believe, dictated by a common sense view of the question, and have met with the almost unanimous assent of the profession in Dublin.

THE ADMISSION OF WOMEN TO THE QUEEN'S UNIVERSITY, DUBLIN.

DR. H. MACNAUGHTON JONES of Cork has forwarded to us a letter on the subject of the resolution which he put on the minutes of the Convocation at the Queen's University, Dublin. After preliminary explanations, for which we are unable to find space, relating to the technical proceedings at the Convocation on the subject in his absence, he says: "The responsibility, if any, 'of introducing ladies to the medical profession', rests with the Senate, and not with the Council of any College. If such disastrous results are to be feared from the mingling with gentlemen of a few ladies in such classes as those of chemistry, natural history, modern languages, and experimental physics, as Professor Everett fears, the Senate of the Queen's University should undoubtedly reverse their decree. I do not think they are. Finally, I have to say that I have long been of opinion that the ultimate success of women in our profession is questionable. On physiological and physical grounds I am one of those who, perhaps wrongly, consider that women are not suited to battle through life as practising physicians or surgeons. As to 'sympathy', I have none one way or the other. I leave all the 'sympathy' to more womanly hearts. If I do think thus, I am as firmly of opinion that no unfair obstacles should be placed in the way of women obtaining their legitimate object, and that they should not be discouraged or thwarted. If the public employ women, and if women can qualify in an equal standard with men, there are no reasons—logical, social, or ethical—which can be advanced to prevent them. If they cannot, then the quickest method of terminating the present agitation is to throw no impediment in their way. At least, in this question an University should hold no uncertain attitude. Either let the Queen's University declare against the principle and close its portals to the women, or let a harmonious relationship be established between the Senate and Colleges, so as that no additional excuse shall be given by the Queen's University for prolonging an agitation of which we have already heard a great deal too much. For this latter purpose, and not to pass any censure on the Council of any College, I undertook the motion which I regret I was not present to propose."

THE ANNUAL MEETING, 1878.

IT will be seen that at the last meeting of the Committee of Council two warm invitations were received, inviting the next annual meeting of the British Medical Association, the one from Bath and the other from Cork. The invitation from Bath was a renewal of a former invitation addressed to the Association at its meeting in 1874, at Norwich. It was now renewed in cordial terms, supported by a deputation and by the assurance of the cordial cooperation of the local authorities. The Bath invitation had especial claims as being "the second time of asking". It was, therefore, heartily accepted in the name of the Association, and Dr. R. W. Falconer, who was nominated as the President-elect for the year, was duly elected by the Council.

The Cork invitation was also of the warmest and most influential character, and was received with great pleasure. In the reply of the Committee of Council, the hope was expressed that the Association might find an early opportunity of meeting in Cork among its Irish fellows. The last meeting of the Association on Irish soil was in Dublin in the year 1867, and left indelibly engraved in the minds of all who took part in it the most pleasing recollections. We are glad, therefore, to be able to announce that the invitation to Cork has been at once hospitably renewed for the year 1879. It is backed by the most respected and influential of our medical brethren in the locality and has the friendly support of the authorities of the University of the city. It may be remembered that the South of Ireland Branch, whose headquarters are at Cork and which has thus early and vigorously evinced its liberal and friendly regard for the Association at large, was only formed in 1875. We understand that the intention of Cork to issue this invitation has been very warmly received and supported not only in the surrounding counties but in other of the great centres in Ireland.

THE REGISTRATION AT THE ROYAL COLLEGE OF SURGEONS.

THE following are the numbers of students who have registered their names during the present month at the Royal College of Surgeons.

	Total Entries	First Year.	Second Year.	Third and Fourth Year.
St. Bartholomew's	394	148	103	143
Charing Cross	77	26	29	22
Guy's	333	112	90	131
King's College	114	40	28	46
London	120	46	31	43
Middlesex	71	17	23	31
St. George's	122	32	34	56
St. Mary's	102	26	33	43
St. Thomas's	183	51	38	94
University College	265	64	76	125
Westminster	28	8	7	13
Totals	1809	570	492	747

Fifty-two dental students, who are pursuing their studies at the metropolitan medical schools, have also registered their names at the College.

In the above list, "First year" signifies that the gentlemen so classified are in the first year of their studies at a metropolitan school, quite irrespective of the fact that they may have already passed one or two years at a provincial school. "Second year" in the same manner signifies that it is the second year of study at a metropolitan school, although it may not be the same metropolitan school at which the studies were conducted during the first year. The same meaning attaches to the designation "Third and Fourth year". In this classification, therefore, years passed at a provincial school are quite ignored for the purposes of the College Registration.

It will be seen that the numbers of first year's men, according to the College calculations, do not generally vary much from the numbers which were kindly furnished to us last week by the Dean of each School; still it is instructive to note that there are discrepancies, which ought not to have occurred.

COUNTY MEDICAL CLUBS.

A PUBLIC meeting, of which Sir E. KERRISON, Bart., was Chairman, was held last week at the Guildhall, Bury, for the purpose of bringing under the immediate attention of the inhabitants of the towns and rural districts of Suffolk the West Suffolk County Medical Club, an organisation which has recently been brought into activity by the fostering intervention of Sir Edward Kerrison, Bart. We regard this movement as of so much importance that we devote much space to the report of the proceedings. The attendance was large.

The following list of gentlemen who have consented to act as medical officers of the club was next read:—J. W. Sheridan (Stowmarket), R. Hughes (Woodbridge), J. C. Lynch (Sudbury), P. Morris (Halesworth), E. Crickmay (Laxfield), H. Dove (Stowmarket), H. Newman (Hadleigh), S. G. Downing (Gislingham), E. B. Tench and W. W. Stainthorpe (Wickham Market), G. F. W. Meadows (Otley), P. Aldrich (Mildenhall), G. C. Edwards and B. Edwards (Ipswich), G. Cochrane (Wickham Market), J. Whitlock (Haverhill), G. R. Wilde (Mildenhall), G. E. Jeaffreson (Framlingham), J. L. Growse (Bildeston), R. E. Jones (Long Melford), G. Fletcher (Earl Soham), T. A. MacArthur (Southwold), J. M. Ling (Saxmundham), E. B. Adams (Bungay), C. G. Read (Stradbroke), E. R. Lock (Debenham), F. H. Harris and A. C. Mayo (Mildenhall), J. P. Smith (Lowestoft), W. H. Short (Walsham-le-Willows), A. Fleming (Holbrook), R. V. Gorham (Yoxford), H. P. Leech (Woolpit), E. B. Hammond (Claydon), J. J. Lay (Peasenhall), G. W. Pretty (Fressingfield), W. Simpson (Haverhill), R. W. Waring (Cavendish), E. F. S. Green (Alderton), J. Simpson (Leiston), W. Adams (Ipswich), C. Garneys and T. Garneys (Bungay), C. Cooper (Needham Market), E. R. Blackett (Wangford), C. B. Rendle and — Collins (Saxmundham), W. Ebdon (Haughley), T. G. Gurdon (Boxford), W. P. Mills (Ipswich), C. F. Mann (Boxford), A. Pearse (Botesdale), G. Jones (Framlingham), G. F. Masterman and F. G. Lawrence (Ixworth), H. T. Hibberd (Walton), G. Stevens (Norton), S. Probyn and S. Jones (Barrow).

The CHAIRMAN then entered upon an interesting statement of the aims the promoters of the club have in view, which, he said, were to make the labouring population of Suffolk as independent as possible in case of sickness. Statistics showed them that men were liable to sickness seven days in the year up to thirty-five years of age, and forty-four days up to sixty-five years. This was a very large amount, but it was infinitely greater as regarded women, whose sickness very few clubs provided for. The number thus provided for was only about twenty-two thousand of the many millions of women in England. In the labourer's family, the absence of the wife from attending to her duties was a very serious matter; and, so far as his (the Chairman's) part of the county was concerned, he knew it was more difficult than ever to get nurses to attend to the sick wives and families of labourers, therefore, it was of more consequence that the health of the women should be protected by medical advice. Day by day boards of guardians became more and more inclined to draw still tighter the action of the Poor-law, and they now made it an exception to grant medical relief to able-bodied people. In proof that the principle of the club was no new attempt, Sir Edward referred to the fact that the Duke of Grafton had had a medical club for many years in this district, which His Grace supplemented; also that Sir Charles Bunbury had such a club in operation; and he went on to express the desire of the promoters of the County Medical Club that its benevolent part should not be the prominent part, but that it should be as self-supporting as possible, and so established as to be a permanent aid to the general advancement of the poor population. It would try to gather together existing medical clubs, and not interfere with benefit societies, which might, however, wish to become affiliated with the County Medical Club in some way, so that the wives and families of the members might have attention in sickness. The amount to be paid by members of the club annually had been fixed thus: 9s. for a man and his wife (with a deduction of 4s. for a member of any benefit club), and 1s. for each member of the family; this not, however, to exceed 5s. There would be a charge of 15s. for confinements—10s. to be paid by the husband, and the remaining 5s. to be supplemented from the club. The only supplementary aid from the club would be in regard to these cases of confinement, the expenses of general management, and for fractures. Having alluded to the operation of a medical club in the union of Grantham, Lincolnshire (managed by the guardians), which had greatly diminished the rates, with the result that other unions in the county were adopting the system, Sir Edward spoke of the club at Eye, which, although it had only been started eighteen months, had spread like wildfire, having now upwards of four thousand members. At Earl Soham, another club was in existence, having, he believed, one

thousand members, whilst fresh members were joining day by day without solicitation. He then intimated that the provisional committee of the County Medical Club had decided that men earning upwards of £1 per week could not become members, saying he should have been glad to see small tradesmen in the club, but for the difficulty attending the acquirement of a knowledge of their actual income. Possibly the medical men who had come forward in the matter might, after a time, see means by which that class could be taken. Sir Edward then asked for the kindly assistance of people in a better position than the labourers in putting forward the claims of the club, and explaining away any notion that it trampled in the slightest degree on benefit societies. The club must tend to reduce the rates, and he hoped stewards would be found in most parishes to collect subscriptions and send in the names of members, as the club could not afford to pay large management expenses. The health of the people, as well as their independence, would be better secured by the establishment of the club, for his experience was that many poor people drove off for some time going to a medical man, and thus disease would be dealt with in its commencement. Having, amid much laughter, told an amusing anecdote of a man who brought him two of Cupid's condition balls (disguised as pills the size of his finger tip) for him (Sir Edward) to take, as showing that the labouring class frequently had resort to strange medicine, the worthy baronet concluded by expressing his conviction that the operation of the club would be not only in the best interests of the poor themselves, but would prove a first-class step to give them independence and sap the very foundation of pauperism.

The Duke of GRAFTON moved with much willingness: "That the Suffolk County Medical Club, as proposed by Sir Edward Kerrison, is deserving of the support of all classes throughout this county." He could not add anything to what Sir Edward Kerrison had said. He trusted that something of this description might be carried out, as it was of very great importance to the poor to receive medical assistance, and it was only by organisation it could be accomplished. They ought to thank Sir Edward for trying to start this club, and it but remained for them to assist him in the best way they could.

Mr. J. S. PHILLIPS seconded the motion, which was unanimously carried.

Mr. THORNHILL, M.P., moved the following resolution: "That, with a view to immediate action, the names of persons present willing to subscribe be taken by the Secretary." He thought their heartfelt thanks were due to Sir Edward Kerrison for the trouble he had taken in bringing this club to a successful issue. He did not think the club could hurt benefit societies. The reason for outside assistance was that there must be expenses which could not be met by the small payments of labouring men, such as confinements, the general management, and fractures or operations. With regard to tradesmen joining the club, there would be a difficulty, as it would be impossible to get at the real state of their income. He thought they ought to look upon this club as established for the sake of the labouring man unwilling to come to the parish doctor for assistance, and hoping to get better without medicine; whereas, if he sought medical advice at first, he might be saved from a serious illness. As farmers, they ought to look upon the club favourably, as it would reduce their rates and taxes to a certain extent.

Captain HORTON, R.N., seconded the motion.

The Rev. T. L. FRENCH, in supporting the resolution, said the amount required for confinements must be considerable. In the Eye Club of 4,000 members, the number of births in the year was 150. Only about one-half, however, availed themselves of the supplementary help in cases of confinement. He thought, with a club of 9,000 members, about £60 a year supplementary money would be required. The management expenses in a club of 9,000 must necessarily be large. Sir Edward had told them they commenced to-day with a clear balance-sheet; but he had not told them that that result was attributable to Sir Edward's having most liberally cleared off all the expenses hitherto incurred—not a small amount, he could assure them.

Some discussion followed on the point whether the club could not be entirely self-supporting, in the course of which Mr. JOHNSON said that, if the members were willing to submit to the levy which the rules admitted of, then it could be made entirely self-supporting; and the CHAIRMAN said his acquaintance with the poor convinced him that they could not pay more than had already been put down.

A number of gentlemen promised donations and annual subscriptions.

The CHAIRMAN suggested that the provisional committee should be temporarily entrusted with the powers of the committee of management until the end of November, the subscription list to remain open until the middle of that month, and a meeting of subscribers then to be called—where, to be settled by the provisional committee—to appoint

the committee of management. This was moved by the Rev. C. W. JONES, and seconded by Mr. R. JOHNSON.

The CHAIRMAN read the rule applying to the stewards, expressing the hope that there would be gentlemen in parishes who would come forward to send their names to the secretary, Mr. Waters, at Ipswich, with the view of electing benefit members.

The MAYOR OF BURY (Mr. Ion), expressing some doubt as to the applicability of the club to the town of Bury, from the fact that the medical men of the town spent a certain portion of the day in attending to the wants of the poorer inhabitants, proposed a cordial vote of thanks to Sir Edward Kerrison for presiding, and for the interest he had shown in starting the club.

Mr. SHORT seconded the motion, saying he had no doubt the club would be a great success and work well.

In replying to the vote of thanks, the CHAIRMAN reiterated what he said in Ipswich, that in towns provident dispensaries should be established. He thanked the medical men throughout the county for their valuable assistance in starting the club.

Dr. W. A. ELLISTON, as a member of the medical staff of the East Suffolk Hospital, said the club would remove the stigma attaching to hospitals of giving gratuitous advice to those who could well afford to pay for it. This was a general grievance. He gave statistics to prove the large increase which had taken place in the number of out-patients of the two county hospitals in the last ten years. The number of out-patients in the Bury and Suffolk General Hospital had increased 25 per cent., whilst those of the East Suffolk Hospital had risen from 1,205 in 1866 to 2,816 in 1876. He moved a vote of thanks to the Mayor and Corporation of Bury for granting the use of the Guildhall for the meeting, which, having been seconded by the Chairman and acknowledged by the Mayor, the meeting terminated, after lasting nearly two hours.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH.

THE first meeting of the Session will be held at the York House, Bath, on Wednesday, October 31st, at 7.15 P.M.: H. MARSHALL, M.D., President, in the Chair.

R. S. FOWLER, Bath. } *Honorary Secretaries.*
E. C. BOARD, Clifton. }

6, Belmont, Bath, October 1st, 1877.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE autumn meeting of this Branch will be held at Dowlais on Thursday, November 8th.

There will be a dinner after the meeting, at the Castle Hotel, Merthyr.

Gentlemen desiring to bring forward papers or communications, or to be present at the dinner, are requested kindly to give notice by November 4th to either of the undersigned.

ANDREW DAVIES, M.D. } *Honorary Secretaries.*
ALFRED SHEEN, M.D. }

October 16th, 1877.

STAFFORDSHIRE BRANCH.

THE fourth annual meeting of this Branch will be held at the Railway Hotel, Stoke-upon-Trent, on Thursday, October 25th, at 4 P.M. An address will be delivered by the President, Dr. ARLIDGE.

Dinner at 6 P.M. precisely. Tickets, exclusive of wine, 7s. 6d. each. Members intending to be present are requested to communicate as soon as possible with one of the Honorary Secretaries.

VINCENT JACKSON, Wolverhampton. } *Honorary Secretaries.*
RALPH GOODALL, Silverdale. }

Wolverhampton, October 1st, 1877.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at the Freemasons' Tavern, Great Queen Street, London, on Wednesday, the 10th day of October, 1877: Dr. R. W. FALCONER (President of the Council), in the Chair—

A deputation from Bath, consisting of Dr. Goodridge, Mr. Mason, and Mr. Fowler, the joint Secretary of the Bath and Bristol Branch, presented a numerously signed invitation to the Association to hold its Annual Meeting of 1878 in that city.

A cordial and influential invitation was also presented from Cork, inviting the Association to that city to hold its Annual Meeting of 1878.

It was resolved: That the thanks of the Committee of Council be given to the members of the Association and of the profession of Bath for their cordial invitation, and that it be accepted; and further, that Dr. R. W. Falconer be appointed President-Elect.

It was also resolved: That the grateful and cordial thanks of the Committee of Council be given to the members of the South of Ireland Branch for their invitation to meet in Cork next year, but having received an invitation, given at Norwich in 1874, and now renewed, to meet in Bath in 1878, trust that the invitation from Cork will be renewed in 1879, when the Committee of Council feel assured that the visit of the Association to the South of Ireland will be most acceptable to its members.

To the President of the Council and Members of the Committee of Council of the British Medical Association.

We, the undersigned members of the Bath district of the Bath and Bristol Branch of the British Medical Association, are desirous that the Annual Meeting of the Association in the year 1878 should be held in Bath.

While it is impossible that we can in any way compete with the towns of Birmingham, Sheffield, or Manchester, in which the Association has recently held such brilliant and successful meetings, we are willing to use our best endeavours to give the Association a hearty welcome, and afford to the members such hospitality as lies in our power.

The position of Bath as regards its railway communication from the east and west of England, from South Wales and the Midland Counties, as well as from the north, is most central, and presents facilities for a large assemblage of the members.

At a meeting of the Town Council of this city, it was also unanimously resolved:

"That the Council learn with much pleasure that the Bath members have resolved to invite the British Medical Association to hold its next meeting in Bath. It will be a privilege to welcome the Association very cordially in our ancient city, and to co-operate by every means in our power in giving facilities for a successful meeting."

We have also much pleasure in announcing that Randle Wilbraham Falconer, M.D., F.R.C.P., has kindly accepted our invitation to fill the office of President of the Association for 1878.

We trust that the Committee of Council will be pleased to accept our invitation.

(Signed) H. F. A. Goodridge, M.D., F.R.C.P.; R. W. Falconer, M.D., F.R.C.P.; J. S. Bartrum, F.R.C.S.; R. N. Stone, L.R.C.P. Ed., M.R.C.S.; F. Mason, L.R.C.P., M.R.C.S.; H. Hensley, M.D.; J. K. Spender, M.D.; Edwin Skaife; Charles Harper; R. S. Fowler; S. B. Cowan; S. P. Budd; T. Biddulph Goss; R. Carter, M.D.; H. C. Hopkins; T. Cole, M.D.; A. W. Fox, M.B.; Charles Gaine; Louis King; A. B. Brabazon, M.D.; J. J. Mitchell; H. W. Freeman, L.R.C.P.; John Terry; G. E. Lawrence, L.R.C.P.; J. Dudley Saunders; J. Davies; F. W. Hauham; D. Campbell, M.D.; T. K. Green, F.R.C.S.; Richard Colthurst, M.D.

To the President and Members of the Committee of Council of the British Medical Association.

We, the undersigned members of the British Medical Association and of the medical profession resident in Cork and the south of Ireland, have much pleasure in submitting to the Committee of Council our cordial invitation to the Association to hold the next Annual Meeting in 1878 in the city of Cork.

We promise to the Association a hearty welcome to this city, and will endeavour by every means in our power to render the meeting both interesting and agreeable.

(Signed) J. R. Harvey, M.D.; D. C. O'Connor, M.D.; W. C. Townsend, M.D.; W. K. Tanner, M.D.; W. Beaman, M.D.; John Popham; W. J. Cummins, M.D.; — Allcock; J. G. Curtis, F.R.C.S.; Wm. Colles; J. A. Eames, M.D.; J. P. Golding, M.D.; E. R. Townsend, jun.; S. O'Sullivan, M.D.; T. C. Shinkwin, M.D.; — Orton; R. O'Reilly; H. Macnaughton Jones, M.D.; Ringrose Atkins, M.D.; D. C. O'Connor, jun.; J. R. Hayes; D. H. Hadden, F.R.C.S.; W. H. Sandham; J. E. Bull; C. A. Harvey, M.D.; H. Corby, M.D.; D. D. Donovan; W. H. Holmes; J. F. Donovan, M.D.; J. Adderley, M.D.

The remainder of the minutes of the meeting will appear in a future number of the JOURNAL.

SPECIAL CORRESPONDENCE.

THE TURKISH ARMY IN ASIA.

[FROM OUR OWN CORRESPONDENT.]

Head-Quarters of Ahmed Muhktar Pacha.

SINCE my letter of last week, several sharp skirmishes between the Russian Cossacks and our Circassian cavalry have taken place, and each day there has been plenty of work in picking up and attending to the wounded, which generally number ten to seventeen in each engagement. A small body of infantry has occasionally also been engaged, and we have had several very interesting cases from among them. On Monday (10th), a Circassian officer of high rank, named Saïd Bey, received a bullet-wound in the chest; the ball perforated the sternum a little to the right side, traversed the lung, and found its way out through the left scapula. I found him in his tent, having ridden home about two miles from where he was wounded, in a very exhausted condition. The hæmorrhage had been most profuse, and I gave at once an unfavourable prognosis, insisting upon perfect rest and quiet as the only means by which a possible chance of living could be afforded. I was told, however, that one of the three Turkish doctors who are now with the camp here had seen him, and had suggested that he should be removed to Kars at once. Exposition with his cousin and chief Ghazi Mehemet Pacha, who is better known as the son of Schamyl, resulted in his being ordered to remain, for the time at any rate, where he was; and I attended him twice a day, until, on the third day, I received a message from the Pacha, that a Circassian Hekim, who would treat him after their own religion (*sic*), had come out to see him, and had said that in three days' time he would be all right. Of course, there was nothing more to be done in the matter. I was only struck with the idea that one can find quackery and credulous patients, who ought to have more sense, even out of England! A few days later, when my colleague Buckby was riding out of Kars, he met a procession of Circassians bearing on a litter the unfortunate Saïd Bey, who appeared to be almost moribund, with a face the colour of a ripe mulberry. I thought all relations between myself and the Circassians, whom I really like and admire, were over; but I was glad to find this was not the case, as on Thursday, after a very smart affair at Jala, in which ten of ours were killed and seventeen wounded, on passing the Circassian camp on my way home, I was hailed by an orderly of the Pacha, to know if I would kindly call and see a wounded officer. Of course, I went, and found, among several others wounded, a very handsome young officer, with a bullet *somewhere* in the elbow. Attending upon him, I found a wild-looking old Circassian, who was sucking the wound, in the vain hope of thus extracting the bullet—the simplest and safest way, he assured me, of performing this operation. After this interesting experiment had been continued until the operator was thoroughly exhausted, and without, I regret to say, his labours being crowned with success, the mollah or priest was called in consultation; but, by this time, the Pacha, who was present, and who wished me to think him superior to the superstitions of his people, asked me to interfere. I did so, on the condition that I should have the officer removed to our ambulance, which that morning had come into existence, though in a very small way, it is true. To this he consented; and, after his arrival, I put him under chloroform, and found that a good deal of sucking or enchantment would have been required to extract the ball, which had entered the ulna, and carried before it a portion of the olecranon, which was wedged firmly, together with the bullet and fragments of clothing, between the split condyles of the humerus right into the cancellous tissue. Having cleared out all the fragments of bone, I found that a sufficiently complete "resection" of the joint had been made without my further interference; and, under the nearest approach to antiseptic measures which I have at command, in this fresh healthy air, and with the robust constitution of the patient, I hope to save him a tolerably useful arm.

At Jala itself, I found no wounded, but I found a veritable "atrocious". A poor devil of a villager, who had probably refused or been unable to satisfy the demands of the Russians, who had made a raid on the village in the early morning, lay there killed and mutilated in a most cruel manner. His head was almost severed from his body, being held on merely by a piece of skin below the chin, his left arm hacked into little pieces up to the elbow, the right hand cut off at the wrist, and the fingers of both hands were separately cut off and scattered about the ground. A smart fire of skirmishers of both sides was still going on about half a mile away, and friendly Circassians, elated at their repulse of the enemy, fired a constant *feu de joie* with ball instead of blank cartridge, heedless of the direction of their shots, one of which passed between

my horse and that of my entertaining and genial companion the Baron Schülga, of the *Neue Freie Presse*. Upon this, we executed "the better part of valour", and followed a small battalion of infantry to their camp, where I found three wounded men to attend to, one of whom was struck on the head by a large fragment of a shell, and was insensible, bleeding pretty profusely from a superficial wound of the scalp. I could detect no fracture or actual indications of compression. I ordered his removal to the hospital, where he arrived some hours afterwards, and where the passage of a catheter through a most obstinate urethral stricture was attended with results which soon brought about complete restoration to consciousness.

My colleague rode off to a small camp of Bashi-bazouks, where he found a poor fellow shot through the abdomen: he died shortly afterwards. At the same camp, the previous evening, I had found a Bashi-bazouk with a wound which shows how miraculously bullets travel without injuring vital parts. The ball had entered behind in the right shoulder—fortunately, in the supraspinous fossa; penetrating that muscle pretty deeply, it ascended the neck; winding round to the front, it came out just above the pomum Adami, and made a superficial groove right up the angle of the chin. Notwithstanding the dangerous path through which the bullet travelled, the patient had not lost certainly half an ounce of blood. He is doing very well, and I hope to discharge him from hospital in a few days.

We are at present, as I said, in a small way in our "Ambulance Anglaise"; but we have got eight patients already, who are very happy, and are all doing well. Arrangements take a long time to develop themselves in a complete state here; and up to the present time we have had to find all provisions for our patients, aye, and to cook them too. This morning, however, a *sous-officier* has arrived, and he says other soldier-servants are coming immediately. I have set this "lieutenant" to dig out a latrine trench—work, I assure you, which he does not consider at all beneath him—and promised him some "mastic" every night if he behaves himself. Last night we received marks also of our recognition by the authorities in the posting of two sentries—both of them suffering from bronchitis, by the way—to guard my tent. Mr. Williams, the highly respected correspondent of the *Morning Advertiser*, has pitched his tent with us, and a most active "quartermaster" he has been, helping not only in the tending of our patients themselves, but in providing and preparing their food, and making them as comfortable as possible in their anything but luxurious quarters. I have had some distinguished patients during the week, including the Mushir himself and Hadji Reschid Pacha. I am glad to say their ailments were not serious, and that they are all quite convalescent by this time.

CORRESPONDENCE.

THE PENGE CASE.

SIR,—Mr. Henry Taylor, in his letter published in your JOURNAL last week, speaks of my remarks on the Penge case as "an instrument for the express purpose of upsetting the evidence given in a great criminal trial". I must beg to observe that the instrument used by me for that purpose was my sworn evidence given in court, which Mr. Taylor has not read.

Furthermore, in order not to encumber your space too much, I was obliged to omit many points, and assume that your readers knew something of the circumstantial evidence, which, again, Mr. Taylor has not read.

Since, then, Mr. Taylor is, on his own showing, acquainted with a part only of the case, I fail to see any justification for the severely magisterial tone which he has thought proper to adopt. For the matter of his criticisms, I am sincerely obliged to Mr. Taylor, as they indicate points which I had failed to make clear; and I assume that his obvious misconstructions of my meaning were due to haste and inadvertence.

Next week, if you will kindly grant me space, I will make some final remarks on the case; and in doing so shall have to enter on some considerations which it seems undesirable to discuss while the precise degree of guilt attaching to the prisoners must be still *sub judice*.

Wimpole Street, October 16th.

Yours, J. F. PAYNE.

SIR,—I am unwilling to enter upon a paper warfare on the subject of the medical aspects of the Penge case; but a letter from Mr. Henry Taylor, in your columns last week, seems to demand some reply, lest silence should be construed into consent to the truth of his criticisms. It is so easy for anyone to win a cheap argumentative triumph by misstating some facts and distorting others, whether intentionally or not, that it would not be easy to reply to all the correspondence which might

be conducted on such a basis. I have endeavoured, throughout the course of this difficult and painful case, to avoid all partisan feeling, and to make only such statements as I could honestly make with such knowledge or ignorance as was in me. If, upon points of scientific fact or inference, I have erred, I have done so in ignorance, and shall thankfully stand corrected by those wiser and more experienced than myself. But, when the strictures of "an unbiassed mind" acting "in the interests of justice and science", take the form of distortion of facts and special pleading, I feel bound in those same interests of justice and science not to hold my peace. I shall not, however, having already fully stated my views elsewhere, take up the whole subject again, but shall leave the ingenious tissue of misstatement, innuendo, and speculation which your correspondent has evolved to answer itself. I shall only ask to be allowed to state certain points upon which he has, perhaps unintentionally, misquoted my statements, and attributed to me opinions which I have never entertained.

First, as to Addison's disease. Mr. Taylor says:—"To argue the existence of Addison's disease in the present case, as Dr. Greenfield would do, simply from an expression used by Mr. Longrigg, that 'the face was bronzed with dirt', is rather sharp practice even in forensic experience." Without remarking on the offensive tone here employed, I may simply state that I did nothing of the sort, as anyone may see by reference to my report. I mentioned the omission to examine the suprarenal capsules as an example of the want of care with which the *post mortem* examination was conducted. And, as to the other statements on the subject of this disease which Mr. Taylor makes, drawn from his own experience, few would have ventured upon any so sweeping statements on the strength of the "four cases" which Mr. Taylor has seen.

Further, Mr. Taylor says:—"Dr. Greenfield, on the other hand, would attribute the emaciation partly to tubercular meningitis and partly to tubercular deposit at the apex of the left lung; but he evidently labours with his subject, and finally resorts to much supposition as to symptoms during life which might have been present to produce the wasting, but of which he adduces no evidence whatever." I must confess that I was struck with astonishment on reading this passage, and grieved, too, that I should have made statements which, to "an unbiassed mind", bore such a construction. In my original report upon the case, since published in your columns, I very carefully avoided any decisive statement as to the cause of the emaciation. The tubercular nature of the bodies in the pia mater was not then even positively asserted, so that I could draw no inference from it. I pointed out, too, that the emaciation in phthisis could not be calculated from the extent of disease in the lung; that there was no definite ratio between the two; and consequently that, without further evidence as to symptoms, no one could say how much of the emaciation was due to phthisis. If there were any evidence of continued diarrhoea, profuse sweating, or other indications of hectic fever, or of vomiting, three of the great causes of phthisical emaciation, having actually existed during life, there would be more ground for attributing part of the emaciation to phthisis. My actual words were:—"Tubercular meningitis is not, in the adult, necessarily accompanied by any great emaciation; the amount of wasting depends in part on the length of the illness. The estimation of the part played by the lung-disease in producing emaciation must depend on other evidence as to symptoms observed during life, such as diarrhoea and night-sweats, both of which are of common occurrence in consumption, and are not necessarily due to any distinct change which can be seen after death", etc. Had I been writing for doctors instead of lawyers, I need not say that I should hardly have stated such commonly known facts; but it will be seen that, so far from assuming that these conditions existed, I distinctly stated that I had no evidence to show that the disease found after death had any important effect in causing emaciation. Subsequently, on looking through notes of a large number of cases, I found that I had erred in excess of caution, and that, in several cases, there had been very great emaciation, either general or of some organs, in tubercular meningitis, with no other discoverable cause than the tuberculosis; and I stated some of those facts in my paper in the *Lancet*.

There are two or three other points to which Mr. Taylor refers, and on which he makes statements equally or still more open to objection. But I will not weary your readers, or insult their understandings, by correcting statements which anyone who had carefully read my report would see to be incorrect. Only I would suggest that, on a subject of so much importance, and involving such difficult problems, it might be as well that any discussion should be based on facts; and that such old tools of controversy and methods of special pleading as Mr. Taylor has adopted might well be discarded in the present case, and careful and accurate reasoning substituted for them.

I have throughout regarded the case as one of great difficulty, and

as raising questions which could only be settled upon a balance of probabilities; and whilst I am now fully satisfied that the symptoms immediately preceding death were caused by brain-disease—probably tubercular meningitis—and could not be accounted for by privation or neglect, and that a large part of the emaciation may have been caused by the mental disease and by tuberculosis, it is impossible now to say whether the remainder was actually due to diabetes, diarrhoea, or other disease, or to want of sufficient or proper food. Seeing that there is no *post mortem* evidence of starvation—nay, in this case an absence of some of the commonly stated signs, to which I personally, however, attach no value—and that other causes, not in any way excluded, might have existed, there could be no proof of starvation apart from proof of actual privation of food. This is as far as I have ever ventured to go. Beyond this, I could only state such facts as were within my knowledge upon the subject of the diseases which had been suspected to exist.

If to any extent Mr. Taylor's misconceptions are due to want of clearness of expression in my statements, I cannot but regret it; my apology must be the necessary haste in which both the report and the article were written; but I think he must have read and commented in an unnecessary haste, without waiting to consider whether my words would bear the construction which he has placed upon them.

Apologising for occupying so much of your valuable space, I remain, sir, yours obediently,

W. S. GREENFIELD.

London, October 17th, 1877.

SIR,—Now that a respite has been accorded the four convicted persons in this case, one feels more at liberty to draw attention to certain facts which appear to have hitherto escaped the observation of the numerous critics since the trial.

None of the several writers on the Penge mystery have apparently bethought themselves of comparing the *post mortem* appearances found in the body of Harriet Staunton with those, confessedly but few, carefully recorded accounts of a similar examination after undoubted death from starvation. Two such accounts have occurred in comparatively recent times: in 1853, a coroner's jury returned a verdict of murder against the mother and stepfather for starving and exposing their son Mark Cornish;* in 1870, the father and mother were convicted for the manslaughter of their daughter Sarah Jacob, "the Welsh fasting girl".† The case of Mark Cornish occurred at North Common, a village about six miles from Bristol. Starvation, with ill-treatment, had certainly been going on for about three months (if not much longer) before the child's death. Being a typical one of chronic starvation, this case, although less minutely recorded, is therefore, of the two, the better comparable with the *post mortem* appearances in the body of Harriet Staunton.

I must not trespass on your space with a detailed and tabular description; but, if anyone of your interested readers will compare the *post mortem* condition of the body—heart, stomach, intestines, and omentum—of Mark Cornish, as given in evidence by Mr. Biggs, the surgeon examined,‡ with the condition of the corresponding organs of Harriet Staunton, as detailed in the late medical evidence, he will observe a very striking resemblance. There was this marked difference: in the body of Mark Cornish, all the organs were stated to be healthy.

Apart, however, from the admitted presence of tubercles in the brain of Harriet Staunton, I have been much impressed by the assurance of those authorities who have publicly stated that the appearances of the head were, as far as they go, against the theory of starvation, and were really inconsistent with the theory of death from starvation alone. Seventy-two hours after death, the brain of Sarah Jacob was found to be fully developed and the membranes quite healthy; the whole substance of the organ, however, presented numerous points of oozing blood, and vascular congestion was observed both at the base and at the upper part. § Delirium and stupor immediately preceded death in the case of the Welsh fasting girl. Most of our authors on medical jurisprudence also record the case of a prisoner of Toulouse, who, to avoid punishment, resorted to voluntary starvation, and who, at the end of fifty-eight days of such, died after struggling four hours in convulsions. His brain was found paler than usual.

Albeit the condition of the heart of Harriet Staunton did not tally with the description given by Sir Thomas Watson || of the state of that organ after death from starvation; albeit no marked reference was made in the evidence of the Penge case to the specific cadaveric phe-

* *Morning Chronicle*, February 26th, 1853.

† *A Concise History of the Welsh Fasting Girl Sarah Jacob, with Comments Thereon, and Observations on Death from Starvation.* Robert Fowler, M.D. Edin.

‡ *Ibid.*, page 203, *Morning Chronicle*, *loc. cit.*

§ Dr. Lewis, *BRITISH MEDICAL JOURNAL*, January 8th, 1870, p. 23.

|| *Principles and Practice of Physic*, third edition, page 65.

nomenon observed in the intestines during the Irish famine by Dr. Donovan,* and elsewhere by Dr. Martyn;† albeit not a word appears in evidence of the peculiar foetor exhaled from the body in cases of starvation, one cannot but come to the conclusion, after a careful comparison with the cases above quoted, that insufficiency of food was one great factor leading to the death of Harriet Staunton. The removal to Penge had, of course, some share in the immediate issue. But the possible *tertium quid* which has, since the trial, so agitated the medical and general public is the discovery after death of tubercles in the brain and lung, coupled with the evidence (slight and scanty though it be) of some form of mind-derangement during life.

No medical man denies the possibility of even extreme emaciation from various forms of bodily disease—from functional nervous disorders and even from moral causes alone. But from either of these causes the emaciation is, as a rule, the result of the non-assimilation of the food, it may be, duly taken or properly administered, and evidence of the consumption of food can generally be found after death. The intestines, both small and large, of Harriet Staunton were, however, quite empty, and contained no food or fecal matter whatever.

On the other hand, in the practices of all medical men cases occur of persistent refusal of the proper quantity of, or of all, daily food, conjoined with neglect of personal attention and cleanliness, in many miserable patients afflicted with but even slight brain-impairment brought on or not by mental worry and distress. One need not dwell on the inevitable ending of such cases, if uncared for and unheeded by their relatives or attendants.

Having now more clearly before them all the probable and possible contributory causes of death, it remains, of course, for the higher authorities to apportion the legal share of each of these causes between the deceased and her four survivors.—Yours obediently,

Bishopsgate, October 16th, 1877. ROBERT FOWLER, M.D.

UNIVERSITY INTELLIGENCE.

OXFORD UNIVERSITY.

EXAMINATIONS FOR THE DEGREE OF M.B. AND IN PREVENTIVE MEDICINE AND PUBLIC HEALTH.—Examinations for the degree of Bachelor of Medicine will be holden early in December. Candidates are requested to forward their names to the Regius Professor of Medicine, before November 24th. Also, it is proposed to hold an Examination in Preventive Medicine and Public Health, in conformity with Statute XII, Titulus Sup. XIX, p. 291, ed. 1877. The Examination is open to all persons who have taken the degree of Bachelor of Medicine in the University of Oxford. Candidates are to send in their names to the Regius Professor of Medicine on or before November 10th.

UNIVERSITY OF CAMBRIDGE.

At a congregation on Thursday, October 11th, Mr. F. M. Balfour of Trinity, was approved as an University teacher in Physiology, and Mr. S. H. Vines of Christ's, was approved as an University teacher in Botany. The following were appointed Examiners: First M.B. Examination: J. W. Hicks, Sidney; C. T. Whitmell, Trinity. Second M.B. Examination: Dr. Humphry; Dr. Galabin. Third M.B. Examination: Dr. Charles West; Dr. Cheadle. Master in Surgery Examination: T. Holmes; G. W. Callender. Dr. Bradbury was appointed Assessor to the Regius Professor of Physic.

The Physical Science Postmastership at Merton College has been awarded to Mr. E. T. Milner, of Manchester Grammar School.

QUEEN'S UNIVERSITY, IRELAND.

At the Annual Meeting of the University last week, it was reported that 72 candidates have sought the degree of Doctor in Medicine, and of these 44 have satisfied the examiners; 35 candidates out of 58 have passed for the degree of Master of Surgery; and 25 out of 43 have been deemed qualified for the diploma in midwifery; 115 candidates presented themselves at the second University examination in medicine, of whom 73 have satisfied the examiners; and 154 out of the 198 candidates have been successful at the first University examination in the same faculty.

* *Dublin Med. and Pres.*, February 2nd, 1846.

† *Medical Times and Gazette*, March 3rd, 1871.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 4th, 1877.

Chicken, Rupert Cecil, Nottingham
Wickerstaff, William Harry, Macclesfield
Walsh, William Arthur Stephenson, Worcester

The following gentleman also on the same day passed his primary professional examination.

Brown, Percy, London Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

- CHARING CROSS HOSPITAL—Assistant Physician and Assistant Surgeon. Applications to be made on or before November 2nd.
GENERAL HOSPITAL, Birmingham—Two Assistant Physicians, Two Assistant Surgeons, and a Dental Surgeon. Salary, £100 each per annum. Applications to be made on or before the 29th instant.
HOO UNION—Medical Officer of Health and Public Vaccinator. Salary, £120 per annum and extras. Applications to be made on or before the 24th instant.
LOCHGOLHEAD and KILMORICH, Parish of—Medical Officer. Salary, £60 per annum and fees. Applications to be made on or before November 1st.
MANCHESTER TOWNSHIP—Assistant Medical Officer for the Workhouse Hospital.
ROTUNDA LYING-IN HOSPITAL—Assistant Physician. Applications to be made to the Master.
ST. ASAPH UNION—Medical Officer for the Llanfairtalhairn District.
ST. GEORGE'S and ST. JAMES'S DISPENSARY—Physician. Applications to be made on or before the 25th instant.
STIRLING DISTRICT ASYLUM, Larbert—Assistant Resident Medical Officer. Apply to James Maclaren, Esq., Medical Superintendent.
WESTMINSTER GENERAL DISPENSARY—Physician. Applications to be made on or before the 20th instant.
WESTMINSTER HOSPITAL—House-Physician. Applications to be made on or before the 20th instant.
WONFORD HOUSE HOSPITAL FOR THE INSANE, near Exeter—Resident Medical Superintendent. Salary, £350 per annum, with board, lodging, washing, and attendance. Applications to be made on or before November 3rd.
WORKSOP DISPENSARY—Resident Surgeon. Salary, £120 per annum, with furnished apartments, coals, gas, and attendance. Applications to be made on or before the 27th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

- ASHES, Henry, M.B. Lond., appointed Assistant Physician to the Liverpool Children's Infirmary, *vice* T. D. Chalmers, M.D., resigned.
HUTCHINSON, John, M.B., appointed Resident Surgical Assistant to the Western Infirmary, Glasgow.
MCMURRICH, Malcolm, M.A., appointed Resident Medical Assistant to the Western Infirmary, Glasgow.
McPHAIL, Donald, M.B., appointed Resident Medical Assistant to the Western Infirmary, Glasgow.
McRURY, John, M.B., appointed Resident Surgical Assistant to the Western Infirmary, Glasgow.
ORR, A. B. Seton, M.B., appointed Resident Surgical Assistant to the Western Infirmary, Glasgow.
PATERSON, R. H., appointed Resident Medical Assistant to the Western Infirmary, Glasgow.
*SANDFORD, F. J., Esq., M.D., appointed Medical Officer of Health for the Droyton (Shropshire) Rural Sanitary District, *vice* W. H. Harding, M.R.C.S. Eng.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 5s. 6d., which should be forwarded in stamps with the announcement.

MARRIAGE.

LITTLE—SHAW.—On the 10th instant, at Buglawton Church, Cheshire, by the Rev. E. Harwood Cooke, M.A., Vicar of Urmoston, assisted by the Rev. W. Besant, B.A., Vicar of Buglawton, *David Little, M.D., Manchester, to Marian (Minnie), second daughter of Anthony Shaw, Bank House, Congleton.

ROYAL COLLEGE OF SURGEONS, EDINBURGH.—At the annual meeting of the College, held yesterday, the following office-bearers were elected for the ensuing year. *President*: Patrick Heron Watson, M.D. *Secretary and Treasurer*: Joseph Bell. *Librarian*: David Wilson, M.D. *Council*: Andrew Wood, M.D.; James D. Gillespie, M.D.; James Spence; William Walker; Henry D. Littlejohn, M.D.; John Smith, M.D.; *Ex officio*, Joseph Bell. *Examiners*: Archibald Inglis, M.D.; Peter D. Handyside, M.D.; James D. Gillespie, M.D.; Henry D. Littlejohn, M.D.; Patrick H. Watson, M.D.; David Wilson, M.D.; John Smith, M.D.; Argyll Robertson, M.D.; Joseph Bell; John Duncan, M.D.; Robert J. B. Cunyngham, M.D.; Alexander G. Miller, M.D. *Assessors to Examiners*: William Brown; James Spence; William Walker; James S. Combe, M.D. *Conservator of Museum*: Robert J. Blair Cunyngham, M.D. *Clerk*: James Robertson. *Officer*: John Dickie. *Assistant to Conservator*: James Gordon.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 2 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.
THURSDAY... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Mr. J. Knowsley Thornton, "Removal of Fibroid Uterus and both Ovaries"; Dr. C. Theodore Williams, "A Case of Persistent Pyrexia during Phthisis, reduced by Diet"; Dr. R. J. Lee, "Maternal Impressions".
TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Dr. Wm. Miller Ord, "On the (Edema (Myxodema) observed in the so-called Cretinoid condition of Women".
WEDNESDAY.—Hunterian Society, 8 P.M. Dr. Moxon, "On some points in the Clinical History of Heart-Disease".
FRIDAY.—Quæret Microscopical Club (University College, Gower Street), 8 P.M. Dr. James Edmunds, "On the Immersion Paraboloid";—Clinical Society of London, 8.30 P.M. Dr. Henry Thompson, "A case of Hysteria, with Contraction of the Lower Limbs, Anæsthesia, and Ischæmia, in a boy"; Mr. Lawson (for Dr. Aikman), "A case of Injury to the Lower Part of the Spinal Cord, followed by Wasting and Contraction of the Muscles of the Lower Extremities"; Mr. Bellamy, "A case of unusually large Urethral Calculus"; Dr. Dowse, "A case of Cerebro-Spinal Unilateral Sclerosis".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.
AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.
PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.
CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.
WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.
COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

OWING to pressure on our space, we are compelled to omit until next week the letters on Antisepticism of Drs. Marion Sims and John Dougall.

SIR,—I am sorry my explanatory letter accompanying "Inquiry" was not sufficiently clear to enable you to answer it. That inquiry should always precede inquests I can understand, and I now ask—1. In the event of a soldier being found dead, is it legal or right for the military or medical authorities to remove the body and make a post mortem examination? 2. Is it not the coroner's duty and prerogative, in the name of the Crown, to take possession of the body? and if he, after due inquiry, forms a post mortem examination necessary, should it not devolve upon him to order it to be made?—I am, sir, your obedient servant,
October 14th, 1877. A MEDICAL MAN.

* * * 1. In every case in which a person is found dead, information should be given to the coroner. Until he has issued his precept for an inquest, there is nothing illegal in the removal of the body or in the making of a post mortem examination by the medical or military authorities. 2. It is the coroner's duty in all suspicious cases of death to take possession of the body and direct an inquest if he think it necessary. It also rests with him to order a post mortem examination according to his discretion. Any person making a post mortem inspection except under his order would be guilty of contempt.

ERRATUM.—In the report last week of Mr. Rivington's remarks at the Royal Medical and Chirurgical Society, for "funicular hydrocele", read "funicular hydrocele".

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to a Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

DE LISLE ALLEN FUND: AN APPEAL.

Since our last notice of this case, Dr. De Lisle Allen, who for more than two years was incapacitated from following his profession, has died in Bethlem hospital. An appeal is once more made to enable his widow and daughter to keep a home, and to put them in a position to earn a livelihood for themselves. Dr. B. W. Richardson, 12, Hyde Street, Manchester Square, is treasurer; and subscriptions will be received either by him or by the Union Bank of London, Argyll Place, Regent Street. Signed) I. E. ERICSEN, F.R.C.S., F.R.S., BENJAMIN W. RICHARDSON, M.D., F.R.S. J. HUGHLINGS JACKSON, M.D. THOMAS SMITH, F.R.C.S.

THE LUNACY LAW.

B. M. asks.—What are the provisions under which a husband (medical man) may keep his wife at home, who has been suffering from melancholia and has attempted self-destruction? She has, after judicious treatment under an eminent physician, and through change of air and scenery, rapidly recovered, but there is still a doubt of relapse? May he treat her himself henceforth? And, in case of accident, could the coroner or the Commissioners of Lunacy lay any blame on him, provided she has a keeper during his unavoidable absence?

* * * There is no provision in the Lunacy Acts to define the duties of a husband towards his insane wife, which are part of the common law. The need for order and certificates of a single lunatic in a private house under the Lunacy Acts depends entirely upon whether the patient is "kept for profit"; and an insane married woman who had property of her own, which is paid over to her husband by her trustees, might, under the strict letter of the law, be considered as "kept for profit", even while residing in the husband's private house. The law, however, in such a case would have to be put in force by the Commissioners in Lunacy, whose sound judgment and right feeling cannot be doubted. "In case of an accident", the coroner's jury could undoubtedly lay blame if the circumstances justified it; and the Commissioners also could not only lay blame, but they could prosecute—1st, if the lunatic ought to have been placed under certificates, and had not been so placed; and 2nd, if being under certificates, the accident could be attributed to neglect or ill treatment of any kind. The law is made for offenders; but if our correspondent should treat his insane wife in his own house, as we must suppose that he intends to treat her, he has clearly the right to do so, and the Commissioners have no power of interference, nor even of visitation.

The letters of Dr. Cordwint (Milverton) and Mr. W. H. Jalland (York), relating to changes of address and other matters affecting the business of the JOURNAL, should be addressed to the General Manager, Mr. Fowke, to whom they have been handed.

NEW THEORIES.

The various popular audiences whom Dr. Richardson has addressed during the last week can hardly complain of any want of startling surprises in his addresses. Each rose far above the common-place. Speaking at Leamington at a sanitary congress to a very mixed audience, he developed at length a new theory on contagious diseases, which he entitled the glandular theory, as to which they were hardly in a position to be very critical; while, on the other hand, they must have felt it difficult to know how to accept the new medical theory then and there propounded in the face of those already accepted. At a church congress at Croydon, he is reported to have announced the principle that no hospital ought to exceed twenty-five beds; and at an inaugural address at the Birkbeck Institute, he is reported to have said that the present method of training young men for the medical profession was leading to certain mental ruin. Three rather important theories to have announced ex cathedra to popular audiences within so short a space of time.

CERTIFICATES OF CAUSE OF DEATH.

SIR,—Will you kindly give me your opinion on the following case that occurred to me in my practice here during the past week?

A married woman was delivered by a midwife of a living child at 10.30 P.M., and died at 12.25 the same night of retained placenta and post partum hæmorrhage. A messenger reached my house at 1.30 A.M., who must have been sent for me within only a few minutes of the death of the woman. Was I right in refusing to give a certificate of death? And ought not an inquest?—Yours truly, P. R. LITTLETON. Walton Bank House, Ashbourne, October 14th, 1877.

* * * Our correspondent was perfectly right in refusing to give a certificate of the cause of death when he had not even seen the patient. It is in the discretion of the coroner to order an inquest or not; but it seems to us that the sudden death of a woman in childbirth under the hands of a midwife is a case calling for inquiry.

SIR,—I shall feel obliged if some of your correspondents will kindly give me their opinion as to the best treatment to adopt for the following case. A gentleman has been troubled for the past two years by an excoriation between the thighs and scrotum, and extending to the perineum. The excoriation gets almost quite well occasionally, but it is liable to recur, and sometimes gets worse, and sometimes as an eruption of itching pustules.—I am, etc., L.R.C.P.

SIR,—Nicotine poisoning (not criminal, but only accidental) has apparently been rife of late. In the BRITISH MEDICAL JOURNAL of the 22nd ultimo, at page 419, is that of a boy of three or four years of age, he having been blowing soap-bubbles through an old wooden pipe. He lived three days. Where, and who was the medical witness to whom application may be made for information? A second case was that of Francis Morris, aged 55, at Manchester, on the 24th of last month—the medical witness, Mr. J. S. Bridgford, whose address I cannot trace. And a third is noticed in the BRITISH MEDICAL JOURNAL of the 13th instant, at page 536, which occurred to the boy Shore at Lambeth. Who was the medical witness to whom reference may be made?—Yours truly, CORONER.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W. C., and not to the Editor.

MEDICAL ETIQUETTE.

SIR,—If you have space, and will allow me, I should like to elicit the opinion of yourself and the profession as to whether a breach of medical etiquette has been committed under the following circumstances, as I do not remember any similar case to have been reported since I became a member of the profession.

My appointment as medical officer of Health to the Haslingden Local Board expiring on the 29th of September last, it became necessary that the forms of the law should be complied with, hence a formal advertisement was inserted in the *Preston Guardian*, which, as nearly as I can remember, was as follows.

"The Haslingden Local Board will, at their meeting on the 3rd of October next, proceed to the election of a medical officer of health and an inspector of nuisances for the district. (Signed) Thomas Woodcock, jun., Clerk."

As I have several times been reappointed in the rural district, of which I am also medical officer, and no notice has ever been taken of these formal advertisements by other medical men, I this time thought the same would be the case, and I did not even send in an application for reappointment. It came out, however, to my surprise, on the 3rd instant, that I had indeed reckoned without the host, for an application was put in from Dr. Macpherson, a gentleman who settled here about twelve months since, stating that he was willing to take the appointment at £59 per annum, being £41 less than my old salary. Of course, the offer was tempting, particularly to the so-called economists, who are always to be found on every local board, and he obtained five votes; but as seven votes were recorded in favour of my re-election, I was reappointed at my old salary.

I put these facts before the profession without note or comment, and shall be glad for any expression of opinion thereon.—I am, sir, yours truly,

Haslingden, October 9th, 1877. J. A. HARRISON, M.D.

SIR,—Kindly give your opinion upon the following question of medical etiquette in your next issue. A. pays two visits to X's house for B., in B.'s absence from home. About six months afterwards, Mrs. X. desires A. to attend her son (aged 15); and, in reply to A.'s request that she will send for B., she says that, though she would have B. if ill herself, her children prefer A., and if A. do not attend she will send for Drs. C. or D. Is A. justified in attending?—Yours, etc.,

October 1877. ASSOCIATE.

* * * Even under the circumstances A. would do well to decline to supplant B. in the house which he had entered as B.'s friendly representative and deputy.

THE "VIN DE BAUDON".

SIR,—We were only made aware to-day, on calling at your office, of the publication in your issue of August 11th of Dr. Andrew Clark's letter, attributing to us the unfair use of his name in our advertisement of the "Vin de Baudon". We beg to enclose a copy of the London Hospital Report, as published in the *Medical Times and Gazette* of May 12th, 1877, and a copy of our advertisement. The report gives great prominence to Dr. Clark's name in connection with the case; and having the care of it, and appearing as it does in a public journal, fully, we considered, justified us in utilising it for advertising purposes; and we appeal to any impartial and competent judge whether we have given undue prominence to Dr. Clark's name, or made other than legitimate use of the report. If, instead of writing to your JOURNAL, Dr. Clark had advised us that the published report was inaccurate, we should at once have complied with his desire, and discontinued using his name.

Regretting this explanation, due to you and the profession, should through ignorance have been so long deferred, and requesting the favour of the early publication of this letter, we are, sir, yours very obediently,

October 15th, 1877. PAGNY, WALLACE, & Co.

INFANT FEEDING.

SIR,—In reply to the letters of "L.R.C.S." and "A Father" on the above subject in your last issue, I beg to observe that the verdict of the jury at the inquest on the child at Islington was correct and in accordance with the facts, for the following reasons. The child was eight weeks old; the salivary glands of infants do not assume their active functions till the age of from four to six months; without ptyalin, the starch of farinaceous food is not transformed into dextrine and grape-sugar, and is consequently taken into the stomach in an insoluble state, incapable of absorption. Therefore, of the various foods offered to the child in question, the milk only could be useful as nutriment, the other articles being quite incapable of being assimilated. The aniseed, I presume, was given as a remedy to ease the griping pains occurring during the use of such a diet.

When ignorance like this is displayed, it is reasonable to suppose the cow's milk was given undiluted, so that the excess of casein it contains was not digested, but added to the troubles the use of the starchy food involved. Under the circumstances, the death of the child cannot be wondered at; and it is to be hoped that the publicity given to the matter by means of the coroner's inquest will have good effect in diminishing the risks to infant life from defective nutrition caused by improper feeding.—Yours obediently,

Long Stratton, Norfolk, October 15th, 1877. C. A. OWENS, M.D.

MOLES ON THE FACE.

SIR,—I strongly advise "A Member" to employ the acid nitrate of mercury in removing moles from the face. The acid should be applied with a splinter of wood and gently rubbed into the part for several seconds, according to the thickness of the growth. Great care should be taken to prevent the acid reaching the surrounding skin. There is absolutely no pain attending the application, and the growth gradually shrivels away, and the slough falls off in about a week. I treated a small warty growth in this manner, which existed on the chin of a lady of considerable personal attractions, some two years ago. She was rather alarmed as to the result, as the acid appeared to be working down somewhat deeply; and I also myself feared that a scar would be the result. The growth has not returned, and a very faint depression alone remains, like a very indistinct small-pox mark. The growth had been repeatedly nipped and cut off, and always grew again, to the patient's great disgust. I have frequently removed small sessile growths from the external ear with the scissors; but there was usually very free hæmorrhage, requiring the use of strong styptics, or even the introduction of a needle. These growths usually contain cartilage, and I should in future employ the acid for their removal. The ligature is certainly efficacious; but it is painful, and by no means in its results.—I am, etc.,

LEWELYN THOMAS, M.D.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

STYPTIC.

SIR,—That word can scarcely be called "current"—which is not to be found in any of the text-books, and is not known to the editor of a leading journal; but I do not dispute the priority of Dr. Grimshaw's invention of the above convenient term: I may claim, however, priority of publication in this part of the kingdom. It is not worth talking about. It would be absurd to suppose that any but the greatest inventions are not made by many men independently; but I wish to say concerning the general question of publication of any invention or discovery, small or great, that if after a search in the latest text-books no mention of it is found in them, the inventor should not hesitate, from fear of being told that "everybody knew that", to write to the journals forthwith, so that it may be published or re-published, even again and again if necessary, until it is finally lifted into the text-books and becomes familiar knowledge. If the inventor pursue this plan with respect to all his inventions, both the greater and the less, he will in the end be spared some deep regrets, either selfish or unselfish, or both.—Your obedient servant,

October 1877.

T. CHURTON, M.D.

ERRATA.—The case alluded to in the last BRITISH MEDICAL JOURNAL, at page 552, was that of a man who died at the Denbigh Infirmary, not Wrexham. The inquest was also held in the Denbigh Infirmary.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; The Derby Mercury; The Preston Guardian; The Scarborough Express; The Jewish World; The Scotsman; The Cork Constitution; The Freeman's Journal; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Russell Reynolds, London; Dr. J. Marion Sims, Paris; Dr. Reginald Southey, London; Dr. H. Macnaughton Jones, Cork; Mr. R. P. Oglesby, Leeds; Mr. R. T. Morgan, Cricklade; Mr. Greenway, Plymouth; Dr. Brodie, London; Dr. Wilson Fox, London; Dr. J. B. Bradbury, Cambridge; Mr. T. Spencer Wells, London; Mr. Cumberbatch, London; Dr. Norman Moore, London; M.D. Edin.; Dr. F. Taylor, London; Professor Bentley, London; Dr. J. Wallace, Liverpool; Mr. R. Kershaw, London; Mr. Andrew Clark, London; Mr. F. J. Marshall, London; Dr. A. B. Shepherd, London; M.; Dr. Gillespie, London; Dr. Graelly Hewitt, London; Mr. G. Cowell, London; Dr. Burder, Clifton; The Registrar of Owens College, Manchester; Mr. Nunneley, Leeds; Mr. Jacobson, London; Dr. John Curnow, London; Mr. A. Hensman, London; Mr. C. T. Dent, London; Mr. J. G. Garbutt, London; Mr. A. Pearce Gould, London; The Stafford House Committee; Dr. C. Theodore Williams, London; The National Society for Aid to the Sick and Wounded in War; Dr. J. W. Moore, Dublin; Dr. Edis, London; The Registrar-General of Ireland; Mr. Eastes, London; The Secretary of Apothecaries' Hall; Dr. J. Milner Fothergill, London; The Registrar-General of England; Dr. Tripe, Hackney; The Secretary of the Quekett Microscopical Club; Dr. Cunningham, Galway; Dr. Elliott, Mansfield; Mr. Erasmus Wilson, London; The Secretary to the Local Government Board; Dr. Elliott, Carlisle; Dr. Churton, Leeds; Sir William Smart, Haslar; Dr. J. Lawrence Hamilton, London; Mr. M. Blok, London; Messrs. Trübner and Co., London; Mr. J. Wycliffe Jones, Edinburgh; Dr. J. C. Renton, Glasgow; Dr. John Alexander, Glasgow; The Secretary of the Manchester Medical Society; Dr. Llewellyn Thomas, London; Dr. Elgar Buck, Leicester; Mr. Kerswill, St. Germans, Cornwall; Dr. Levinge, Asylum, Stapleton; Dr. Ransome, Manchester; Dr. Brice, Birkenhead; Mr. Alfred Aspland, Dukinfield; Dr. Cordwell, Milverton; Mr. W. H. Jalland, York; Dr. Hugh Miller, Glasgow; Dr. Rees, Newmarket; Dr. Wm. Ogle, Derby; Dr. G. H. Lilley, Hatton; Dr. Wm. Lee, Washington; Mr. H. D. Palmer, Colchester; Dr. Thomas, Sheffield; Dr. Manson, Howden-le-Wear; Sir Joseph Fayrer, London; W.; Mr. Harold Lewis, Bath; Mr. Ingpen, London; X.; Dr. Byrom Bramwell, Newcastle-upon-Tyne; Dr. Robert Fowler, London; Dr. Samuel Wilks, London; Z.: Dr. W. S. Playfair, London; Messrs. Pagny, Wallace, and Co., London; Dr. Francis Warner, London; Dr. Alfred S. Taylor, London; Dr. J. F. Payne, London; Our Dublin Correspondent; Dr. James Stevenson, London; Mr. Balmanno Squire, London; Dr. Greenfield, London; Dr. Trollope, St. Leonard's-on-Sea; Mr. Kent Jones, Vochrin; Mr. Philip R. Littleton, Ashburn; Dr. J. H. Stowers, Lower Tube Hill; Mr. Bartleet, Birmingham; Mr. R. Clement Lucas, London; Dr. Rabagliati, Bradford; Dr. Owens, Norfolk; Dr. Cookson, Stafford; Mr. Philip Bindley, Birmingham; Dr. Henry Ashby, Liverpool; Our Glasgow Correspondent; Mr. E. Croskett, Cheddar; Mr. C. H. Phillips, Bury; Dr. Maurice Evans, Cardiff; Dr. George Duffey, Dublin; Our Edinburgh Correspondent;

BOOKS, ETC., RECEIVED.

Ophthalmic and Otic Memoranda. By D. B. St. John Roosa, M.D., and Edward T. Ely, M.D. New York: William Wood and Co. 1876.

REMARKS

THE INVESTIGATION OF THE INTERIOR OF THE UTERUS BY THE CARBOLISED HAND AT LONG INTERVALS AFTER DELIVERY.*

By J. MATTHEWS DUNCAN, M.D., F.R.C.P.E.,
Obstetric Physician to St. Bartholomew's Hospital.

MRS. A. B. was confined at her home in the south of Scotland on June 5th, 1876. The child born was her second. She was attended by her physician, who lived in the neighbourhood, and to him I owe most of the details now to be given of her case. The labour was easy, natural, and lasted four hours. The placenta was removed without difficulty about fifteen minutes after the birth of the child. The membranes were twisted to ensure their complete withdrawal, and then a dose of ergot was administered. At 9 A.M., all was completed and well. In the evening of the 6th, Mrs. A. B. had a feeling of cold in the back and severe lumbar pain. On the morning of the 7th, her pulse was 120, and at night it was 140, at which rate it continued till after my visit on the 8th. The temperature rose correspondingly, but no note of its height is preserved.

In response to a telegraphic message, I saw the patient on the afternoon of the 8th, eighty hours, or nearly three days and a half, after her confinement. I found her with every appearance of having an attack of pyæmia or puerperal fever *post partum*. The abdomen was slightly tympanitic, the uterus somewhat tender.

The circumstances of the case, both intrinsic and extrinsic, rendered the crisis extremely alarming and important. The lochial discharge was natural, and reported as having no fetor. Nevertheless, I made a vaginal examination, pushing the finger into the cervix uteri, and hooking away shreds of clot, which were unexpectedly found to be distinctly putrid. A second attempt brought away a small bit of membrane, putrid. Being at a great distance from proper instruments to complete what I regarded as the desirable treatment—namely, the removal by forceps of any other pieces of membrane or decidua—and time being very valuable, I had chloroform administered, with a view to the introduction of my hand into the vagina and of my fingers into the uterus, to effect the exploration and removal of what might be found that should be taken away. Doing this, I gradually penetrated farther and farther into the uterus without finding anything. At last my whole hand was inside the organ, which felt not unlike an uterus only recently evacuated. In the fundus of the uterus, it was now my extreme good fortune to find adherent an irregular lacerated patch of chorionic membrane, about four inches long and an inch broad. It was found to be fetid. After this, I left the patient.

Both pulse and temperature fell in a marked manner after this operation. The alarming appearance and symptoms disappeared. The pulse remained high for several days; but the extreme anxiety of the physician and friends was subdued for good.

The fetor of the discharge was recognised by the nurse after my visit, but only at first, or for less than a day.

While, as is well known, there is often insuperable difficulty in classifying cases of so-called puerperal fever under the heads pyæmia, septicæmia, ichoræmia, there can in this instance be no hesitation in designating the disease as simple septicæmia. Such cases are familiar to the gynecologist. A decomposing uterine fibroid, a decomposing blood-clot in a hæmatocele, produce shiverings, sweatings, vomiting, delirium, high pulse, high temperature; a most alarming combination of symptoms, which, on the removal of their cause, is dissipated with extraordinary rapidity, in a few hours, as if by a charm. Such was the fortunate course of events in the case just narrated; but, had the putrefying membrane continued much longer in a puerperal uterus, a fatal result was probable.

It is well known that membranes, and even the placenta, may be left *in utero* and not give rise to alarming symptoms, even though putrefaction ensues, which is not always the case. That there is risk, however, in leaving even shreds of membrane, was known to Delamotte,† and to White,‡ who, writing in the last century on the expulsion

of the placenta, says: "It is to be handled gently, and with great care gradually brought away, lest any parts of the caduca, chorion, or amnios should be left behind; for this would occasion a very putrid discharge, together with pain and a fever." The danger, thus too unconditionally asserted by White, more cautiously by Delamotte, is, on the other hand, and injuriously, ignored by many, and among others by John Ramsbotham,* who says that, "when the placenta is withdrawn, a portion of its attached membranes will occasionally, under the greatest care and attention, be separated, and be left in the uterus or vagina, without any future detriment to the patient".

In the case which I have narrated, the greatest care and attention did not secure the complete withdrawal of the membranes. The position of the persistently remaining shred renders it unlikely that any forceps would have reached it and removed it entirely; nor is it probable that it would have come away in the discharges early enough to allow of the preservation of life, already most seriously threatened. It is under these circumstances that I propose the new operation of investigating the interior of the uterus by the carefully carbolised hand of the accoucheur, with a view to finding and removing decomposing substance. In such a state of matters, I have hitherto used the practice of Baudelocque;† namely, antiseptic intra-uterine injections. I employ a double catheter, and I have repeatedly had reason to be satisfied with the results. But, in the cases where I have used this treatment successfully, there has not been washed out by the injections any shred of hidden membrane; and I very much doubt whether injections, in the case which I have narrated, would have produced this supreme result; for, besides the difficulty of directing the current so as to envelope and remove the adherent membrane, there is the absence of any knowledge where the hidden membrane is—absence, perhaps, even of suspicion of its presence.

There is, of course, as yet, no properly formed professional opinion as to the length of time after delivery during which it is possible to introduce the whole hand into the uterus in a natural case; and it is the whole hand that has to be introduced with a view to doing completely the operation I propose. The nearest approach to conditions similar to those of my case is found in instances of retention of the placenta. Active interference in this morbid condition implies introduction of fingers, and often of the whole hand; and the difficulty feared is contraction of the internal os uteri or higher up. Hegar, a recent author‡ on the subject, writes as follows. "Oslander gives the advice to wait an hour... Kilian allows two hours to pass. Jörg, Seiler, Schmidt-mann, give similar directions. Hohl says from a quarter to a whole hour... Boivin allows a space of an hour. Paul Dubois limits the interval to an hour, or at most an hour and a half... Chailly and Cazeaux follow his example. Maygrier, as well as his collaborator and translator T. von Siebold, express similar views. Maygrier allows two hours of expectation. Burns will not leave the lying-in room until the placenta is extracted; and, if this is not effected within an hour, then he may go away. Clarke, Merriman, Ramsbotham, R. Lee, and the American Meigs, entertain similar views." In another place, Hegar, expressing his own views as to the length of waiting under special circumstances, says that removal of the placenta may be effected even two days after delivery without special difficulty or force; and that, if the whole hand be not introduced for this purpose, at least a few fingers may be pressed into the uterine cavity.

The latest author on this subject, M. Bailly,§ describing cases of retained placenta, concludes his article by laying down "that the uterus remains, in general, permeable for the hand of the accoucheur during more than an hour after delivery; that exceptionally, and in virtue of a natural inexplicable disposition, uterine retraction may, long before the end of the first hour, render the introduction of the accoucheur's hand into the womb very difficult, and greatly impede or obstruct deliverance; that, if the woman has taken ergot of rye a short time before the end of her labour, she ought to be delivered in less than a quarter of an hour after the birth of the child, to avoid the effects of the contraction of the cervico-uterine orifice and of the retention of the placenta in the uterus".

There can be no doubt that these opinions of Hegar and Bailly require reconsideration, as the historical details which I shall presently give will show. But these historical details, while they compel modification of the views generally held, and contribute valuable data, do not leave the subject in a satisfactory state, it being evident that much more inquiry into the matter is demanded, more experience accumulated.

* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

† *Traité complet des Accouchemens*, Nouv. ed., 1720, p. 600.

‡ *The Management of Pregnant and Lying-in Women*, 2nd edition. London, 1777, p. 112.

* *Practical Observations on Midwifery*, London, 1789, p. 120.

† *Siècle de Midwifery*, Heath's translation, London, 1800, p. 120.

‡ *Placenta Retentæ*, *ibid.*, ss. 153, 155, 157.

§ *Archives de Gynécologie*, Juin 1876, p. 360.

Delamotte,* in 1869, introduced his hand into the uterus to remove a placenta from the uterus of a woman twenty-eight hours after the birth of the child.

Chapman† extracted an adherent placenta, introducing the whole hand for the purpose, five days after delivery.

Burton‡ introduced his hand to extract a placenta twelve hours after the birth of the child.

Smellie§ introduced his hand to extract a placenta twelve hours after the birth of the child.

Pugh|| says as follows: "When I have been often sent for, where midwives could not extract it (the placenta) twelve, twenty-four, or thirty-six hours before, and by anointing my hand well with pomatum, I cannot say I ever met with any very great difficulty in introducing my hand into the womb."...

Collins¶ introduced the hand in a case of hæmorrhage on the fourth day after delivery.

R. Lee** introduced the hand to remove a placenta twenty-two hours after delivery, and in another case twelve hours after the delivery of the child.

Haddon†† examined the interior of an uterus on the seventh day after delivery, introducing his hand.

Some years ago, I was called in consultation by the late Dr. Coldstream, and removed an adherent placenta more than two days after the birth of the child. There had been great flooding. No difficulty was experienced in introducing the hand into the uterus.

The records of midwifery and ordinary experience show that the difficulty arises from uterine spasm, affecting generally the cervix, and especially its internal os, or rather the lowest part of the body of the uterus; and this is naturally expected, for it is the seat of the first obstruction to be overcome. But I am decidedly of opinion that it is not only the first met, but also the chief difficulty. The lowest part of the body of the uterus, or internal os of the cervix, is, in natural and morbid conditions, more difficult of dilatation than the parts of the body of the uterus above it. The history of natural pregnancy, cases of retained placenta, many cases of hourglass contraction, the dilatation of the unimpregnated uterus by tents, all combine to demonstrate this. Besides, many cases are on record where, long after delivery, as long as twelve or even nineteen days,‡‡ the body of the uterus was large and dilated by contents, while the cervix was contracted. But the whole subject demands more and deeper study and investigation.

It has occurred to me that there may be especial difficulty in introducing the hand into the uterus during the first few hours after delivery, when the uterus is particularly irritable and in a state of greater tonic or permanent contraction than it is subsequently. The same idea was long ago mooted by Delamotte,§§ who enters at some length into theoretical reflections with a view to accounting for a circumstance which, however unlikely, is, he says, confirmed by practice and experience.

"The os uteri", says Burns,||| "affords considerable resistance to the introduction of the hand in cases where the retention (of the placenta) has subsisted for some days; but by very slow and gentle efforts, such as are scarcely felt by the patient, it may be dilated. Sometimes it yields very easily, or is not at all contracted. If, however, it be rigid and unyielding—a condition rarely conjoined with retention of the entire placenta—we must not use violence." There seems to me to be some truth in the notion that repletion of the uterus favours a relaxed condition of the cervix; but I cannot discover the law which regulates the condition of the cervix in this respect. There are many cases of rigid cervix in early labour when the uterus is replete. On the other hand, I have repeatedly, in urgent circumstances, introduced my hand into the uterus and effected delivery without difficulty before labour had commenced. Again, on the other side, I have seen the greatest rigidity of the whole cervix before the birth of a second twin. In 1863, I was called to a great distance to aid a woman in her second labour. A child was born on December 29th. It was the first of twins; and no anxiety was felt as to the birth of the second, for the membranes of the second were (erroneously) believed to be unruptured. On January 1st, I found the uterus tender and tympanitic;

child dead; discharges putrid and mixed with fetid gases; pulse 120. The whole cervix was contracted into a rigid tube. The supposed bag of membranes was a sort of *caput succedaneum* formed on the thorax, which was the presenting part. I never experienced so great difficulty in introducing my hand to turn; nor did I ever suffer greater pain than I then felt in my hand, wrist, and arm. At length, I succeeded in turning and podalic extraction. The woman made a good recovery.

When the cervix is passed by the hand, there may yet be great difficulty; but there will probably be none, unless there is a morbid spasm higher up in the uterus than the internal os of the cervix. On the dilatation of the body of the uterus, I shall offer a few concluding remarks. While there are on record cases in which the hand has been introduced into the uterus several days after delivery, when it contained blood or placenta, there is none in which this operation has been done merely for the discovery and removal of a small piece of membrane, whose size involves no distension of the uterine cavity. That the novel operation, which I performed three days and a half after delivery, may, with advantage, be done even considerably later, I do not doubt. But at present the whole subject, of the capability of the uterine body to admit the hand at long intervals of time from delivery, is in an unsettled state, and demands the clinical investigation of obstetricians on account of its evident practical importance. Besides clinical observations and investigations, laboratory experiments may be advantageously made, with a view to the elucidation of the matter. Some have actually been made, not indeed with a view to test the expansibility of the body of the uterus, but with the result of demonstrating it *post mortem*. M. Glenard, studying the source of the uterine soufflé of pregnancy, and having no dead pregnant woman for his regional inquiry, distended the uteri of women recently delivered, with a view to reproduce the relational conditions of pregnancy. In the case of a woman who died of eclampsia on the fourth day of her lying-in, he distended the womb by injecting air into a caoutchouc bladder placed inside. "The uterus (he says*) thus distended, measured 31 centimeters from its upper part to the symphysis pubis; it surmounted the umbilicus 10 centimeters, and its greatest transverse diameter was 18 centimeters; the distance from the umbilicus to the iliac spine was found to be 20 centimeters; from the fundus uteri to the xyphoid appendage, 13 centimeters. It was thus almost a uterus of seven and a half to eight months." Many more experiments of this kind cannot but prove interesting and important.

Experiments such as those of M. Glenard do not stand alone in pathology, and probably do not altogether meet the main difficulty, which may lie in the dilatation of the cervix, and especially of its internal os. The rapid dilatation of the uterine body many days after delivery is not very rarely illustrated in those cases of simple secondary hæmorrhage, and of secondary hæmorrhage with retained placenta or portion of placenta, when blood rapidly accumulates in the uterus, just as it does immediately after delivery. It is only this rapid dilatation of the uterine cavity that can be used to throw light on the operative procedure which I am in this paper proposing; but it may not be altogether out of place to remark that its slower dilatation, as in pregnancy, in simple hæmatometra, with or without atresia, and in operative procedures, demands careful study, which cannot but result in knowledge that will contribute to the elucidation of this subject.

PAROTITIS AND ACUTE ORCHITIS.

MR. OSBORNE'S memorandum on parotitis and acute orchitis is interesting; but it needs more than the narration of a few cases to prove any theory, as the following notes will testify. In February 1872, an epidemic of mumps prevailed in the Norfolk County School; and on Monday, the 21st, T. J., a man-servant aged 19, was seized with rigors and sickness, rapidly followed by acute inflammation of the right testis; he was not then suffering from any discharge, gleet, or sore; and it was not until the evening of Tuesday, the 22nd, when the parotids of both sides became painful and swollen, that the cause of the orchitis was decided. In this case also, the right testicle was affected, but the order of events seems rather to support the old idea of metastasis, or, at least, that mumps is a specific disease with a tendency to attack certain special organs with other unknown connections, than the continuity of inflamed tissues, as is manifested in Trousseau's case (Sydenham Edition, vol. ii, p. 280), and in the more common examples of the thurst experienced immediately the child is put to the breast by some suckling women and the chronic salivation of imperfectly castrated animals.

ALAN REEVE MANBY.

* Archives de Tocologie, Août 1876, p. 468.

* *Traité complet des Accouchemens*, Nouv. ed., 1729, p. 599.

† *A Treatise on the Improvement of Midwifery*, etc., 1753, p. 235.

‡ *An Essay towards a Complete New System of Midwifery*, 1751, p. 132.

§ *A Collection of Cases and Observations in Midwifery*, 4th edition, 1766, vol. ii, p. 343.

|| *Treatise of Midwifery*, 1754, p. 29.

¶ *Practical Treatise*, 1836, p. 167.

** *Clinical Midwifery*, 2nd edition, pp. 261 and 264.

†† *Edinburgh Medical Journal*, July 1873, p. 35.

‡‡ See Ingleby, *A Practical Treatise on Uterine Hæmorrhage*, pp. 214, 217, 219.

§§ also Ashwell, *A Practical Treatise on Parturition*, p. 458.

¶¶ *Traité complet des Accouchemens*, 1729, p. 600.

||| *Principles of Midwifery*, 10th edition, p. 562.

TUBERCULAR MENINGITIS.*

By REGINALD SOUTHEY, M.D. Oxon., F.R.C.P.,
Physician to St. Bartholomew's Hospital.

THE four cases published last week were either my own or had fallen under my own observation. The fifth or following case I have translated from the German of a recently published work by Dr. Seitz upon *Tuberculosis*. It is one to which considerable interest attaches from the remarkable *dementia* symptoms that attended it, and also for the unusually low temperature recorded, rendering the diagnosis peculiarly difficult during life.

The patient was Karl Schleicher, 22, a potter, a well nourished but pale man, with bad teeth, and who had a well marked blue lead-line upon his gums. It appeared that, although he had worked a good deal with a lead glazing preparation, he had never experienced any previous illness of any kind, such as colic or lead-palsy. His present illness began on November 18th, 1867, with headache, a stitch upon the right side, dyspnoea, cough, and rusty expectoration. He had no rigors. Violent colicky pains led him to seek advice on November 21st, the third day of his illness. He took some physic, felt relieved, and was still at work during the greater part of November 23rd. During the evening of this day, he was seized with sudden vertigo, stitch in his side, and colicky pain, but had no vomiting. The pain prevented him from sleeping that night; in the morning, he was less giddy in his head, but prostrated; his abdomen was full and tender; the bowels were constipated, and fever was more prominent. The physical signs of pleuropneumonia upon the right side were better marked.

From the 23rd to the 29th of November, he continued in much the same state: feverish, rather giddy in his head, neither coughing nor expectorating much. His bowels obstinately resisted both castor-oil and clysters. He never once vomited; twice his bladder became full, and a catheter had to be passed, as he was unable to empty it himself. There was constant frontal headache, not paroxysmal, but no delirium or other nervous symptoms. On November 27th, he became more apathetic and drowsy.

November 29th. He was sent by rail to the hospital in Zürich from Schaffhausen. During this journey, he was taciturn and heavy, like a person who had been drinking; and he presented a similar stupid aspect. He walked, but with an unsteady gait, and required support. Arrived at the hospital, he was so fatigued that he was carried into the ward. The physical examination showed dulness, with tympanitic resonance over the seat of the pain in his right chest, with diminished respiratory sounds and scattered moist crackling *râles*. The temperature was only 99 deg.; the pulse 64, and regular. He had no cough; the tongue was furred and the abdomen retracted. He was ordered a lenitive electuary, and to be wet-cupped over the affected lung. The patient complained much of the pain of the cupping; shrieked out, and exhibited marked alteration of demeanour from his previous apathy. The night between the 29th and 30th was passed without delirium; but, about 3 A.M., the patient left his bed to use the night-stool, and, not finding it, passed his evacuations upon the floor.

At the visit on the morning of the 30th, he yawned a good deal. When asked about his pain, he pointed to his forehead and belly, answered questions slowly, often contradictorily. As reliable facts were noticed, general diminution of muscular power, halting gait, and feeble grasping power in the hands.

December 1st. He looked very heavy and stupid; groaned from time to time; complained of his head when moved, and, when roused, answered questions rationally, but slowly. There was no cough or vomiting; no stiffness of the neck or other muscles; no general paralytic twitching or convulsive nerve-symptoms; but his bladder had to be emptied by the catheter. The tongue was coated; breath foetid. The urine, having a specific gravity of 1025, was clear and contained no albumen. Temperature 98.5 to 99.4 deg.; pulse 60.

December 2nd. The left pupil was observed to be a little wider than the right one. He vomited twice while taking a bath yesterday evening; passed the early part of the night quietly, but became restless and uneasy towards morning.

December 3rd. He talked incoherently, and had wandering delirium; he took what food was given him, and ate it hastily, apparently indifferent to its quality. He would not take any medicine. He had a stupid heavy look, and frequently burst out laughing in an idiotic ridiculous manner. Both pupils were sluggish in their reaction to light; that of the left eye wider than that of the right side. He complained

of pain in his right arm; vomited twice. Temperature 97.5 deg. to 99.5 deg.; pulse 66 to 72.

On the evening of December 5th, his dementia had become steadily more pronounced, the following peculiarities being manifested. He was continuously chattering or singing in a monotonous tone, running his words and syllables together, so that it was scarcely possible to understand what he said. He seemed to be talking some foreign tongue. He would leave his bed, lift up his shirt, and walk up and down the ward, behaving altogether in a very refractory manner. He had a fixed look about his eyes, "gazing into vacuity", seeming neither to hear nor see.

From this date, he alternated between violent delirium, general restlessness, and drowsy stupor. Some slight paralysis was noticed upon the right side of his face; then, on December 8th, the left angle of his jaw dropped, and he was not so well able to swallow. He secreted very little urine, but sometimes passed this involuntarily in bed. He was now taking opiates; his pupils were contracted, and his face grew more livid. Finally, he could not swallow at all, and became profoundly comatose on December 10th. Tracheal *râles* set in; the respirations ran up to 44 per minute; morning temperature 97 deg.; evening temperature 99.2 deg.; pulse, 66 to 88, hard and cephalic (irregular?) up to death.

The *post mortem* examination showed no true pleuropneumonia, but abundant lobular infiltrations of the lungs, with moderately old and some quite recent tubercle. The chief thickening and tubercle formations were towards the roots of both lungs. There were tubercular deposits in, and ulcerations of, the ileum, especially near the ileo-cæcal valve. The brain exhibited the ordinary appearances of acute tubercular meningitis: sero-fibrinous lymph at the base, near the circle of Willis and about the corpora quadrigemina; abundant matting together of vessels, with tubercle-granulations in the pia mater and in both Sylvian fissures.

As remarkable a feature of this case as the dementia was the low temperature; once only did the temperature reach 101 deg. Thus, although well marked typhoid symptoms may exist, tubercular meningitis is not incompatible with a non-febrile temperature.

CASE VI, which I have translated in abstract from Dr. Seitz's work, was that of Magdalena Kromes, 31, a hawker, a woman of middle height, well nourished, and muscular.

History of Present Illness.—In the early morning of May 18th, 1871, she went out in her usual health to her work; but was seized, at about 9 A.M., with general rigors and chilliness; febrile reaction set in after she had come home to bed at 11 A.M., and free sweating followed. The same night, she slept well, and arose the next morning feeling nearly well, but looking poorly. On the 21st, she went out again with her wares to market. On the evening of the 22nd, the fifth day of her illness, she felt ill again; her appetite had been bad, and she complained of moderately severe headache, with burning in her eyes. On the 23rd, the headache was less; but there was still a little fever, and her appetite was indifferent. She was able to be out and about.

May 25th (eighth day of illness). Having finished her work, she found some difficulty in swallowing her morning meal; thus, upon filling her mouth with fluid, only a part of it would go down; the rest she was obliged to spit out. It was not pain, but some nervous disturbance that prevented deglutition by interfering with the coordinated muscular movements essential to this act. The same difficulty presented itself throughout the day, increased towards the evening, and was perceptible, although in less degree, for the next two days. It then subsided altogether.

Up to Sunday, May 28th, the eleventh day of her illness, her intellect was perfectly clear; but, during the night between Saturday and Sunday (27th and 28th) she never slept at all, but lay in bed with her eyes open, perpetually groping about with her hands, and picking and pulling at the bed-clothes with her fingers. Early in the night, she answered questions in her ordinary manner; then she began to wander in her talk, answering at random to what was said to her, and finally muttering on constantly to herself. Towards morning, her delirium increased; she became very restless, and left her bed three times, but was easily persuaded to return to it again.

Some purgative powders were administered, and she took five doses before the bowels, which had been confined forty-eight hours, *i.e.*, since the ninth day of her illness, acted. After they had been well opened, she became quieter, less delirious, and slept a little. From this date (May 28th, eleventh day of illness), she never spoke another sentence indicative of combined ideas. At times, she pressed her forehead, as if suffering pain there, and occasionally there was a little twitching of the muscles on the right side of her face. She lay quite drowsy, motionless, flat upon her back, and with her head somewhat rigidly fixed

* Concluded from page 559 of last number.

and thrown a little backwards. When moved to be examined, she groaned and appeared to suffer pain in her neck; occasionally she drew up her legs a little, and moved her arms and hands in a tremulous ill-coordinated manner.

Her condition was that of a mesmeric sleep, with the eyes half open. Her intellectual faculties were all reduced. Ordinarily adroit in response, for she was naturally a quick woman, she now answered questions of the simplest kind only, and these slowly; her speech, too, was thick. When she was out of bed, besides having the stiffness of her neck, she stumbled and placed her feet uncertainly, like a person, weak from a long illness, unable to command the right use of the legs. Still, the only perceptible paralysis was an extremely partial one of the levator palpebræ, the left eyelid drooping somewhat and moving more slowly than the right.

The tongue was dry, but protruded straight. The mouth was constantly half open, although she was able to close it. She would not attempt to masticate, and swallowed even fluids with difficulty, hawking and choking. There was no vomiting; the breathing movements were natural. She seemed to hear well, and the general sensibility, tested by a needle-point in various parts, was good. She had no involuntary reflex jerking. Nothing abnormal was noticed about the heart, lungs, liver, or spleen. The abdomen appeared natural. The temperature was from 102 deg. to 103.7 deg.; the pulse was small, regular, 108.

May 29th and 30th. The bowels were open. The urine was natural in colour and quantity, containing no albumen. The patient's condition, with the exception of there being more marked paralysis of the left oculo-motor nerves, was unchanged.

On the 31st (fourteenth day of illness), she became more comatose; the pulse ran up to 120 and 140; the breathing quickened to 40-44; throat-râles set in; and the temperature remained at about 102.0 deg. She died at 10.45 A.M.

The *post mortem* examination was made twelve hours after death. The body was well nourished, and highly muscular. The pia mater over the convexity of the brain was of a rosy hue, highly injected. A little opalescent serum existed in the subarachnoid spaces. There were no traces of pus upon the sides or upper surface of the brain; no flattening of the convolutions was observed. In the anterior part of the brain, between the gyrus fornicatus and the third convolution, some tiny little nodules were perceptible upon the walls of the blood-vessels; none were found elsewhere. On the brain being removed, a moderate amount of yellow opaque serum escaped. The left oculo-motor nerve was softer than the right. In the Sylvian fossa, over the pons and the peduncles of the brain, were a few lymph-shreds, but no pus; both Sylvian fissures were matted together extensively, and there were numbers of miliary tubercles seated upon the principal blood-vessels. The fine grey opalescent aspect of the pia mater was discovered by the microscope to be due to numberless minute tubercles not larger than the finest grains of sand. In three places, the pia mater presented bright red patches of recent inflammatory injection and exudation, at the opening into the right fossa Sylvii upon the anterior aspect of the cerebellum, in the plexus choroideus, and over the upper surface of the left pedunculus cerebri. The spots themselves were not larger than horse-beans, but the cerebral substance beneath them was soft and yellow from interstitial extravasation. Elsewhere in the body, beyond a few old pleural adhesions, and one small almond-sized cretified bronchial gland, nothing important was discovered, except (what was probably the *fons et origo malorum*) an enlarged right ovary about the size of one's fist, filled with cysts, some colloidal, some holding serum, and one of them about the size of a walnut filled with caseous material.

I could append another case to this of tubercular meningitis, where the left ovary was the seat of cystic and caseous degeneration; but I fear to be too lengthy.

REMARKS.—Tubercular meningitis is apt to be misunderstood in the adult, because the symptoms have been indistinctly pronounced, or carelessly observed; but the latter is the more common error. If the entire history of the illness be truthfully elicited, it is usually too significant to admit of wrong interpretation; but towards a correct diagnosis of this, as of every other disease, careful clinical observation is requisite.

The cases narrated, and some others which I have in my possession, enable me to summarise, as follows, the more ordinary symptoms that mark the invasion of tubercular meningitis in the adult.

1. Headache is certainly the most invariable symptom; seldom, if ever, absent; never wanting in any case I ever watched.
2. Vomiting, constipation, and fever are present, attended by no characteristic rash.
3. Peculiarity of temper and conduct, occasional confusion of ideas, and slight transitory delirium, are also symptomatic of this disease.

4. There are general muscular pains, followed first by stiffness, and then by slight paralysis, as shown in the imperfect co-ordination of the muscular movements in tremblings and in twitchings. The muscular pain and stiffness are often first complained of in the nape of the neck, and then in the muscles of the back.

5. Slight epileptiform convulsions are observed, followed by paralysis of motion in the limbs or parts convulsed; this paralysis being most usually of a transitory or temporary kind. Among the paralyzes most frequently noticed and characteristic, I may single out those affecting the optic commissure and oculo-motor tracts, causing a slight internal squint, with dilated inactive pupil of one eye, with drooping of the same eyelid, and paralysis of the facial nerve upon one side. The paralysis of the limbs, although usually a hemiplegia, is seldom one that invades the body upon one side in its entirety. Further, its mode of attack is gradual: usually, the arm and leg are affected upon the same side, but the facial muscles are not involved. First there may be inertness of the arm, then of the leg, then complete loss of power; but the arm and leg may be fully extended, and never moved, although pinched and stimulated. Then the right leg may recover and the left arm be implicated, so that an apparent cross paralysis may exist; or the right arm and left leg, or right leg and left arm may be so affected consecutively. The limbs which have been paralysed, although they may recover some motor power, are seldom afterwards well co-ordinated in their movements.

6. Hyperæsthesia of the skin generally appears coincidently with peculiar mental phenomena; as, for instance, conduct obstinate and unaccommodating, and a temper quite altered from that which in health distinguished the individual, a maintained attitude of dogged resistance to whatever he or she is asked to do. Very little nourishment is voluntarily taken. The abdomen becomes retracted, and the aspect of the patient, with half-open eyelids, or some slight paralysis of these, becomes highly diagnostic.

7. Continued drowsiness is observed. The patient shrinks from all disturbance, and shrieks out when roused sufficiently to move or perform voluntary acts. From this drowsiness, the step to coma and death is seldom many hours distant.

The history of the case usually records an illness that has endured some two or four weeks, but one which has not attracted much attention until distracting headache with some delirium at night has supervened. Two cases I have seen were mistaken for neuralgia and hysteria, one for typhus. If, however, in these later stages, the diagnosis is usually all too certain and assured, we may well ask if, in the earlier stages, the clinical symptoms do not sometimes suffice to indicate the exact situation of the pathological lesions. Approximately, and with some likelihood, I should answer that they do; but with no positive certainty.

In those chronic, insidious, and, from their peculiar mental phenomena, most problematical cases, where there is no paralysis until the final coma, it is usual to find the tubercular meningitis principally limited to the surface of the brain; slight, too, in its amount, consisting of small opaque patches of the pia mater, attended by really very little lymph effusion; and one discovers the tubercle formations only by careful microscopic examination of the walls of the blood-vessels. If the organs of vision are involved, and there exist during life squinting or any paralysis of the muscles which move the eyes or eyelids, the base of the brain is pretty surely the seat of tubercular inflammation, and of secondary lymph or pus exudations. Again, if there exist paralysis of the limb or of one side of the face, one may expect to find matting together of the blood-vessels in the opposite Sylvian fissure, tubercles upon the blood-vessels and dropsical œdema of the choroid plexus, and softening, with capillary blood extravasations, from the size of a pin's head to that of a split pea, in the corpora striata. More especially is this rendered probable when convulsive attacks have preceded the paralysis.

More than this in diagnosis, it is true, may be achieved: thus, implication and degeneration of special cranial nerves may occasionally be shrewdly foretold before death and discovered at the autopsy; and, similarly, implication of the spinal cord may be surmised, in some instances, from the symptoms.

The pathological sequence of events that follow the tubercular formations on the walls of tiny blood-vessels are twofold: blocking up of the blood-channels and arrest of the blood-supply, anæmia of some parts of the cerebral substance, œdema and tiny capillary extravasations of others; diapedesis of white cells, softening of tissues, exudation (as it is called) of lymph. Drowsiness is, perhaps, produced by general brain-anæmia; the peculiar mental phenomena may own a similar origin. The coma is most likely due to brain-pressure consequent upon dropsy into the ventricles of the brain.

FURTHER REMARKS ON THE PENGE CASE.

By J. F. PAYNE, M.B., F.R.C.P.,
Assistant-Physician to St. Thomas's Hospital, etc.

IN my previous remarks on this case (BRITISH MEDICAL JOURNAL, October 6th, 1877), I strictly confined myself to such facts as must have been known to the medical witnesses for the prosecution when they made their report. But, as some misapprehension as to the facts still seems to prevail, I will take the liberty of giving a short account of the symptoms of disease as deposed to by witnesses for the prosecution. It is, of course, known that the deceased Harriet Staunton was living in the house of Patrick Staunton, her brother-in-law, and his wife; and that the only other person living in the house was the maid-servant Clara Brown, who, at the inquest, gave evidence in favour of the prisoners, afterwards repudiated this, and appeared at the trial as an adverse witness. Her evidence, though justly suspected on the grounds of perjury and complicity, may be safely used in matters indifferent. According to the witness, Mrs. Harriet Staunton, for some time before her death, on April 13th (in answer to the judge, she said more especially "a month or six weeks"), had been getting very weak. On the day her child was taken to the hospital, April 8th, she was "very weak and bad". On the 9th, she must have been worse; for it is said a fowl was boiled for her, and she ate some; but she did not seem to understand what was said to her. When, in the evening, the news was brought of her child's death, "she took no notice". On the next day, some steak was cut up for her, and, as she could not help herself, she was fed with it, but could not swallow any. The witness also mentioned at least one other ineffectual attempt to feed the deceased before her removal to Penge. It was also deposed that Mrs. Staunton complained of pain and swelling in her feet, and had them put in hot water twice in the week before she was removed. On the morning of the 12th, arrangements were made to remove her to Penge. In the evening of that day, she is described as sitting in the kitchen, propped up with pillows, having been carried down in the morning. She was very drowsy; they tried to rouse her, but without effect. It was noticed that she had changed much since the morning. At about six in the evening, she was put into an open carriage, driven to Bromley Railway Station, and put into a train for Penge. The railway porters depose that the lady could not walk, and looked very ill. She was not heard to speak, but groaned and rolled her eyes about, and, on arriving at Penge, was "shaking violently". After the journey, which lasted nearly three hours, she was put to bed, and witnesses state that she moaned and made a gurgling noise in her throat; after that she lay quite still, as if asleep or in a fit. It was also stated to Mr. Longrigg by some of the prisoners that the lady was paralysed, and had lost the use of one arm ("one side of the body" in another report). This is an important fact, unlikely to have been invented. The prisoners, of course, told many falsehoods; but it is absurd to suppose they would have made a false statement, certain to be immediately detected, about a symptom of which they could not know the importance. Mr. Longrigg seems to have taken it as meaning chronic paralysis; but that would be inconsistent with their statement that the illness had lasted only a few days. This is rough evidence that one-sided paralytic symptoms had come on in the course of that time, and there is nothing to make this improbable. Another statement of the prisoners, to which a most sinister meaning was attached, is not without importance. They said the lady "could eat, but would not", which, after all, may have been only an ignorant and unfeeling manner of describing their ineffectual attempts to give food. Finally, we have the symptoms deposed to by Mr. Longrigg. Summing up the history, it amounts to this. Progressive weakness, with insidious development of alarming symptoms, beginning with impairment of the intellectual powers, apathy, and demeanour attributed by unsympathetic bystanders to perversity; loss of power in one or more limbs, accompanied or followed by rigidity, irregular movements of the eyeballs, "violent shaking", drowsiness, and stupor, ending in deep coma, with strongly marked inequality of the pupils; and, finally, the diagnosis by the medical man called in, from symptoms alone, of apoplexy. Much is wanting; neither the presence nor absence of headache, fever, delirium, or strabismus, can be inferred. Vomiting might perhaps have been mentioned had it occurred. Enough is known to indicate cerebral disease with some unilateral symptoms. The only other medical facts are, that diarrhoea was present before death, said to have lasted three days, and the catamenia were stated to have been absent seven months. My opinion that these symptoms could not have been produced by privation of food alone, and indicate cerebral disease, has now been confirmed by a large number of the most eminent men in the profession. It has a validity quite independent of the results of the

post mortem examination, and, if it is to be shaken, it must be by something much stronger than vague suggestions about convulsions in children from overfeeding or the delirium of shipwrecked sailors.

It is also impossible to deny that the symptoms as described are consistent with death from tubercular meningitis. The only really unusual symptom is diarrhoea, and this has been observed in a certain number of cases, while in the condition of general tuberculosis it is less uncommon.

For my own part, I go further, and maintain that the symptoms are really such as to suggest tubercular meningitis, as seen in the adult—antecedent cachexia; cerebral symptoms, at first insidious, in the end alarmingly rapid, commencing with impaired perception, apathy mistaken for perversity, and drowsiness ending in coma: these, with the special nervous phenomena described, make a fairly complete picture of the disease. If tubercles were really found in the meninges, the conclusion as to the cause of death appears to me absolutely irresistible; and I have pleasure in quoting Dr. Moxon's words in the *Times* of October 4th:—"I have personally superintended more than five thousand inspections of the dead, and I am ready to aver my belief that the facts sworn to by the doctors at the trial absolutely prove that Harriet Staunton died of tubercular meningitis, and this is not only my opinion."

Those who are sceptical about the tubercles may fairly be asked whether observing powers incompetent to recognise military tubercles were competent to establish beyond a doubt the following points, which alone make the tubercular nature of the bodies observed at all difficult to admit; viz., entire absence of fluid effusion in the ventricles or at the base of the brain; absence of lymph or pus in any part; absolute limitation of tubercles to the part described; the absence of any, even a little, partial softening of the fornix and septum lucidum. These are points on which error is quite as probable.

Without the tubercles, there may still have been a fatal affection of the brain. The physicians of the last generation would no doubt have described it as simple apoplexy, congestive apoplexy, or meningitis in the form described by Abercrombie as "showing only increased vascularity". I could not swear to it myself, never having seen death from that cause alone; but Rokitsansky and other authorities recognise it; and a striking case has been reported by Dr. Church in the *Sr. Bartholomew's Hospital Reports*, which would agree remarkably with the present case, without the alleged tubercles.* Such a mode of death is, no doubt, specially likely to happen in lunatics and persons with chronic disease of the brain.

I must now notice Mr. Taylor's letter; and, as that gentleman complains of my silence on some points, I shall have, though with the certainty of being tedious, to go through his objections *seriatim*.

It is objected that *the tubercles need not have been of recent date*. I do not myself know *such* tubercles as are described, except as recent and indicating acute disease, nor do several pathologists of wide experience whom I have consulted. Dr. Bristowe says never, in the whole course of his experience, has he "seen tubercles on the surface of the brain which have not produced obvious symptoms during life, and, indeed, been powerfully instrumental in causing death".† The testimony of others, giving a collective experience of several thousand cases of death from all causes, confirms this. On the other hand, a very few cases are recorded showing the bare possibility of tubercles being latent and innocuous for an uncertain period: a possibility which would not justify any one in asserting them to be innocuous even in the absence of symptoms, and the presence of symptoms makes such an assertion entirely untenable. Those who describe chronic tubercular disease of the pia mater recognise the supervention of acute disease thereupon.

* *Sr. Bartholomew's Hospital Reports*, vol. V. Contributions to Cerebral Pathology, Case viii. A girl, 14, extremely excited, convulsed brain and its membranes; lobular pneumonia; vomiting, screaming, and convulsions; coma; death on the fifth day, from the advent of acute cerebral symptoms.—She had been under the care of a doctor for three weeks, and was considered hysterical. On admission, she was insensible and comatose; the pupils were contracted; the left leg was rigid and extended; the right arm was flexed; the face flushed; temperature 102 deg. Fahr. The next day she was still unconscious, the face less flushed, and the pupils less contracted. On *post mortem* examination, the body was found to be poorly nourished, the features much sunken, the membranes vividly injected, the surface of the brain internally congested, and an unusual number of puncta cruenta. The lateral ventricles were small, and nearly empty; the substance of the hemispheres and sensory ganglia, though intensely congested, was firm; the under surface of the fornix was a little soft. Except lobular pneumonia in the lungs, there was no disease in any other organ. Dr. Church remarks: "The congestion was far in excess of any that I or those of my colleagues who examined the brain had ever seen. The smaller arteries and capillaries, when examined microscopically, appeared perfectly natural... nor were any collections of nuclear elements on their walls present, such as is so commonly the case in meningitis associated with tuberculosis." Dr. Church compares the case to those reported by Abercrombie.

† The reports in some of the papers make my answer on this point precisely the opposite of what it was.

Weight of the Body.—I stated at the trial that the emaciation was extreme. Part at least is, I think, to be attributed to tubercular disease. With respect to the remainder, the decision must rest upon the circumstantial evidence.

Weight of the Solid Viscera.—Mr. Taylor says the solid viscera of the abdomen were shrunken "to little more than half their usual bulk and weight". The kidneys weighed $7\frac{3}{4}$ ounces. I find the average of healthy kidneys belonging to adult women dying in hospital from all causes is a little under $8\frac{3}{4}$ ounces. This estimate excludes cases of renal disease, but includes many cases of heart-disease. Is this "little more than half"? The spleen weighed $4\frac{1}{2}$ ounces; and an average is given of 6.13 ounces ("little more than half", says Mr. Taylor). I find the average weight of healthy spleens in women, collected as just mentioned, to be about 5 ounces. This includes a range of 2 ounces to 10 ounces. So that I adhere to my statement in court, that from the weight of so variable an organ no conclusion can be drawn. The liver was the smallest organ relatively; its weight is given as $34\frac{3}{4}$ ounces, while the average given is 53.6 ounces. I estimated the average, when asked in court, as 48 to 50 ounces, and was afterwards told this was too high. From the frequency of fatty change, it is very difficult to establish an average. The weight appears to me to be about two-thirds or three-fourths of the average (which Mr. Taylor puts in round numbers as "little more than half"). This no doubt suggests malnutrition, but would not show whether this arose from non-ingestion or from non-assimilation of food. Mr. Taylor does not allude to the heart. The weight is given as $7\frac{3}{4}$ ounces. Dr. Peacock gives the mean weight of the healthy heart in women as 8 ounces 13 drachms, and the ordinary range in acute diseases 8 ounces to 10 ounces; in chronic, 7 ounces to 9 ounces; so that the weight here is really not abnormal.

It seems necessary to repeat the undeniable proposition, that wide deviations from the average are consistent with health; and that extreme deviations, which we cannot explain, are sometimes met with in all organs of the body.

Emptiness of the Intestines.—It must be remembered that there was diarrhoea, said to have been going on for three days, and the evidence showed that the poor woman had been unable to take more than a very little food within about four days? Is any further explanation necessary.

Full Gall-Bladder.—I find weight is attached to this so-called "sign of starvation" by some people, though not by Mr. Taylor. Surely, the gall-bladder is as often found full as empty after death, and its state depends merely on the temporary condition of the organs of digestion.

I must confess that I did not attach any importance to "petechiæ and ecchymoses", nor do I do so now, even if they were all of them *ante mortem*. Such things occur in many chronic diseases.

One really trifling point has been so dealt with by Mr. Taylor that I must just notice it, viz., the redness of the stomach. The medical witnesses for the prosecution—or, at least, some of them—positively asserted that redness or congestion of the stomach was a "sign of starvation".*

At a later period of the trial, the Attorney-General suggested to me the theory favoured by Mr. Taylor, that congestion of the stomach might be caused by overfeeding after privation of food. My answer to this is that, if congestion or vascularity have anything to do with food, it is impossible to distinguish between the effects of use and the effects of overuse. Vascularity of the stomach is certainly *primâ facie* evidence that the stomach was in use immediately before death, and can only be made even to suggest previous disuse of the organ by assuming the very point at issue.†

Mr. Taylor complains of my method of treating the question of starvation. I am certainly not disposed to complain of his, because I find it so far from antagonistic to my position. It consists in stating some purely speculative hypothesis; and assuming that, if such a hypothesis cannot be refuted by special experience, it must be taken as proved. But who can be called upon to disprove that for which no proof is offered? Such questions as, whether overfeeding after abstinence produces gastritis, or might produce such nervous symptoms as I have recounted, or again, whether gastritis produces peritonitis, seem to me hardly fit for discussion till they have been proved to have a foundation in fact.

* Dr. Wilkinson, in answer to the Attorney-General, said: "Inflammation of the stomach is one of the symptoms of poisoning, and also one of the symptoms of starvation." The Attorney-General to Mr. Rodgers, Lecturer on Toxicology at the London Hospita: "Having disproved the existence of poison, what do you now think was the cause of the redness of the stomach, the duodenum, and the rectum?" Mr. Rodgers: "Starvation."—*Daily News*, September 21st, 1877.

† In the sentence, "Special atrophy . . . from disease", the last word is a misprint for *disuse*.

All these questions alike are far too speculative to be introduced into evidence affecting men's lives.*

The only positive information I know as to the danger of overfeeding after starvation comes from Donovan's experiences in the Irish famine.† They are certainly more instructive than the wild conjectures of Mr. Taylor, the Attorney-General, or the witnesses for the prosecution.

"In administering food to the famishing, great caution should be observed; *the appetite in such cases is very craving*; and, if too much nourishment be given at once, vomiting and exhaustion are induced, which frequently terminate in death; or, if a stimulating diet be continued for any time, reaction, terminating in fever, is very apt to supervene."

Does this accord with the facts of the case?

Donovan also states that, in no case did he see "delirium or mania as a consequence of protracted abstinence, though described as common symptoms of hunger among shipwrecked sailors and others suddenly deprived of food". This statement seems also to put into its proper place a case like that of the Welsh fasting girl, mentioned by Dr. Fowler.

Finally, Mr. Taylor imagines he has shown that there was "fair presumptive evidence of starvation, which completed the chain of proofs against the prisoners". But this opinion is far less than was claimed by the medical witnesses for the prosecution. Their evidence, it should be remembered, was given at the inquest in an unqualified manner, when no direct evidence of privation of food existed (though there were strong suspicions of foul play), since the testimony of Clara Brown on that occasion was directly opposed to what she afterwards gave. It was evidently taken by the coroner's jury and others as implying that the doctors had found starvation in the body, as they might have found poison or cancer, to be the cause of death.

As the legal question is not yet decided, it seems undesirable to enter upon the moral aspects of the case.

I must apologise to readers of the JOURNAL for the length of this communication; but for that I am not wholly responsible. So much space has not been devoted to Mr. Taylor's letter on account of its intrinsic importance. That gentleman does not, so far as I know, speak with any special authority on the subject, and his opinion on the case is opposed to an almost universal *consensus* of our recognised authorities in pathological science. But in a matter of such moment, it is desirable that all objections which can fairly be raised should be fully discussed and left to the arbitrament of those best qualified to judge.

THE USE OF THE OPHTHALMOSCOPE IN DETECTING THE EARLY FORMS OF GRANULAR KIDNEY.

By ROBERT P. OGLESBY, M.R.C.S.,

Ophthalmic and Aural Surgeon to the Leeds General Infirmary.

So many instances have occurred to me, in which patients have suffered from disease of the kidneys without the disease having been diagnosed by the ordinary methods, and afterwards made apparent by the use of the ophthalmoscope, that I deem it of sufficient interest to pen a few lines on the subject.

It not infrequently happens that, during the early stages of the disease (granular kidney), the patient consults a number of medical men, who fail to detect, after a careful examination of the urine, the slightest trace of albumen; neither does the microscope aid in the diagnosis.

During the examination of cases for the purpose of statistical evidence concerning amaurosis, a patient presented himself complaining of great weakness and lassitude and failing vision. The ophthalmoscope disclosed a condition of retina which led me to believe that the kidneys must be diseased; but a most careful examination of the urine, again and again repeated, failed to give the slightest evidence; the microscope also gave negative evidence. The appearance of the retina in these cases is characteristic, and unlike anything of the kind I have ever seen. It consists in the grouping of small white spots, the outline of each being clearly defined; they are invariably circular, of extremely small dimensions, and present the appearances of a pearl of an intensely bright colour, and stand out from the retina in a marked manner. The grouping of the spots is symmetrical in each eye, and is generally in the form of a crescent. After very careful watching, I at last succeeded in tracing the connection between this peculiar retinal appear-

* Mr. Longrigg very properly described his view of apoplexy produced by overfeeding as a theory, not an explanation.

† *Dublin Medical Press*, February 2nd, 1848.

ance and diseased kidney. The disease usually attacks those who are suffering from an insidious form of wandering gout, associated with torpid liver and bowels, bad digestion, and unhealthy colour of skin, with mental faculties anything but vigorous and business-like, alternating with an unusual flow of spirits lasting but for a short period. After years of anxious watching and much mental speculation as to the cause of these curious retinal spots, I have at last succeeded in arriving at a true and satisfactory diagnosis.

Mr. B., a gentleman who has been much engrossed in a very extensive business, consulted me concerning his vision. He assured me that, for the past three years, he had known no rest, as business anxieties had much depressed him. His medical adviser, in his letter to me, stated that the patient was temperate, a perfect man of business; that he had known him personally for several years; also, that he had been in attendance professionally, with but little intermission, for two years. I found the patient in a state of considerable alarm concerning his eyesight; business letters could but with difficulty be read, and he could barely recognise an acquaintance across the street. He had the appearance of a man much overworked, and his symptoms pointed to a gouty diathesis.

In this case, the retinal appearances above described were present; but, as the medical man assured me that no kidney mischief existed, I did not then examine the urine, and, as I had up to that time failed to detect albumen in any of these cases, I attached but little importance to the statement.

I had hitherto regarded these cases as simply unaccountable, but had never given up the belief that the peculiar retinal appearance was associated with Bright's kidney. During the interval which elapsed between the patient's first and second visit, it occurred to me that I had been somewhat remiss in having neglected to verify the statement that no albumen existed in his urine. I at once communicated with my medical friend, asking him again to go carefully over the ground. The following post brought his reply. "After very careful examination, I believe I can detect albumen; but send you some urine to test." The urine sent undoubtedly contained albumen; and my mind was at once relieved as to the exact nature of these cases.

Out of ten cases carefully watched over lengthened periods, this was the first in which the patient's urine was albuminous. It may be said that, in any ordinary case of Bright's disease, white spots may be seen on or in the retina; that, no doubt, is true, and, at the same time, albumen may invariably be found. But the kind of case I am describing is so essentially different to anything I have ever seen in the retinal appearances, that I never had the slightest hesitation in coming to a diagnosis, viz., that those spots were not associated with the disease recognised as "Bright's kidney".

The spots are so unlike the ordinary albuminoid patches of Bright's disease, are so differently placed, are so regular in outline, and the grouping in the form of a crescent is so perfectly symmetrical in each eye, that I have now no hesitation in affirming that the spots are diagnostic of a very insidious disease of the kidney, that albumen is present in perhaps the minutest quantities, and that any ordinary superficial examination of everyday practice fails. I also believe the disease to be slow granular degeneration of the kidney, as verified by repeated microscopic examinations.

In all the cases watched by me, the retinal patches have been persistent, and the duration of the disease long; a remarkable fact being that no patient has died from the disease whilst under my care.

Of these retinal groupings I have made in several cases accurate drawings; and the notes of the first case I ever saw are as follows.

February 14th, 1868. Matthew Rhodes, aged 64, enjoyed good health till he was sixty years of age, when he suffered from a severe attack of bronchitis; from that period he never was well. He suffered from indigestion, constipation, and gouty pains in the hands and feet, and neuralgic pain about the stomach and liver. He now suffered from vertigo and pain in the head. Eight months previous to his visiting me, his eyesight began to fail. *Examination.*—The lungs and heart were healthy; the urine was clear and pale, of specific gravity 1012, containing no albumen and no sugar. The ophthalmoscope revealed bright spots in the centre of the field.

This case was the first I had seen of the kind, and I was much struck by the fact that albumen was absent. The patient continued to visit me at intervals for upwards of a year. At each visit, the urine was carefully examined, but without result. It is more than probable that, had he continued to attend for another year, the advancing disease would have been detected by the presence of albumen in the urine.

I have been much interested in the fact that the majority of those suffering from this disease are men. I remember but one female who suffered from the disease. Another fact of special interest is that the disease is associated with some deep mental strain—either loss of busi-

ness, loss of money by speculation, or the keeping of family secrets of a nature so depressing and so unfortunate that they must never be known outside the family circle.

A CASE OF ANEURISM OF THE MIDDLE CEREBRAL ARTERY.*

By T. OUTTERSON WOOD, M.R.C.P. & F.R.C.S.

Medical Superintendent of the General Lunatic Asylum, Isle of Man.

As aneurism of the larger cerebral arteries is of somewhat rare occurrence, I venture to lay before the Association the following notes of a case which came under my observation, and which I think will prove of sufficient interest.

N. B., a labourer aged 42, was admitted into the Kent Asylum in the year 1866. His general health was weak, and he was in a condition of mania. This was the first attack, and was of about three years' duration. He was cleanly in his habits, and neither epileptic, suicidal, nor dangerous. The cause of his insanity was stated to be unknown, though his sister was an inmate of the Asylum. The chief feature of the mental symptoms on admission was a constant complaint that persons in the neighbourhood had entered into conspiracies against him. He also stated that his father and mother were both weak in their minds, that his flesh turned of different colours if he ate certain kinds of food, and that he had a dread of being sent to prison. He was very "nervous", and there was marked muscular tremor.

For two years after admission, no material change occurred, either in his general health or mental symptoms. The latter, however, then became more intensified, without any apparent cause. His fear of the conspiracies and dread of being sent to prison, were more frequently mentioned by him. After a time, these symptoms again toned down considerably, and no change in his condition worthy of note occurred until 1872, *i.e.*, six years after admission. He then became very violent and excited, and continued for a period of six months more or less noisy and excited, and had commenced using language of a disgusting character. The exhibition of a cold shower-bath of half a minute's duration every morning seemed to control this excitement; he became somewhat better, and the bath, having been administered every morning for a month, was discontinued. The beneficial results of this treatment were permanent; he continued quieter, and worked daily on the farm, and was looked upon as an useful patient, who, though somewhat abusive and excitable at times, was yet fairly amenable to reason, gave but little trouble to the attendants, and was regular in his habits.

After having been for a period of eight years an inmate of the Asylum, for the last two years of which time there had been no change in his general health or mental symptoms, he died in a very sudden and unexpected manner. There had been nothing to indicate the disease which so suddenly destroyed him; his general health was apparently good; he worked regularly, slept well, and took his food as usual.

The manner of his death was as follows: After working on the farm during the day, he was sitting in the ward, chatting with his fellow patients round the fire, when, without any warning, he fell forward on to the floor; his face became livid, and he appeared to be struggling for breath. The attendant observed several pieces of carrot in his mouth, and not unnaturally imagined he had been eating it, and that a piece "had gone the wrong way". An exploration of the fauces and glottis was made by the finger, and the obstruction not being within reach, tracheotomy was performed and artificial respiration resorted to. The breathing, however, became spasmodic, and death rapidly supervened.

Post Mortem Examination, twenty-five hours after death.—The body was well nourished, the lower extremities slightly oedematous. The calvarium was remarkably dry, the pericranium easily peeling off, and a quantity of serosity was observed issuing from the various foramina. The dura mater was firmly adherent, especially along the course of the longitudinal sinus, where its attachments were marked by a number of large distinct patches of lymph. The pia mater was separated with difficulty from the convolutions, which were abnormally pale. On severing the usual attachments at the base, and turning out the brain, a large blood clot was observed in the fissure of Sylvius on the right side. On commencing the examination of the brain, by removing the hemispheres, the brain substance generally was found to be of firm consistency and pale in colour. The lateral ventricles were

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

filled with clear serosity, the choroid plexus in both presenting a condition of papilliform degeneration. On examining the base, the arteries, both large and small, contained patches of calcareous degeneration; the basilar artery especially contained deposits of an unusual size; and the arteries generally were small in calibre and tortuous. The blood clot before mentioned was now examined; it was of large size and firm consistence, and placed directly in the course of the middle cerebral artery, which on being traced outwards was found passing into the substance of the clot. Following the vessel further, it was discovered to dilate into an aneurism about the size of a hazel nut; this was extensively ruptured on the distal side, and surrounded by the clot. There was considerable erosion of the brain tissue in which the aneurism was embedded. The heart was healthy; the arch of the aorta slightly atheromatous; the other organs were healthy.

REMARKS.—Aneurism of the cerebral arteries, according to a return made by Mr. W. G. Balfour,* was found to occur in three cases out of seven hundred; these three cases, however, were entered as merely aneurismal dilatations; and it is not certain if they were true aneurisms, such as the specimen now shown. It is interesting to note, in connection with this case, that a lesion so extensive should exist without giving rise to more marked symptoms of cerebral disturbance than the mere condition of mania long continued. There were no physical signs during life to lead one to expect the extensive disease of the cerebral arteries revealed by the *post mortem* examination. This aneurism gradually increasing in size, subject to all the variations of the circulation, continued to wear a resting-place for itself in the brain tissue surrounding it; yet so little inconvenience had it caused the patient, that no complaint was made by him of pain, uneasiness, or noises in the head, neither was there anything in the general symptoms which might have led to the diagnosis of a cerebral tumour.

In a case reported by Dr. Ogle,† the patient complained of a sawing noise in the head, a cerebral tumour was diagnosed, and the *post mortem* examination revealed an aneurism of the anterior cerebellar artery.

In conclusion, I would remark how strongly such cases as this point out the advisability of obtaining *post mortem* examinations in asylum practice, and would further mention, as bearing out this point, that a case has fallen under my own observation where the apparent cause of death was certified to be exhaustion from mania, but that the subsequent *post mortem* examination revealed a fracture of the lower jaw and several ribs, with inflammation of the lung tissue at the seat of injury.

EXTRACTION OF A PEN-CASE FROM THE LEFT BRONCHUS BY A NEW METHOD.‡

By JOSEPH LAIDLER, M.R.C.S., South Stockton-on-Tees.

A YOUTH, about fourteen years of age, was amusing himself and class-fellows by pretending to swallow a brass pocket pen-case, about an inch and a half long. As he was playing and tapping it between his teeth with a finger, the other boys caused him to laugh, and it slipped into his larynx, leaving the lid in his mouth. I found the poor lad perspiring frightfully, breathing laboriously, and crowing loudly like croup. I was convinced that some substance was in the larynx, so I had the boy turned upside down, and encouraged coughing by rapping his back and tickling his throat, but to no purpose; and on placing him in the chair he again perspired most profusely; was livid and cold in the face; could not speak; suffocation seemed imminent; and he had the appearance of dying. He was removed home, and his own medical attendant had in the meantime been summoned to see the boy. We tried a considerable time with different instruments to extract the pen-case from the larynx, but failed. He breathed more freely, and we were convinced that it must have passed the rima glottis. The operation of tracheotomy was successfully performed by Dr. Armour, whose patient he was; but on opening the trachea, no foreign body was ejected. The tracheal-tube was kept in three days; there was a little emphysema of the neck. The boy was kept in a warm room; and expectorants and stimulants were administered. On percussion, the whole of the left lung, back and front, was dull; the left side of the chest did not expand; and, on auscultation, it was found no air entered the left lung. Often was the boy asked if he felt or heard anything touch the tracheal-tube, to which he always replied in the negative. These symptoms continuing, and being very positive that the left bronchus was plugged, and having found the small end of the pen-case in the

mouth of the boy, I was convinced that the remainder of it was the cause of plugging the left lung, and that death was in the rear. Things were beginning to look very serious, and the only remedy was to extract the pen-case: but how? The idea of an instrument of the plummet-form, of a sufficient length to reach the foreign body, seemed to my mind the most likely. This was a plummet, fifteen inches long, made from a silver spoon by Mr. J. Britton, watchmaker, South Stockton, which, through the opening in the trachea, reached the case at about half its length, and the weighty end tinkled audibly upon the side of it. This not only satisfied me that the pen-case was there, but served also as a very important help in extracting the pen-case; for, by moving it up and down, much after the fashion of priming a pump, it proved a highly useful extractor. The boy was encouraged also, by the tickling sensation produced by the use of the instrument (while touching the case), to cough; and the pen-case, which had no doubt been fast by the sharp edge of the open end upwards fixing itself against the side of the bronchus, now moved upwards a little. This continued to increase gradually till the rattling against the pen-case by the plummet became quite audible, and the distance of the plummet less and less; and then it reached the opening in the trachea, but could not be expelled, as the length of the pen-case was too great to turn in the axis of the opening made. I then caught it by means of the urethral forceps, and extracted it. It was now three days and two hours since the accident had occurred. I may mention that the wound was closed by hare-lip pins and Leslie's plaister, with a covering of lint, and healed up most satisfactorily. All emphysema of the neck quickly passed away. The lung gradually, but not for some weeks, regained its usual power. Ultimately, the boy made an excellent recovery.

SURGICAL MEMORANDA.

DISLOCATION OF THE PATELLA OUTWARDS DURING SLEEP.

A HEALTHY lad of 17 awoke in the night (about three weeks ago) with great pain in his knee, and I was called to see him. I found the patella had been dislocated outwards in his sleep. Any manipulation caused such violent pain that I resolved to put it in its place under chloroform, which was easily accomplished. Amputation below the knee had been performed when the patient was a child.

SIDNEY THORPE, Sible Hedingham.

A CASE OF SPINA BIFIDA TREATED BY DR. MORTON'S IODO-GLYCERINE SOLUTION INJECTION.

As the treatment of spina bifida is still *sub judice*, I think all cases which have been operated on should be published, no matter what may be the result. I, therefore, give the following notes of a case which I operated on, as they may be interesting.

On August 9th, 1877, I attended Mrs. R., who was delivered of a female child. I found on its back, where the spines of the three last dorsal vertebrae should have been, a tumour about the size of a pigeon's egg, soft and fluctuating. The integument over it was of a dark purple colour, and slightly ulcerated at the upper part. The child otherwise seemed healthy, and moved its legs when the soles of its feet were tickled with a feather. I applied a pad of cotton after dressing with a little zinc ointment the ulcerated surface. I left the tumour untouched for a fortnight, only dressing the ulcer and waiting until it was healed before operating.

September 6th. At 12.30 P.M., assisted by Mr. George Moon, Resident Pupil of the County Antrim Infirmary, and Mr. Capel St. George, I tapped the tumour at the lower part and slightly to the left side with a fine trocar, and drew off about two drachms of a clear fluid, which became slightly bloody towards the end. I then injected slowly through the cannula half-a-drachm of Dr. James Murton's iodo-glycerine solution; and, having done this, I carefully closed the puncture with a piece of lint dipped in collodion, and dressed the tumour with a little zinc ointment and a pad of cotton. I gave the child five drops of brandy in a teaspoonful of milk just before the operation. It did not seem to suffer, as it only cried a little and took the breast immediately afterwards. I visited it again the same evening at 5 P.M., and found it well; it had slept for three hours, and taken food.—September 7th. The child was doing well. I dressed the tumour with glycerin acid tannic.—September 9th. The child seemed very drowsy, but took food readily. The tumour seemed rather larger.—September 11th. The child was better, and the tumour felt firmer and more solid.—September 14th. The child was not so well to-day, and yesterday had

* Pathological Appearance observed in the Brains of the Insane (*Journal of Mental Science*, April 1874).

† *Medico-Chirurgical Transactions*, Vol. 41, p. 43.

‡ Read before the North of England Branch.

refused its food. I ordered some brandy and milk, which it took while I was present. The tumour was flatter and more solid.—September 17th. The tumour was quite flat and shrivelled; the child rather low. It had slight convulsions.—September 21st. The tumour was still flat; the child better. It had had no convulsion since September 19th.—September 26th. The tumour was flat. There was now to be felt a bony ridge all round the former site of the tumour. There being slight convulsions, I gave half-grain doses of bromide of potassium every four hours.—October 8th. Up to this date, the child had been progressing favourably, and was recovering health and flesh. But to-day it had an attack of bronchitis, for which I ordered an expectorant mixture. No convulsions had occurred since September 27th. I saw the child again on October 10th, when it seemed better. But, on October 11th, it changed suddenly, and died at 1.30 P.M. I could not obtain permission to make a *post mortem* inspection of the body.

GEORGE ST. GEORGE, L.K. and Q.C.P.I., Lisburn, co. Antrim.

INFLATION OF THE URETHRA AS AN AID TO CATHETERISM.

A. B., SIXTY years of age, came under notice at the Ardwick and Ancoats Dispensary three weeks ago, suffering from several perineal fistulae. I endeavoured on two separate occasions to pass a catheter into the bladder, but failed. I attributed the reason of failure to the distortion of the urethra by the contracted cicatricial tissue of the fistulae. In order to remove this distortion and straighten the passages as much as possible, I injected a solution of carbonate of soda, and then another of tartaric acid, taking care to secure the meatus with the fingers of one hand, and the fistulae with the tips of the fingers of the other hand. In this way, the urethra was strongly distended, and the gas finally forced its way out through the fistulae. I then reattempted catheterism, and had the satisfaction of passing a No. 3 instrument right into the bladder without any difficulty whatever.

This is the only case I have to offer in support of the method of inflation as an aid to catheterism. This method of inflation is perhaps clumsy; but I have given it, as it was the one used in the case. A Politzer's bag, with a small tube to fit into the urethra, would perhaps be more serviceable. I think inflation might be useful in removing calculus in the urethra, and possibly in some cases of retention of urine, and also to give steadiness and precision to internal urethrotomy.

PETER TYTLER, M.D., Surgeon to the Ardwick and Ancoats Dispensary, Manchester.

THERAPEUTIC MEMORANDA.

PARACENTESIS THORACIS IN PLEURITIC EFFUSION.

Now that the question of opening the pleural cavity in cases of effusion is, as it were, *sub judice*, will you kindly add my mite of statistics to the mass already accumulated *pro* and *con*?

I have seen in my own practice and in that of others, during the last twenty-five years, eight cases in which it was deemed advisable, from the prospect of impending death, to resort to this operation. Of these eight cases, the fluid in five was serous and in three purulent. Three of the cases (*viz.*, one serous and two purulent) died and five made fair recoveries. Of the fatal cases, one is especially noteworthy from the demonstration which it afforded of the intimate connection between inflammation and tuberculosis so-called. It occurred in the practice of Mr. Dunn of Crich, who removed in my presence more than twenty ounces of serum. The lung appeared to recover itself, and absorption took place; but the man, who was a mine agent, was subsequently attacked with maniacal symptoms, requiring, as Mr. Dunn informed me, several persons to restrain him. He ultimately became calmer; but, after a few weeks' suffering, died of rapid phthisis.

Reflection upon these cases compels me to give in my adhesion to early tapping and the removal only of a portion of the fluid, with a view to promote absorption: a plan which, as far as my memory serves, was most ably advocated by Dr. Barlow in the very practical paper which he read upon this subject at the Manchester meeting.

W. WEBB, M.D., F.R.C.S. Eng. & Ed., Wirksworth, Derbyshire.

THE USE OF BROMIDE OF POTASSIUM IN EPILEPSY.

As bearing on the importance of giving large doses of bromide of potassium in epilepsy, I think the following case, which, thanks to the kindness of Professor G. H. B. Macleod, came under my observation, is of interest.

A. L., aged 5, was brought to Glasgow from the country in May 1876, as she had for the last eight months suffered from convulsions, which were increasing in frequency, and her relatives began to fear the ultimate result. On examining the child, I found a large abscess in the occipital region, due to the falls she had received during the fits, which were reported as being severe and numerous. She had a vacant frightened look, and spoke indistinctly. Bromide of potassium in two-grain doses had been administered for two months previously. I opened the abscess, which healed quickly; and, previous to commencing any treatment, a dose of calomel, followed by castor-oil, was administered. No amelioration followed this; and accordingly, on May 5th, she was ordered fifteen grains of bromide of potassium thrice daily, which in two days were increased to twenty grains four times a-day; and, on May 10th, to thirty grains, so that she had for three days one hundred and twenty grains of the medicine daily. On May 12th, she had no fit; and since then the fits have not returned, the child having become markedly more intelligent. She continued the medicine for a month in ten-grain doses after returning home.

J. CRAWFORD RENTON, M.B.,
Assistant-Surgeon to the Eye Infirmary, Glasgow.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

HOSPITAL NOTES.

KING'S COLLEGE HOSPITAL: DR. JOHNSON'S WARD.

Cystic Tumour of Thyroid, causing Paralysis of one Vocal Cord.—A shoemaker, fifty-two years of age, was admitted to the hospital complaining of troublesome and continuous cough. His family history was good; his habits had been temperate, and there were no signs of syphilis. A year ago, he complained of pain at the back of his neck, resembling stiff neck. At first, he did not think much of this, but soon afterwards he noticed a swelling on either side of the neck in front; this swelling had not increased much during the last five months. During the last three months, he had had slight cough accompanied by a barking sound. The cough was not paroxysmal, but, being accompanied by much dyspnoea, compelled him to seek relief; the voice had also become feeble and husky. On admission, the patient was seen to be well nourished; the face was somewhat cyanosed, and, together with the neck, chest, and upper extremities, was distinctly oedematous. There was a well marked swelling at the lower part of the neck in front, largest on the right side; on coughing, this swelling became more prominent and assumed a rounded form projecting upwards and externally to the sterno-mastoids on either side. A few enlarged glands were felt above the clavicles and in either axilla. The superficial veins of the chest and neck were greatly enlarged as if from pressure. The lungs presented nothing abnormal beyond signs of congestion at the bases, but, on auscultation over the cervical vertebrae, loud tracheal breathing was heard, as if from compression of the trachea. The heart and arteries appeared healthy. The laryngoscope demonstrated *paralysis of the left vocal cord*. The man died suddenly shortly after admission. On *sectio cadaveris* a rounded fluctuating tumour the size of a small orange was found behind the manubrium sterni; this compressed the superior cava and large vessels of the neck, and extended behind either sterno-mastoid across the trachea; it was found to be a cyst of the thyroid body, and contained a light brown grumous fluid. The left lobe of the thyroid body was very much enlarged, and was mainly solid, though in parts softening and becoming cystic. The left recurrent laryngeal nerve was compressed by the tumour; and this was the cause of the paralysis of the left vocal cord. No other disease was found beyond congestion of all the internal organs.

Bromide of Potassium as a Sedative.—An old man, the subject of hemiplegia with considerable rigidity, became acutely delirious, talking wildly. He was soon quieted by the administration of bromide of potassium and the allowance of three ounces of brandy a day.

Milk Diet in Bright's Disease.—Dr. Johnson treats most of his cases of Bright's disease by a strictly milk diet; under this plan of treatment a large number of cases have recovered. In a recent case of acute albuminuria in a young subject, recovery quickly followed the use of a simple milk diet, no solid food being given. Albuminuria, however, returned as soon as he was allowed beef-tea, but disappeared when he

was again restricted to milk only; it again returned when fish was allowed, and now, under the use of an exclusive milk diet, the urine is once more free from albumen.

Sudden Rupture of a Mediastinal Abscess into the Trachea.—A boy was brought to the hospital with the history of having had a cough and sore throat for a fortnight; but this had not obliged him to keep within doors, and he had been playing in the streets till within half an hour of his admission to the hospital. While at play, he had been suddenly seized with urgent dyspnoea, and when admitted to the hospital was cyanotic, almost pulseless, and gasping for breath. Nothing abnormal could be seen in his pharynx, and on examination of his chest, the percussion note was everywhere normal; auscultation, however, indicated that but little air was entering his lungs. On the supposition that the urgent dyspnoea might be due to a foreign body having become impacted in the larynx, tracheotomy was performed at once; no relief of the symptoms ensued, and air blown down the tracheotomy-tube was found to pass up the larynx and through the mouth and nose; it was thus evident that there was an obstruction below the opening in the windpipe. The cyanosis and dyspnoea were unrelieved, and the child died shortly after the operation. At the *post mortem* examination, a mass of caseous bronchial glands was found to have softened down into an abscess, which, bursting into the trachea, had obstructed it completely, thus simulating the impaction of a foreign body. A rounded opening, the size of a threepenny piece, was found in the trachea just above its bifurcation; by this the pus from the mediastinal abscess had entered. The bronchi were found loaded with pus.

MR. LISTER'S WARD.

Operation for Psoas Abscess.—In the course of a clinical lecture, a young man, the subject of caries of the lumbar vertebrae, was brought into the theatre. A large iliac abscess on the right side communicated with a second abscess in the upper part of the same thigh, while another iliac abscess was found to have formed on the other side of the body during the patient's residence in hospital; it was not proposed to interfere with the abscess on the left side, as it appeared probable that there might be a free communication between the two iliac abscesses. The physical diagnosis of the case was explained in detail during the lecture. The patient was lying on the wheeled truck, resting on waterproof sheeting, the clothes were drawn well away from the abscess, and the skin was thoroughly sponged with carbolic lotion (1-20). In considering the best point at which to tap the abscess, Mr. Lister dwelt on the necessity of removing the opening as far as possible from all sources of putrefaction, such as might come from proximity to the pubes or anus; of course ordinary considerations must have equal weight in selecting the site of the opening. In this case, the opening was made over the abdominal portion of the abscess, and as far outwards as possible, so as to allow of the dressings well overlapping the skin. All the instruments to be used had been placed in carbolic lotion an hour before the time of operation, the dressing forceps had a little grease in the teeth so that when drawn over a towel, they soiled it, but as they had been well soaked Mr. Lister considered them perfectly antiseptic and used them without fear. Clean and dry towels were placed around the patient, the pubes being carefully covered up, and the clothes drawn out of the way. A continuous cloud of carbolic spray was produced by a hand steam-spray producer, and directed over the seat of operation, lotion (1-20) was placed in the bottle of the apparatus, and by dilution with the steam this was reduced to about 1-30 before it fell upon the skin. The bistoury to be used had of course been soaked in carbolic lotion, but when taken out, the water collected on its polished surface in dew-like drops, and, as the operator pointed out, the blade was no longer antiseptic, as dust might fall upon it, together with septic particles; to keep it antiseptic, the knife must be freely exposed on both sides to the carbolic spray, and kept there till the conclusion of the operation. The abscess being opened, the pus was collected in a porringer, and firm pressure was made on the iliac and femoral portions of the abscess. When the pus ceased to flow, a rag wet with carbolic lotion was used to cleanse the surface. A drainage-tube, one-third of an inch in diameter, was now inserted into the abscess, care being taken to direct it backwards as nearly as possible perpendicular to the surface; it was then cut off level with the wound, and trimmed up with scissors so as to be flush with the skin. The pressure of the tube against the margins of the wound tended to check the slight venous hæmorrhage. A double suture of antiseptic silk was passed through each side of the extremity of the tube, and each suture was laid out upon the surface to secure the tube in its place; the dressing was thus able to rest upon the end of the tube, at the same time that it was in perfect contact with the surface of the abdomen. A couple of layers of

carbolic gauze well wetted with lotion were laid next the wound, and acted as an antiseptic screen while the patient was cleansed and dried. The usual antiseptic dressing was prepared of such a size as to reach from the spine behind round the abdomen to the median line in front, the dressing extending downwards as far as the middle of the thigh; in this case, it was necessary to have no stint of dressing, as much sero-sanguineous discharge must be poured out during the first twenty-four hours. A bandage of elastic webbing was used to fix the dressing in its place, a turn being taken round the thigh it was brought vertically upwards on to the abdomen; a turn was then taken as a belt around the waist, while the bandage was carried vertically downwards from the belt along the spine to the turn around the thigh; at numerous points spring-pins were used to secure the parts of the bandage to one another and to the dressing, which was thus kept in place. Mr. Lister, in examining the pus removed from the abscess, found a small mass of carious bone, and remarked that, although it was thus demonstrated that the pus had been in contact with diseased bone, it was still sweet, because it was antiseptic.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, OCTOBER 23RD, 1877.

CHARLES WEST, M.D., President, in the Chair.

EDEMA (MYXEDEMA) IN THE CRETINOID CONDITION OF ADULT WOMEN. BY W. M. ORD, M.B. LOND., F.R.C.P.

THE author communicated a paper on this subject. It described five cases in which the symptom first apparent was general anasarca without albuminuria. The anasarca was, however, different from the anasarca of renal affection in that, while it was general, the parts affected did not pit on pressure, and, as there was no gravitation of any fluid, remained equally swollen at all times. In all the cases, there was remarkable thickening and broadening of the features and a slow articulation; there was marked slowness of perception, slowness of thought, and slowness of action, without any actual impairment of intellect. The cases all exhibited the pink tinge of the cheeks and the spade-like shape of the hands described by Sir William Gull in his paper on a Cretinoid Condition Supervening in Adult Life in Women; and it was remarked that all the cases seen by the author had been in women. The skin generally was harsh and dry, as well as swollen and semi-transparent. There was in all the cases an absence of natural perspiration. There were in none of the cases any indications, either in the urine or in the organs of circulation, of the existence of renal disease. But, in two cases which ended fatally after several years of observation, renal symptoms appeared before death. That is to say, with the occurrence of fluid anasarca, the urine became albuminous, the arteries became tense and thickened, and the heart overgrown. In one case, a *post mortem* examination was obtained. The kidneys were found to be of normal size, rather tough in consistence, and not notably discoloured. The cortical portion was a little wasted, but the capsule was not adherent. The arteries were everywhere greatly thickened; there was much atheroma in the larger vessels, and the heart was much hypertrophied on the left side, weighing sixteen ounces and a half. There were no other important naked-eye appearances excepting in the thyroid gland, which was reduced to a third of the natural size, and was tough and fibrous looking on section. Under the microscope, a remarkable overgrowth of the fibrillar element of connective tissue was found in all parts of the body; the fibrils being separated from one another by much larger intervals than usual, and the interspaces being filled by a transparent material yielding mucin—an excess of the normal cement; with excess of nuclei. On a review of the cases, the singular train of nervous symptoms was attributed to failure of the action of the skin and to general want of peripheric stimulation of the nerves. And this condition was traced again to the mucous œdema by which all nerve-ends were encased. It was argued that a steadily maintained stimulation of the central nervous system was a condition of the maintenance of health in the great nervous centres as in the body at large; and that, in such cases as were here described, there was an isolation from external influences comparable in a less degree with what was effected by shaving and varnishing a rabbit. The symptoms observed in these cases were compared one by one with the symptoms described by Sir William Gull in the paper referred to, and their identity was held to be established. They were then compared with those of cretinism, and again a remarkable agreement was demonstrated. Reference was also made to Mr. Curling's paper on Two Cases of Absence of the Thyroid in Children suffering from Mental Infirmary, and to Dr. Hilton Fagge's paper on

Sporadic Cretinism in England, where again, in conjunction with cretinoid symptoms in children, the thyroid gland was absent, or could not be felt. The thyroid gland in the case examined after death having been found to be practically annihilated, owing to the encroachment of the myxœdema upon its natural structure, this case was held to afford confirmation to Dr. Fagge's argument set forth in the above paper. In the last place, it was suggested that such a condition existing early in life, before the development of the intellect and of the organs related therewith, would cause arrest of development through failure of the guiding sensations and stimulations. It was held that the natural process of development of the central nervous organs was directly dependent on exercise of these organs set going by impulses from the periphery; that the surroundings of the growing animal "lick it into shape", so to speak, and that the intrusion of an insulating medium would tend to arrest development in proportion to the completeness of insulation. Observation showed that many cretins were "œdematous", and that an œdematous state of the skin was often an indication in particular cases that the child so affected would become a cretin. The paper, therefore, suggested that more extended observation might possibly reveal some such connection in cretinism as was here asserted of the cretinoid state of adult women. The ultimate cause of the condition here called myxœdema remained unexplained.

Dr. HILTON FAGGE had come to regard the affection described by Sir W. Gull and Dr. Ord, and called by them cretinoid, as identical with the sporadic cretinism of children seen in England. In one of his (Dr. Fagge's) cases, the features of the patient were similar to those of Dr. Harley's patient, now exhibited. Then, what were the distinctions between sporadic and endemic cretinism? Dr. Fagge thought they might be described under three heads. In sporadic cretinism, there were two masses of fatty tissue in the posterior triangles of the neck not observed in endemic cretinism. It was true, Dr. Fletcher Beach had exhibited at the Pathological Society a specimen from a child who at death had no fatty masses, but had had them when first observed. That child had had diarrhoea for some weeks before death, accompanied by much wasting; and during that time the fatty tumour had disappeared. Cases of endemic cretinism, it must be remembered, occurred usually in poor families in Switzerland and Italy; and it was quite possible that, if the cretins were fed up, instead of being generally most miserably kept, the fatty tumours might also be visible in them—the endemic cretins. The second point of distinction was, as to the condition of the base of the skull, as described by Virchow, whose case was that of an infant. Dr. Fagge had had a case aged 21, and he believed the difference in the bones was due to the difference of age. In children, there was a greater slope of the basilar process. Early ossification of the sutures would prevent growth; but change of shape might go on without ossification, as in the neck of the thigh-bone, in the inferior maxilla, etc. Thirdly, there was the presence of goitre in the family of endemic cretins; whilst the absence of the thyroid body was often observed in the sporadic cretinism in this country. He inquired as to the relations between cretinism and goitre. Those families which were goitrous, often in the next generation became cretins. But one could not help supposing that the formation of the goitre went towards the development of the cretinous condition. The deterioration of race, in fact, in some cretinous families was so rapid that in certain Alpine valleys the families died out, rarely going beyond the fifth generation—their place being supplied by new comers. Dr. Ord was inclined to regard the myxœdema as the primary cause of the cretinism, and leading to the fibroid state and atrophy of the thyroid body. He (Dr. Fagge) could hardly think that was an exact statement of the case.—Dr. HEYWOOD SMITH inquired if, in the women suffering from this disease, there was anything calling for notice in the catamenial flow, or if in those who had had children there was any indication of subinvolution of the uterus.—The PRESIDENT thought it would be almost premature to apply the name cretinoid to this class of cases. The disease was very rarely seen in England, or even in those districts of Italy where goitre was so very common. The condition resembling cretinism occurred in all conditions of life, amongst both the rich and poor. He had such a child, a co-twin, recently under his care, which had recently been improving in health and intelligence. He had also seen other children under two years old with a cretinoid appearance in the face and deficiency of intelligence, and cyanosis more or less marked. Any diseased state which interfered with the nutrition of a child, as did cyanosis, might stamp upon a child the condition of cretinism. But, from Sir W. Gull's and Dr. Ord's cases, it would appear that the intellect might lose some of its original force, the face lose its intelligence, and gradually a disease of the kidneys come on, of which the patient died. These cases would serve to stimulate inquiry. Few things, however, had tended more to retard discovery than the hasty endeavour to affix to cases such as these inferences wider than those they would really

bear.—Dr. ORD said that Dr. Fagge joined issue with him on the question of the thyroid. In his (Dr. Ord's) view, the overgrowth of the thyroid, on the one hand, or its atrophy on the other, did not appear to be important. Dr. Fagge had seemed to think there was some antagonism between the occurrence of goitre and the subsequent development of the cretinism in families. In these "cretinoid" cases which he (Dr. Ord) had seen, the cretinism was not at first present; simply the dropsical appearance, without kidney trouble, but with a lethargic condition of the nervous system. In the cases which he had inspected after death, the thyroid was a mucus-yielding pulpy tissue. He had made observations as to the quantity of mucin in œdematous and healthy skin, but they were not yet complete. As regarded the catamenial flow, there was nothing particular to mention, except in the patient of Dr. Harley then present. He did not know if, after delivery, subinvolution of the uterus had occurred. It was with names, in such cases, as it was with hypotheses in science generally; one might use or abuse them. He thought that such conditions as existed in these cases should have a distinct name, by which they might be spoken of, and men's minds thus stimulated to further inquiry. As a matter of convenience, a name should be given, just as individuals are named, and for the same reason. Possibly, the name cretinoid was stronger than our present knowledge of the cases warranted; but he did not think the term myxœdema described more than the condition actually observed. Other things besides myxœdema and cyanosis might hinder general and special development. He did not say the cases were identical with cretinism; he merely, by using the term "cretinoid", drew attention to their parallelism with instances of that affection.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, OCTOBER 3RD, 1877.

CHARLES WEST, M.D., President, in the Chair.

Zwancke's Pessary.—Dr. GALABIN showed a pessary (Zwancke) which had been worn for six years. The pessary was buried deeply in the vagina, amidst a large number of phosphatic calculi. The bladder, vagina, and rectum formed one cloaca.—Dr. ROUTH thought this form of pessary most convenient in practice. The injuries were due to abuse of the instrument.—Dr. ROBERT BARNES thought we should not trust women to remove and replace pessaries; so that it was our duty to select the least objectionable form. Zwancke's was a most objectionable instrument.—Dr. HICKS thought the Zwancke made of wire the most objectionable form.—The PRESIDENT had introduced Zwancke's pessary into England, and found it useful; it was before Hodge's was invented. He had not used it lately.—Dr. WILTSHIRE had seen nothing but harm from the instrument.—Dr. HAYES had seen evil results from other pessaries.—Dr. GODSON had used Zwancke's pessary often, and had seen no harm result. He showed a boxwood disc pessary, which appeared to have been worn for twenty-six years.—Dr. EDIS had seen ulceration and discharge following the introduction of a Hodge's pessary. A patient should be examined a week after the introduction of a pessary, to see that it fits.

A Synopsis of One Thousand Five Hundred Consecutive Labours.—These cases occurred in the practice of Dr. W. T. GREEN. The total number of cases attended was one thousand five hundred; of these, three hundred were primiparæ, and one thousand two hundred multiparæ. Fourteen women gave birth to twins. There were six cases of placenta prævia: three of the mothers subsequently died; two children were born alive. There were three cases of hydatid mole. Of the twin births, in four the children were both males; in six, both females; in four, male and female. In every case where the twins were of the same sex, there were two placentæ, and the membranes were distinct; while in cases where the children were of different sexes, there was only one placenta, and the membranes were united. Forceps were used on fifty-one occasions; turning employed twelve times; and craniotomy had recourse to twice. The total deaths were twelve mothers and seventy-three infants. Of the latter, thirty were cases in which the children were not of a viable age. The maternal deaths were due to *post partum hæmorrhage*, placenta prævia, exhaustive and puerperal fever. There were several cases of acute specific fevers during the puerperal period which recovered. The author had not observed idiocy induced by complications during labour. He had used *liq. ferri perchloridi* to arrest hæmorrhage in placenta prævia with good results.—Dr. BRAXTON HICKS would have liked to have had a fuller history of the cases which had recovered after puerperal illnesses, for more was to be learnt from them than from those that died.—Dr. EDIS said that the maternal mortality was high, and required more explanation than was given in the paper. The number of still-born children was the usual percentage; but he thought that infant mortality throughout the country

was too high, owing to want of employment of the forceps.—Dr. BARNES said the average of infant mortality in Dr. Green's practice was somewhat less than that in the Royal Maternity Charity, and could not fairly be referred to want of using the forceps.—Dr. DALY said he gave ergot in almost all cases.—Dr. Green had not referred to external pressure as a means of helping delivery.—Dr. HEYWOOD SMITH asked if there were distinct proof that pelvic cellulitis resulted from labour and use of forceps oftener than from septic absorption.—Dr. EDIS said he had no statistics in proof of it.—Dr. CHALMERS had given ergot, but did not do so now, and did not think his cases lasted longer in consequence. It might be well for skilled accoucheurs to use the forceps frequently, but to do so would be bad for a general practitioner.—The PRESIDENT said that the proportion of males to females (726 to 785) was the reverse of the usual proportion (105 to 100). Perhaps illegitimacy explained it. He had an impression that idiocy had a connection with protracted, difficult, or instrumental labours.—Dr. HAYES thought that statistics could not decide the question of the frequency with which forceps or ergot should be used. Each case should be decided on its own merits. There were certain indications of the likelihood of the occurrence of *post partum* hæmorrhage, and in such case ergot might be given.—Dr. GALABIN had examined the records of twin cases at Guy's Hospital during twelve years. He found all possible combinations of sex, etc.; though, from the fact that double monsters were always of the same sex, it would be expected that twins, having a common amniotic sac, would be of the same sex.—Dr. GREEN, in reply, said he had noted accurately the proportion of male and female children. There were only two illegitimate. He had observed a large proportion of the children for a long time, and he had not found reason to connect idiocy with any kind of labour. He had given ergot a fair trial; had never found it do good, but harm, giving rise to retention of the contents of the uterus. He had used the forceps in all the cases in which he thought them necessary.

The Forceps in certain Breech-Presentations.—Dr. S. W. AGNEW, of Hobart Town, Tasmania, contributed this paper. The author pointed out the great difficulty met with in delivering certain cases of breech-presentation, and enumerated the objections raised to the use of the forceps in such cases, when other means failed. Though objections had been raised to their employment, the author thought that recourse might be had to them in some cases when other means had been unsuccessful. Two cases in which the instrument had been used with success were detailed.—Dr. BARNES said his experience on the point in question was abundant. He had tried the forceps, and had seen their inefficiency and their danger. They might compress the soft parts above the pelvis and the cord, thus causing asphyxia. Dr. Agnew used leverage; that was good. Breech-presentations were of two kinds: one where the legs were bent, was easy; the other, where the legs were straight, was very difficult. The breech was like a wedge, and the proper treatment was to decompose the wedge by bringing down a foot.—Dr. POOLE suggested the propriety of dividing the symphysis pubis of the child when it was dead in the difficult cases.—Dr. HAYES applied the forceps to the breech when the os was insufficiently dilated for the introduction of the hand. The instrument slipped, but the breech was dragged into the vagina; a foot was then seized and delivery effected.—Dr. BARNES said anything might be done to diminish the size of the child when it was dead. He thought the lower the breech was, the more difficult it would be to seize a foot. He would not drag the breech lower down before seizing a foot.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, OCTOBER 18TH, 1877.

T. CARR JACKSON, F.R.C.S., President, in the Chair.

Ovarian Dyspepsia.—Dr. MILNER FOTHERGILL described a form of dyspepsia combined with leucorrhœa, and commonly too with menorrhagia, which depended upon morbid conditions of one or both ovaries. Experiment had shown that irritation of the sympathetic nerves of the stomach produced contraction of the gastric arterioles and defective secretion of gastric juice. In aggravated cases, there was vomiting, as seen in the early months of pregnancy and in calculus of the kidney, of a reflex character. This form of dyspepsia was very intractable, unless its causal relationships were remembered and borne in mind in the treatment. Blisters over the ovary, with bromide of potassium and sulphate of magnesium internally, were more effective than bismuth and hydrocyanic acid. The gastric condition was not primary, but reflex.

Dr. SQUIRE and GRITTLE had Mr. ASHURTON THOMPSON to look part in the discussion which followed.

Pneumonia in Children.—Dr. SQUIRE then read the paper of the evening on some cases of pneumonia in children. He said it was a

comparatively common disease in children; but it was not like bronchitis, a disease of cold weather, but of spring and autumn. This was proved by a variety of statistics. He spoke of simple lobar pneumonia. He then gave the chief indications, and laid special stress on a rise in the frequency of the respiration in comparison with the pulse-rate. In one case, a temperature of over 104 deg. Fahr. was reached, yet the child recovered. In another, the respirations mounted to 100 per minute and the pulse to 200. In young children, the prognosis largely turned upon the extent of the lung involved. As to its pathology, pneumonia was rather a disease of the blood than of the respiratory tract. Pneumonia and pleurisy were often closely associated. The treatment consisted chiefly of hygienic measures, as keeping the child quiet in bed. Depressant remedies were not well borne usually. Mercurials should never be used except as occasional aperients. Alkaline drinks were good. It was a matter of great moment to secure sleep. It was a disease of high temperature.—Dr. W. H. DAY spoke of pneumonia of the apex. He condemned too frequent physical examinations.—Mr. CRIPPS LAWRENCE said good hygiene was of more importance than medicine.—Dr. SQUIRE replied.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

THE first monthly meeting of this Society was held in the Library of the Newcastle-on-Tyne Infirmary on October 11th; Mr. MORGAN, President, was in the chair.

Drs. EMBLETON and BROADBENT, in the name of the Society, congratulated Mr. Morgan on his re-election as President.

Prevalent Diseases of the District.—Mr. H. E. ARMSTRONG, Medical Officer of Health for Newcastle, presented a report of the cases admitted to the Fever Hospital during the seven months from March to September inclusive, and stated that the town had been particularly healthy during the past summer.

The following pathological specimens and patients were exhibited.

Tapeworm with Head.—Dr. ARMSTRONG showed a specimen.

Varicose Veins.—Dr. ARMSTRONG showed a large bunch of varicose veins excised under antiseptic precautions from the leg of a female. The case had done well.

Varicose Veins.—Dr. EMBLETON also showed a photograph of a case of varicose veins.

Hypertrophied Clitoris.—Mr. J. D. DIXON showed a remarkable specimen which he had excised from a prostitute aged 22.

Occluded Abdominal Aorta.—Dr. BYROM BRAMWELL showed this specimen. The vessel was completely obstructed below the origin of the inferior mesenteric. An aneurism the size of a hen's egg was situated above the point of obstruction; the aneurism was almost completely filled with clot, the outermost layers of which were continuous with the clot in the obstructed part of the vessel. The patient from whom the specimen was taken was shown to the Society on December 14th, 1876, as a case of aneurism of the abdominal aorta with occlusion of the vessel and establishment of the collateral circulation. The case will be published in full.

Large Infarctus of Kidney.—Dr. BYROM BRAMWELL showed this specimen, removed also from the patient with the occluded aorta.

Case in which a Large Portion of the Anterior Wall of the Chest was Removed by Injury.—The PRESIDENT (Mr. G. B. MORGAN) showed this patient. The injury was a very severe one; the skin, muscle, etc., from the clavicle to the ninth rib were torn away, and the cavity of the right chest extensively opened. The case had done well.

Case of Empyema Cured by Free Incision and Drainage.—Dr. GIBSON showed this patient, and detailed the history of a fatal case treated in the same manner. He strongly advocated a free incision wherever pus was present in the pleural cavity.

Papers.—1. External Urethrotomy: The PRESIDENT read a paper on this subject. He advocated Mr. Coulson's operation as improved by Dr. Gouley of New York, and detailed the histories of two cases in which the operation had been followed by remarkable success.

2. Antiseptic Precautions in Midwifery: Dr. NEWCOMBE read this paper, advocating greater cleanliness and strict antiseptic precautions in the treatment of midwifery cases. He believed that many cases of milk fever were due to septic causes.

3. Large Lympho-Sarcoma successfully removed from the Neck of a Child: Dr. PAGE read the history of this case. The tumour was of large size and very rapid growth. The incision extended from the scalp to two inches below the clavicle on the one hand, and for three inches across the neck on the other. The operation was performed strictly *à la* Lister; in ten days, the drainage-tubes were removed; and in fourteen days, the child was out of bed.

4. Case of Ovarian Cancer: Dr. G. H. PHILIPSON related the particulars of this case, and alluded to the conflicting statements which were found in books as to the frequency of primary cancer of the ovary.

SELECTIONS FROM JOURNALS.

THERAPEUTICS.

CHLORAL-HYDRATE IN WHOOPING-COUGH.—From numerous observations, Hartwig (*Deutsche Zeitschrift für praktische Medizin*, 1877, No. 29) is led to recommend chloral-hydrate every two hours in whooping-cough; the daily quantities being, for a child under three months old, $4\frac{1}{2}$ grains; six months, $6\frac{1}{4}$ grains; nine months, $7\frac{3}{4}$ grains; and for older children, $9\frac{1}{4}$ grains for each year.

SALICYLIC ACID.—J. P. Thomas, in the *Philadelphia Medical and Surgical Reporter*, vol. xxxvi, No. 22, speaks of the antiperiodic action of salicylic acid as being superior to its antirheumatic action. He says that, in more than one hundred cases of ague, it failed in only three, in which it was not given according to his directions. In recent cases, he uses the following formula: Salicylic acid, 2 drachms; spirit of nitrous ether, 6 ounces. A tablespoonful of this is given in water at intervals of half an hour to an hour and a half, until six doses are taken. In old cases, he uses also carbolic acid and arsenite of potash, and also tonics, etc., according to circumstances. In typhus, also, the diaphoretic, antipyretic, and antiseptic properties of salicylic acid are regarded by him as valuable.

FLATULENT DYSPEPSIA.—At the meeting of the Paris Academy of Medicine on October 9th, M. Leven read a paper (*Movement Medical*, October 13th) on the gases of the stomach and flatulent dyspepsia. He is of opinion that food does not appear to produce gas, and that the gases which are found in the digestive tube proceed from the external air, the blood, and fecal matter. The gases which are evolved in flatulent dyspepsia are not due to decomposition of food, but, arising from the three sources already indicated, they are continually put into motion by the pathological contractions of the muscular fibres of the intestines. Expelled by the mouth, they are constantly renewed, and their production may be as incessant in a starving man as in one who is well fed. This symptom of production of gas, therefore, signifies an irritation of the stomach, which is always consecutive to a long-standing gastric dyspepsia. The progress of the disease, and the treatment to be adopted for its cure, confirm these data of clinical observation. There is no need to seek for any therapeutic agent to combat these gases. Besides which, the so-called absorbent powders, as charcoal, do not, according to the experimental verifications of M. Leven, absorb gas. If solid charcoal do absorb it, directly it is reduced to powder it loses all absorbent property.

PATHOLOGY.

CONGENITAL OCCLUSION OF THE SMALL INTESTINE.—E. Theremin (*Deutsche Zeitschrift für Chirurgie*, vol. viii) remarks that congenital occlusion of the small intestine is extremely rare. In the Vienna Foundling Hospital, it was met with only twice during eleven years, in 111,451 children; and in St. Petersburg nine times in 150,000 cases. Theremin divides it into 1. Narrowing and atresia of the duodenum; 2. Atresia of the jejunum and ileum; 3. Atresia of the horizontal branch of the duodenum; 4. Fœtal incarceration of the small intestine; 5. Occlusion by tumour. Stenosis and atresia of the curvature of the duodenum are merely different degrees of the same affection. The intestinal tract is normal, and so are the peritoneal ligaments; but the greater omentum is very short. The stomach is dilated and thickened, and studded with capillary extravasations in consequence of frequent vomiting. Round ulcers are found in the dilated portion of the duodenum above the constriction, while the lower horizontal portion of the duodenum commences below the atresia as a blind sac, and, with the rest of the intestine, is much contracted. In cases of stenosis, a very fine canal lined with mucous membrane alone connects the upper and lower portions, and the ductus choledochus is connected with the constricted part. In all the subjects of this malformation, vomiting takes place immediately on their sucking, and they rapidly die. The rejected ingesta are coloured black with blood. The discharge of meconium has been nearly normal in all the cases; and there have been no signs of peritonitis. In the other portions of the small intestine, the occlusion is found in the upper or lower part of

the jejunum, or in the lower part of the ileum, near the ileo-cæcal valve. Sometimes the obstruction is caused by a membranous septum arranged perpendicularly to the wall of the intestine: in other cases the intestine forms a *cul-de-sac* above and below the stricture. There are also specimens in which, besides atresia in one or more places, the intestines have become adherent to each other or to the abdominal wall by false membranes. The children generally die soon after birth; one lived twenty-six days. In the related cases, vomiting occurred only when the atresia was situated in the upper part of the jejunum; in many, there were dilatation and ulceration of the portions above the constriction, with signs of recent peritonitis. The author has observed only two cases of atresia of the horizontal branch of the duodenum. The constriction was situated at the commencement of the extra-peritoneal horizontal portion, below the opening of the bile-ducts. The colon was full of meconium. The intestinal tract was normally arranged; the mesentery was short and thick. Under the head of fœtal incarceration are described three cases, in which the intestines, the arrangement of which was normal, were occluded by pseudo-membranous cords. In other cases (two from other sources, and three observed by the author), the obstruction was caused by twists of the intestine. The mesentery was inordinately long. Of congenital occlusion by tumour, there is only one case, recorded by Widerhofer, in which an alveolar cancer of the left lobe of the liver was also intimately adherent to a loop of the ileum, which was twisted once on its axis. The author refers the cases of occlusion in the first four categories exclusively to peritonitis during the first half of fetal life; traces of which may be afterwards occasionally found in the form of enlarged mesenteric glands, abnormally developed peritoneal ligaments, or a shortened and atrophied mesentery.

SMALLNESS OF THE CEREBELLUM.—In a case described by M. Huppert in the *Archiv für Psychiatrie*, vol. vii (abstract in *Centralblatt für die Medicin. Wissenschaften*, July 28th), the phenomena observed during life were ataxic disorders of motion in the limbs and spine; impossibility of maintaining equilibrium; uncertain and tottering gait; and difficulty in rising from the horizontal (supine) position. At the age of three years, the patient had had a severe nervous fever; after which he suffered from epilepsy and choreiform muscular disturbances. These disappeared after a few years, but weakness of intellect and the conditions mentioned above remained. The cerebellum was of little more than half the usual size; its form and the proportion of its parts were normal; the layer of grey matter was thin; its consistence was increased, so that the pia mater was easily stripped off. The pons Varolii and medulla oblongata were also small, though not so much so as the cerebellum. The corresponding region of the skull was extraordinarily flat. The author assumes the existence of a retardation of the growth of the organ, dating from the third year of life, with a relative increase of the neuroglia. The symptoms of disease of the entire cerebellum are, the author concludes, only motor disturbances, that is to say, ataxic disorders. A high degree of smallness of the cerebellum is to be anatomically compared with its total extirpation, as regards the effect on the function of the organ.

SURGERY.

GUNSHOT-WOUND OF THE HEAD IN A CHILD.—R. Demme, in the report for 1876 of the Children's Hospital in Bern, relates the case of a boy aged $5\frac{1}{2}$, who was wounded by a small revolver-bullet, the ball entering at the lower and inner angle of the right frontal bone, close over the root of the nose, and passing somewhat upwards without leaving the skull. The boy was at first stunned, but in a few minutes recovered consciousness. There was paralysis of the left side of the face and of the right half of the body. A probe could be passed into the wound to the depth of 5 or 6 centimètres (about 2 or $2\frac{1}{3}$ inches). Healing took place in five or six weeks; and power of movement began to return in the paralysed limbs—the paralysis being only of motion—about the fourth or fifth week. When Dr. Demme saw the child four or five months after the accident, there was a cicatrix at the place of entrance of the ball, at the bottom of which a deposit of bone could be felt; there were traces of paralysis of the left side of the face; the right upper limb was flexed, with paralysis especially of the deltoid and triceps muscles; the extensors of the right lower limb were weaker than those of the left. The patient could move about with the help of a supporting apparatus. Subcutaneous injections of strychnia greatly improved his condition. The author believes that the ball entered the left hemisphere of the cerebrum, and became encapsuled in it or in the base of the skull.—*Centralblatt für die Medicin. Wissenschaften*, August 11th.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, OCTOBER 27TH, 1877.

ST. THOMAS'S HOSPITAL.

WHEN the post of Treasurer of St. Thomas's Hospital became vacant in September last, we took occasion to point out some of the radical defects in the management of that hospital, and called upon those interested in the administration of the hospital to take this opportunity of procuring some much needed reforms at that institution. We pointed out then that the best managed hospitals in England are those under the management of a paid resident officer, and as an example in point of the good administration of a hospital comparable with St. Thomas's, we instanced Guy's Hospital, which under the management of a paid superintendent has ceased to present many of the defects which once characterised it, and has become a creditably crisply managed institution. We showed that at St. Thomas's each in-patient costs £12, and at Guy's only £5; and that in 1876, St. Thomas's Hospital maintained 460 beds and relieved 3,245 in-patients and 73,000 out-patients at a cost of £37,918; whereas at Guy's in the same year, 710 beds were maintained, 5,722 in-patients and 76,061 out-patients were relieved for an expenditure of less than £30,000. These were a few test facts which indicated the necessity for substituting for the recent lax and costly management of a non-resident treasurer, the appointment of a paid superintendent, and the introduction of a more efficient system of general management. We are happy to find that the Grand Committee of St. Thomas's Hospital have fully entered into these views; a Subcommittee was appointed to consider whether prior to the appointment of a new Treasurer any changes could be suggested which would diminish the labour devolving upon him, increase the efficiency of the hospital, and lessen the expense. The report of the Committee, which has substantially been adopted by the Grand Committee, is now before us. The Subcommittee have evidently gone carefully into the facts, and give a detailed report of the present system of management, which they condemn, expressing an opinion that the defects in the external arrangements of the hospital arose mainly from want of efficient supervision in matters over which it has been impossible for the Treasurer under the existing organisation to exercise proper control. Without entering in detail into the consideration of their report, for which we have this week insufficient space, we may say that the Subcommittee recommend that a House Committee should be appointed, to consist of the Treasurer, Almoner, and six Governors, two of whom should be gentlemen who have been physicians or surgeons of the Hospital; and that this Committee should have full power to make all regulations necessary for its proceedings and for having the attendance of the officers of the Hospital, and of a representative of the medical and surgical staff and School. They suggest that there should be appointed a paid resident superintendent, who should devote his whole time and energies to the Hospital, who must be a good administrator, and will have the details of every part of the Hospital and School under his observation. They suggest that such a superintendent would relieve the Treasurer of considerable labour, though always looking up to him as his superior and the representative of the Governors; he would attend the House Committee, keep the minutes of their proceedings, and conduct any correspondence the chairman shall direct. They add that they think that such superintendent should not be a medical man.

In this last matter, judging by the excellent precedents at Guy's Hospital, at the Manchester Infirmary and Cheadle Convalescent Hospital, as well as at all the best managed of our lunatic asylums, we are disposed to think that they have arrived at too absolute a principle of exclusion. It is, that such a superintendent may not necessarily be a medical man; but we are very far from thinking that it is not proved by many examples that he may with great advantage have received a medical training, provided that he have also the necessary administrative power. Certainly, remembering that a hospital is nothing if not a great medical institution, it is extremely important and satisfactory that the resident governor be a person having full and adequate knowledge of all the facts of medical administration, and the interests and necessities of the patients, the staff, and the pupils, as well as being a good lay administrator.

Finally, the Committee recommend that the Treasurer should be, for a part of his time at least, resident; and that he should be a gentleman of good social position and of high administrative ability; that he should reside in the house furnished for him; and that, like the Governor of the Bank of England and other persons in similar high positions, he should accept a moderate allowance; and that he be subject to quinquennial re-election. This scheme includes, it will be seen, a very comprehensive reform, based, in our opinion, upon sound and judicious views. We are glad to see that on Tuesday last it was accepted by the Grand Committee; and we may add that already the names of two gentlemen have been mentioned as likely to be brought forward for the post, namely, Captain Galton, C.B., F.R.S., well known for his considerable knowledge of sanitary subjects and of hospital construction; and Mr. John Simon, D.C.L., C.B., F.R.S., whose wide knowledge, great administrative powers, and excellent grasp of the principles and details of business, have been well tried and amply matured in the great public position which he has filled with eminent ability, and in which he has earned more than European fame. We shall not enter into a discussion of the relative claims of these gentlemen. We may, however, say that no selection could possibly reflect greater credit upon the governors, or be more certain to ensure the confidence of the public and the profession, and the administrative success of the hospital, than the selection of a man in every way so eminently fitted for the position as Mr. Simon.

SPECIAL HOSPITAL MANAGEMENT.

MUCH has been said in professional circles, and something in these pages and elsewhere, of an inquiry which has been held, at the instance of H.R.H. the Prince of Wales, by the Duke of Grafton, the Earls of Dunmore and Clarendon, and Sir William Gull, into certain charges which had been brought by past officials of the Hospital for Diseases of the Throat, Golden Square, against the management of the hospital by Dr. Morell Mackenzie, the Medical Superintendent. The report of those gentlemen having been transmitted to the Prince of Wales, and proving unfavourable to the management of the hospital, the Prince has withdrawn his patronage, and the Marquis of Bute has also resigned the office of President. We have had the opportunity of reading that report and a shorthand note of the evidence. We may say at once that the inquiry does not appear to have been conducted in a very calm or judicial spirit, and that we are far from thinking that its most serious conclusion is justified by the evidence. The charges are mainly matters of hospital management; and, so far as there is any evidence to support them, they are chiefly of public interest as forcibly illustrating the inherent vices of management which are apt to affect special institutions of this kind founded by medical men. Here we have the founder appointed also as principal physician and as medical superintendent, in fact a semi-autocrat in all medical and lay management. The result is, that he virtually appoints and dismisses the officers, and rules his colleagues. The medical appointments are complicated by association with his private clinical assistants, and private differences

with them in the latter capacity come to affect their hospital duties and position.

The charges were, that the upper porter was partly employed by the medical superintendent for some months at his house—not, of course, without payment by the superintendent—to the detriment of the hospital; and that, subsequent to private differences with the emergency surgeon, and after the latter had ceased to act as his clinical assistant, Dr. Mackenzie gave directions that in future the surgeon should not be summoned to perform certain operations, such as tracheotomy, but that his clinical assistant, who does not appear to have been officially on the staff of the hospital, should for such purposes be sent for.

Here we have all the evils in full play of the quasi-private and semi-autocratic government of a hospital by one of its medical officers, who is also its practical ruler and official superintendent. They are contrary to all sound hospital rule: they are destructive of harmony and self-respect in the staff, whom they tend to place in the position of being more or less the dependents and nominees of the "superintendent". On the other hand, the charge that they involved carelessness of human life cannot properly be founded on them for anything which appears in the evidence. The basis of the charge is that the clinical assistant sent for to perform tracheotomy was not a properly qualified person. When this is investigated, it turns out to mean that he had not a registerable English degree. On the other hand, Dr. Mackenzie testified that "if you sought Europe through, you could hardly find a more eminently qualified man; that he had a good foreign diploma, obtained by examination; that he had, since taking his degree especially, studied throat-diseases in the great continental clinics; and came to him recommended in this respect by Professor Störk". Now, it is an obviously desirable and convenient rule that, for government appointments, or even for hospital appointments, the nominee should have a registerable diploma. But at present none but British diplomas are registerable; and it is certainly stretching a formal objection too far to affirm that the appointment of such a man involved any recklessness of life. Sir William Gull referred to the Guy's rule and the general rule that all house-surgeons should have an English diploma. It is a wholesome regulation; but to affirm that the exception made to it in a case where the person is known by the medical superintendent to possess special qualifications—much higher, probably, than those of any ordinary house-surgeon—implied a recklessness of life, is plainly to mystify a serious issue, and to deduce, on false data, a very grave conclusion. In this respect, then, we think that the verdict is unsatisfactory. The charges brought against the medical superintendent were not, in our opinion, proved in the sense in which the report declares them to have been proved.

On the other hand, enough has been brought out to make it evident that the management of the Throat Hospital is framed on a very defective scheme; quite enough to justify the withdrawals which have taken place; and enough to make it the duty of the governors and supporters generally of the hospital to insist upon a complete remodelling of the management before any further funds are contributed by the public to its support. Such a mode of government is characteristic of the most faulty hospital management: and would not, we think, be possible in any other well-managed public hospital in the metropolis. It indicates an urgent necessity for reform in the system of management, and may very well shake the public confidence and justify the withdrawal of the eminent persons whose names are supposed to guarantee the good management of any public institution to which they lend the sanction of their support.

FEVER-PATIENTS AND CARRIAGES.

THE present chaotic arrangements for the removal of infected persons to the hospitals for infectious diseases in the metropolis have been frequently commented upon, and have just been again noticed by Dr. James Stevenson, Medical Officer of Health for Paddington, in a re-

port on the vehicles provided for, and the mode of removal of the sick, by the guardians, vestries, and district boards of the metropolis. Dr. Stevenson states that only one vestry, viz., that of Paddington, and four district boards, have provided vehicles for the use of non-pauper cases (in this we think he is in error); but that the boards of guardians, with the exception of Paddington, have made some kind of provision for the removal of the sick. In some instances, the horses are kept at the workhouse, in others they are hired when required; but the driver is generally, although by no means invariably, the servant of the guardians. The cabs or ambulances, when the property of the boards, are said to be generally kept along with other vehicles, and to be rarely disinfected; the beds or blankets are also reported to be kept in the vehicle, and only disinfected with sulphur inside the vehicle, so that they must retain infection from the patient last moved, and may therefore spread disease amongst those who come near the carriage. As a remedy for this state of things, Dr. Stevenson recommends that neither the guardians nor local authorities should provide conveyances for the removal of the infectious sick, but that the managers of hospitals for these cases should procure everything necessary, including a trained nurse, and that the vehicle should be constructed in such a manner as to admit of the patient being removed in the recumbent posture, and of such materials as not to absorb infection. He concludes his report by saying he is persuaded that economy, uniformity, efficiency, and sanitary requirements will be promoted by the adoption of these recommendations.

There is nothing new in these suggestions, as they have been several times discussed before; but there is some doubt as to the validity of some of the objections against the present plan. One is, that the expense of horsing the carriages is in excess of what it would be if the hospital authorities provided the horses as well as vehicles; but it should be remembered that a large amount of time would be lost in sending from distant parts of the metropolis for the hospital ambulance, and it is very probable that application might be made to the wrong hospital unless there were only one for the north and another for the south of London. Dr. Stevenson objects to the present cumbersome method of removing the sick through the relieving officer; but unless these hospitals are thrown open to all applicants, in which case more hospitals must be provided, we see many difficulties in making a radical change. It is evident that, for the safety of the inhabitants of London, some more suitable provision must be made for non-pauper infectious patients as regards their removal to, and reception into, proper hospitals. But there is considerable doubt if public opinion be at present sufficiently advanced to make a very decided alteration in the law. The answers given to Dr. Stevenson, indeed, point in a contrary direction, as he was informed at some of the workhouses that no applications had been made for the removal of a non-pauper case. It is, therefore, necessary to indoctrinate the public more fully with the fact that it is the duty of every one to assist in preventing the spread of these diseases, by allowing their relatives and friends to be removed to a hospital if they have not adequate accommodation for isolation of the sick during both the illness and convalescence. As regards the removal of the sick poor, it is certainly most desirable that the certificate of any registered medical practitioner should be of equal validity to that of the Poor-law medical officer, as much time and trouble would be thereby saved. It also seems that the provision by one central authority for all London of a sufficient number of hospitals for the reception and treatment of both pauper and non-pauper cases, either in the same or different buildings, as may be decided on, is the best method for carrying out this work in an efficient and systematic manner.

THE Rev. J. Postlethwaite, vicar of Broughton-in-Furness, and of Coatham, Redcar, was on Monday last fined ten shillings and costs, by the Ulverston bench for disobeying an order made by them for the vaccination of his three children in June last. He said he had nothing to distract him except the clothes on his back, and he would rather go to prison than that his children should rot through vaccination.

It is announced that the Queen has been graciously pleased to confer the honour of the Companionship of the Bath (Civil Division) on Mr. Robert Baker and Mr. Alexander Redgrave, Inspectors of Factories.

THE Russian semi-official journals state that the total losses of Russia in killed and wounded from the beginning of the war to the 11th of the present month have been 59,434.

WE publish in another column a valuable letter from Dr. George Fletcher, concerning the prosperity of the Eye Medical Club, which is, we think, worthy of great attention and affords data for proceedings of a like character.

MR. HARVIE FARQUHAR, the honorary treasurer of the Victoria Hospital, Queen's Road, Chelsea, has just given £1,000 towards the £4,000 required for the purchase of land adjoining the Gough House site.

AN association for boarding out orphans is, we learn from the Charity Organisation reporter, to be established in memory of Mrs. Nassau Senior. The Committee are the Right Honourable James Stansfeld, M.P., Miss Octavia Hill, Thomas Hughes, Esq., Q.C., and Wm. Chaen, Esq. Miss Caroline Steven, 48, Cheyne Walk, Chelsea, and Miss Synnot, Clapham Common, S.W., are the honorary secretaries.

THE Home Secretary has replied to a communication from a Birmingham gentleman respecting the increasing prevalence of hydrophobia, stating that no representation has been made to the Home Office that local authorities have not sufficient powers under the existing statute (Dogs Act, 1870) to deal with the matter, and that the right hon. gentleman feels sure that they may be trusted to put in force the powers they possess.

It is announced by the chairman of the water committee of the Liverpool Town Council that that body has matured a scheme for the supply of water to the town sufficient to provide for all requirements for many years to come. The supply is to be obtained from North Wales, at a cost of £1,250,000. The interest upon this large amount will be paid without any additional taxation of the ratepayers, and be met by the saving of waste water in the borough, estimated at £50,000 per annum.

SCARLET fever has appeared on board the Queensland emigrant ship *Gauntlet*, which left London on the 12th instant with three hundred and two emigrants and crew. The ship, which bore up for Plymouth, was visited by the Board of Trade officials, and the medical officer, Dr. Eccles, ordered the two children affected, together with the families to which they belong, to be at once landed. The remainder of the passengers on board will be placed in a hulk while the *Gauntlet* is fumigated and disinfected. In the meantime, no communication is allowed between the ship and the shore.

Two correspondents in the *Pharmaceutical Journal* have recently called attention to the ozonising power of turpentine. One points out that in some laundries it is a practice to bleach linen by adding some turpentine to the water during the process of continuous ebullition; another adds that a similar bleaching result is obtained in washing floors by sprinkling turpentine on them, and there is evidence to show that furniture well rubbed with the old-fashioned mixture of bees'-wax and turpentine continues for a length of time to exercise an ozonifying influence on the surrounding air; this is in virtue of the peroxide of hydrogen evolved; and the observations of Dr. Day of Geelong, Dr. Bond of Gloucester, and Mr. Kingzett, as to the properties of the production obtained by the oxidation of turpentine bear out these statements as to its ozonifying powers. Dr. Bond avails himself of it in the fluid which he names terebene, and Mr. Kingzett in the fluid which he has named sanitas.

THE Harveian Oration at the Royal College of Physicians of London will be delivered in 1878 by Dr. J. Burdon Sanderson. It will be published in the JOURNAL from the author's manuscript.

THE ILLNESS OF MISS KNOLLYS.

WE are pleased to learn that the convalescence of Miss Knollys still progresses favourably. On Friday last, her temperature in the morning was normal, and 99.5 deg. at midday. From that date, the temperature has remained uniformly normal, and there has been no symptom of relapse. The case was one of a twenty-four days' fever, and was of a severe type; being characterised at one time by extreme depression of a very alarming character. To control this, it became necessary to adopt a very freely stimulant treatment. We understand that Mr. Oscar Clayton was specially summoned from London, by their Royal Highnesses the Prince and Princess of Wales, to conduct the case; and as a favourable termination to Miss Knollys's illness now seems probable, he is expected to leave for London in the early part of next week.

OVER-EXERTION.

WILLIAM GALE, who recently walked fifteen hundred miles in a thousand consecutive hours, has now undertaken to walk four thousand quarter miles, in four thousand consecutive periods of ten minutes—a performance which he claims to have accomplished in Cardiff. The amount of rest which Gale can get at any time during the month's walk does not average above seven minutes. The task seems to be an impossible one; and we confess that it is one which we are very sorry to see any man undertaking to perform. These extreme tests of the limit of human endurance serve no adequate purpose which we can discover, and must inflict on the person who undertakes them such severe suffering as to endanger life and health, without any sufficient reason.

CHARITY AT HOME.

THE heavy drafts upon the liberality of the public for Indian and Russo-Turkish distresses, appear to be telling rather severely upon the funds of our home charities. We hear that the London Hospital is in debt to the extent of many thousand pounds on the year's operations, and is in serious difficulties for funds. Meantime, we receive complaints that the recklessness with which the out-patient relief is given at this hospital to all comers, without inquiry into the necessities or relative well-being of the applicants, is seriously injuring the self-respect of the wage-receiving class of the neighbourhood, and destroying the possibility of success on the part of the provident societies and dispensaries which discriminating friends of the poor have started in the east end.

HEROIC DEVOTION.

ONE of the nursing sisters of the Order of Troyes succumbed last week to an attack of hydrophobia, contracted under circumstances of no ordinary heroism. As related in the *Gazette Hebdomadaire*, a month ago Sister S. was taking charge for a walk of some convalescent children, the eldest of whom was only eight years of age, when they were suddenly assailed by a sheep-dog, whose jaws were running with foam, and who attacked with fury. She instantly saw the danger of her charges, and, resolutely interposing between the terrified children and the furious animal, bravely withstood its attack. She was severely bitten, and the dog, excited by the cries of the children, endeavoured to rush upon them. Then followed a splendid act of devotion. Protecting with her body the children, who hung on to her petticoats shrieking with terror, this brave girl threw herself courageously on the dog and for ten minutes grasped it, rolling over with it, and thrusting her fist into his mouth to prevent his biting the children. Some peasants, who came up at last, beat off and killed the dog. The Sister was found to have fifteen deep wounds on her hands and lacerated arms; an important artery was wounded. Skilful care was given to her wounds, ligatures were applied, the parts torn were cauterised, and

for a short time after her return to Paris some hope existed that she might escape the ultimate fate which there was so much reason to fear. On Thursday last, however, the pharyngeal spasm, vomiting, and hydrophobia in all its characteristic symptoms, appeared; and Sister S. died from this fatal and fearful disease, finding consolation in the certitude of having saved, at the price of her life, the five children who had been confided to her. Such traits of heroism can hardly serve for an object of comment; their memory becomes a title of glory to the families to whom their authors belong, and represent, in the eyes of all, the spirit of sacrifice and devotion in its most sublime expression.

HYDROPHOBIA.

SINCE the beginning of this year, no less than thirteen fatal cases of hydrophobia have been recorded within registration London, showing a somewhat startling increase upon the numbers in recent years. During the whole of 1876, the deaths referred to this disease in London did not exceed six, and the corrected average annual number during the ten years, 1866-75, was less than four. The increased fatality from hydrophobia, moreover, is not confined to London, and the reports of the Registrar-General afford conclusive evidence that it may be traced through a series of years. The average annual death-rate from this disease in England and Wales, during the twenty-five years 1850-74, was equal to 0.9, or rather less than one per million persons living. Since 1860, the rate has showed a markedly steady increase; in the five years, 1860-4, it averaged only 0.3 per million, but increased to 0.9 and 1.8 respectively in the two following quinquennials, 1865-9 and 1870-4. In 1875, the most recent year for which the Registrar-General has published his detailed Annual Report, the death-rate from hydrophobia further increased to two per million persons living. During the six years ending 1875, the rate from this disease was, therefore, more than twice as high as the average rate in twenty-five years. It may not be without interest to glance briefly at the distribution of the death-rate from hydrophobia, during 1875, throughout England and Wales—the average rate in the whole country being, as before stated, two per million persons living. In London, the rate was equal to 1.7; in the West-midland Counties, including Warwickshire and Staffordshire, it was 2.5; in the North-midland Counties, including Nottingham, Leicester, and Lincoln, it was 2.7; in Yorkshire, 3.9; and in the North-western Counties of Lancashire and Cheshire, it was equal to 4.7. Thus, among the fourteen millions of persons living in these five registration divisions, the death-rate from hydrophobia averaged 3.2 per million living; whereas in the rest of England and Wales, with a population of about ten millions, the rate was but 0.3 per million. The highest rates appear to prevail among those populations mainly engaged in manufacturing and mining; the lowest among purely rural populations. The highest county rates were 4.7 in Yorkshire and 5.3 in Lancashire, where dog-fancying is a favourite pastime with the miners and factory operatives. If the system were not notoriously imperfect, it would be interesting to know how far the death-rate from hydrophobia corresponds with the proportional number of dog-licenses issued in different parts of the country. If not important on revenue account, it is infinitely desirable, as a means of protection from ownerless and neglected dogs, that steps should be taken to prevent the keeping of unlicensed dogs. In order that the police might the more readily recognise licensed dogs, we might usefully follow the practice recently adopted in New York. There, every dog not bearing a badge, indicative of its being licensed, is impounded by the police; and unless a heavy fine be paid and the dog claimed within six days, it is forthwith destroyed. If, as there appears to be good ground for believing, rabies almost invariably originates among neglected dogs, it is not unreasonable to hope that a more complete licence system would exert a powerful influence in checking the recent marked increase in the mortality from hydrophobia. Among the deaths from hydrophobia upon which inquests have been held this week, were two of a very painful and serious character; one that of a Mrs. Skipworth, the wife of a barrister at Bedford, who was

slightly bitten in the thumb by a pet dog presented to her about two months ago; and the other of a child five months old by a stray dog, which jumped into the garden and bit the child on the cheek while it was playing on the ground. The great number of the children who have fallen victims to the bite of rabid dogs, and the frequency with which pet dogs have been the means of causing death from hydrophobia, are very serious incidents in the present epidemic of rabies, which appears to be rather on the increase than to show any signs of diminution.

DEVILLE v. THE HARROGATE IMPROVEMENT COMMISSIONERS.

WE have received from Mr. S. W. North, President of the Yorkshire Association of Medical Officers of Health, a statement showing the result of the subscription opened to pay the balance of the expenses of Dr. Deville in this case, in which he investigated, at much personal cost, an important public principle.

“Judgment was given in this case in July last in favour of the plaintiff (Dr. Deville) on all points. The costs of this trial, so far as Dr. Deville is concerned are as follows: Total of Messrs. Paley’s account (Dr. Deville’s solicitors), £326 : 16; less paid by the Harrogate Commissioners, £182 : 9 : 6; leaving £144 : 6 : 6 to be paid by Dr. Deville. This is exclusive of his personal costs in attending the trial, journeys to London, etc. Towards the payment of this sum, I have received subscriptions to the amount of £88 : 5. I append a list of subscribers and a balance-sheet showing how the money has been expended. Dr. Deville, having vindicated his position, the sole object for which he commenced proceedings against the Commissioners, has resigned his appointment as Medical Officer of Health for Harrogate, feeling that this course was the one most consistent with his own self-respect, and the best means of showing that in these proceedings he was influenced by no merely selfish motive.”

We hope that subscriptions will be still forthcoming to indemnify Dr. Deville in the costs incurred.

DURATION OF PREGNANCY.

DR. A. STADFELDT of Copenhagen has published a study of this subject, from which his results are that the mean duration in sixty-five pregnancies was 271.8 days, and the extent of variation from 250 to 293 days.

INFANT LIFE PROTECTION ACT.

WE are very glad to see that the Infant Life Protection Act, a legislative measure due very largely at least to the action of this journal and the inquiry instituted by it, is enforced in some degree by the Metropolitan Board of Works in the metropolis. At the Greenwich Police-court on October 14th, Charlotte Barrow, a respectably dressed woman, of Stanley Terrace, Nunhead, late of Lily Vale, Lewisham, appeared to a summons at the instance of the Metropolitan Board of Works, charging her with unlawfully taking charge of two infants under her care and keeping them more than twenty-four hours from their parents without having her place of residence registered, and a licence being granted. It appeared that on the 6th September last, an inquiry took place at the Lewisham Workhouse, before Mr. Carttar, coroner, relating to the deaths of three children who had been placed by their mothers under the care of the defendant, a sum of six shillings per week for one and eight shillings per week for another being paid. One of these three children, aged five weeks, was a perfect skeleton, weighing only a pound and a half. The jury returned a verdict in each case implying neglect, and added to their verdict an opinion that proceedings should be taken in the matter. Within forty-eight hours after the inquest, the defendant, who is the wife of a butler but separated from her husband, removed from the house to her present residence at Nunhead, without notice, and great difficulty had been occasioned to the police in tracing her whereabouts. Two young women, now in domestic service, were called, and gave evidence as to each having a child with the defendant under the circumstances stated, and an officer from the Metropolitan Board of Works produced a copy of a register of persons licensed in the metropolis to take in infant children to nurse, the defendant not being licensed. The

defendant pleaded that she had acted in ignorance of the law, and promised not to offend again. Mr. Slade said the proceedings had been properly taken, and a person like defendant ought to have known she was doing wrong, as she had taken in infant children without being under police cognisance. The penalty prescribed by the Act passed for the protection of infant life made the punishment any period not exceeding six months' imprisonment, and, as a warning to her and others, he should pass a sentence of three months' imprisonment with hard labour, at Maidstone. The defendant seemed surprised at the sentence, and was removed sobbing. To a very large extent, the Act in question has, no doubt, proved deterrent, and the police assert that there are very few cases indeed, in their belief, in which baby-farming is now practised as it was practised, previous to the passing of the Act, by Mrs. Waters and, as our inquiries gave reason to believe, by many others in the metropolis. The machinery of the Metropolitan Board of Works is, however, very inefficient for searching out such cases and bringing offenders to justice, and we can hardly help suspecting that illicit practices of baby-farming are still carried on to a greater extent than is known to the authorities, inasmuch as the number of houses registered in the metropolis is absurdly small, and little or no trouble appears to be taken to carry out systematic inquiry on the subject. In this case, it will be observed the inquiry followed upon an inquest and the verdict of the coroner's jury. Local registrars have it in their power to do good service in this matter by calling the attention of the police to any instance in which an unusual number of infants' deaths are registered from any one house, or by the agents of any one person, and we hope that the conviction above recorded will have a salutary effect in keeping their attention fixed upon this subject.

POISONING BY MISTAKE.

An inquest was reported recently on a person named Clark, living near Lowestoft, who was an out-patient of the Lowestoft Infirmary, and to whom had been issued an aconite liniment to be used externally and some medicine to be taken internally. The liniment was labelled "The liniment-poison", and the other "One tablespoonful to be taken twice a day". The patient had taken the liniment by mistake instead of the medicine, and succumbed to its effects. The jury returned a verdict in accordance with the facts, "Death from accidental poisoning". We cannot, however, but think that some more effectual measures might with advantage be taken for rendering the caution as to the poisonous character of external liniments dispensed from hospitals or from chemists' shops more obvious to the sense of touch as well as sight. Such accidents as the present are but too lamentably common, and the use of bottles such as those introduced by Messrs. Savory and Moore for external liniments and dangerous medicines would, we believe, greatly lessen the recurrence of such unhappy casualties, which to us appear to have a peculiarly painful and deplorable character, for nothing can be more distressing than that death should be dealt out by the hand which is seeking to administer relief to those who are looking to it for the means of health.

MEDICAL SUPERSTITIONS.

MEDICAL superstitions have still a firm hold on the minds of the more unlettered, especially in some of the more distant and less educated counties of England. In Cornwall and Devonshire, the belief in charms as a means of curing disease has by no means died out, as we had recently opportunities of observing. At the Exeter quarter sessions last week, John Harper, aged eighty-three, a quack doctor and herbalist, known as the North Devon White Witch, appealed against his recent conviction and sentence to a month's imprisonment for obtaining money by false pretences. Some time ago, he was called in to see a woman who was ill and had been given up by the doctor. He prescribed for her, and placed in her hands rods with the names of planets attached, and told her to strike with them a piece of metal which he held in his hand, while he at the same time muttered some formula of words. He received a fee of twenty-five shillings, but the

woman afterwards died, and he was then prosecuted and convicted of obtaining money by palmistry and subtle devices. The magistrates sentenced him to a month's imprisonment, but remitted the hard labour in consideration of his age. He now urged against the sentence that the charge against him had not been proved, and, moreover, that the sentence was void by reason of the remission of the hard labour, which the magistrates had no power to order. The latter objection was held to be valid, and the conviction was accordingly quashed.

INFANT MORTALITY IN WEDNESBURY.

THE Medical Officer of Health for the Local Board District of Wednesbury is reported to have made a statement to his sanitary authority with reference to local infant mortality, which has sorely tested the gullibility and exposed the ignorance of otherwise well-informed persons in the matter of vital statistics. Nearly every lay newspaper in London and the provinces has during the past week reproduced, with more or less sensational comments, the startling announcement that, during the last six years, no less than 53 per cent. of the deaths (at all ages) within this Local Board District were of infants under one month of age. We are not yet in a position to know what is the nature of the blunder which has led to this preposterous statement, or who is really responsible for it; but we have no hesitation in pronouncing it a gross blunder, and expressing astonishment that newspaper editors should have been credulous enough to believe it possible that, in a population exceeding 25,000 persons, more than half the deaths during a period of six years could have been of infants aged less than one month. To attempt to measure infant mortality by the proportion of deaths of infants to total deaths betrays a want of acquaintance with the elements of vital statistics; but to imagine it possible that in any English population the deaths of infants under one month of age could, even in a single year, exceed the deaths among the rest of the population aged over one month, would be amusing, if it did not point to a difficulty which lies in the way of stimulating public interest in health matters. This difficulty is the education of the public in the comprehension and appreciation of the statistical method of dealing with those sanitary facts which unfortunately cannot be expressed and compared without the use of figures.

CAMBRIDGE UNIVERSITY.

AT a congregation this day (Thursday) graces will be offered for conferring the honorary degree of Doctor of Laws upon Mr. Charles Darwin, M.A., Christ's College, author of the *Origin of the Species*, etc., and the honorary degree of M.A. upon Dr. George M. Bacon, of St. Andrew's University, Resident Medical Superintendent of Fulbourne Lunatic Asylum.

MIDLAND MEDICAL SOCIETY.

AT the annual meeting of this Society, held in Birmingham, October 19th, the following officers were elected:—*President*: Dr. Sawyer. *New Members of Council*: Mr. Bartleet, Mr. Berry, Mr. Ross Jordan, Dr. Russell, Mr. Watkin Williams. *Treasurer*: Mr. Harmar. *Secretaries*: Mr. Thomas and Dr. Savage.

SUPERANNUATION OF PUBLIC MEDICAL OFFICERS.

OUR Birmingham correspondent writes:—A case of importance has recently occurred in this district. Mr. Downes, a well known surgeon at Handsworth, lately resigned the office of parish medical officer, at the age of seventy-five, after nearly forty years of service, and applied for a superannuation grant of £30 per annum. This was refused by the West Bromwich Board of Guardians, but the circumstances being felt to be unusually hard, were mentioned in the House of Commons, and the attention of the President of the Local Government Board called to them, and last week Mr. Longe, one of their inspectors, attended the meeting of guardians to ask them to reconsider their decision. He said that Mr. Downes had clearly discharged his duties in a satisfactory manner, for no complaint had been made against him to the Board, who were further of opinion that his case was a

special one, and that the recent action of the guardians seemed a mistake, contrary to the intention of the statute, and different to the practice of other Boards in the country. An allowance of £35 was then proposed and seconded, but rejected by sixteen votes to six; some of the speeches made being rude and coarse. The so-called "interference and pressure" of the Local Government Board were much resented, with what ultimate result remains to be seen.

BILLROTH ON OVIARIOTOMY.

SPEAKING at Vienna on the 20th instant, Professor Billroth said: "To-day I have performed my one hundredth ovariectomy. What a large number this would have appeared only a few years ago! But how small beside the brilliant roll of Spencer Wells. The work he related to the British Medical Association at Manchester excites our highest wonder and admiration."

TYPHOID FEVER AND WATER.

TYPHOID fever having broken out seriously at Backenden and Accrington, Mr. C. W. Wigner has obtained samples of water from half a dozen houses in the infected districts, in accordance with instructions from the *Sanitary Record*, to investigate the character of the water-supply. He reports that the water in both cases is most dangerously foul, having an offensive smell when warmed, and showing on a chemical analysis signs of a filthy animal contamination. Both microscopical and chemical examinations of the water indicate impurities such as to render it highly probable that the water is the cause of the epidemic.

HOWARD MEDAL.

THE Statistical Society announce the following as the title of the essay to which the medal will be awarded in November 1878: The Effects of Health and Disease on Military and Naval Operations. The Council have decided to grant the sum of £20 to the writer who may gain the "Howard Medal" in November 1878. Candidates will be expected to refer to Howard's experiences in Russia. The rules and conditions of competition are as follow. In the year 1873, the centenary of the appointment of John Howard as High Sheriff of the County of Bedford, the Council of the Statistical Society gave effect to the suggestions of the President, Dr. Guy, F.R.S., by founding a medal under the above title, and adopting the following rules and conditions: 1. That a medal, to be called "The Howard Medal", shall be presented, in the name of the President, Council, and Fellows of the Statistical Society, to the author of the best essay on some subject in "Social Statistics", a preference being given to those topics which Howard himself investigated and illustrated by his labours and writings. 2. That the medal be a bronze medal, contained in a case, having on one side a portrait of John Howard, on the other a sheaf of wheat, with suitable inscription. The Executive Committee to arrange the details. 3. That the subject of the essay shall be selected by the Council at their ordinary meeting next preceding the anniversary meeting of the Society, at which anniversary meeting the title of the said essay shall be announced. 4. That the essays be sent to the Council of the Statistical Society, Somerset House Terrace (King's College entrance), Strand, W.C., London, on or before June 30th of the year following the announcement of the subject of the essay. Each essay to bear a motto, and to be accompanied by a sealed letter, marked with the like motto, and containing the name and address of the author; such letter not to be opened, except in the case of the successful essay. 5. That no essay exceed in length 150 pages of the *Journal of the Statistical Society*. 6. That the Council shall, if they see fit, cause the successful essay, or an abridgment thereof, to be read at a meeting of the Statistical Society; and shall have the right of publishing the essay in their *Journal* one month before its appearance in any separate independent form; this right of publication to continue till three months after the award of the prize. 7. That the Executive Committee for the time being, or any other Committee the Council may appoint, shall examine the essays, and report their decision to the Council at their meeting next preceding the ordinary

meeting held in November of each year. 8. That the President shall place the medal in the hands of the successful candidate, at the conclusion of his annual address, at the ordinary meeting in November, when he also shall reannounce the subject of the prize essay for the following year. 9. Competition for this medal shall not be limited to the Fellows of the Statistical Society, but shall be open to any competitor, providing the essay be written in the English language. 10. That the Council shall not award the prize, except to the author of an essay, in their opinion, of a sufficient standard of merit; and that no essay shall be deemed to be of sufficient merit that does not set forth the facts with which it deals—in part, at least, in the language of figures and tables; and that distinct references be made to such authorities as may be quoted or referred to. The essays on the above subject are to be sent in on or before the 30th June, 1878.

INCREASE OF FEVER IN LONDON.

ALTHOUGH small-pox has diminished in London, fever appears to be increasing. At the last meeting of the Metropolitan Asylums Board, it was stated that at the Homerton Hospital, which has been opened now for fever, forty-five cases were admitted in the first two days. Meantime, owing to the decrease of small-pox, the Deptford Hospital, which has been hitherto used for small-pox patients, will be temporarily converted into an asylum for female imbeciles.

THE INFLUENCE OF HEREDITY ON DISEASE.

A REMARKABLE statement was made at an inquest held before Dr. Hardwicke, which probably illustrates in a rather striking manner the influence of heredity in promoting disease. At the inquest on the body of a female, aged twenty-five years, who had been suffering for some time from a skin affection, it was stated that on Sunday week she appeared better, and went to church and prayer-meeting as usual. At about half-past eleven, she was found lying on the floor in her night-clothes, and groaning. A medical gentleman was at once sent for, but she never recovered. The surgeon who examined the body said that, on opening the head, he discovered in the fourth ventricle of the base of the brain a clot of blood as large as a pigeon's egg. This was the cause of death. It was a remarkable fact that, about three years ago, a sister of the deceased, who resided in the next house, had died at the same age and had an inquest held on her, after returning from chapel on the Sunday night under precisely similar circumstances, the clot of blood being found in precisely the same position on the brain. The jury returned a verdict in accordance with the medical testimony.

METALLO-THERAPEUTICS.

WE gave recently an account of the clinical investigation made at the Salpêtrière by M. Charcot, at the instance and with the assistance of Dr. Burq, on the metallo-therapeutic method of the latter. This method, it will be remembered, consists in the employment internally and externally of metals in the treatment of certain diseases, taking into account not only for each disease, but also for each patient its special metallic sensibility; that is to say, that a case of hysteria, chlorosis, or neuralgia being given, the patient must take, medicinally, the metal which, when employed as a plate upon the skin, shall have excited sensibility, mobility, and capillary circulation, and have commanded perspiration. Four of the patients who were the subjects of metalloscopic examination, which was reported on by a Commission of the Société de Biologie, have been treated by the internal employment of the metals of which the Commission had recognised the external action. They were all cases of hemianæsthesia, accompanied by severe hysterical phenomena; the reports in the *Gazette des Hôpitaux*, No. 13, 1877, indicate that they have all remarkably improved in respect both to the sensibility of the skin and to their strength under that treatment. It must, however, be remembered that all these patients were the subjects of aggravated hysteria, and it is very difficult to establish any settled conclusions from patients of that type of character. M. Magnan, the accomplished and eminent physician at

the Asile St. Anne, showed us recently in Paris some patients apparently most favourably situated for the treatment in question in whom the results obtained were absolutely nil; and at Berlin a like result attended the effort to repeat M. Burq's experiment at the Salpêtrière. We are still inclined to think that there is a great deal of mystification about these four patients at the Salpêtrière, who were unquestionably women of the most artful type, and confirmed hysterics, and who may have succeeded in the same manner in misleading their physicians as the Okeys did Dr. Elliotson. At the same time, their imagination was possibly so far impressed by the mystic apparatus of the metalloscope and public demonstrations to which they were subjected, as to have of itself effected a very considerable amelioration in their symptoms when the internal medication was commenced.

CHEMICAL PHYSIOLOGY.

DR. J. EMERSON REYNOLDS has published, in successive numbers of the *Pharmaceutical Journal*, the substance of two lectures which he gave during the present year before the King and Queen's College of Physicians in Ireland, on the Influence of Chemical Constitution on Physiological Activity. The comparative physiological experiment made a few years since by Crum-Brown and Fraser showed that chemical additions to vegetable alkaloids (methyl-derivatives of strychnia, atropia, etc.) are capable of materially altering without destroying the physiological activity of these substances. Dr. Reynolds's lectures have not carried the investigation further in any experimental sense, as we hoped might have been the case, for this field of investigation is one which would probably yield valuable results. He has, however, deduced certain conclusions from a consideration of the whole subject, which he states thus.

"In dealing with several of the cases of physiologically active bodies, I have shown that we can trace out to a certain small extent the probable rôle performed by some of the compounds within the organism; but our knowledge of the chemical changes involved in vital processes is as yet too limited to justify us in going far in this direction. I may, however, supplement any observations made under special heads by pointing out here that, if we exclude from consideration those bodies which exert a local corrosive action on the gastrointestinal surface, and those which seem (like carbon dioxide) to act chiefly by quenching oxidation, the remaining substances which are chemically and physiologically active can directly or indirectly interfere with the production of nerve-force in one or more of at least five different ways:—1. By directly removing oxygen from the blood, and thus interfering with the ordinary processes of oxidation; 2. By uniting with hæmoglobin to form compounds analogous to carbonic-oxide-hæmoglobin, or to Ray Lankester's cyano-hæmoglobin, thus preventing the normal production of oxyhæmoglobin; 3. By combining with effete material and increasing the difficulty of its removal by oxidation or otherwise; 4. By withdrawing from living tissue material essential to its vitality; 5. By chemically combining with living tissue and interfering with the performance of its proper function. In concluding this section, and with it these lectures, permit me to express the hope that the outline I have endeavoured to give of some recent work on the borderland between chemistry and physiology may serve to show that the progress of true therapeutics must, in the future, largely depend on the extension of our knowledge of the chemical changes involved in the so-called vital process."

SCOTLAND.

It has been decided to organise a permanent School for Science and Art in Greenock. It is intended to raise £2,000 by public subscription, and to erect suitable buildings in a central part of the town.

DR. J. HALLIDAY CROOM has been elected one of the Ordinary Physicians of the Royal Maternity Hospital, Edinburgh, in place of Dr. J. Matthews Duncan, who had resigned the appointment in consequence of his removal to London.

DRAINAGE SCHEME FOR FALKIRK.

AN important drainage scheme for the burgh of Falkirk was laid before the Town Council at its last meeting, together with the report furnished

by their engineer. He recommends that open burns in the town shall be covered, and inserts built, and also culverts, and that certain other improvements should be made. The Council appointed a committee to ascertain the probable cost of the scheme.

THE LORD RECTORSHIP OF ST. ANDREW'S UNIVERSITY.

THE election of a Lord Rector for the University of St. Andrew's, which takes place on the fourth Thursday of November, is already causing some stir. The candidates who appear to find most favour, as successor to Dean Stanley, are the Marquis of Salisbury and Mr. Robert Browning. The Marquis was defeated at the last election by a small majority, and the Conservative Association of the University are, it is understood, pledged to support him. Mr. Browning is the nominee of the non-political party.

IMPORTANT TO ASYLUM SUPERINTENDENTS.

AN action, involving a point of law interesting to superintendents of asylums, was tried at Dunfermline last week. Mr. Scott Moncrieff, the Treasurer of the Edinburgh Royal Asylum, sued a lady residing near Dunfermline for a certain sum, as board of her husband in the Asylum from July 1st until August 11th, 1877. The defence was that a married woman is not liable at common law for the board of an insane husband; that the defender could not enter upon an obligation to pay such board; and that "diligence" could not be carried out or a decree against her so long as she remains married. The Sheriff held that it was the next of kin who is primarily liable for the patient's support.

THE SEWAGE OF MURRAYFIELD.

A MEETING of the inhabitants of Murrayfield, one of the pleasantest suburbs of Edinburgh, was held last week, at which it was decided to take immediate steps with the view of disposing of the sewage otherwise than by discharging it into the Water of Leith. It was further resolved to recommend to the ratepayers of the district to offer most uncompromising opposition to any attempt, on the part of the Town Council of Edinburgh, to extend the boundaries of the city further west than Coltbridge in the Murrayfield direction. The other districts, which it is proposed to include in the extension, are to be invited to join in a petition to Parliament against the Bill, setting forth the mismanagement and extravagance of the Town Council of Edinburgh, especially in regard to water-supply, drainage, and paving of the town, and also the general inefficiency of the police establishment.

SANITATION IN GLASGOW.

THE annual report of the operations of the sanitary department in Glasgow has just been issued. During the year, 16,180 complaints of nuisances have been lodged; and in about 15,000 instances the causes were removed, while the remainder were disposed of in Court or otherwise. The number of persons registered as suffering from epidemics was 5,168, being 2,532 males and 2,636 females, of whom no fewer than 3,622 were under eight years of age; and of the total, 4,129 were treated at home, while 1,039 were removed to hospitals. During a house to house visitation, involving 228,116 calls, 2,588 cases were discovered. The samples of food and drink procured for analysis were 122 in number, of which 45 were certified pure, and 77 adulterated; 35 dealers had been prosecuted, and 30 of them fined.

NEGLECTING TO NOTIFY A DEATH TO A REGISTRAR.

AT the Edinburgh Summary Court, last week, Dr. Archibald Dixon, Mr. T. P. Nelson, Governor of the House of Refuge, and Mr. Thomas Reid, Superintendent of the Grange Cemetery, were charged with contravening the Act of 1854 for the better registration of births, marriages, and deaths in Scotland. The charge against the Governor of the House of Refuge was on the ground that, on the death of a woman named Miller, an inmate of the house, on the 4th March last, he had failed, within eight days, to call on the Registrar and give the particulars of the woman's death, so far as he knew them. Dr. Dixon was charged under the 41st Section of the Act, as amended by the

14th Section of the subsequent Registration Act, with having, as medical attendant of the deceased, failed to send a certificate to the Registrar. The charge against the Superintendent of the Cemetery was that he had allowed the woman to be buried, on the 7th March, in the cemetery, without any certificate of death having been previously handed to him; and that he had failed to give notice to the Registrar within three days of the burial. All pleaded guilty to having broken the law, but made statements in extenuation. Dr. Dixon stated that he had acted under the impression that it was not his duty to furnish a certificate of the death, without its being asked for by the relatives or the Registrar. The Governor of the House of Refuge explained that he was not aware of the provisions of the Act under which he was charged, and thought it was the duty of the relatives who took charge of the funeral arrangements to give the requisite information to the Registrar. The Superintendent of the Cemetery indicated that he had trusted to the relatives informing the Registrar of the death. A modified fine of ten shillings was imposed in each case. We record this case because it may act as a warning to others. Any medical man is liable to make the same omission as Dr. Dixon did, through ignorance of the state of the law; the more particularly as the relatives, in ninety-nine cases out of a hundred, call upon the medical man to give the certificate; and when they do not, it has been very customary for the Registrar to send a certificate to the doctor, with all the particulars already filled in, excepting the cause of death, for him to insert these particulars and append his signature.

IRELAND.

The election for a Junior Surgeon to St. Mark's Ophthalmic Hospital has been postponed to Monday, the 17th December next.

COLLEGE OF PHYSICIANS.

AT the annual meeting of the College held on St. Luke's Day, the 18th instant, the following office-bearers were elected for the ensuing year. *President*: Samuel Gordon, M.B. *Censors*: James Little, M.D. (Vice-President); W. B. Jennings, M.D.; T. W. Grimshaw, M.D.; G. F. Duffey, M.D. *Registrar*: J. Magee Finny, M.D. *Treasurer*: Aquilla Smith, M.D. *Examiners in Midwifery*: E. B. Sinclair, M.D.; Fleetwood Churchill, M.D. *Professor of Medical Jurisprudence*: Robert Travers, M.D. *Representative on the General Medical Council*: Aquilla Smith, M.D. At the same meeting, an election for Fellows took place, when Dr. MacSwiney and Dr. Macan were duly elected. Dr. Harvey, who had also been nominated for a similar honour, withdrew his name, as on a point of order he was not admissible, not being for three years a licentiate of the College.—We are glad to observe that at this meeting Dr. Gordon was again unanimously elected President. This is the third time in succession in which Dr. Gordon has been elected to this very high position—an honour never before conferred, except in one single instance, that of Sir Dominic Corrigan.

CONVALESCENT HOME, THRONE LANDS, BELFAST.

THE ceremony of laying the memorial stone of this institution took place on the 18th instant. The building, which is finished, was erected at a cost of £14,000, which sum includes the expense of erecting the Children's Hospital, which is situated in the same block of buildings. It is of Gothic architecture, being composed of red brick with dressings of white sandstone, and is capable of affording accommodation for upwards of thirty patients; but an extension of the existing arrangements is in contemplation, which when completed will eventually allow one hundred patients to be provided for. The pay wards are spacious and well ventilated, and will supply a want long felt by the middle classes of Belfast. The Home is provided with the usual requisites, viz., dispensary, surgery, dormitories, kitchen, storeroom, etc. A spacious corridor, several hundred feet in length, extends from one end of the block to the other, and at the end contains a stained glass window, erected by the late Mr. John Martin in memory of his son, who died whilst the institution was building. The bath-rooms and

closet arrangements are very complete, comprising an entire wing extending from the rear of the hospital two storeys in height. The mayor having taken the chair, a statement was read to Sir Richard Wallace, Bart., who had been solicited by the Board of Management to lay the memorial stone of the Home, giving a detail of the origin of the building. It appears that the Throne Lands, consisting of some twenty-eight acres, with the adjoining Children's Hospital built by Mr. Martin at a cost of £6,000, were transferred to the Belfast Royal Hospital in 1875 by that gentleman, who stipulated that a convalescent hospital should be built on the lands, which has now been completed at a cost of nearly £7,000. Sir Richard Wallace having been handed a silver trowel and mallet, the ceremony was performed in the usual manner, and an excellent address was given by Sir Richard, whose philanthropy is well known, and who has kept up at his own expense an institution of a similar kind in Paris for the past seven years.

STATUE OF THE LATE DR. GRAVES.

THIS statue, which has been in the hands of Mr. Albert Bruce Joy of London for somewhat over two years, has now been completed, and was placed in the College of Physicians last week. Dr. Graves, who died in 1853 aged 57, was one of the most distinguished ornaments of the medical profession in Ireland, and his statue, which fills the vacant space in the Hall of the College,—the others being occupied by those of Sir Dominic Corrigan, Professor Stokes, and Sir Henry Marsh—is one worthy of his great fame and of the sculptor's skill. It is indeed an excellent likeness, and the artist deserves great credit for the manner in which he has accomplished his task. The statue, which is six and a half feet high, is composed of white Carrara marble, and is placed on a pedestal of Sicilian marble, which bears on its front the following inscription: "Robert James Graves, M.D., President of the King and Queen's College of Physicians in Ireland, 1843."

HEALTH OF DUBLIN: QUARTERLY REPORT.

IN the Dublin Registration District, the number of births registered during the quarter ended 29th September last, amounted to 2,245, being equal to an annual ratio of 1 in 35.0, or 28.5 in every 1,000 of the population. The deaths came to 1,757, affording an annual ratio of 1 in 44.8, or 22.3 per 1,000, the average number in the third quarter of the previous ten years being 1,716. Omitting the deaths (66) of persons admitted into public institutions from localities outside the district, the rate for last quarter was 21.5 per 1,000. The total number of deaths from zymotic diseases was 342, or 19.5 of the deaths from all causes, the number being 98, or nearly one-fourth less than the average for the corresponding quarter of the last ten years, 1867-76. The outbreak of measles, which in the preceding three months caused 146 deaths, continued to prove unusually fatal during July; since then, the mortality from this disease and its complications has not been remarkable, still the deaths for the quarter amounted to 122. On the other hand, the mortality from diarrhoea was much below the average, being only 58 against an average of 136 for the third quarter of the last ten years. Scarlet fever only caused 18 deaths; fever, 54; croup, 22; whooping-cough, 20; erysipelas, 5; and small-pox, 2, both cases being registered in the first month of the quarter. One hundred and thirty-two children died from convulsions, 25 from hydrocephalus, and 40 from mesenteric disease. Bronchitis caused 176, being considerably above the average; 47 deaths from pneumonia; and 4 from pleurisy. Heart-disease proved fatal in 93 instances, aneurism in 12, apoplexy in 29, Bright's disease in 12, and epilepsy in 9; whilst phthisis produced 213, or 12 per cent. of the total deaths. The mean weekly temperature for the quarter was 57.2 deg., and the rainfall for the thirteen weeks measured 8.374 inches.

ST. VINCENT'S HOSPITAL.

THE opening address for the session is to be delivered on Monday at 11 o'clock; and Dr. Mapother has chosen as his topic "The Lives and Writings of O'Ferrall and Bellingham". These surgeons were the original officers of the institution.

COLLEGE LECTURES.

THE lecturers of the Royal College of Physicians of London for the ensuing year are Dr. Bucknill (Lumleian Lectures), Dr. Pavy (Croonian Lectures), Dr. Ferrier (Goulstonian Lectures). We have the pleasure of adding that we, by arrangement with Dr. Bucknill and Dr. Ferrier, shall have the advantage of laying the text of their lectures before our readers from the authors' manuscripts. Dr. Bucknill will probably lecture on Medico-legal Relations of Insanity, and Dr. Ferrier on Clinical Illustrations of Cerebral Localisation.

REPORT OF *POST MORTEM* EXAMINATION, AND ON THE CAUSE OF DEATH, OF HARRIET STAUNTON, AGED THIRTY-FIVE.

DR. JOHN M. BRIGHT requests us to publish the following report, in justice to the medical witnesses for the prosecution in the case. He states that for all omissions at the *post mortem* examination, and for all inaccuracies, errors, and discrepancies in the reports of the case furnished to the medical journals, he must be held solely responsible.

We, the undersigned, practitioners in medicine and surgery, hereby certify that, having carefully examined the body of Harriet Staunton at Penge, on April 19th, 1877, and having then and there fully and carefully noted all the appearances of the said body, we unanimously decided that Harriet Staunton died from starvation and neglect.

The following are the reasons which, on a careful consideration of the medical facts, induced us, at the inquest and at the trial of the accused persons, to give this opinion, and to which opinion we still adhere.

I.—The body (in a filthy condition) was greatly emaciated and wasted, so that the muscles of the chest and abdomen were much attenuated, while the skin over the whole body was parchment-like, dry, and shrivelled. The hair was full of lice, and there were marks of louse-bites about the body.

II.—The weight of the body, which was five feet five inches and a quarter in height, was only seventy-four pounds; whereas the weight, given in evidence, of the same person when in health was one hundred and twenty-one pounds; so that the loss of weight was forty per cent.*

III.—The muscles throughout the body, but especially on the chest and abdomen, were shrunk, wasted, and entirely destitute of fat. The mammae were almost imperceptible.

IV.—The stomach was small, and so much thinned, that the undigested food in it was distinctly visible through its thinned coats.

V.—The gall-bladder was distended with bile, and contained no gall-stones.

VI.—The intestines were collapsed, pale, shrunk, bloodless, and completely empty; not a vestige of food or faecal matter being found throughout their whole extent. When held up to the light, the wasting of the coats of the intestines was well marked.

VII.—The omentum was scarcely visible, and totally destitute of fat. There was no evidence whatever of peritonitis.

VIII.—There was a total absence of fat in every part of the body.

IX.—All the organs in the body—*i. e.*, the heart, lungs, liver, kidneys, spleen, and pancreas—were small and shrunk, but perfectly healthy, and considerably below the normal weight. The actual weights of the organs were as follow: Heart, $7\frac{3}{4}$ ounces; liver, $34\frac{3}{4}$ ounces; spleen, $4\frac{1}{2}$ ounces; kidneys, $7\frac{3}{4}$ ounces (right, $3\frac{3}{4}$ ounces; left, 4 ounces).

X.—The heart was small, but healthy and empty; all the large blood-vessels were nearly empty.

XI.—The rectum and vagina were much congested.

XII.—There was no appearance of disease whatever of any part or organ of the body, except the following, *viz.*: (1) A small part, $1\frac{1}{2}$ -2 cubic inches, at the apex of the left lung, which contained inactive tubercular deposit. (2) A congested appearance of the lesser curvature of the stomach and cardiac extremity as well as of the duodenum. (3) There were one or two small and recent patches—which together would be covered by a fourpenny-piece—of tubercular deposit upon the surface of the arachnoid membrane, on the upper surface of the left hemisphere. There was no deposit on the pia mater, and the arachnoid and pia mater were not adherent.

* This is a remarkable confirmation of M. Chossat's experiments. He found that death from privation of food in different animals always occurred when the body had lost two-fifths (forty per cent.) of its original weight. Kirkes's *Physiology*, 1876, page 277.

There was no trace whatever of any meningitis—*i. e.*, inflammation of the membranes—either simple or tubercular; there was no effusion of fluid into the ventricles; no softening of the brain or any part of it, and the base of the brain was perfectly healthy.

1. Considering that the appearances here described include all those which the best authorities assign to death by starvation;

2. That there was no appearance of disease in the body sufficient to cause death, or to account for the extreme emaciation—it is our belief that the deceased Harriet Staunton died from starvation and neglect.

3. The appearances met with on the surface of one of the membranes of the brain were, in our judgment, of quite recent origin, and could not be the cause of the emaciation or death of the deceased.

Signed { J. E. WILKINSON, M.D.
JOHN M. BRIGHT, M.D., M.R.C.S., L.S.A.
DEAN LONGRIGG, M.R.C.S.
ALLEN PIGGOT, M.R.C.S., L.R.C.P.
C. HENRY LISTER, M.R.C.S., L.S.A.

REPORT OF MR. RODGERS.

From all the appearances of the organs removed from the body of Harriet Staunton, and submitted to me for analysis:

1. In the absence of any poison to account for the inflamed condition of the stomach, duodenum, and rectum;

2. From the atrophied, but perfectly healthy, condition of the liver and kidneys;

3. From the collapsed, pale, and wasted condition of the intestines, which were totally destitute of any food or faecal matter;

4. And especially from the total absence of fat, which is considered by the highest authorities to be diagnostic of starvation;

5. And, upon hearing the evidence given at the inquest, I could come to no other conclusion than that death had been occasioned by neglect and starvation.

J. E. D. RODGERS,
Professor of Forensic Medicine and Toxicology at the
October 22nd, 1877. London Hospital Medical College.

THE GLASGOW MATERNITY HOSPITAL CASE.

[BY TELEGRAPH.]

THIS case, which has considerable interest for medical men, has occupied the Sheriff's Court three days this week. The trial of Dr. Tannahill under the Anatomy Act is still to come, it being arranged that this should be separated from the general trial; but the verdict already given in the present case must be regarded as a highly satisfactory one, all the accused being brought in not guilty. The first witness called was Flora MacLean, who was delivered of a male child in the Maternity Hospital in June last. The manner in which she gave her evidence must have impressed the jury very considerably. She is evidently a careless woman, ready to give impudence and chaff even to the judge on the bench. The child of whom she was delivered was her third illegitimate child to different fathers. The first two died when a few weeks old. She asserted that, after the birth of the child, it was not fed by the officials of the hospital; and that, as it would not fasten to her breasts, it was starved. She stated that she had called the attention of the nurses, matron, and Mr. Stevenson, the medical student in attendance, to the state of the child the night before it died; but they paid no attention to her. The child died two days after it was born, and, by a stealthy visit to a neighbouring room, she discovered that it had been dissected. She also brought the accusation against Dr. Tannahill that he made a show of her to the students; and that the officials generally made a fool of her. On the fifth day after delivery, she was dismissed from the hospital, and she said that the matron had sent for a cab to carry her to gaol. Instead of taking the cab, she walked off and went to the Police Office, where she made a complaint of her treatment in the Maternity Hospital. She was afterwards sent to the Town's Hospital, where she was treated for some weeks.

These are the principal allegations by Flora Maclean, and founded on them, the matron, two of the nurses, and Mr. Stevenson were accused of culpable homicide, neglect of duty, and cruelty. As to the medical aspects of the case, the body was first dissected to show the fetal circulation to Dr. Tannahill's class. It was then sent to Dr. Foulis at the Royal Infirmary, who made a regular *post mortem* examination. Afterwards, Drs. Moore and Dunlop made an examination of the removed and dissected organs on behalf of the Crown authorities. Dr. Foulis, who first made the proper *post mortem* examination, gave his opinion that death had occurred from asphyxia; Drs. Moore and Dunlop admitted that, as they only saw the organs at second hand, their evidence as to the cause of death was not of great value. They found the lungs only partially inflated; but Dr. Foulis afterwards said

that the treatment these organs had sustained at his hands might have caused this appearance. There was some further medical evidence as to the power which infants have of living for forty-eight hours without food, and it was brought out that, the day before the child died, Dr. Tannahill lifted it up and showed it to the students as a typically healthy infant. The attempt to prove, on the medical evidence, that the child had died of starvation broke down altogether. In the exculpatory evidence, Flora Maclean's story was contradicted by nurses and fellow-patients in almost every particular. It even appeared that not only was the child fed, but Flora herself had milk in her breasts. The child sucked well. It is needless to go into the details, but the only point which seemed to bear against the prisoners was, that she was dismissed on the fifth day after delivery, and that this was too soon for safety. But it appeared even here that great doubts existed whether Flora had not gone out of her own will, against the desire of the matron; at any rate, a cab was found to convey her home, which she refused to use. The evidence, in fact, was overwhelming that this woman's word was not to be trusted; and that persons connected with her had been kind and forbearing. The jury, after an absence of seven minutes, returned a verdict of "Not Guilty", adding that the prisoners left the bar without a stain on their characters. The trial under the Anatomy Act which is to follow will be of great interest to the profession.

THE SICK AND WOUNDED IN THE RUSSO-TURKISH WAR.

THE following extracts from reports furnished to the Stafford House Committee have been kindly forwarded to us for publication.

Abstract of a Letter from Mr. Barrington Kennett, dated Pera, September 19th, 1877.—The reports speak for themselves, I need not comment upon the awful misery and distress among the wounded in every district. It is with feelings of the greatest reluctance that, for want of funds, I find myself unable to extend, or even strengthen, our different sections. Please make every exertion to secure further subscriptions at this critical moment. All our sections are working extremely well; and Neylan at Philippopolis and Moore at Adrianople have secured for themselves high and responsible positions. I regret to have to report that Neylan is returning temporarily invalidated with dysentery, as also Drs. Beresford and Lake; but I hope they will be able to return to their posts. An excellent position having been offered to the last batch of our doctors sent out, involving the condition that the Red Crescent defray all expenses of their pay and passage, etc., I have accepted the conditions. I leave to-morrow with a large ambulance destined for Plevna. I have attached Sloney permanently to our staff as Assistant-Commissioner. He will represent the Stafford House Committee at Constantinople during my absence. Mr. Pratt is working well and energetically in the Varna and Schumla district. Our soup-kitchens are still working well; over four thousand wounded have been received and attended to at each of them. The ranks of the Red Crescent have recently received a great addition in the person of Baron Mundy.

w. Extract from Report of Ambulances with Mehemet Ali Pacha's Army, furnished by Mr. E. R. Pratt, Stafford House Assistant-Commissioner, and dated Schumla, September 12th, 1877.—I left Schumla, on the date of my last report, September 2nd, for Varna by a train in which there were eighty severely wounded men. There were no Turkish surgeons to meet them on their arrival at Varna; and Dr. Hayes and myself had, with the aid of his transport drivers, with our own hands carried out of the trucks and placed on the transport wagons more than two-thirds of their number before the Turkish surgeons and their carriages arrived. The Red Crescent Hospital, under Drs. Kouvaros and Cullen (Stafford House), is full, and working well. On September 4th, I left Varna for Rasgrad, and thence on horseback to the front, with Drs. Cheyne and Jolly (National Aid Society). We arrived late, and found the fighting at Atlava and Rasilovo just over. We had time, however, to collect some twelve severely wounded men and place them in a transport out of the rain for the night. The next morning their wounds were dressed by Dr. Wattie. Early next day, we found a large number of slightly wounded men at Chevasa; we dressed some of their wounds; the remainder were attended to by Drs. Wattie, Busby, and Lake after their severer cases had been disposed of. The same day, I rode to Yenikieui, and brought back with me Drs. McQueen and Beresford and their transport to Chevasa. We found Messrs. Wattie and Busby. Before night, the lighter cases remaining were dressed and transported to the Turkish hospital; and the severer ones, not admitting removal, remain at present under the

care of Drs. McQueen and Beresford, an empty house having been prepared as a temporary hospital. During the few days that Drs. McQueen and Beresford were at Yenikieui, they were not allowed to perform any operations by the Turkish surgeons there, men with undressed wounds being sent to Schumla and Eski-Djuma. I visited Dr. Wattie's ambulance in camp opposite Ablava, Dr. Lake was suffering severely from dysentery—[I ordered Lake back.—V. B. K.]—but he was very anxious to remain, in expectation of more work; but, as Drs. Wattie and Busby both agreed that it was not advisable that he should do so, at my suggestion he left the next morning for Varna with a convoy of sick. He has since written to offer his services at the Imperial Hospital at Varna, where help is very much required; he has stipulated for the care of wounded men only, and for independent action with regard to treatment in his own wards. I have appropriated an empty house at Yenikieui as a store for Dr. Crookshank (National Aid Society) and Stafford House ambulances; as this village is protected by a very strong and fortified position, it is not likely to be again in possession of the Russians. As Dr. Barker is now engaged elsewhere, I have sent the stores destined for Eski-Djuma to Yenikieui. I visited the Government Hospital yesterday; and, as several very bad cases had disappeared, it did not appear to be in such an offensive condition as I described in my last report. They are still without disinfectants. On the two chief doctors writing me that they were in great need of certain medicines which they could not procure immediately, I gave them a small quantity and some hospital requisites that they were obviously in need of. I have done the same at Yenikieui. The voluntary aid given to Mehemet Ali Pacha's army may be thus described. Drs. Crookshank, Cheyne, and Jolly (National Aid Society) are in camp with the south wing. Drs. Wattie, Busby, and Boyd (Lord Blantyre), with their transport, are in camp with the north wing. Drs. Beresford and McQueen are with the transport in a village in rear of the centre, with orders to move forward in whatever direction the fighting next takes place. Dr. Hayes is in charge of the railway transport from Rustchuk to Varna, which is doing excellent service. The Varna and Rustchuk Hospitals are both now full; I proceed to the latter to-morrow.

x. Extract from Letter from Dr. Lake, dated Varna, 13th September, 1877.—I find that there are so many hundred wounded, some of them cases we dressed at the front, others so interesting surgically, and all left to the careless and indifferent treatment of the uneducated Turkish surgeons here, that Mr. Pratt, Dr. Hayes, Dr. Schofield, and myself have all deemed it a wise and prudent step that I should take over a ward of say twenty-five or thirty, or more, under my own care and treatment, assisted by Hayes, independently of the Turkish surgeons. By this arrangement, Hayes and myself would be able to work into one another's hands, and would form an important and useful rear permanent hospital. The other three men would still remain at the front. [Approved.—V. B. K.]

y. Extract from Dr. McQueen's letter, dated Cherissa, 13th September, 1877.—On the 29th August, Dr. Beresford and myself, accompanied by Mr. Pratt, arrived at Yenikieui, with the intention of forming a temporary hospital there, and of using our wagons to transport the wounded from the field to our hospital, and from there as soon as possible to the nearest large hospital in the rear. We found a Turkish hospital already established in the best houses of the village, so that we had difficulty in securing suitable places for our hospital, but at last fixed upon a house capable of containing 12 beds, and a large hay shed, which we cleared out, capable of containing 20 or 25 beds. On the 31st we set out with our arabas and *cacolets*, and worked over the battlefield of the previous day, along with Dr. Crookshank and Dr. Roy, but we found no wounded. The few sick or wounded that came into the village were taken to the Turkish hospital, where they lay without anything being done for them—several cases of gunshot wounds with bullets unextracted, smashed fingers requiring amputation, etc. When the Turkish surgeons were asked why they did not operate, they said they had not proper instruments, and afterwards that they had received orders not to operate, and though we begged to be allowed to operate or to take charge of the cases, we were always put off for a day or two, and then found the cases sent off to Eski-Djuma untouched. On the 4th, we had five sick soldiers in our hospital. We transported from the Turkish hospital at Yenikieui to Eski-Djuma on the 30th nine sick and wounded, and on the 3rd 20 sick and wounded. On the evening of the 6th, Mr. Pratt arrived from Cherissa, where he had seen numbers of wounded unattended to, so, as there was no work at Yenikieui, we started off early next morning and arrived here late in the afternoon. We found numbers of wounded lying about the streets in a deplorable state, with undressed wounds and unset fractures. We housed them as comfortably as possible with mattresses and blankets for the bad cases, and distributed bread.

Early the next morning we dressed seven fresh cases, and performed amputation of the thigh on a poor fellow whom we had found the evening before, lying on the bare floor of a room, suffering great agony from a gunshot smash of the leg, the wound being in a bad state, *swarming with maggots*. We fortunately were able to buy a supply of bread from a passing cart, and sent off an araba to Rasgrad for two sheep, to make soup for the wounded. On the 9th we were able to secure seven arabas, and transported fourteen sick and wounded to Rasgrad (six or seven hours from here) and in the course of the day we treated thirteen sick and wounded, and sent them off the next morning to Rasgrad. On the 10th, we treated seven fresh sick cases, and on the 11th one. To-day, Dr. Beresford has taken all the cases from here to Rasgrad; these include the amputation case, which has been doing famously. Dr. Beresford and I have almost come to the conclusion, after consultation with Busby, Wattie, and Crookshank, that we must get up our tents and join a division, as it is impracticable to work in the villages.

Abstract from Report by Dr. Hayes, dated Varna, September 13th, 1877.—The first part of this report was written in answer to one by Mr. Kennett, suggesting the advisability of suspending the Varna Town transport. As it was found to be doing extremely good work, Mr. Kennett decided that want of funds *alone* would compel him to abandon it. Dr. Hayes then goes on to say:—"I have arranged that at Sheytandjik the wounded have soup ready for them, and they have already partaken of it and enjoyed it much. On the night of the 9th, I received 553 wounded at the station here; on the 10th, 229; on the 11th, 69; on all these occasions the men were very badly wounded. I personally assisted and superintended the matter, and our wagons were of much service. Dr. Lake is now here; he arrived on the night of the 11th. These trains conveying wounded often arrive after 10 p.m., and we have been at the station as late as 1.30 a.m. next day before we could get all the wounded away. My reasons for having established the Local Transport service were, that when I came here every one was loud in complaining of the way in which the sick and wounded were received here on their arrival, that they were left all night in the station, etc., so I set to work to remedy this evil, and since we have been here no wounded have been left; they have always all been carefully removed, though there was often no one on the part of the civil or military authorities to receive them, and our people have carried them to the ambulance wagons. I must say that, stimulated perhaps by the example of others, the authorities seem to be waking out of their lethargy now, and to be becoming alive to the fact that badly wounded men cannot walk, and require somewhat tender removal.

a. Abstract from Report of Dr. Kouvaros, dated Hôpital du Croissant Rouge à Varna, le 16 Septembre, 1877.—From August 21st, when the Hospital began to receive wounded men, to the 31st August, 49 wounded men were cared for in the Hospital, the exact number of beds which were at the disposal of the authorities. Of these 49 wounded men one was cured, three died, eleven had to remain under treatment, and 34 were capable of being removed.

c. Extract from a telegram received from Mr. Cullen, dated Philippopolis, 18th September, 1877.—Large numbers of wounded are walking the whole of the way between Arimia-Sophia and Bazadjik in bad condition. There is no transport service. Temple Bey urgently solicits the presence of our transport service, and supplies are badly provided for.

d. Extract from a Telegram sent by Dr. Neylan, dated Philippopolis, 17th September, 1877.—One hundred and fifty wounded arrived last night. Barker will leave with some to-morrow. I go with them for a few days. I being ill, Menassian is temporarily in charge. Manoury and Wood have hospitals. Total of wounded here at present, eight hundred and fifty. Manovitch going to Plevna. Stoker has just brought twenty serious cases, and the Turks three hundred more. We can accommodate all the bad cases here. Colley returning invalided. All going well.

f. Extract from a Telegram sent to Mr. Kennett by Dr. Bond Moore, dated Kezanlik, September 17th, 1877.—Nine hundred fugitives have had no food for the last three days. I have distributed all my private money. The road from Sophia is one string of Turkish fugitives; urgent need of help. Sophia messenger arrived says there is only one foreign doctor, whilst the town is crowded with wounded; gangrene has appeared, and there are many deaths. The wounded arrive here in a very bad condition.

The wounded who had arrived at the Sirkedji Station, Constantinople, on September 17th, numbered 3,832.

We have also received the following extract from a letter from Dr. G. O. Mead, Surgeon to the National Aid Society and the Imperial Ottoman Army, dated Voditza, September 23rd, 1877:—Our ambulance is that of the National Aid Society in the first line of relief.

On September 21st, we were stationed in a small field by the side of the road. We could hear the file-firing as distinctly as if it were in the same field; there were four of us—Crookshank, Cheyne, Jolly, and Mead. From the top of the hill close by, there was a splendid view of the fight. About half-past three, the first araba came up with three wounded; one a Turkish officer with a bullet in his thigh. Although they had been at it all day, the wounded only managed to get away towards night, when the fight was ending, so that carts could go on the field. In a few minutes, the wounded began to come in very fast. We have a large hospital-tent capable of holding about fifty men, the floor being covered with unthrashed corn. By the side of this is a small oblong tent for the surgeons, who have rugs and blankets, and sleep on stretchers in their clothes and jack-boots. There is a small camp-table, and in various parts saddle-bags, tinware for crockery, etc. Next this is a bell-tent for our servants. Flanking the field on either side are half hovel, half barn-like buildings, thatched, with bush-hurdles for sides. To the rear is a gutted building; in front the road. Near us are four small cottages and the village mosque, all robbed of their woodwork for fuel. In these places, the wounded were deposited on straw with the corn in it, and, as soon as they were filled, others were requisitioned. The arabas kept bringing them in all night up to the middle of the next day. How we worked, you may guess when I tell you that three of us relieved three hundred and seventy-seven men. Operations were performed and soup given, and the wounded then sent to the rear. Others will be sent off to-morrow. We kept at it till we were quite done up; then we took some cocoa and turned in for a short rest. Talk about groaning, it was dreadful all night long. This was the heaviest work there has been all the season; it was curious I should have dropped in at the very nick of time.

Saturday, September 22nd.—Up at daylight. Toilet does not take long here. It was nothing but cut, cut, cut, probe, probe, probe all day long, until one felt the more one did the more there was to do. There seemed no end to the arrivals. The first capital operation I performed was on a poor fellow whose hand and forearm had been sliced down by a sabre. Before twenty-four hours were over, nothing in the way of operating came amiss to me. We kept on till dark, and then gave up dead-beaten. Thank goodness, they did not fight to-day, or I do not know what we should have done. The battle is called Cerkovna. We had two-thirds of the wounded, our ambulance being in the first line. I have lots of bullets which I extracted. These Turks are fine fellows; it is a pity to see them so mangled. The wounds were fearful; the whole place was worse than any shambles I ever saw. Colonel Borthwick came down from Mehemet Ali to beg us to send the wounded on, to make room for those of the next fight which was imminent. Dr. Mead and his colleagues were in the retreat with Mehemet Ali; he gives a graphic account of the scenes.

We learn that the Egyptian troops encamped near Rasgrad have lately suffered much in health, and every day three or four hundred go into hospital with dysentery or other intestinal diseases. Rheumatic cases are also frequent. The mud in Bulgaria along the lines of communication of both the Russian and Turkish forces is three or four feet deep, rendering it very difficult for any army to manoeuvre; and it is difficult to understand how the Russian forces are to be provisioned without any decent roads and with enormous distances to traverse before their convoys can arrive. They will try it, but their army will suffer enormously.

From Sistova, a correspondent, on October 12th, wrote as follows: The worst enemy the Russians, and, I presume, also the Turks, have had to contend against during the last two or three weeks has been the dreadfully cold and wet weather. Rain has been pouring down more or less every day, until the country has become one huge pond of mud; the roads have almost disappeared, small streams have swollen to the size of large rivers, and the difficulties of travelling have very nearly overcome the bounds of human possibility. The effect upon the poor fellows under canvas, drenched through and through, is most dispiriting, and must work considerably upon the natural melancholy of their disposition, already deepened by the serious cheek which their arms have latterly received. Officers and others who have to make their berths in the mud-built underground huts of the peasants find the dirty walls and floors soaked through by the rain and damp and moisture pervading every corner. It does not need much power of divination to prophesy that, if this miserable condition of things continue, it will shortly produce amongst the troops on both sides an enormous amount of serious sickness and mortality.

THE Middlesborough Guardians and Rural Sanitary Authority have been invested with Urban powers within the contributory place of Thornaby.

THE ROYAL PALACES.

THE very frequent appearance, of late years, of typhoid fever amongst the members of the Royal Family has naturally caused in the public mind a feeling of great doubtfulness as to the sanitary condition of the Royal palaces. We are pleased to know that one of those buildings, Marlborough House, has been recently so thoroughly overhauled that all anxiety on the score of its bad drainage may now be dismissed. The whole of the basement has been examined, with the result of finding a most discreditable condition of affairs. Old drains and cesspools were found, the existence of which was not even suspected by any person in authority. No one knew what they had been made for, and they had formerly been cut off, and were found to be filled with decomposing filth and swarming with rats. Of course, they have all been removed, and the ground they occupied has been filled in with concrete. New drains of the most approved description have been put down. All these works have been done by the Board of Works, under Mr. Taylor, the chief Engineer Inspector of the Board.

As regards the other royal residences, we learn that Windsor Castle and Sandringham have both at various times been reported upon by Mr. Rawlinson. At Balmoral and Osborne, the necessary sanitary works were thoroughly carried out by the late Mr. Cubitt, who built both houses.

At Sandringham, since the illness of H.R.H. the Prince of Wales, a special supply of pure water is furnished to the royal table from two springs on the estate, which, though small, produce very pure water. The house has also been thoroughly ventilated. The drains were examined by Mr. Rawlinson, who removed all the cesspools. The sewage is now to be carried by drains a mile from the house into the park. Water-works are in progress, and will be completed before Christmas, which will provide a water-tank 70 feet high, capable of storing 32,000 gallons of pure spring chalk water, to be softened by Clark's process, and giving a pressure for fire service of 150 feet.

HOSPITAL AND DISPENSARY MANAGEMENT.

COUNTY MEDICAL CLUBS.

SIR,—In last week's *Journal* you gave a long account of a meeting at Bury St.

Edmund's, with reference to the formation of a Suffolk County Medical Club, at which Sir Edward Kerrison presided. He founded a similar club at Lye fifteen months since, which has proved a very great success, and I have been asked by several of my neighbouring practitioners to give my experience of the working of the club from the medical man's point of view, as I have one of the largest branches of the present Eye Medical Club. Only working men not earning more than 18s. a week with their families are admitted, and the scale of payments I append to this letter. There are now 4,200 members in this club; and, basing my calculations for a year on the six months ending September 30th last, I find that in 1,000 members 512 were children, 240 married women, 248 men or single women. These 1,000, taken together, pay annually into the club £102 10s.—about 2s. 1d. each—and for ordinary medical attendance the doctor receives £123; and, taking an estimate of fifty confinements (I had twenty-seven in half a year in 1,100 members), the members would pay £18 15s., and the doctor receive £47 5s. Thus in all the members pay £121 5s., and the doctor receives £170 5s.; the difference (£49) paid from the honorary subscriptions, exclusive of fractures, etc., for which I find the average to be scarcely £10 a year, making £180 in all received by the medical man.

I have carefully gone over the names of families in this branch, which is over 1,100 members; and, estimating 1,000 on the average of the four previous years, the people now in the club paid me scarcely £100 a year. Therefore, there is a gain to me of £80 in cash: add to that, I have no trouble of day-book, ledger, and bills, nor the bother of receiving small sums "on account" from poor people who can often scarcely afford it. And for 1,000 members, of whom half are under ten years of age, I find that I receive a fair amount of business at a rate which is nearly double what I had been able previously to obtain. It will be observed that £180 is paid from the honorary fund, and from the same source come all working expenses, printing, etc. But the new County Medical Club is to be made nearly self-supporting—an obvious advantage to all concerned in its welfare; and next week I purpose sending you a short account of what the payments, etc., would be with the same 1,000 members on the new scale.

As this medical club of Sir Edward Kerrison's was the first of its kind established, it is only reasonable to suppose there would be a weak point or two in it, the chief one being its too great dependence on the club-funds of honorary subscriptions, etc.; but as we hope to improve from the experience gained, so I can most strongly recommend to those medical men practising in poor localities or in rural districts the formation of a club similar to the new Suffolk County Medical Club. To show how popular it is with the labouring classes in this neighbourhood, in several villages I find one-third of the whole population in the club; and if any of your readers are interested enough to wish for further information about this matter, I shall be glad to give what help I can on hearing from them.

Apologising for so long a letter, I am, sir, yours truly,

GEO. FLETCHER, M.D. Cantab.

Earl Soham, Suffolk, October 23rd, 1877.

Present Scale of Eye Medical Club.

Members pay in annually.	Doctor receives.
Single member	4 0
Man and wife	7 0
Man, wife, and one child	8 6
two children	10 6
three children	11 6
four children	13 0
five or more children	14 6
Confinements	7 6
	Under one mile .. 25 0
	Over one mile .. 20 0

Fractures and surgical operations same scale as Poor-law Board.

SIR,—There are four advertisements for assistant-physicians at various hospitals—for one at St. Mary's, Charing Cross, and the Metropolitan Free, and two at the General Hospital, Birmingham. At the last there is an honorarium of one hundred guineas, but at the three former there is nothing but honour. The young men who take assistant-physicianships are the best and most unselfish workers in our profession, but with no experience of life. There have been several changes at Charing Cross within a few months. Death and illness have been active in causing directly or indirectly these vacancies. Let us who are older in the profession warn our younger friends how they work for nothing, and let us make the authorities of the London hospitals do as they do at Birmingham, and pay their medical officers.—Yours faithfully, A HOSPITAL PHYSICIAN.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

The late Dr. Jean Benjamin Broca.

I RECEIVED, a few days ago, a *lettre de faire part*, or notice of the death, of Dr. Jean Benjamin Broca, which took place at St. Côme, near Luzarches, in the Department of the Seine et Oise, in the eighty-eighth year of his age. His remains were removed to Sainte Foy la Grande in the Gironde, where they were interred on September 25th. The deceased, who was father to Paul Broca, the eminent *savant* and Professor of the Faculty of Medicine of Paris, was one of the oldest, if not the oldest, practitioner in the Gironde, whence he retired from professional work to spend the rest of his life with his son at Paris. Although more than octogenarian, and suffering as he did from a long and painful malady, his mental faculties were preserved intact to the last, and the present generation of the medical students of Paris will recall to mind his presence among them at the clinical lectures of his son, where he was wont to be one of the most regular attendants. Dr. J. B. Broca was a great favourite among the students, as he was very communicative, and the anecdotes he used to relate in connection with his long career and professional experience, and which were as amusing as instructive, used to be listened to with avidity and interest. He was one of the first members of the Anthropological Society of Paris, of which, together with his highly esteemed son, he was one of the principal founders.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL:

NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 7th day of November next, at Two o'clock in the afternoon.

FRANCIS FOWKE,

General Secretary.

36, Great Queen Street, London, W.C., October 25th, 1877.

BATH AND BRISTOL BRANCH.

THE first meeting of the Session will be held at the York House, Bath, on Wednesday, October 31st, at 7.15 P.M.: H. MARSHALL, M.D., President, in the Chair.

R. S. FOWLER, Bath.

E. C. BOARD, Clifton.

Honorary Secretaries.

6, Belmont, Bath, October 1st, 1877.

SOUTHERN BRANCH.

AN ordinary meeting of the above Branch will be held at the George Hotel, Portsmouth, on Wednesday, October 31st, 1877, at 4.30 P.M.

The following papers, etc., are promised.

1. Notes on Fracture of the Femur: H. B. Norman, Esq.

2. Case of Fracture of the Skull: Dr. Manley.

3. Specimens of Mammary Tumour, with microscopical sections :
Dr. Ward Cousins and Dr. E. Hollis.

Dinner will be provided at 6.30 P.M. Charge 6s., exclusive of wine.

Members intending to be present at the dinner are requested to send in their names on or before October 29th.

J. WARD COUSINS, *Honorary Secretary*.

Southsea, October 25th, 1877.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE autumn meeting of this Branch will be held at Dowlais on Thursday, November 8th.

There will be a dinner after the meeting, at the Castle Hotel, Merthyr.

Gentlemen desiring to bring forward papers or communications, or to be present at the dinner, are requested kindly to give notice by November 4th to either of the undersigned.

ANDREW DAVIES, M.D. } *Honorary Secretaries.*
ALFRED SHEEN, M.D. }

October 16th, 1877.

CORRESPONDENCE.

PROFESSOR LISTER'S INTRODUCTORY: ANTISEPTIC SURGERY.

SIR,—You have rendered the profession good service by publishing Professor Lister's Introductory Address in full. I have read it with great interest, and I have no doubt thousands of others have done the same. For a long time, I have been fully convinced of the value of antisepticism in surgery. It is certainly one of the great advances, if not the greatest, of the age; and I am surprised that the profession have been so slow in adopting it. It is only since Professor Lister's visit to my own country a year ago, that we have there taken it up. Van Buren, Stephen Smith, and a few others among us, have adopted it in New York; but it is by no means universally used. In France, it can hardly be said to have a foothold. Professor Veneuil is, I believe, its only advocate here. In Germany, it has many able partisans, among them the earnest and enthusiastic Nussbaum. I attended the late meeting of the German Congress of Naturalists and Physicians held at Munich (September 17th to 25th), and I there had the good fortune to hear Nussbaum lecture on Antiseptic Dressings in Surgery, and to see him operate, using the spray and Lister's dressing. He is truly eloquent on the subject of Listerism. He really out-Listers Lister himself in praising the antiseptic method. He uses the spray as Lister does, and his assistants apply Lister's dressings, not with the nicety that we are taught by Lister to be essential, but with celerity and sufficient exactness to insure the best possible results.

Now, why is it that Lister's teachings and practice are not more generally adopted? We are often too hasty to try any new remedy that promises better results than the old; and we are always ready to accept any improved surgical appliance at once. Why then have we, as a profession, remained passive, while for the last ten years Lister has been constantly calling upon us to try his method, and at the same time bringing forward most convincing proofs of its success? Is it because we do not accept his theoretical doctrines? Not at all. Theories are well enough, and essential for great philosophers like Pasteur and Lister, but we, the busy practitioners, are indifferent to them, and want only successful results. Show us how to achieve these, and we ask no more. See with what avidity we at once adopted Graeffe's operation of Iridectomy. We accepted it not on theoretical grounds, but we accepted it because it was successful, because it accomplished what it proposed, because it preserved vision that would have been lost without it. Ophthalmic surgeons are not, even now, in perfect accord about the theory of the operation, and yet they all do it, and with the best results. No, we care nothing for theories if we can only relieve suffering and prolong life. For myself, I accept Professor Lister's theories out and out. His results, whether his theory is true or false, are all that he claims and all that could be desired. Why, then, I repeat, are we so slow to adopt his method? The objections that I have heard urged against it are these: 1. It takes too much time; 2. It is too complex; 3. It is too expensive.

Now, I would most respectfully ask Professor Lister, "Is it not possible to simplify the dressing, so as to do away with all these objections and at the same time insure the same successful results?" Seven years ago, it was my great privilege to spend a whole day enjoying the hospitality of my friend Professor Lister. By reading his philo-
sophic papers before my visit, I was fully convinced of the truth of his

theories; and by witnessing the results of his practice, I was equally convinced of the value of his method. At that time, it occurred to me to ask the question above propounded; but I could not, and did not. I was prompted to it by seeing in his laboratory a score or more of flasks with long necks, stoppered only with a little clean cotton wool, each flask containing urine, or other putrescible fluids, which have all remained unchanged, some for months and some for years. These curious experiments embody a great truth which Lister has for long years implored us to accept and put to practice, but we do not.

In Professor Lister's Introductory Address (BRITISH MEDICAL JOURNAL, October 6th, 1877, p. 465) he says: "Here is a glass containing what is called Pasteur's solution, a solution devised by M. Pasteur for the very purpose of affording nourishment to the yeast-plant and other minute organisms. This was prepared on September 10th in a flask purified by heat, covered over with a pure cotton cap, which permits the entrance of air but does not permit the entrance either of the yeast-plant or of any other form of dust. The Pasteur's solution, of itself containing, besides sugar, ammoniacal and other earthy salts for the nutrition of the fungus, was heated to about the temperature of boiling water, so as to destroy any organisms that might exist in the water. The result is, that it continues perfectly unchanged, just as it was on September 10th; but if we were to add to it a little of the yeast-plant from fermenting grape-juice, we should find that at the temperature of summer weather this would very soon be in a state of free fermentation at the same time that the yeast-plant would multiply."

Now, if putrescible fluids in a flask can be thus so easily protected against putrefaction simply with a bit of clean cotton wool, without adding layers of carbolised cloth, why cannot wounds that might take on putrefactive action be protected against this just as thoroughly with a simple covering of clean cotton wool, without these expensive carbolised coverings? In Paris, at the Hôtel Dieu, we see raw cotton wool applied as a dressing to open wounds by Guérin with great success, and without the carbolised spray. In New York, at the Bellevue Hospital, we see the same plan followed by James R. Wood, one of our most eminent surgeons, with results that are simply marvellous. For the last ten years, I have used plain clean dry cotton wool as a dressing for the abdominal section in ovariotomy, and I can truly say that no other dressing will compare with it. To kill atmospheric organisms in a glass flask with a long narrow neck, we apply heat and close the open neck of the flask with cotton wool, and nothing else, and it protects the contained fluid against all change indefinitely. About this there is not the shadow of a doubt. And to kill atmospheric organisms during surgical operations, we use carbolic acid, dilute sulphurous acid, or other germicide, in spray, and with absolute success. Now, if at this stage of the operation we could simply cover the wound over with cotton wool, as we do the mouth of the purified flask which contains putrescible fluids, it would save us a great deal of time, trouble, and money. If the cotton wool "does not permit the entrance either of the yeast-plant or any other form of dust" in the one instance, why should it in the other? If the cotton wool filter the air from its impurities as it passes through a glass tube, why can it not do the same thing under other and all circumstances? If the carbolised textures used in Lister's dressing are absolutely essential to protect wounds against the entrance of atmospheric germs, why then should they not be equally essential to protect the open-mouthed purified flasks against their entrance? But Professor Lister has proved in hundreds, nay in thousands, of instances that cotton wool, unmedicated, uncarbolised, is alone sufficient to protect the contents of purified flasks against putrefaction, and it now remains for him to prove whether cotton wool is or is not alone equally effective in protecting surgical wounds against the entrance of atmospheric organisms. But it may be said this point has been already established by Guérin at Paris and James R. Wood at New York. However, they have not made their experiments on the theory of antisepticism. They have not used the carbolic spray at all. If they have achieved such good results with cotton wool alone, without the carbolic spray, what may not be accomplished with the spray and cotton wool dressing conjoined? Had I a hospital service (unfortunately I have not) I would certainly put this to the test. If successful, and I see no reason why it should not be, then the antiseptic method would be so simplified that we might hope ere long to see it universally adopted. But, as it is now, the expense alone will continue to retard its progress. It is, therefore, important that something be done not only to simplify the dressing, but to cheapen it, before it can be generally adopted in hospital practice; and I know of no one so competent to do this as Professor Lister, the father of antiseptic surgery. He has made many modifications of his method since he first published it to the world. Let him go on till he reduces it to that

degree of simplicity and perfection that will compel every one to adopt it.—Believe me, sir, yours faithfully,
J. MARION SIMS, M.D.
2, Rue d'Albe, Paris, October 10th, 1877.

THE CAUSES OF PUTREFACTION AND FERMENTATION.

SIR,—In your issue of the 6th instant, you remark on the interesting address delivered by Professor Lister in King's College, that, "through the medium of our columns, the address will now reach a far larger circle of inquirers, who will assent to the proof therein afforded of the position which Professor Lister set himself to prove; viz., that in every fermenting and decomposing body, be it fluid or solid, there is always present a living element, the ferment, without the presence of which no fermentation occurs". Now, I for one cannot assent to this proposition, and for the following reasons. If to fresh raw beef-infusion—a substance very prone to putrefy—a fourth to a sixth of its bulk of liquor potassæ be added, and the mixture stirred, it will be found that its odour at once becomes putrescent. If it be now set aside for a few weeks, and examined daily with the microscope for bacteria, none will be found, for the obvious reason that life is impossible in so caustic a fluid. Ultimately the mixture, which, when newly made, gave a copious precipitate when tested for albumen, gives no precipitate with such tests; in fact, putrefaction has run its course, is expended, and that too without the presence of any organism whatever. Again, if, instead of potash, about a similar quantity of moderately strong hydrochloric acid be added to the beef-infusion, so as to make it strongly acid, this mixture also in course of time ceases to respond to albumen-tests, no organism of any kind having appeared in it, because no organism could live in so caustic a fluid.

I shall not comment on these simple experiments, but leave them to the consideration of those who may have more time than myself to multiply and extend them. Perhaps, however, I may be allowed to remark that nearly all the more recent utterances on this subject in this country have conveyed simply old facts in new garbs, and most of the experiments are virtually repetitions.

Professor Lister speaks in his address of "putrefactive fermentation", by which I presume he means the putrescent decomposition to which watery solutions of animal matter are so prone. There are, however, two sets of phenomena attending the decomposition of aqueous solutions of organic substances, distinct as are the combined symptoms of typhus from those of typhoid fever. The one set belongs naturally to putrefaction, the other to fermentation. Thus a putrefying fluid—say an infusion of beef—has a putrid odour, is cloudy or opaque; this condition being caused by myriads of organisms, chiefly bacteria. It is usually *neutral*, though it may be slightly alkaline, *but is never acid*. The putrefying process is very protracted: eight ounces of beef-infusion, kept in the dark, took about twelve months before organisms disappeared from it, and till it ceased to respond to albumen-tests, the putrid odour remaining some months longer.

As regards a fermenting fluid, if a fresh portion of the same beef-infusion be made slightly but distinctly acid, either with a vegetable or mineral acid, its odour does not become putrid, but slightly musty; nor does it become cloudy or opaque, but rather grows clear and sparkling. It contains no bacteria, nor their allies, but usually some tufts of mycelia, and always great numbers of torulæ and free round spores; it is never neutral nor alkaline, *but is always acid*, and in about a fifth of the time of a putrefying fluid ceases to give a precipitate with albumen-tests.

I give these facts also without comment for the consideration of those interested in such researches.

I am pleased to see Professor Lister saying in his address that, "when Pasteur's solution is heated to about the temperature of boiling water, any organisms present in it are destroyed". Thus he confirms an important fact in the interesting observations on this subject made by Dr. Bastian.—I am, etc.,
JOHN DOUGALL, M.D.
3, Cecil Place, Glasgow, October 10th, 1877.

STATISTICS OF HOSPITAL MORTALITY.

SIR,—In your subleader on Hospital Mortality, concerning the tone of which I have no reason to complain, you express a hope that I shall be able to bring the controversy to an end by a frank admission that I have been misled, and that the General Hospital of Birmingham is deserving of the public confidence which it has so long enjoyed.

I regret to say that I am not in a position to bring the controversy to so amicable an issue. The hospital authorities have begun it, and I have done everything possible to avoid it. I even ventured upon the

step of not inserting in my book the facts concerning the rival hospital, the Queen's, because I knew its results were so much better than those of the General Hospital, and because I did not wish to shake public confidence in the latter institution.

It was perfectly evident, however, that I could not, in reason, speak of high hospital mortality in other towns and quite avoid it in my own. I was, therefore, obliged to refer to the results at the General Hospital, but I did it with as tender a hand as I could.

The Hospital Committee have rewarded me by issuing a circular broadcast through the country, the terms of which seem to me needlessly offensive. To this, I shall reply at length by a pamphlet, a copy of which I shall place at your disposal, and in that pamphlet I shall freely admit any errors which I may discover in my calculations.—I am, etc.,
LAWSON TAIT.

Birmingham, October 1877.

OBITUARY.

WILLIAM RICHARD BASHAM, M.D., F.R.C.P.

WITH the death of Dr. Basham, there has passed away one who by years might be accounted of the old school, but who yet held a foremost position among the physicians of the present day. Born in the year 1804, he did not enter the medical profession until considerably later than was usual, having in his earlier years been engaged in a banker's office. Circumstances led him to turn his attention to chemistry with a view to manage a brewery, and this was really his introduction to the medical profession, which he entered as a student in January 1831 at the Westminster Hospital, which was then established in James Street, Westminster. Under Lynn, Carlisle, White, Guthrie, and Bright—names that were among the most brilliant of the past generation—he received his education, and in 1834, he graduated as M.D. at the University of Edinburgh, and four years later was admitted a Member of the Royal College of Physicians. In the year that he took his degree, the Westminster Hospital was moved to its present site, and he was up to the last fond of telling his friends how he and Mr. Hancock, as house-surgeons, superintended the removal of the patients to their new quarters. In 1834 and 1835, he held the appointment of clinical assistant in the Hospital, and subsequently entered the East India Company's service, and made a three and a half years' trip to India and China in the ship *Hythe*, almost, if not quite, the last voyages made by the Company.

In 1843, Dr. Basham was appointed a Physician to the Westminster Hospital as a colleague of the late Dr. Hamilton Roe, and for a period of thirty-four years, up to five months ago, he zealously and successfully performed the duties of the office. From almost the commencement of the existence of the Westminster Hospital Medical School, Dr. Basham was an active worker in it, holding successively the chairs of Botany, Materia Medica, and Medicine, to the latter of which he was first appointed in conjunction with Dr. Hamilton Roe in 1849, and from 1855 to 1871 occupied it alone. Twice, if not three times, it fell to his lot to welcome the students on the first of October, and many were the occasions on which he was chairman when his colleagues filled the like office.

Professionally speaking, Dr. Basham was a thoroughly Westminster man: he was proud of the place and the place was proud of him. His death has cast a gloom over the place, shared in alike by his colleagues and the students, to each and all of whom he had endeared himself by his constant and never varying kindness, his sound judgment and sense of justice, and the strict uprightness of an English gentleman. Apart from his school, Dr. Basham is best known to the profession by his works on renal diseases. Attacking this branch of medical knowledge with the help of the microscope and chemical procedure, he was one of those who played a large part in laying the foundation of much of the work done by more recent observers. In connection with the same subject, he delivered the Croonian lectures at the College of Physicians in 1864, at which institution he twice served the office of censor.

DANIEL DONOVAN, M.D.

WE regret to have to record the death of one of the most distinguished of the provincial physicians of Ireland. Dr. Daniel Donovan died at his residence, Skibbereen, Cork, on Sunday, October 7th, at the ripe age of 69 years. Few men in his profession in the South of Ireland had passed through so active and stirring a career. Entering the medical profession at a very early age, he led a most active professional life, until the past few years, when ill-health compelled him to relinquish the various official positions he occupied, and his large private

practice. Seldom outside a metropolis or some large city has a medical man gained for himself so wide a reputation as Dr. Donovan. Nearly forty years ago, he was well known as an able and accurate observer of disease, and his writings on various medical subjects, which his experience of successive epidemics enabled him to master, soon gained for him a reputation which his subsequent labours fully maintained. In the cholera epidemics, in the famine years, in the outbreak of Irish typhus fever, Dr. Donovan was a foremost and energetic worker. His contributions on the causes of and methods of grappling with these scourges were greatly valued, and many of his contributions during those stirring times in the history of Irish epidemics were justly prized for their originality and the vivid descriptive power they exhibited. During those memorable famine years, when so many were paralysed with fear and doubt, Dr. Donovan's energy rescued hundreds from starvation and death. He was the centre and life of every movement in the west of his county which could bring assistance to the destitute. He was then well known to the *Times* as an active correspondent, and it was only recently, in referring to the Indian famine, that a writer in the *Times* alluded in a touching manner to the miserable retiring allowance which this valuable public servant had received on resigning, from ill health, the Poor-law service. Not satisfied with his exertions at home, Dr. Donovan raised large collections elsewhere, and by his personal intervention secured for many of his countrymen employment in London during these terrible times. Mayhew, in his work *London Labour and London Poor*, refers to this action of Dr. Donovan on behalf of the distressed Irish. So far back as 1839, he was presented with a testimonial for his exertions during the cholera epidemic. From this year until 1869, when he retired from the Poor-law appointments he held, he enjoyed throughout the entire west of his county quite an exceptional reputation. In 1863, he was presented by the surrounding gentry with a service of plate, and a purse of one hundred and fifty guineas, in recognition of his services to the poor. Dr. Donovan entered the medical profession in 1828. He graduated in Edinburgh University, and took the licences of the Royal Colleges of Surgeons of Ireland and Edinburgh, in the same year. He was forty years a medical officer under the Poor-law. He resigned in 1868 from failing health, having been the previous year operated on successfully by Mr. Critchett for cataract: a curious coincidence, as he himself had been a very successful operator on the eye. Dr. Donovan was a bold and original surgeon in his day, and performed many highly successful and serious operations. He had three sons in the medical profession. Dr. Donovan has added one more name to the list of those of whom the Irish Poor-law medical service may justly be proud—a talented and original physician; a philanthropic public servant; a kind and sympathising adviser; he was the type of a class of Irish physician, of which we can only say that we regret there are not more frequent examples at the present day.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE following have been elected the first Local Board at Wirksworth, Derbyshire; viz., Messrs. William Shaw, Philip Hubbersty, Thomas Newton, Benjamin Street, G. H. Wheatcroft, Thomas W. Hunt, W. H. Watterson, Richard Wall, and John S. Hall.

THE Town Council of Leicester have decided, by a majority of thirty-three to two, to purchase the Water Works upon the terms which, after discussion and negotiation, had been embodied in a draft agreement.

THE St. Saviour's Union Board of Guardians resolved at their last meeting to appoint a Superintendent Medical Officer at a salary of £400 a year, and an Assistant Medical Officer at £130 a year, both with allowances, for their new Infirmary at Newington; and they will proceed to invite candidates as soon as the consent of the Local Government Board has been obtained to their resolution.

POOR-LAW MEDICAL APPOINTMENTS.

*KERSWILL, J. Bedford, M.R.C.P.E., appointed Medical Officer and Public Vaccinator for Number One District of St. Germans Union, *vice* Robert Kerswill, resigned.

Lewis, Thomas Hope, M.R.C.S., appointed Medical Officer for the First Carmarthen District and Workhouse, Public Vaccinator for First Carmarthen District, and Medical Officer of Health for Carmarthen Rural Sanitary Authority, *vice* William Lloyd, M.B., deceased.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentleman passed his examination in the science and practice of medicine, and received a certificate to practise, on Thursday, October 11th, 1877.

Pain, Alfred, Coultings, Bridgwater

The following gentleman also on the same day passed his primary professional examination.

Jones, Henry Garrard, Charing Cross Hospital

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 18th, 1877.

Culhane, Frederick William Slater, Brockley
Dale, Henry Ridley, St. George's Square, N.W.
Hoole, Henry, Walthamstow, Essex
Robey, Jesse William, Etruria, Staffordshire

The following gentlemen also on the same day passed their primary professional examination.

Hatton, George Stokes, St. Thomas's Hospital
Johnston-Lavis, Henry James, University College
Lynn, Edward, Guy's Hospital
Richardson, Charles Boards, St. Thomas's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

CASTLE WARD UNION—Medical Officer for the Workhouse and the Ponteland District.

CHARING CROSS HOSPITAL—Assistant Physician and Assistant Surgeon. Applications to be made on or before November 2nd.

COOTEHILL UNION—Medical Officer for the Workhouse. Salary, £80 per annum, and fees.

DRAYTON UNION—Medical Officer for the Second District and Workhouse.—Medical Officer for the Fifth District.

EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—House Assistant Surgeon. Applications to be made on or before November 10th.

GENERAL HOSPITAL, Birmingham—Two Assistant Physicians, Two Assistant Surgeons, and a Dental Surgeon. Salary, £100 each per annum. Applications to be made on or before the 29th instant.

LOCHGOILHEAD and KILMORICH, Parish of—Medical Officer. Salary, £60 per annum and fees. Applications to be made on or before November 1st.

METROPOLITAN FREE HOSPITAL—Assistant Physician. Applications to be made on or before November 10th.

MILFORD UNION—Medical Officer for the Rathmullen Dispensary District. Salary, £120 per annum, and other emoluments, amounting to £50. Applications to be made on or before November 6th.

PORTLAND TOWN FREE DISPENSARY—Resident Surgeon and Dispenser. Salary, £100 per annum, apartments, fire, gas, and attendance.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL—Assistant Surgeon. Applications to be made on or before November 1st.

ST. MARY'S HOSPITAL, Paddington—Assistant Physician. Applications to be made on or before the 29th instant.

TOBERCURRY UNION—Medical Officer for the Tobercurry Dispensary District. Salary, £100 per annum, and £20 as Sanitary Officer, and fees. Applications to be made on or before November 5th.

WEST BROMWICH UNION—Medical Officer for the West Bromwich South District.

WONFORD HOUSE HOSPITAL FOR THE INSANE, near Exeter—Resident Medical Superintendent. Salary, £350 per annum, with board, lodging, washing, and attendance. Applications to be made on or before November 3rd.

WORKSOP DISPENSARY—Resident Surgeon. Salary, £120 per annum, with furnished apartments, coals, gas, and attendance. Applications to be made on or before the 27th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

BENNETT, William H., F.R.C.S., appointed Surgeon to the Belgrave Hospital for Sick Children.

*JONES, I. Thoresby, M.R.C.S.E., appointed Assistant House-Surgeon to St. Bartholomew's Hospital, Chatham, *vice* J. Clayton, resigned.

*LOWNDES, Frederick W., M.R.C.S.Eng., appointed Surgeon to the South Division Liverpool Borough Police Force, *vice* *John Fenton, M.D., deceased.

*PEACOCK, T. B., M.D., F.R.C.P. (Consulting Physician to St. Thomas's Hospital and to the City of London Hospital for Diseases of the Chest, Victoria Park), appointed Consulting Physician to the Training Hospital, Tottenham.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 5s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

LEE.—On the 3rd instant, at The Elms, Heckmondwike, the wife of *Francis Boynton Lee, F.R.C.P.Ed., of a son.

PALMER.—On the 18th instant, at Whittington, Derbyshire, the wife of *Ambrose Palmer, M.R.C.S.Eng., L.R.C.P.Edin., of a daughter.

DEATH.

JACKSON.—On the 23rd instant, at 91, Harley Street, Cavendish Square, the beloved wife of *T. Carr Jackson, F.R.C.S., and youngest daughter of the late Thomas Wakefield, Esq.—Friends will kindly accept this intimation.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M. St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orth. pol. li., 2 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, 1 P.M.—1 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.

FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. Dr. Lee, "Maternal Impressions". Clinical Cases and other communications.

THURSDAY.—Harveian Society of London, 8 P.M. Dr. W. H. Day, "Case of Hypertrophy of Heart, with Chronic Albuminuria, in a Child"; Mr. Edmund Owen, "Case of Imperforate Rectum—Littre's Operation"; Mr. T. Carr Jackson, "Lithotomy in a Patient aged 70"; Dr. Ashburnthompson, "Death after Delivery".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

EXCESSIVE SALIVATION DURING PREGNANCY.

SIR,—Seeing no answer to the above, I offer my limited experience. On two or three occasions after the failure of various means, I succeeded in arresting profuse salivation by giving two minims of tincture of opium every hour in half a wineglassful of claret, with directions to swallow all the saliva, cautioning the friends at the same time not to wake her to take the medicine. Port wine, porter, and nourishing diet must be freely administered, and the bowels gently acted upon by some infusion of rhubarb, given every morning.—Yours truly,
Bromsgrove, October 16th, 1877. RICHARD WOOD.

MR. PARKER'S request shall be attended to.

ANTI-VACCINATION.

At the Leeds police-court, last week, Mr. J. Atkinson, Honorary Secretary of the Anti-Vaccination Society, was fined for the sixth time for refusing to have his children vaccinated. Defendant did not appear, and sent the following letter to the authorities:—"To Mr. Thomas Holmes, Vaccination Spy, Guardians' Office, Leeds.—John Ewbank Atkinson is not going to be murdered to please you or a thousand spies, tools, fools, guardians, Local Government Board, or anybody else. Take that for your answer; inform the Mercury of it, and take proceedings as soon as you like."

A QUESTION OF ETIQUETTE.

SIR,—Kindly give me your opinion upon the following case. A. is a prominent citizen, whom B. has known in an official capacity for over four years. C. has known A. for about two years, and has been told by friends that A. would probably employ him professionally. Neither B. nor C., however, have had A. as a patient. C. goes out of town, leaving his work to B. An emergency occurs. A. sends for C., and, failing him, for B. B. continues attending till C.'s return, when he tells A. his visits must now cease. A. replies, "Not at all; we only sent for C. as the nearest doctor, and we are very glad to have made your professional acquaintance; C. is not our doctor, and we would wish you to continue your visits." Did B. do right in acceding to this request? About a month thereafter, A. again sends for B. Is B. justified in considering him his patient and going? And should he explain all to C.? B. and C. are intimate friends.—I am, etc. PERPLEXED.

* * * We see no room for perplexity. C. was the doctor sent for, and B. was attending for him. Clearly, therefore, he must resign his patient to C., for whom he was *locum tenens*.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

THE PENGE CASE.

SIR,—Things have come to a very serious pass when a number of hospital physicians and surgeons, supposing themselves possessed of such superior knowledge to the five medical gentlemen who were present at the *post mortem* examination of Harriet Staunton, the coroner and his jury, the grand jury, the judge and jury after a seven days' patient trial of the case, should presume to memorialise the Home Secretary in these words:

"We... beg leave to state our opinion that the morbid appearances described as having been observed *post mortem* in Harriet Staunton's body are such as indicate death from cerebral disease (*sic*); and that such symptoms as were recorded during the last few months of life, and especially those which are described by Dr. Longrigg as immediately preceding death, are not the symptoms which starvation could have induced (*sic*), but are usual and characteristic symptoms of certain forms of disease of the brain."

This is a very solemn statement to make in defiance of judge and juries, and physicians and surgeons who saw the *post mortem* appearances, and savours greatly of the infallibility of presumption rather than knowledge. If these gentlemen have been the means of defeating the ends of justice, they will have something to answer for at the bar of God, if not of man. Your very able leader of the 6th instant fully endorses every word; and Dr. Fowler's letter in the last JOURNAL tends to confirm the truth of the medical evidence, and the verdict of all the juries. These memorialists, if honest to their convictions, should not be ashamed or afraid to answer these two questions. 1. How many are sceptics? 2. How many are in favour of the abolition of capital punishment?—I am, yours faithfully,
Liverpool, October 22nd, 1877. P. LEIGH.

We have received a communication from Dr. Gurney concerning phosphodia. Under this name, however, he appears to designate some preparation of phosphorus, which he terms an alkaloid, but as to which he gives no particulars of constitution or mode of preparation. This is probably an unintentional omission.

MOLES ON THE FACE.

SIR.—I beg to inform "A Member" that the plan I adopt for the removal of moles from a lady's face is the following. By means of two slightly curved incisions, passing one on each side of the mole, and meeting at a point above and below, the unsightly object is removed. I then bring together the cut edges with a wire serrefine, and cover over the incision and teeth of the serrefine with scraped lint soaked in collodion. On the third day I remove the serrefine and drop a little collodion into the holes it has left in the now dried lint. On the fifth day, or the sixth at latest, I peel off this lint and find the wound completely healed. I have operated several times in this manner, and have never been disappointed in the result. Usually there is no mark left, and in the worst cases only the faintest possible line of a cicatrix. The serrefine gives rise to no pain after the first application, and then it is very slight. The only drawback is its unsightly appearance for the three days it has to be worn; but to this ladies will readily submit when its advantages in avoiding a scar are explained to them.—Yours faithfully,
October 1877. ANOTHER MEMBER.

A QUESTION OF OBSTETRIC ETHICS.

SIR.—There are but two classes of cases in which it is desirable to bring on premature labour. 1. Where a living fetus cannot be born at full term *per se* *naturalibus*; 2. Where the life of the mother is threatened by some morbid condition which there is sound reason for believing would disappear on the removal of the fetus, or at least that the condition would be much improved, and where all other treatment has failed. If "Alpha's" patient belong to the second class, it would be his duty to propose the induction of premature labour. But, as far as the report goes, there is no reason why this should be done: her children have perished, it would appear, from want of proper food, and not from any cause connected with their birth. If the mother be debilitated and unable to supply the infant with milk, it will be much better for both that the child be taken from the breast and fed only on the best cow's milk, avoiding all other food. To prevent debility from coming on during this pregnancy, let the mother take suitable tonics, proper food, have plenty of fresh air and exercise, and be scrupulously clean personally and in her surroundings, and let her bowels be kept regular either by Hunyadi János water or some other suitable aperient. The convulsions were probably hysterical, or of the "epileptiform" nature alluded to by your correspondent. True eclampsia seldom occurs for the first time after labour, so that they are not likely to be benefited by the removal of the fetus; and to my mind the risk of having *post partum* hæmorrhage should never induce a practitioner to bring on premature labour. In the first place, it only lessens the risk in a slight degree—perhaps not at all; secondly, the hæmorrhage does not occur as a matter of necessity, and can frequently be prevented by suitable treatment; and thirdly, should it occur, the present state of the obstetric art teaches us how to employ certain remedies that generally overcome it.

I cannot refrain from touching on the important question of prophylaxis of *post partum* hæmorrhage. The patient's life and the safety of the state of health as possible during pregnancy, anæmia being especially guarded against. During the labour, she should be kept perfectly quiet in every way. When the os is fairly dilated, the membranes should be punctured; and when the head is on the perineum, a good dose of ergot should be given. During the passage of the fetus through the vulva, steady pressure should be exerted with the left hand over the fundus; and this pressure should be continued until after the birth of the placenta, when a band should replace the hand. Faithfully yours,
Sunderland, September 1876. JAMES MURPHY, M.D.

The following appears in the *Medical and Surgical* of October 13th.—Important Notice. Mr. J. E. Peirce, M.R.C.S., England, L.S.A., London, having taken Littleworth House, Unicorn Hill, will, on the 1st of January, 1878 (D.V.), continue his practice there, instead of at his present residence. He will also establish a society, to be known by the name or title of "Peirce's Medical Society." Persons desirous to become members will please apply for terms and particulars to Mr. Wilmore, 4, Clive Road, Redditch.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

A DIET OF RICE.

SIR.—Referring to a note in this week's JOURNAL from Mr. Thomas Carter on A Diet of Rice, I may say that the common name given by seamen to a dish of that vegetable is "strike me blind", and that I have often been assured by old sailors that persistence in its use will have the effect mentioned by your correspondent. I have never met with a case of the kind in my experience of nearly twenty years at sea, but I have never found myself in a position where the inordinate use of rice was compulsory upon myself or others. I give Mr. Carter Jack's opinion for what it is worth.—Your obedient servant,
J. FOURNESS BRICE, M.D.

Birkenhead, October 1877.

SIR.—In answer to Mr. Thomas Carter's inquiry about the effect of a rice diet on poultry, I can tell him that a too exclusive rice diet causes poultry to lose their feathers, and to ultimately become almost bald. This happened to the fowls of a patient of mine, who applied to a poultry dealer to ask the cause, and was at once asked, "Do you give them much rice?" On his telling him he did, he then told him that that was the cause. On discontinuing the rice, the fowls gradually regained their feathers. I do not know if any of them went blind. The dealer stated that it was too stimulating and heating a diet for fowls.—Yours truly,
H. D. PALMER.

Colchester, October 13th, 1877.

DR. W. FARR'S POPULATION TENETS.

SIR.—Dr. Farr, whose name is a household word wherever the English language is spoken, has in a recent address (reported in the BRITISH MEDICAL JOURNAL of August 25th) attempted to invalidate the truth of the "Malthusian theory of population", and has mentioned my name as an ardent disciple of the great Englishman J. R. Malthus and J. S. Mill. I have always been persuaded that whenever any instructed man like Dr. Farr denies the "law of population", which has been accepted as axiomatic by Whately, Chalmers, Say, John and J. S. Mill, Ricardo (senior), MacCulloch, Cairnes, Garnier, Fawcett—nay, by every political economist of eminence since Malthus's day—it must be because he is not clear as to what Malthus said. The Malthusian theory, then, just like the late extension of it—the Darwinian theory—states that there is a constant tendency in population to increase faster than the means of subsistence. Mr. Malthus's two volumes, which went through many editions from 1798 to 1834, are filled with valuable statistics from every country in Europe, and from the United States of America. He demonstrated by these statistics that the population of the United States had, ever since its settlement, doubled itself in periods of even less than twenty-five years; and the same tale holds true (independently of emigration) in the States up to this very year: *à priori*, too, the human female commences to be capable of reproduction at fifteen, and ends at forty-five in this climate, and in our race; thus giving thirty years of child-bearing possibility, during which any average woman might bear twelve or fifteen children. Calculations based on this fact, point to a possible doubling of population in some ten or twelve years; and we learn from Professor Draper of the United States, that in some of the new States of the Union such a doubling has really taken place during this century by the mere power of human fecundity, and independently of immigration altogether. It was from the statistics just mentioned, and others too numerous to mention, that the illustrious Malthus, Professor of Political Economy at Haileybury College, made the celebrated induction called the "law of population"—a discovery even more important, I allege, than that of Newton or Harvey, and one of which England has much reason to be proud, as it was again made by one of her sons.

As population, said Malthus, tends to double in from twelve to twenty or twenty-five years in new countries, its increase is always and must always be powerfully checked in old countries, either by premature deaths of adults or infants, by wars, plagues, or famines or, again, by moral restraint; by which he meant late, very late, marriages; but which modern Malthusians, who admit the theory but object to the remedy proposed by its great discoverer, extend to restraint after marriage. Mr. J. S. Mill, Sismondi, Joseph Garnier, and Dr. Bertillon may be called the chiefs of the school of modern or French Malthusians, since they (and in this I entirely agree with them) lay the greatest stress on prudence after marriage, as the best means of ensuring that preventive check on population which is necessary in order to ward off early death, wars, and, in a word, our greatest foe, poverty.

Owing to a chain of political events, too long to speak of, the French seem at present to be the only nation in Europe which practises the restraint after marriage approved of by Bertillon, J. S. Mill, J. Garnier, and Sismondi. According to Dr. Farr, the French, at their present rate, would take three hundred and sixty-five years to double; and M. Bloch (*Le Temps*, January 1861) mentions that the cause of this is, that the peasantry and artisans in whole districts of France habitually and voluntarily limit the size of their families to two children. Dr. Farr, and Dr. Le Fort of Paris, deplore this. For my part, I quite applaud this "post-marital moral restraint", since, were it practised by all nations, we should hear less about prostitution, excessive infantile mortality, overcrowding and its manifold diseases, including fevers and phthisis, and grim poverty with all its horrors. Mr. Charles Ansell, in his tables, shows that the average age at death among the well-to-do in this country is fifty-five years, and among the poor thirty-five years. If no more children were born than could be comfortably reared, the average age of all classes in this country might be sixty or seventy.—I am, sir, your obedient servant,
CHAS. R. DRYSDALE, M.D.

THE ORDER OF ST. JOHN OF JERUSALEM.

The Order of St. John of Jerusalem was founded about the year 1092, for the maintenance of a hospital at Jerusalem; and, subsequently, the defence of Christian pilgrims on their journeys to and from the Holy Land. It afterwards became a knightly institution; but ever preserved its hospitals, and cherished the duty of alleviating sickness and suffering. The Order was first planted in England in the year 1100, and raised the noble structure which once formed the Priory of Clerkenwell, of which the gateway now alone remains to attest the importance of the chief house of the Order in England. The Order held high place in this country until the year 1540, when it was despoiled, suppressed, and its property confiscated by Act of Parliament. In 1557, it was restored by Royal Charter, and much of its possessions re-granted, but only to be again confiscated within the subsequent two years by a second statute, which did not, however, enact the re-suppression of the fraternity. Still, with the loss of possessions, and the withdrawal of most of its members to Malta—then the sovereign seat of the Order—it became practically dormant in England. Many fluctuations have marked the fortunes of an institution which played a prominent part in most of the great events of Europe, until its

supreme disaster in the loss of Malta, in 1798; after which the surviving divisions of the Order had each to perpetuate an independent existence, and to mark out the course of its own future. It is now nearly half a century ago that a majority of five of the seven then existing remnants of the institution decreed the revival of the time-honoured branch of the Order in England, since which event it has, so far as means permitted, pursued, in spirit, the original purposes of its foundation—the alleviation of the sick and suffering of the human race.

The following are some of the objects which have engaged the attention of this branch of the Order. Providing convalescent patients of hospitals (without distinction of creed) with such nourishing diets as are medically ordered, so as to aid their return at the earliest possible time to the business of life and the support of their families; the institution in England of the National Society for Aid to Sick and Wounded in War; the foundation and maintenance of cottage-hospitals and convalescent homes; providing the means and opportunities for local training of nurses for the sick poor; the promotion of a more intimate acquaintance with the wants of the poor in time of sickness; the establishment of ambulance-litters for the conveyance of sick and injured persons, not only in the colliery and mining districts, but in all the large railway and other public departments and towns; the award of silver and bronze medals and certificates of honour for special services on land in the cause of humanity; and the initiation and organisation during the recent Turco-Serbian war of the Eastern War Sick and Wounded Relief Fund.

MR. J. W. GATEHOUSE.—We have satisfied ourselves that the blue liquid contains copper. We could not find in the report of the inquest that our correspondent had produced "metallic copper on platinum by galvanic deposition", or we should not have described his analysis as unsatisfactory. The separation of the metal copper is the only conclusive test of its presence in a medico-legal point of view. The case referred to bears no resemblance to one of poisoning by verdigris. This substance must be given in doses of from half-ounce to an ounce to destroy life in the acute form of poisoning. The intensely nauseous taste, the immediate and incessant vomiting of green mucous liquids, the intense colicky pains, followed by diarrhoea and jaundice, would have led to the early discovery of poisoning by copper. Poisoning by verdigris in the very few cases that have occurred have been traced to acts of suicide. We cannot admit that half-ounce of verdigris could be administered to an adult without the certainty of immediate discovery by taste and the emetic effects.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Mashob' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; The Derby Mercury; The Preston Guardian; The Scarborough Express; The Jewish World; The Scotsman; The Cork Constitution; The Freeman's Journal; The Hampshire Post; The Somersetshire Herald; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Sir William Smart, Haslar; Dr. Grailey Hewitt, London; Dr. Byrom Bramwell, Newcastle-upon-Tyne; Dr. Reginald Southey, London; Dr. Churton, Leeds; Dr. G. de Gorrequer Griffith, London; Mr. Joseph Laidlaw, Stockton-on-Tees; Dr. A. P. Stewart, London; Dr. H. Macnaughton Jones, Cork; Dr. Wilson Fox, London; Dr. Bradbury, Cambridge; Dr. R. Farquharson, London; Mr. Joseph Bell, Edinburgh; Mr. T. Holmes, London; Mr. Greenwood, Leeds; Dr. T. More Madden, Dublin; Mr. Haines, Oxford; Mr. Wright, London; Dr. Sandford, Market Drayton; Mr. Eytton Jones, Wrexham; Mr. Walter Rivington, London; Dr. Wm. Fairlie Clarke, Southborough; Mr. A. Stewart, London; Dr. Peter Tytler, Manchester; Dr. Laseron, Tottenham; Dr. T. O. Wood, Isle of Man; Dr. Wm. Davies, Bath; Dr. Saundby, Birmingham; Dr. Leech, Manchester; Mr. H. Greenway, Plymouth; Dr. J. Milner Fothergill, London; Dr. Tripe, London; Mr. G. J. Shaw Lefevre, London; Dr. Gurney, London; Mr. F. W. Lowndes, Liverpool; Mr. W. H. Bennett, London; Dr. Clifford Allbutt, Leeds; Dr. Young, Florence; Mr. Richard Davy, London; Mr. Robert T. Oglesby, Leeds; Dr. Holman, Reigate; Mr. Lawson Tait, Birmingham; Surgeon-Major Oliver; Dr. Francis Warner, London; The Secretary of the Harveian Society; Dr. J. W. Moore, Dublin; The Secretary of the Obstetrical Society; Mr. T. M. Stone, London; The Secretary of Apothecaries' Hall; Mr. Wanklyn, London; The Registrar-General of England; Dr. G. G. Bantock, London; Dr. Rabagliati, Bradford; Dr. Bond, Gloucester; The Registrar-General of Ireland; M.D. Edin.; Mr. T. H. Lewis, Carmarthen; Mr. H. C. Burdett, Greenwich; Our Edinburgh Correspondent; Dr. C. Theodore Williams, London; Our Dublin Correspondent; Dr. Trollope, St. Leonard's-on-Sea; Mr. J. D. Dixon Mann, Manchester; Our Birmingham Correspondent; Dr. J. H. Stallard, San Francisco; Dr. J. F. Payne, London; Mr. P. Leigh, Liverpool; Dr. S. J. Smith, Etwell; Mr. W. O. Jones, Manchester; Dr. W. Macfie Campbell, Liverpool; Dr. Falconer, Bath; M.D.; Dr. Thin, London; Surgeon-Major Adams, Lanark; Mr. S. W. North, York; Mr. Lowndes, Liverpool; Dr. Aspinall, Haslingdon; Dr. Sawyer, Birmingham; Dr. Webb, Wirsborough; Dr. Collie, Homerton; An Occasional Correspondent; Dr. Thomas, Sheffield; Dr. Pitman, London; Mr. George Fletcher, Earl Soham; Dr. Robert James Lee, London; W. W.; Dr. Bristowe, London; Dr. Needham, Gloucester; Mr. N. A. Humphreys, London; Dr. John C. Cormack, Liverpool; Dr. J. M. Bright, Forest Hill; Dr. J. Matthews Duncan, London; Mr. R. L. Batterbury, Berkhamstead; Mr. Rushton Parker, Liverpool; Dr. Thomson, Peterborough; Mr. Cottole, Glasgow; Mr. Ambrose Palmer, Whittington; Mr. Mead, Newmarket; Mr. R. E. Power, Dartmoor; Dr. Banham, Sheffield; Dr. John Meredith; Dr. Mapother, Dublin; Dr. Grigg, London; etc.

REMARKS

ON

ABNORMAL SOFTNESS OF THE NULLIPAROUS UTERUS AS A FACTOR IN THE ETIOLOGY OF UTERINE DISTORTIONS, AND AS A CAUSE OF IMPAIRMENT OF POWER OF LOCOMOTION.*

By GRAILY HEWITT, M.D., F.R.C.P.,

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No one who has had practical experience in the diseases peculiar to women can fail to have observed how very frequently the ability to move about, to walk, and to take exercise of various kinds, is interfered with in cases where some disorder of the uterus is present. The symptoms produced by diseases of the uterus are, as is well known, numerous; but an appeal to clinical observation will invariably show that, of all these symptoms, no one is so frequently met with as impairment of the power of locomotion, sometimes in a slight degree only, but not rarely presenting itself in a very marked form, and constituting the principal symptom of which the patient herself speaks. This impairment of locomotion varies from that slight degree in which the patient states that, after walking a moderate distance, the exertion produces a pain in the back or in the inguinal region, to the severer form where the slightest attempt at walking causes such an amount of suffering that the patient is completely laid aside.

The complaint patients make of this difficulty is so common, that it is certainly worthy of more consideration than is usually bestowed upon it. The fact that patients suffering from uterine disease can not unfrequently walk for a short distance as well as other people has apparently prevented the due appreciation of this very common symptom—locomotive inability.

Some eight years ago, when my attention was particularly attracted to the subject, I was led by clinical observation to the conclusion that this impairment of locomotive power was associated with certain painful conditions of the uterus, and that it was particularly connected with alterations in the shape of the uterus. I then described certain cases in which the impairment was present in a very marked form, under the name of "uterine lameness". Since that time, the subject has much occupied my attention, and many cases have passed under my notice in which this difficulty of locomotion has presented itself in association with uterine disease.

Let me not be misunderstood. It is of course incontestable, that painful conditions of the other pelvic organs, of the ovary, Fallopian tubes, bladder, etc., may give rise to much discomfort in walking. This is not disputed. My object now is to deal with those cases in which the difficulty has its origin in a painful condition of the uterus, and to endeavour to throw some light on this important class of cases.

It is obvious enough that a subject of this nature can be best elucidated by a careful study of the more severe cases; for it is in these severe cases we should expect to find most readily facts susceptible of advantageous analysis. As an experience of some years has brought before me many such cases, and as these cases have persistently told me one and the same story—as, in fact, they have constituted for me a long series of experiments all tending to certain general uniform conclusions—these conclusions appear to me to possess value of some sort.

When I first wrote on the subject eight years ago, severe degrees of distortion of the uterus were, in my opinion, associated with considerable impairment of locomotion. Subsequent experience has not altered my view as to the importance of the change of shape of the uterus in actually causing the "lameness"; but further observation has made me acquainted with the fact that a very undue softness of the uterine tissues is a nearly constant accompaniment of this tendency to alteration of shape. Such unnatural softness of the uterine tissues, imparting to the whole organ an unusual and abnormal degree of pliability, I have come to regard as an exceedingly important feature in such cases. In the present paper, I desire to illustrate the connection between the existence of undue softness of the uterine tissues—such change of the shape of the organ as to amount to flexion of the uterus—and impair-

ment of locomotion; and to point out particularly the great importance of softness of the uterus as a constituent element in such cases.

In the present communication, attention is directed to the nulliparous uterus. When pregnancy has occurred, other disturbing influences are necessarily brought to bear. In women who have had children, softness and undue pliability of the uterus are, I need not say, not unfrequently observed. These latter cases unquestionably deserve attention, and are of great importance; but I have limited the consideration at the present moment to what concerns the uterus in the nulliparous state for two principal reasons; the first being that, from the circumstances of the cases, they are less complicated, and, the effect of pregnancy in producing softness being eliminated, they are more easy to study with advantage; and the second being, that they constitute a class of cases of great clinical interest.

Some idea may be given of the importance of the subject when I state that, within a period of eighteen months, I find as many as twelve cases recorded in my private case-book in which the impairment of locomotion associated with uterine disorder came under my notice in what I consider its typical form. A typical case may be defined as follows. The patient is comparatively young, more frequently unmarried, has been out of health and an invalid for some months or even for some years. There is general feebleness; but a striking feature of such cases is inability to walk more than a very short distance—sometimes not even so far as across the room—without experiencing so much aching discomfort in the lower lumbar and sacral regions, or anteriorly in the groins, that the exertion cannot be continued. There is no paralysis in the ordinary sense of the word, because the patient can generally walk a short distance, though, in a few more exceptional cases, the obstruction to locomotion is even more decided, and the normal movements of the lower limbs cannot be made if the patient be in the erect position. These latter extreme cases constitute a class by themselves;* and it may be a question, in some of them, whether there may not be disease of the spinal cord itself. In the typical cases now to be considered, the patient can walk, though very uneasily and imperfectly, and only for a short time. Further characteristics of the condition in question are, general inability to take food in proper quantity; a very constant accompaniment is a persistent feeling of nausea, intensified or brought on by any attempt to maintain the erect position for any length of time. Emaciation to a certain extent is always present. The recumbent position is generally the only easy one. Disorders of menstruation are frequently observed, but they vary in nature in different cases. The malady pursues a course troublesome and tedious in the highest degree; and, after months or years of inefficiency for ordinary duties in every sense of the expression, the patient sinks into a confirmed invalid.

The twelve cases alluded to above, and which I select as the text of my remarks, occurred consecutively, commencing June 1873. There were many others in which the patients were less ill, but in which the disorder was essentially the same.

Now, in these typical cases, coupled with the general symptoms just detailed, there were found, on examination, to be present various degrees of alteration in the shape of the uterus, together with, in the majority of the cases, a very abnormal pliability of this organ. Clinical observation of the cases offered convincing proofs of the fact that the difficulty in locomotion arose from the circumstance that, in the erect posture, the alteration in the shape of the uterus became exaggerated and intensified.

The justification of the term "uterine lameness"—an expression I have only used because I know of no better one—is the connection which establishes itself in my mind between the two things, the discomfort produced in the uterus by the exaggeration of the change in form and the obstruction to locomotion. The patient does not walk, because frequent experience has convinced her that the result of the attempt will be productive of so much pain and inconvenience.

A further very important circumstance in these cases is the frequency with which nausea and tendency to vomiting are observed. This symptom is caused by the irritation set up by the flexion of the uterus. It has this very important result, that going on, as it frequently does, for months or even years, the interference with the general nutrition of the body is serious in the extreme. The patient loathes the sight of food; her friends finally give up the attempt to make her eat. The results can be imagined. Her uterus becomes softer and weaker; the flexion is intensified, confirmed; and all the symptoms become exaggerated. I have seen cases in which death was really imminent from chronic uterine vomiting so produced, the patient being reduced to a condition of starvation. The nausea may

* Read in the Section of Obstetric Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

* Thus a real paraplegia has been known to result from presence of retroversion or retroflexion of the gravid uterus. Dr. Priestley called attention to a case of cases of this kind some few years since.

be brought on by whatever aggravates the existing disease. Standing, getting out of bed, stooping, etc., may cause it to appear at any moment.

CASE I.—A governess, aged 20, had, when she first consulted me, been ill for over two years. The difficulty in walking, which had existed for longer than this, had finally become so great that she was almost paraplegic. There was great general feebleness. The amount of food taken daily was exceedingly small, on account of the nausea the idea of food produced. She had, after struggling to continue her avocation as a teacher, been obliged to give up entirely. Menstruation was, I believe, though my notes are deficient on this point, painful and scanty in amount. Great prostration invariably followed any effort. There were great emaciation, sleeplessness, and much mental depression. The uterus was soft to the touch, entirely wanting in that firmness the healthy uterus possesses; it was markedly anteflexed. The treatment adopted was, firstly, very careful administration of soup, beef-tea, and small quantities of meat at very frequent intervals; secondly, maintenance absolutely in the recumbent position; and, thirdly, reposition of the uterus by the aid of the sound and continuous wearing of a rather small-sized cradle-pessary. In a month, she removed to the country. Five months later, her condition was very markedly improved for the better. The pessary was continued, and the "rest" treatment, together with the careful feeding, persevered in. Iron in the shape of phosphate was ordered from the first. This patient was able to resume her occupation to a great degree when I next heard of her some months later, and has been steadily and certainly gaining ground, her ultimate complete cure being apparently certain.

In this case, the initial element was, in my opinion, imperfect nutrition, whereby the tissues of the uterus were rendered soft, pliable, and atonic. The next important element was overexertion, whereby the uterus was pushed downwards and its shape altered. The anteflexion became more and more decided; the nausea prevented adequate consumption of food; and a third most important element was added, namely, starvation in a chronic form.

CASE II.—The patient, a lady aged 19, had been very ill for two years when I first saw her. A constant liability to vomiting was the principal symptom, this tendency being most marked on lying down. Four years ago, she had an attack of fever, and has never been well since. She is extremely feeble, and any exertion is distressing. Formerly, she could walk three miles a day easily. The sickness set in rather suddenly; it is now present two or three days in the week, nausea or vomiting occurring the whole day long, but most intensely—and this is a curious feature in the case—on lying down in bed at night. Her appetite is pretty good. The uterus is found to be very sensitive to the touch and softer than usual; the body of the organ is enlarged. There did not appear at this time to be much anteversion present. The further observation of the case showed that the uterus was very unnaturally mobile, and that the organ was subject entirely to the action of gravity, the body of the uterus moving to an abnormal degree forwards or backwards, according to the position in which the patient lay. It was found most difficult to deal with this element in the case; for, while it was evident that steadying the uterus produced an amelioration in the symptoms, this steadying of the organ was most difficult to maintain, owing to the great laxity and size of the vaginal canal. The uterus was too irritable to allow of a stem-pessary. The treatment was discontinued after a time, removal to the country for the benefit of a change of air being necessary; and the further history is not known to me. This patient was treated at the All Saints Institution, and Dr. John Williams also saw the patient several times.

The attack of fever was the primary element in this case; the uterus was weakened thereby, in common with the body generally. The tonicity of the uterus was destroyed, and the nausea and vomiting were occasioned by the incessant bending of the uterus backwards and forwards which the motions of the body produced.

CASE III.—The subject of this case was an American, about twenty years of age, who had been, to use her own expression, "ill all her life". For some years, at all events, her health had been such that she could not enter into society or visit, or walk more than a few yards without extreme inconvenience. The first occasion of the illness appears to have been dancing during a catamenial period. Menstruation is now very irregular, the interval being sometimes as much as three months. Nausea is very commonly present. There is a very troublesome leucorrhœa. Of late, menstruation has become painful. There is a high degree of "nervousness", and this has much increased of late. There is a constant pain in the back, and frequently pain in the groins. The uterus is congested, softened, anteverted, and so low down in the pelvis that the fundus of the organ is felt

almost immediately on introducing the finger through the vaginal roof. The sound does not enter easily. The treatment consisted in rest; use of the sound, by which the uterus was gradually elevated; and constant wearing of a cradle-pessary. After two months' treatment, the patient left, and was found, at the end of six months, so much better that she was considered to be practically cured. The use of the pessary was continued in all about eight months. Locomotion was easy and natural, and the result extremely satisfactory.

In this case, over-exertion in dancing at the menstrual period gave rise to anteversion and descent of the uterus. The symptoms were produced by this unnatural position of the organ; and the congestion, also a very important element in the case, appeared to be kept up by this position. Very little was done except to replace the uterus and to maintain it in its place; but the symptoms, so long continued and intractable, were by these measures subdued, and the natural activity of body restored.

CASE IV.—The patient was single, aged 23. The illness, in its present form, has lasted six months. Menstruation was irregular from the first, the interval being occasionally six months. Latterly, the periods have been regular; but since four years ago, at which time she injured herself by a leap, the periods have been painful. The patient is now unable to sit upright, and she can only walk a few minutes without suffering. She had previously been active. There is a constant pain in the back. The uterus was found to be soft, congested, and anteflexed; introduction of sound painful. The treatment at first consisted in dorsal decubency and occasional use of the sound. Later on, a cradle-pessary was used, and the patient went to the country. Complete restoration of health was the result, the power of walking gradually returning.

In this case, the general health was not much impaired. The case was a well-marked instance of displacement of the uterus occurring suddenly and rendered chronic. The morbid condition had latterly become aggravated, and the power of locomotion destroyed.

CASE V.—In this case, the patient, who had formerly been able to walk for as much as two hours at a time, was single, aged 27. Catamenia formerly very irregular. Walking is productive of great uneasiness and pain; a bearing down sensation always follows. There is frequent nausea on sitting up the first thing in the morning. It is evident that the chief illness dates from a period of three years ago, when the patient injured herself in drawing a cork from a bottle. This gave great pain at the time, and pain continued to be felt in the side for some weeks afterwards. There is leucorrhœa, occurring in the form of occasional gushes of fluid, evidently from the cavity of the uterus. The uterus is half an inch too long, anteverted; but the sound passes in easily, and reduction is easy. The organ is soft and pliable. The general health is bad; there is great feebleness. The general treatment ordered was restorative; rest was enjoined, and the uterus supported anteriorly by means of the cradle-pessary. In satisfactorily effecting this latter object, great difficulty was experienced, owing to the abnormal length of the uterus. A certain degree of improvement for a time followed such treatment as I was able to carry out, only seeing the patient once at intervals of a few months. The general nutrition of the body had received a shock, which it was, however, difficult to withstand; and the patient has not yet recovered from the extremely feeble condition to which she had been reduced.

This case is a most important one, as exemplifying the occasional severe form which uterine disease may assume. The general health had become so much affected that little or no restorative power was at command, while the peculiar mechanical difficulties of the case also conspired to interfere with the efficiency of the treatment.

CASE VI.—The patient, aged 27, had, just before her marriage, or rather more than a year ago, experienced considerable discomfort following a very severe day's riding on horseback. She remained ill for some weeks afterwards, and appears never to have got over the effects of it. She has never been able to walk without pain since. The pain produced by walking extends over the body in various directions. Menstruation is painful. The uterus is found to be acutely anteflexed. For some few weeks, the patient was kept lying down; the uterus from time to time unbent by aid of the sound, and retained in its proper position by a cradle-pessary. She left town at the end of this treatment, continuing to use the support and feeling much better. She slowly but certainly regained her power of walking, and has remained quite well since.

This case is interesting as an instance of acute bending of the uterus produced suddenly by severe exertion. The uterus in this case was not so soft as in most of the other cases. The general health had been, on the whole, good prior to the occurrence of the displacement.

CASE VII.—The lady the subject of this case was twenty-six

years of age. She had been married over seven years; there had been no pregnancy. For several years, she has not been well. There is a general feeling of prostration; always "weak"; cannot walk more than a very short distance. Menstruation is abnormal, the discharge occurring in a hesitating, interrupted, prolonged manner. There is leucorrhœa. The uterus is severely anteverted, and the os uteri very far back and difficult to reach; in fact, there is a marked degree of anteversion as well as antelexion. The treatment carried out in this case consisted mainly in elevating the body of the uterus anteriorly by means of the India-rubber-covered cradle-pessary, the horizontal posture, avoidance of the sitting position, and a careful nutritious dietary. The sound was used about once in two months, the patient being only seen at long intervals. The general improvement was very great after the lapse of a year; and subsequently the improvement continued in a very satisfactory degree, with occasional relapses.

The general nutrition was at a very low ebb in this case; the tissues of the uterus pliable to a great degree; and the long persistence of the malady was a very unfavourable element to deal with; but ultimate complete restoration to health may be anticipated.

CASE VIII.—The lady the subject of this case was single, a little over thirty years of age. Some hereditary weakness of constitution was evident. A severe illness occurring soon after menstrual commencement (diphtheria) left much prostration behind it. Of late years, suffered much from backache; and a fall one year ago seemed to have increased the intensity of various uterine symptoms. Menstruation is painful. There are frequent pains of a lancinating character radiating from the pelvis. There is emaciation. The appetite is very bad. Power of locomotion much reduced; chest stated by an eminent physician to be sound. On examination, it is ascertained that the uterus is anteverted in a very marked manner; the os uteri so far back that it cannot be reached, and the body of the organ enlarged. The treatment ordered was, maintenance of the recumbent position as much as possible, and use of a very small India-rubber air-ball pessary. This answered perfectly in restoring the patient to a condition of comfort; and the improvement obtained was, as I have since heard, permanent.

A feeble weakened state of system, a chronic severe form of anteversion, intensified by a fall, loss of comfort, and inability for all kinds of exertion, were the leading features of this case. The greater part of the discomfort evidently proceeded from the position of the uterus.

CASE IX.—The patient was a single lady, aged 27, who had never been "strong", in the ordinary sense of the word. The illness is of five years' duration. There is great discomfort produced by walking; a peculiar sensation in the groins is felt on making the attempt, also a feeling of nausea. Catamenia regular; have been occasionally painful. Uterus apparently enlarged anteriorly; sound not passed completely, owing to some difficulty. It was at first thought that a small fibroid tumour might be present in the anterior uterine wall: an idea dissipated by further knowledge of the case. A small air-ball pessary was ordered and tried, but it did not answer; and a little later a rather large cradle ebonite pessary was adjusted (No. 4) with the large ring posterior. This was worn without discomfort. General restorative treatment was ordered. At first, little ground was gained; but, after about a year, information reached me that the patient was much better.

This was a very severe and difficult case. The uterus was a little enlarged and anteverted, but otherwise, I believe, natural. The malady was one of very long standing, the uterus having in course of years sunk lower and lower. The nutrition at large was affected profoundly by the inability to take food, this inability being due to the nausea produced by the displacement and enlargement of the uterus. The time occupied by the cure is necessarily long under such circumstances.

CASE X.—In this case, that of a single lady aged 33, it was elicited that the patient had had bad health ever since she left school, where, apparently, she was very insufficiently fed. There are pelvic aches and pains. Locomotion is attended with pain, and occasionally induces giddiness and oppression of breathing. On two occasions during the last year, there have been noticed attacks of a semiepileptic character—something beyond a mere hysterical attack, so far as can be learned. The uterus is found to be retroflexed, its tissues very soft; no great tenderness to the touch. Constant leucorrhœa; occasional swelling of the feet. The patient is thin, takes little food, and is generally weak. The recumbent position on the side and occasionally on the face, avoidance of sitting, reposition of uterus by the sound at intervals of a few days, adjustment of a Hodge-shaped small-sized pessary, and carefully arranged dietary, constituted the treatment.

The pessary was worn continuously. There were no more "attacks"; the lady gradually and certainly improved. She was treated for a short time only, at intervals of six months; and, at the end of a year and a half, a quite satisfactory result obtained. Strength of body was restored; also power of walking. The uterus had not, however, sufficiently fixed in its proper position to remain so unassisted by the pessary.

In this instance, the disease had, I believe, slowly developed itself. The first causal element was the malnutrition at school. The retroflexion had probably become much intensified during the past year, causing the convulsive attacks above described.

CASE XI.—The subject of this case, a patient aged 26, had never enjoyed robust health. There was some time ago a "weakness" of the spine, necessitating much lying down. Backache, menorrhagia, frequent morning-sickness, and inability to walk, have been constant symptoms for a period of four years, and in a less degree longer than that. The patient is feeble in every sense of the word, quite incapable of any kind of exertion. The uterus is exceedingly sensitive to the touch; its tissues are very soft and entirely wanting in firmness; it is anteverted, and passage of the sound painful. There is an œdematous condition of the tissues around the uterus. This patient was treated on the same principles as others before described: a constant recumbent position; support of the uterus by cradle-pessary; and a most careful dietary, consisting for the most part of soup; tonic medicines also. The greatest difficulty was experienced in rousing the nutritive processes into anything like a state of activity, and nothing but great perseverance was adequate to deal with this. Improvement slowly followed, beginning when the patient could be got to take a moderate amount of food regularly. From an emaciated condition, she changed, after a year's treatment, into one of stoutness, and the power of locomotion was decidedly mending. For some months, she was not permitted to walk further than across the room. The uterus gradually lost its great sensitiveness, and its tissues became perceptibly firmer. The complete restoration to health may be expected.

This is an exceedingly typical case.

CASE XII.—In this instance, the patient was single, aged 32. She suffers from a sensation of soreness and pressure anteriorly in the pelvis. She has never been able to walk much, but this difficulty has very much increased of late. It appears that a severe shake and blow received in a carriage accident nearly two years ago had a considerable share in causing the present state of things. The patient feels very "nervous", in addition to other symptoms. The uterus is found anteverted in a marked manner. It is a little longer than usual; the vaginal canal is very lax. The use of a cradle-pessary was in this case attended with marked benefit.

This case was, perhaps, hardly severe enough to bring it into quite the same category with the preceding cases, no general condition of feebleness having been present, and the case being of a more acute character; but it is interesting as exhibiting the first stage of the malady, before there had elapsed sufficient time to produce the more severe and troublesome symptoms.

I conceive that a careful consideration of the facts relating to these cases leads necessarily to the conclusion that the constitutional or general disturbance was an extremely important element in their pathology. The very great general weakness was a prominent feature, and so important did I consider it, that the very greatest care was bestowed in rectifying it. The cases related were, in fact, cases in which the general, as opposed to the local ailment, might have been considered by many as the only one demanding attention. While, however, it was undoubted that the general ailment was great, the evidence was to my mind not less convincing that the local ailment was very considerable. To the recognition of the twofold nature of these cases, and to the circumstance that the cases were managed in accordance with this view, must be attributed the success which was obtained in their treatment.

The views which I have been induced to take in regard to the pathology of such cases as those above cited I now submit for consideration. They involve nothing very surprising; nothing, perhaps, very novel, inasmuch as they imply the application of what may be termed well-recognised general principles. Cases such as the above have made me acquainted with the fact that, under certain circumstances, the nulliparous uterus loses its natural firmness, tenseness, and solidity; that, without any great alteration in its bulk, it may be found to have certain of its physical characters notably altered, these alterations consisting in a very marked softening and want of resistance of the tissues of the organ, recognisable by the touch very easily so far as the os and vaginal portion are concerned, and inferentially present also in the tissues of the body of the uterus. This softening of the tissues of the uterus may proceed to such an extent

that the softness of the os uteri resembles that present in pregnancy. There is an utter absence of the normal "tonicity" of the structures, and there arises a consequent plasticity of the tissues which is abnormal. The whole uterus, thus softened, becomes, as a necessary consequence, unduly pliable and at the mercy of external disturbing mechanical agencies. This particular condition of the uterus is to be met with in the class of cases above related, and my observation of its frequent occurrence impels me to attach much importance to it as a pathological element.

I am aware that the fact of the existence of softness of the nulliparous uterus has been contested by my friend Dr. Tilt, who, criticising some observations published by me in the course of the last year, stated that, according to his experience, softness such as here described has no existence. I am sorry to find myself at issue with Dr. Tilt on this subject. The matter is one of observation, and of the accuracy of my own observations on this matter I feel confident.

The character of the cases in which it is encountered leads us necessarily to the conclusion that this softness, loss of tonicity, want of resistance of the uterus, is dependent on an impairment of the nutrition of its tissues; that the uterus is badly nourished, and that its weakness is the natural outcome of this defect. They are cases, in fact, of malnutrition of the uterus. The arguments in favour of this view seem to be convincing. In the worst of the cases I have met with, the general health was almost invariably in a very weakened state. The patient had for a lengthened period eaten very little. The condition of the muscles generally, the absence of fat, the great languor, general debility, want of appetite, and other not less significant symptoms, pointed to the conclusion that these patients were suffering from chronic semi-starvation, and that the tissues of the uterus were weakened in common with those of the other organs of the body. The results of the application of an invigorating system of dietary in producing both local and general improvement offer corroborative evidence in favour of the exactness of this view.

The malnutrition of the body at large, in which the uterus in these cases so prominently shares, may be brought about in various ways. The most common cause with which I am acquainted is ignorance, on the part of those having the responsibility of the bringing up of young women, of the great necessity for regular full meals of animal and nourishing food when the system is rapidly developing and growing between the ages of twelve and seventeen. That the seed of many diseases is thus laid is incontestable. It was indicated in the clearest manner by inquiries into the previous history of most of the cases above delineated, that there had been some serious defects in regard to the dietary of the patients, more particularly at the critical age indicated. A deficiency of animal food was a marked feature.

It is well understood that the weakening influences of an insufficient dietary show themselves in different ways in different cases. The consequent atrophy and weakness usually, however, affect more decidedly one particular organ: in one case the lungs, in another the brain, and certainly sometimes the uterus. In the cases above related, the uterus was the organ which gave most evidence of actual textural change; but it may be that this organ—the uterus I mean—is more often in a feeble condition as regards its nutrition than is suspected, for attention is not necessarily attracted to it in the slighter forms of the malady.

It cannot be doubted that the uterus preserves its normal shape, for the most part, by virtue of what may be termed its tonicity and natural rigidity. Its walls are of considerable thickness; at the point where the organ is most liable to be bent, its canal is extremely small, and its walls, proportionately to the canal, actually thicker than elsewhere. Moreover, these walls are normally endowed with considerable firmness and solidity. But in the cases above described these conditions are different. Softness and want of rigidity are substituted for firmness, and the fundus of the uterus is consequently at the mercy of external circumstances to a very serious degree. The most common result is, that the uterus, having normally a very slight tendency to anteverision, becomes more anteverted. This, a little later on, changes to slight flexion. This implies compression of the tissues in front of the internal os uteri. Any one who will take the trouble to make a vertical section of the uterus will see that to bend the organ must have the effect of compressing the tissues at this situation. It is the resisting power to this flexion residing in the normal uterus which is the principal safeguard against the occurrence of flexion; and, when this safeguard is destroyed by the loss of rigidity and tonicity in the uterine tissues at this situation, the further effects follow: the uterus is bent, and may remain persistently bent.

The precise condition of the uterine tissue described here as one of softness is an interesting study. The imperfectly nourished uterus is, I believe, almost always unduly soft. This softness may be conceived to be due either to actual deficiency of the muscular element or to de-

fective nerve-action whereby the vaso-motor apparatus of the uterus is impaired and the vessels allowed to become unduly congested; or the softness may be due to the two conditions associated. Undue softness of the uterus I have occasionally observed to occur in what might be termed an acute way in cases where the uterus had been known to possess its normal firmness a short time previously. This temporary softening of the uterine tissues, another designation for which would be "temporary congestion", would seem to imply presence of disorder of the vaso-motor apparatus. The term "chronic inflammation" would be applied to this condition of softness of the uterus by some authorities. I do not use it because it differs from chronic inflammation in several important particulars in the typical cases above alluded to. There was, for the most part, no particular tenderness; generally there is no swelling; there may be no excess of secretion. It is quite true that these symptoms—tenderness, swelling, and excess of secretion—are frequently added later on; but the softness by itself precedes the other conditions, and it is the softness itself which I am particularly anxious to direct attention to, considering, as I do, that it is the initial element of importance in the cases.

The feature to which I have particularly desired to direct attention is the incapacity for locomotion evident in all the cases. The soft pliable condition of the uterus appears to me to be responsible for this. Motion of the body generally alters the position and shape of the uterus; and, this alteration of shape being productive of pain and uneasiness, locomotion is thus interfered with. Pain produced by motion is a frequent phenomenon in many cases of flexion of the uterus, but in these particular cases the impairment of locomotion is extreme in degree. In Chassaignac's work on operative surgery, published in 1862, occur some very practical remarks bearing on this question. Chassaignac expresses his opinion that the pains and discomforts with which cases of deformity or displacement of the uterus are attended are due to the "ballottements" or jars which the uterus so affected undergoes. He points out the absence of discomfort in the horizontal position; the effect of such treatment as conduces to keeping the uterus in a state of rest in preventing pain and giving the patient ease. I have long held views identical with these of Chassaignac, but I only quite recently became acquainted with his writings on the subject. It is necessary, however, to carry the explanation a little further, in view of the clinical facts adducible. Pain is, indeed, produced by motion—frequently, indeed, in the way pointed out by Chassaignac; but fundamentally it occurs because such motion increases the flexion of the uterus, which increase is of necessity painful to the patient. There is, as a rule, freedom from discomfort during lying down; but the moment the body is placed vertically, the soft uterus gives way. The good effected by the night's rest in bed is undone by the exertion of the following morning. I consider that the chief cause of the pain is the compression or squeezing of the uterine tissues at the concave side of the bend which accompanies increase in the degree of the flexion. This explanation is amply sustained by the clinical history of such cases. Chassaignac's explanation, that shaking and jarring of the uterus are thereby prevented, is a part, but only a part, of the *rationale* of the efficacy of this rest. It is, indeed, surprising how immediately discomfort is made to cease when such steps are taken as are calculated to prevent the motion, anterior or posterior, as the case may be, which the fundus uteri is disposed to take when left to itself; and how immediately it returns in the absence of such curative procedures.

My view is, that the relation of the phenomena observed in the cases now under discussion to the pathological changes or physical alterations of the uterus may be expressed concisely as follows.

1. The discomfort in walking, or produced by the vertical position, is due to an alteration of shape of the uterus.
2. The alteration in the shape of the uterus may be quite temporary, though by a process of repetition it tends to become permanent.
3. A softened condition of the uterine tissues renders the organ very liable to such alterations of shape as will give rise to uncomfortable sensations or even to acute pain.
4. The softened state of the uterus is usually associated with general debility of the whole system.
5. The softening is essentially an indication of malnutrition of the uterus.

The practical conclusions to be drawn from the foregoing considerations, as regards the curative procedures necessary in this troublesome class of cases, range themselves under two heads: first, the general state of the patient; and, secondly, the local disorder.

I have insisted on the defective general nutrition present in such cases as one of the prominent features. It is primarily necessary to devote very particular attention to this matter. According to my experience, it is frequently a matter of the greatest difficulty to ensure

observance of the dietary ordered; and, unless these directions are perseveringly attended to—and it may be necessary to extend this over several months—no satisfactory results will be obtained. A patient whose vital energies have been much lowered cannot be restored to a condition of vigour in a short time; and it can, I believe, only be accomplished in one way—*i.e.*, by feeding the patient very frequently with very small quantities of food at a time, that food being chiefly animal food. I have had cases in which very material improvement in the general nutrition of the body was only obtained after months of assiduous treatment in this way; but I have hardly known a case where it has really failed eventually.

The second part of the treatment is the remedying of the diseased condition of the uterus. The principal indication in a not very severe case is in some way or other to prevent the uterus taking a vicious shape or position. While it is soft and the flexion not confirmed, this is generally readily done by simply ordering the patient to maintain the horizontal position; on the back, if there be anteflexion; on the side, and occasionally on the face, if there be retroflexion. And, so long as the uterus is unaffected by the tonic measures adopted, these precautions are required. When the case is a confirmed one, however, and the flexion an established one, the position-treatment of the body, as a whole, is insufficient. Under these circumstances, a more direct treatment of the uterus itself is imperative. If the flexion be not treated, the uterus may become confirmed, literally hardened, in its abnormal shape. Added to which consideration is another, that, with a properly adjusted pessary, the patient may frequently be allowed a considerable amount of out-of-door exercise, and thus be able to get fresh air: a very important desideratum from every point of view.

In most of the cases which have come under my notice, I have limited local treatment to the simple carrying out of this principle of keeping the uterus from becoming flexed and displaced; occasional astringent injections, using warm and never cold water for the purpose. The sound and the pessary have frequently been used conjointly, the one aiding the effect of the other. In one or two cases, I have tried a stem-pessary; but, in a large majority of the cases, vaginal pessaries, the cradle for anteflexion, a modified Hodge pessary for retroflexion.

Many other *adjuvantia* would naturally suggest themselves in the management of these cases, on which I have no space to dilate. Remedies to assist the digestion, always weak under such circumstances: iron and quinine, sea-water baths, other baths containing bromine and iodine, all these and many others might be mentioned, which I have utilised in different cases with advantage. But the essence of the treatment has been to strengthen by nourishment the system at large, and to maintain the uterus in a state of quiescence and freedom from movement until it has recovered itself and is rendered strong in common with the bones, muscles, and other organs of the body.

NOTES ON SEA-SCURVY.*

By SIR WM. SMART, M.D., K.C.B.,

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AFTER a long disappearance from the sick-reports of the navy, this disease has recently caused the return of an exploring expedition which had been equipped with unprecedented liberality in all that could have been anticipated to conduce to its success, so far as sanitation is concerned. It may, therefore, be useful at this juncture to recall some of the leading points in the history of the disease.

Scurvy would appear to have been common among the Slavic nations, from its name being a derivative from *scorbs*, a Slavic root-word signifying disease in general. It was felt much earlier on land than at sea, and, three centuries after its ravages began to be felt in ships, it was pronounced by physicians of high repute to be not the same disease as land-scurvy. It certainly has been a scourge of armies from the Roman age down to the siege of Sebastopol, especially in besieged towns. There are fair grounds for crediting its presence amidst Roman legions beyond the Rhine and in Arabia; but, in the crusade of 1260, it almost destroyed the contingent of the French nation in Egypt on its way to the Holy Land; but, whether it commenced on the voyage or after landing in Egypt, there are no means of judging; this occurrence may, however, be as so far a doubtful link between the land and sea histories of the disease. When long voyages at sea commenced with the glories of discovery of the way to India, it began to afflict seamen in a notable manner, and from that time it has been a disease of fleets as much as of armies. In all these European regions,

it was generally attributed to cold and wet; but Sinoupeus (1734) affirms that, in Tartary, one of the driest of climates, scurvy was as destructive of life in epidemics as small-pox (still unknown there) was in Europe, and we know that milk and its products, with fresh animal food, with rarely any vegetables or fruits, have been through all ages the dietary of the Tartars.

Again, it is certain that the early colonisers of North America, whether English or French, found their efforts almost frustrated by these outbreaks. Cartier, in his second voyage (1535) to Newfoundland, states that the pestilence prevailed amongst the Indians in December; and that, at the middle of February, a hundred and ten of his countrymen had perished, and not ten remained in the whole of the French colony. But a remedy for it was found in the juice of a certain tree—the ameda—made known to them by the Indians. This teaches us that the disease commenced its ravages when the colonists fed on salted meats and fish without vegetables, and were unable to leave their forts for weeks in the winter on account of the ice; and that it disappeared with the appearance of verdure on the trees of which they partook; so that, after April broke, hopes and assurance of safety returned. This lesson in prognosis ought never to be forgotten by anyone compelled to pass long periods in Arctic regions. The same things happened in our own colonies, from Hudson's Bay to Charleston, many of which were nigh to being abandoned from that cause; but the disease is now unknown there, although the climate and seasons, and the duration of winter and of day and night, are unchanged.

Scurvy was well known as a winter disease on land for ages before its being noticed as a disease of seamen, which is accountable for in that voyages entailing a long absence from the shore were not undertaken before the end of the fifteenth century. There is no evidence that the companions of Columbus suffered in any marked degree from this disease; but it must be remembered that they started from a southern port of the peninsula in the month of August, the season when fruits and succulent vegetables abound there, so that it is not unreasonable to suppose that they were then in a very healthy state, and that they most probably took away with them supplies of what forms the main element of the diet of Southern Europe at that season, and their glorious voyage of discovery, such as the world had never before seen, occupied only ten weeks from shores to shores where succulent fruits grow wild. It may have been the same among the Portuguese voyagers, who crept slowly along the Western Coast of Africa, rarely out of sight of the land. But it was different when Vasco da Gama sped boldly along sandy shores and reached the Cape of Good Hope, at which he arrived with his crews enfeebled by scurvy, who there recovered their vigour and spirits, to suffer once more when they struck across the Arabian Gulf for the shores of India, as Casteneda relates that, out of one hundred and sixty men, more than one hundred perished, mostly by scurvy. Until this occurred, history had not recorded the disease since 1260, when it destroyed a French crusade or its way to Palestine.

With reference to our own seamen, it is known that, from the reign of Henry VII, they began to undertake long voyages, first to the Levant, and, in the infancy of our navy, in the reign of Elizabeth, to follow up the Spaniards in the Caribbean Sea and round Cape Horn into the Pacific, and, in the days of James I, to pursue in the track of the Portuguese and the Dutch, round the Cape of Good Hope, an enriching commerce with the East Indies. The great admirals Hawkins and Drake gave accounts of the ravages of scurvy in their squadrons, and the former stated, in 1593, that, in twenty years of sea-life, he had witnessed the destruction of ten thousand brave mariners by scurvy alone. His experience must have been acquired in voyages to the Spanish Settlements in the West Indies, to Peru, and to the coast of Guinea, from which he was the first to transport negro slaves for the service of the Spaniards in America.

Our earliest voyagers to the East Indies, profited, no doubt, in some measure, by the experience of their forerunners, the Portuguese and the Dutch, of whom the former had learned to prevent and to cure scurvy by the use of lemon-juice, and the latter by the use of sour-kroot as a sea-ration, although its previous ravages on their crews had given to it the name of the Dutch disease amongst our own seamen. Our greatest of medical cyclopedists, Dr. Copland, having been favoured with an investigation of the records of the East India House, learnt from them, what had previously been related by Harris and Purchas in their *Collections of Voyages*, and quoted from them by Dr. Lind, in his work on *Scurvy*, page 156, as "a remarkable and authentic proof of the great efficacy of juice of lemons against this disease", that, in 1609, there were four ships despatched as usual on the voyage, out of the crews of three of which nearly one-fourth died of scurvy, while in the commodore's ship none were at-

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tacked. This immunity of one ship was attributed to the use of lemon-juice, of which three tablespoonfuls were served daily to each of the crew. Possibly, in all the previous voyages from 1600, the date of Queen Elizabeth's charter, all the four ships constituting the convoy had been accustomed to suffer equally, and, as Commodore Lancaster must have been a well skilled conductor on the same service, he probably had heard of this preventive from the Portuguese or the Dutch. However this may have been, his demonstration was fruitful of good results to the seamen employed by the Company in the provision of lemon-juice for future voyages.

The first writer on it in English as a disease of seamen—John Woodall, surgeon—made several voyages in the East India Company's ships, and had thus acquired the strongest confidence in the value of lemon-juice as a prophylactic and a remedy for scurvy. He was afterwards employed by the Company in the management of the medical affairs of its ships, and the procurement of supplies of medicines and comforts for the sick in their employ. In that capacity, he wrote the first edition of his very interesting work, *The Surgeon's Mate*, in 1617, when in the East India Company's service, and the second edition in 1639, when in the service of the Crown, having been appointed the first medical supervisor of the medicine-chests and instruments of naval surgeons, who then provided their own paraphernalia on a voluntary allowance from the seamen's wages.

Woodall's remarks on scurvy, and its preventives and remedies, underwent no material change in his second edition, and, being based on his personal experience at sea, they are particularly interesting on that account, as well as from their being the first description of the sea-scurvy found in English medical literature. For its pathological cause he adopted the theory of disease of the spleen, which had been originated by the Dutch physicians, who considered it to be the enlarged spleen of which Hippocrates wrote. The predisposing cause, he thought, arose from any of the causes of general debility, such as that remaining after fevers when seamen return to duty before their convalescence is perfected; and the chief exciting cause to be the prolonged use of salted meats or fish and of impure water, without *aqua vite* or wine "to comfort and warme their stomackes". He also mentions the want of proper clothing, and the practice of "not keeping their apparell sweete and dry", and the ill-ventilation of their berths. He affords a graphic account of the lesions of the spleen, liver, and lungs found in fatal cases. "which do afflict poore seamen, which often are past man's help, in such place and time as they happen." The best of preventives being good sea-victuals and the supplying of the "juices of oranges, limes, or lemons, wherever the ship touches land, which are better than any taken away from England. And yet", he states, "there is a good qualitie of juice of lemons sent out in each ship out of England, by the great care of the marchants, and intended only for the reliefe of every poore man in his neede, which is an admirable comfort to poore men in that disease. . . . The use of the juice of lemons is a precious medicine, and well tried, being sound; let it have the chiefe place, for it well deserves it, the use whereof is: it is to be taken each morning, two or three spoonfuls, and fast after it two hours; and, if you adde one spoonful of *aqua vite* thereto to a cold stomacke, it is the better. Some chirurgeons also give of the juice daily as a preservative, which course is good if they have store, otherwise it were best to keepe it for neede. I dare not write how good a sauce it is at meat, lest the chiefe in the ships waste it in the great cabins to safe vinegar. In want whereof use the juice of limes, oranges, or citrons, or the pulpe of tamarinds; and in want of all these, use oyle of vitriol, as many drops as may make a cup of beere, water, or rather wine, if it may be hadde, onely very little as it were soider, to which you may also adde sugar, if you please, or some syrups, according to your store and the necessitie of the disease, for of my experience I can affirme that good oyle of vitriol is an especiall good medicine in the cure of the scurvie."

These quotations serve to prove that the value of lemon-juice was known as the best of preventives and curatives of scurvy, and that it was used, as such, generally in the East India Company's ships immediately after the demonstration of their worth in the voyage of 1609 referred to by Lind and Copland, although Lind made no mention of him or of his writings in his very elaborate treatise on, and bibliography of, the disease.

To plain John Woodall, "ship's surgeon and master in chirurgerie", who became ultimately surgeon of St. Bartholomew's Hospital, we are also indebted for the first concise view of the predispositions to scurvy, lamenting, as he does in his sensible preface, that "it is strange, in so many ages past, that no one chirurgeon of our countrey men hath out of his experience taken in hand sincerely to set down to posterities the true causes, signes, and cures thereof; neither left any instructions, caveats, or experiences for the prevention and cure thereof", which

words show up the barrenness of our literature regarding scurvy up to the date of his memorable descriptions still worthy of our study. But, nevertheless, this must ever be borne in mind, that Woodall was building on the experience that he and others had amassed in temperate or in tropical climates, where all the resources of treatment, in prevention and in cure, were surely obtainable in, at least, the near future. It did not lie within his theme or scan to dilate on the ravages of scurvy in the Arctic expeditions of Willoughby and Frobisher, in regions where none of these resources are possible, in which it has been later proved that scurvy will appear, and cannot be eradicated by an abundance of lime-juice and fresh meats.

Between 1667 and 1675, Drs. Willis, Charleton, and Gideon Harvey, of whom, Charleton had served in the fleet, and Harvey, who had volunteered to do so in the Dutch war, wrote concerning scurvy; but their works are of but little practical importance, as they assumed the chemical views of the age, which rendered them valueless in comparison with the simply practical work of Woodall.

In 1696, Dr. Cockburn, who served as physician of the Channel Fleet, writes in his volume *On Sea-Diseases; or, A Treatise on their Nature, Causes, and Cure*, in which he gave a fair account of scurvy, with a memorable instance of the benefits derived from setting the affected on shore in tents at Torbay, and supplying them with fresh provisions and vegetables, the result of which was, "the most pitiable objects were in a week able to crawl about, and, before the fleet sailed, they returned healthy to their ships". He considered the main cause to be in the foulness of the air in ships, and the chief preventive to consist in thoroughly ventilating them. So far, he taught one of the most essential of hygienic precautions, which, however, it would ever be extremely difficult to apply in ships housed in for the winter in the Arctic regions, as has been lately exemplified. The eighteenth century was that in which the navy of Great Britain attained to the supremacy of the ocean, after having fought for and secured that of the British Channel in the preceding age. It is strange, however, that, throughout the eighteenth century, the domestic affairs of the fleet underwent scarcely any change. That want of progression, so far as it concerned the health of the seamen, was among the causes of disaffection that culminated in the great mutiny of 1795, which, like the great fire of London, led to inestimable benefits by eradicating scurvy, just as the great fire had done for the Plague.

The dietary of the navy was inadequate in quantity; it was left to merchants, who studied their own interests as the prime motive of action; and these were carefully guarded by their nomination of the officers in charge of the victualling stores. The corrupt condition of the rations, added to their smallness, must have been an unceasing cause of scurvy in our fleets, and our seamen lost tenfold as many by this disease and its cognate ship-fever in an age when, mainly by her victories at sea, Britain secured to herself the continent of North America, and that supremacy in the Indian Sea, without which she could never have laid the foundation of her Empire of India.

The dietary of that century gave, per week to each man, four pounds of salted meat, beef which, for its hardness and want of sapidity, was jocularly termed "salt horse", and pork which was too often rancid beyond man's powers of digestion; seven pounds of dry unfermented biscuit, which none could masticate and swallow without fluids to assist these processes; one pound and a half of wheaten-flour for puddings, which sometimes contained salted suet, an easily perishable commodity, or in lieu of that a sprinkling of raisins, which, in his grumbings, the sailor said required the beat of the drum to make them show themselves; burgoo, the contemptuous word for oatmeal porridge, which, it was said, the English sailor abhorred, although it was his only warm food before the sun had crossed the meridian, and boiled peas with his salt pork. All the farinaceous food being frequently half eaten up by scarabaceous weevils and by larvæ, which were served as an equal weight of bread, and consumed with the good-natured comment that "what doesn't poison will fatten". Now and then, rancid butter, and cheese that crawled, were an indulgence, and the salted flesh-meats were substituted by salt fish, or by unsalted stockfish, which more quickly putrefies; and with such a diet as this, he passed weekly two banyan days, without any animal food. As a diluent, he was given daily a gallon, or as much as he would drink (which plan was a saving to the victualler) from a barrel of very weak, vapid, acescent beer; and when that was expended, he had such viands or spirituous liquors as the purser could procure on the station, always of the cheaper sort.

It cannot be wondered at that, fed on such a meagre ill-conditioned "full" diet, with no water to drink but what had stood long in wooden casks, and no air to breathe when below, by night or day, but that which was more or less damp and vitiated by foul odours, the seamen too often became a prey to scurvy. But the above were the best food conditions of the common sailor's sea-life. And beyond this, medical

history adduces proof that, when thus sickly, or from their ships becoming weather-beaten or damaged in conflicts, they returned home to refit ship and to recruit their own strength, it was not always that any fresh meats and vegetables were issued to them—at the best beyond two days a week; and they themselves, unless they had but recently shared prize-money, had not the means of supplying their own wants and necessities, as no pay was forthcoming till the end of the commission of their ship. In their rude appreciation of the social causes of their great sufferings, our seamen, imposed upon by the attestations of some, credulously believed for generations that one of the class to which they imputed their misfortunes—the contractors to whom the Navy Board deputed the victualling of the fleet, who made the lives of seamen subordinate to their own unhallowed gains—had been carried from London, the centre of his trade, in the arms of his Satanic majesty, flying through the air, and plunging with him into the flaming abyss of Mount Stromboli. Perhaps this tradition is not yet extinct in lower-deck messes.

By a long series of judicious ameliorations of the seamen's condition, all this has undergone a radical change in the present century; and so strong is now the voice of humanity that, even when a merchant ship has returned with a scorbutic taint amongst her crew, the causes are officially investigated, and blame awarded where due; while in the case of the Royal navy an exhaustive inquiry is instituted, more from the desire of prevention than of reprehension, as such an occurrence can only have arisen under exceptional circumstances that could scarcely have been foreseen. Indeed, it may be safely asserted that, so great is the liberality of the naval administration in providing sanitary and dietetic precautions, and so great the anxiety of officers, supported by their confidence in that liberality, that none would designedly incur any risk which they might prevent, of having a single case of scurvy amongst their crews. Now-a-days, there is no issue of "putrid beef, rancid pork, mouldy biscuit and flour, or bad water", which Lind deprecated as causes of scurvy, adding, "which are misfortunes common at sea".

Very little was heard of scurvy in the navy throughout the seventeenth century, owing to short wars being waged at no great distance from our shores; but, with the commencement of the Spanish wars in 1718, the same conditions afloat were restored as in the latter reign of Queen Elizabeth; the coasts of America being again one of the attractive points for naval operations, frequently frustrated by the scurvy and fevers. The deplorably inefficient state of Admiral Hosier's fleet in 1726, and of Lord Vernon's in 1741, both in the West Indies, was brought on by scurvy from defective provisions. About the same time, the dreadful sacrifice in Lord Anson's crews was from the same conditions, which broke out after passing the Straits of Lemaire, when, between April and the middle of June, the *Centurion* alone had lost above 200 out of 500 men, and the *Gloucester* nearly as many. They reached Juan Fernandez, and landed the sick, 169 in number, of whom 12 died between the ships and the shore, and about six were buried during each of the following ten or twelve days; when the *Gloucester*, debarking her sick, 80 in number, who had been furnished with fresh provisions and vegetables before leaving their ships, lost none in the boats, and very few on shore. Of the *Centurion's* crew, 292 perished, leaving 214 who recovered; and the *Gloucester* lost about the same number as the *Centurion*, leaving only 82 alive. With this small remnant, the ships left the Coast of Mexico to cross the Pacific, having regained perfect health; and they were then fed on fresh pork and poultry for a considerable time, but with only a scanty supply of vegetables and fruit that would keep sound at sea. They enjoyed also no lack of water, chiefly rain-water, and they caught also an abundance of fish—such as bonitos, dolphins, and albacores—all of the mackerel family; and the ports being kept open, a perfect ventilation was thereby secured and perfect cleanliness was maintained, yet, in less than seven weeks, the scurvy again broke out as badly as ever. Their course at sea lay within the tropical regions, abounding in heat and moisture, and, although the patent signs of scurvy had been cured, yet, for the very reason of previous infections, the crew were more obnoxious to the predisposing and exciting causes. But after another curative course of juicy acid fruits, they were re-established thoroughly; so that, when it fell to them to cruise at sea four months, hoping to fall in with a Spanish galleon, they had no return of the scurvy. Perhaps, no later description of the disease in ships equals the account of this given by the Rev. Rd. Walker, chaplain of H.M.S. *Centurion*. There were two distinct outbursts. The first, in a lengthy voyage from the Caribbean Sea, round Cape Horn to Juan Fernandez; without fresh meats, vegetables, or fruits, the induced conditions becoming intensified on the bleak cold wet passage round the Horn. The second, across the Pacific, with sufficiency of fresh meats, but with few vegetable products to prevent the recrudescence of the former disease, even when the temperature was changed from cold to heat, with dampness of atmosphere. On the two days

previous to reaching Tinian Island, they cast overboard twenty-one corpses and ten died after landing; but the sick in general received so much benefit from the fruits of Tinian, particularly those of the acid kind—oranges—that, in a week's time, there were but few of them who were not so far recovered as to be able to move about without help. This catastrophe should ever be borne in mind, as it shows the difficulty of eradicating the scorbutic diathesis when once displayed in a crew, even by the free use of fresh meat and vegetables, as it is apt to recur under much ameliorated conditions as well as the actual use of fresh meat and fish, and not to become extinct until fruit-acids are obtained, of which this is the most striking instance on record. On the other hand, the positive value of these juices is recorded by Dr. Mead, that, when Sir Charles Wager proceeded from the Mediterranean to the Baltic in 1740 (A.D.), having shipped a large quantity of lemons and oranges at Leghorn, and having heard of their value, he caused a chest of each to be opened on deck daily and issued to the crew; and the happy result was that "he brought his sailors home in good health". (Vide Mead's *Discourse on Scurvy*, page 111.)

Here the time allowed compels me to draw to a close what I would term a first chapter in the history of scurvy, at the point where we have the best description of it as an epidemic in a ship. Not having space here to extend the inquiry further, I must suspend it for the present, at an epoch which should have been a terminal one, viz., when the catastrophe that befell Lord Anson's expedition should have sufficed to prevent the disasters that did not cease to attend our fleets up to the end of the eighteenth century. In closing at this point, it will be well to collect the principles confirmed by the above recorded facts.

1. It is a change in the crisis, or constitution, of the blood, dependent mainly on malnutrition, from the absence of vegetable food and the use of an impoverished meat-diet as *essential causes*, the force of which is greatly influenced by the precedence and coexistence of other conditions, which may be considered predisposing.

2. Its *predisposing causes*, whether on shore or in ships, lie in all causes that debilitate the general strength of an individual, or community; which, as specially applicable to men confined in ships, are—insufficient rations, in kind or quantity; impurity and scarcity of water; exposure to heat or cold, with dampness long continued; vitiated atmosphere; inattention to personal and domestic cleanliness; inadequacy of clothing to the climate, and disregard of its frequent change when wetted; inactive habits, overwork, and depressing mental conditions. It will be justly said, these are but ordinary and not special causes of a variety of diseases, that, however combined, they have never been known of themselves to cause such outbreaks of epidemic scurvy as those referred to; and that, in fact, individuals, communities, or even nations, are subjected to them of necessity in some degree, without the rise of epidemic scurvy amongst them, as it shows itself in besieged towns, in camps, or in ships, and an essential cause is wanting. Granting so much, yet even then it has been, from the very earliest records of sea-scurvy, clearly demonstrated that no epidemic of scurvy has ever been known to have arisen without the previous prevalence of a combination of some of these conditions that serve to destroy the constitutional strength that fortifies against the essential exciting cause. This is quite true in itself, and that essential cause is to be found in the abstention from succulent vegetable aliment referred to; the development of the disease being always an attendant on this, while the force and the continuance of the epidemic or endemic conditions are regulated and modified by the simultaneous operation of the predisposing with the essential causes of the disease. On these grounds alone can any reason be assigned why, in ships, there has always been found to be a very great disproportion in the remarkable fewness of attacks of officers compared with those among the common seamen? Officers are never subjected, under any ordinary conditions of service, to the same amount or combination of the predisposing causes, nor to precisely the same diet, although there may be no difference in their abstention from succulent vegetables which it has been quite impossible to obtain. In fact, it was proved thus early, that the influence of the predisposing causes is of great weight in the origin and progress of every epidemic outbreak of scurvy; and that, without a due regard being had to them, the prevention and cure of scurvy has never been attended with satisfactory results following the measures adopted.

3. From the very commencement of the seventeenth century, when Woodall wrote his observations on Sea Scurvy for the guidance of surgeons' mates, to whom his advice was proffered—in his modesty not presuming to offer the same for the instruction of the surgeons—these things were for the most part known, and also that vegetable food was the best and surest preventive and remedy of the disease; and further, that, when such could not be obtained, the juices of the Hesperidan fruits were able to prevent and to cure it; and that all the virtues of these juices, preserved in shut vessels, were retainable for a long period.

In short, lemon juice was known to be the therapeutic specific for scurvy long before any thing was known of emulona being a specific for ague, or sulphur that for scabies. This, however, must be received with the qualification that neither is a specific in the absolute sense, since there are cases of either of these diseases, in which its so-called specific has been found inert.

4. It is to be lamented that this all important knowledge was so slow in taking root, since it was not officially adopted prior to the last decade of the eighteenth century, when, however, being put into practice, the triumph of it was soon perfected; and scurvy, in the forms and extent that had hitherto prevailed normally, was eradicated from our fleets, and since then has been of little sanitary moment, except in the expeditions sent out on Arctic explorations, which are specialities.

The question may be entertained now, without acrimony, into the causes of the latency, for so long a period, of the principles relative to the origin and treatment of sea-scurvy, so well set forth in the writings of Woodall, the first ship-surgeon who undertook to publish his experience and thoughts in any of the languages of Europe, in a manner which may excite admiration still for its brevity, clearness, and truthfulness. The reason for this is traceable to medical theorists, as much as, if not more than, to naval administrators.

PSORIASIS TREATED WITH PHOSPHORUS "PERLES" AND CHRYSOPHANIC ACID.

By BALMANNO SQUIRE, M.B. Lond.,

Surgeon to the British Hospital for Diseases of the Skin, &c.

PHOSPHORUS has recently awakened fresh attention as a therapeutical agent. It has especially been recommended by Dr. Broadbent as a remedy for leucocythæmia. This suggestion, however, after a particularly patient investigation of it, appears to have fallen through. Dr. Broadbent incidentally remarked, in a discussion which ensued at the Clinical Society, on some improvement which seemed to him to have taken place in a psoriasis which occurred as a complication of one of his cases. It is possible that the discouragement which attended the further investigation of the action of phosphorus in leucocythæmia may have been the cause of this incidental suggestion having been neglected. However, phosphorus had, I believe, prior to that time been tested by Dr. Hardy of Paris, with results which afforded him some encouragement; and, subsequently to the date of the case I am about to report, it has been tried by Dr. Whipham at St. George's Hospital, but with what result it is not quite easy to understand from his description. However, since his paper (published in the *Medical Times* of September 22nd, 1877) is mainly devoted to the confirmation of my original advocacy of chrysophanic acid ointment in psoriasis,* on this account possibly the effect of the phosphorus has been apparently less carefully attended to by him.

During the month of March, Dr. Whipham gave three times a day to a girl of 15, who had psoriasis, a pill containing one-twentieth of a grain of phosphorus. On April 1st, he "found that the psoriasis was rapidly disappearing. The improvement, however, was of very short duration, and, on May 31st, 1877, the eruption was extending on the limbs and trunk"; but Dr. Whipham leaves one in uncertain doubt as to when the phosphorus was left off. Further on in his paper, he again refers to this same case thus: "The psoriasis was disappearing under the use of phosphorus, which was commenced in March 1877. By the end of May, however, the disease was nearly as bad as ever, and it was necessary to discontinue its use in favour of chrysophanic acid ointment." One is, therefore, left with this choice: either that the good effect of the phosphorus went off because the use of the phosphorus itself was discontinued, or that the phosphorus, like Penelope, undid in May what it had done in April, or at least would not do in May what it had done in April. Dr. Whipham eventually cured his patient of what on May 31st was "a copious eruption of psoriasis over the trunk, arms, and legs", by the exclusive use of chrysophanic acid ointment, with the following result; namely, that, "on June 21st, exactly three weeks after the commencement of chrysophanic acid ointment", he found that, "with the exception of one or two spots, each rather less than the size of a pea, on each wrist, she was quite free from all trace of the skin-disease". On July 22nd, he again "saw her, and found all traces of the eruption gone and her skin natural. She had discontinued the ointment for some weeks." He adds that "it was not without a feeling of despair that I had recourse to chrysophanic acid; the result, however, and the rapidity with which that result was brought about surprised me extremely, a surprise which is not lessened by the

fact that the girl had suffered from the skin-disease for five years and a quarter at the time when the acid was first employed, and that she was entirely free from psoriasis in twenty-one days". Dr. Whipham's surprise was only natural. The efficacy of chrysophanic acid in psoriasis is certainly one of the most astonishing facts in modern therapeutics. I refer incidentally to this part of his paper because it was in this JOURNAL that chrysophanic acid was first made known to the medical world as a remedy of the utmost efficacy in psoriasis, and, for another reason: because it fell to my good fortune to make that particular discovery. I regard Dr. Whipham's observations as an important addition to the other confirmatory evidence which, prior to his paper, had already appeared in the columns of this JOURNAL. The wide publicity which was given to my observations by their appearance in the JOURNAL has caused the remedy to be now in extensive use for the treatment of psoriasis in all parts of the world, whilst one drawback to its use which I had feared has now been removed. I refer to its price. Chrysophanic acid, which, in December last, could only be obtained at the price of ten shillings an ounce, is now sold for four shillings an ounce. I have little doubt but that it will speedily become much cheaper.

It will be seen from the following report that, in February and March of this year, I had a case very similar to that of Dr. Whipham, which latter extended from March to July, and that the treatment was very similar in the two cases.

Betsy D., aged 13½, was sent under my care as an in-patient of the British Hospital for Diseases of the Skin by her medical attendant, Mr. Essex of Pontypool, in Wales. She had been affected with psoriasis for only two months; but the skin of all her limbs and body was copiously covered with psoriasis, the patches on the posterior aspect of the arms and forearms being the largest of all, and many of them being of very considerable size. She had also two or three very inconsiderable spots of psoriasis on her face.

On February 22nd, after a careful map had been taken of every part of the eruption by means of a complete set of my "outline drawings", she began to take phosphorus "perles"; that is to say, the little French capsules of that name, which contain each one-thirtieth of a grain of phosphorus dissolved in oil, and which are to be readily obtained of any chemist. She commenced by taking only one of them three times a day.

February 23rd. The dose was increased to two perles three times a day.

February 26th. The girl had taken the increased dose for a few times; but complained of severe and long continued pain at the epigastrium after each administration. The dose was now reduced to one perle three times a day.

March 6th. On this, the twelfth day of treatment, many of the smaller patches had almost completely disappeared, and the others, even the larger ones, had lost their scales to a great extent; had become fainter in colour, and flattened at their central portions, leaving only raised margins. Since February 26th, she had taken only one perle for a dose. No pain had been felt. She was now ordered two perles for a dose again.

March 8th. She had now taken six doses, each of two perles, without bad effect, until this morning, when, on taking a walk after her dose, she complained of pain in the stomach. The dose was, therefore, reduced again to one perle.

March 14th. She had taken one perle since the last report till now. The eruption was certainly much fainter, but scarcely any additional patches had completely disappeared.

March 27th. She had taken two perles three times a day until now since March 14th. Now the patches on the chest and upper part of the back had nearly all entirely disappeared, i.e., they could not any longer be identified by means of the map taken on February 22nd. The largest patches of all, viz., those on the forearms, had quite vanished, except at the actual margins, leaving only a slightly livid blue stain, and being quite free from desquamation. Many of the patches on the thighs were gone for the greater part of their area. Those on the legs had undergone the least alteration, but have lost their scales. The diseased area, which used to itch very much, had not done so for the past two or three weeks, except quite recently on the knees only, where a few small fresh patches had appeared. The perles have caused no pain in the stomach and no diarrhoea. She was now ordered to take three perles three times a day. She had not washed since the commencement of the treatment. This regulation was enforced in order that any removal of scales might be clearly due to the action of the phosphorus alone.

April 3rd. All of the large patches on the arms had now lost their margins, which were broken and simply dotted, and the general condition of the eruption seemed improved, though a few fresh spots had

* Published in the *British Medical Journal*, December 1st, 1876.

appeared, while others had gone. As regarded the buttocks, and the outer surfaces of the thighs also, and the legs (the latter more especially), the eruption was somewhat more copious than before. The perles caused no inconvenience. She was now ordered to have four perles, instead of three, three times a day.

April 12th. She had taken four perles for seven days only, when pain in the stomach came on. From that time, the perles were altogether discontinued. The eruption did not seem to have varied notably. The impression produced on my mind was, that the phosphorus had attained its maximum of effect, or nearly so; or, anyhow, that it was a much slower remedy than efficient local applications often proved to be. She was now ordered to discontinue the phosphorus, and use only chrysophanic acid ointment (*acidi chrysophanici 3ij; adipis 5i*).

April 21st. Very considerable improvement was obvious, only faint traces of the eruption remaining, except on the nates and on the legs below the knees.

May 9th. Every portion of the eruption had disappeared, the only traces remaining of it being faint stains on the front of the legs and on the knees and elbows.

May 22nd. Since May 9th, she had used the chrysophanic acid ointment (after first washing the skin each time with soft soap and warm water) twice a day to the legs only. No inflammation had resulted from this application, and the patient was everywhere quite free from all traces of the eruption.

COMMENTARY.—It will be seen from the report that this case, not only as regards the nature and extent of it, but also as to the treatment pursued and the result of that treatment, very closely resembles Dr. Whipham's case, and that it occurred at about the same time. Each patient was a healthy girl at about the age of puberty. In both cases, the eruption was very copious, although in Dr. Whipham's case it was of much longer standing than in mine. But that circumstance, according to my experience, makes little or no difference as to the difficulty of curing the disease, although I am aware that the contrary opinion is generally entertained. In both instances, the case was treated at first by phosphorus alone.

Dr. Whipham's case was treated by means of one-seventh of a grain of phosphorus in the twenty-four hours throughout (for apparently two months), with marked improvement for the first month, but with a return to the original condition at the end of the second month. By the way, is Dr. Whipham quite sure that his patient continued to take the pills? I am sure that my patient took the perles. Mine was an in-patient, and the matron of the hospital administered in person every single dose. Dr. Whipham's patient was an out-patient, and phosphorus pills are apt to cause disagreeable eructations tasting of phosphorus.

My case was treated by one-tenth of a grain of phosphorus in the twenty-four hours for the first twenty days, during four of which the dose had been increased to one-fifth of a grain *per diem*. During the next fourteen days, the dose was maintained at a fifth of a grain in the day. For the ensuing eleven days, the dose was augmented to three-tenths, *i.e.*, nearly a third of a grain a day; and, for the remaining seven days, the dose was increased to two-fifths, or nearly half a grain a day; making in all fifty-two days of treatment by phosphorus; namely, about the same period as Dr. Whipham's course of phosphorus treatment; my patient, however, taking, on the whole, considerably more phosphorus than did Dr. Whipham's. The result of the phosphorus in my case was that, after thirty-three days' use of it, the patient had during the entire period steadily improved, so that, at the end of that time, she had lost the greater portion, or at the least quite one-half, of the original area of her eruption as it had existed at the commencement of the treatment.

During the next fourteen days of phosphorus treatment, notwithstanding an increase of the dose, the eruption for the first seven days even increased somewhat, and, for the remaining seven days, remained at about a standstill.

The conclusion I draw from the two cases is that, after about a month's employment of the remedy, the antagonism of phosphorus to psoriasis finds its equilibrium; and that the antagonism in question, although real and obvious, has, nevertheless, a limit which falls short of the complete cure of the disease. Nevertheless, I regard phosphorus as an important and valuable addition to our means of curing psoriasis, and I am induced to think, from the results of further experiments that I have since made with it, that it may be found to be an internal remedy of greater efficacy than arsenic in the treatment of this disease. However, as I said before of chrysophanic acid, the value of it is a question to be determined, not by the results obtained by one or two observers, but by the general verdict of the profession.

I ought here to draw attention to the fact that my case shows that

the dose of phosphorus, when even, as here, it is at first tolerated only with difficulty, may be *gradually* increased even in the case of a child to a dose considerably beyond the limit which is commonly assigned to it. In short, that, if caution be exercised, four times the ordinary (one-thirtieth of a grain) dose, namely, as much as one-eighth of a grain three times a day, may be quite safely given without inconvenience of any kind. I have since given this latter dose in a large number of cases of psoriasis.

As to the chrysophanic acid ointment treatment with which both Dr. Whipham and myself made amends for the deficiencies of phosphorus, Dr. Whipham's patient was nearly cured by it in three weeks, and mine in nine days. In both cases, after a further use of the ointment (Dr. Whipham seeing his patient a month and I eighteen days subsequently), we found our patients quite free from eruption.

EXTRACTS FROM A PAPER ON HOSPITAL OUT-PATIENT REFORM: ITS HELPERS, ITS HINDERERS, AND ITS PASSERS-BY.*

By H. NELSON HARDY, F.R.C.S. Ed.

I. *Helpers*.—The subject of out-patient reform has now been prominently before the profession for the last seven years; it has been much discussed in London, Liverpool, Manchester, Birmingham, and elsewhere; it, therefore, seems suitable that we should, at the present meeting of the Association, define its position, sketch its past history, and point out its helpers and hinderers, as well as indicate those who take apparently no interest whatever in the matter. In doing so, it will be my earnest endeavour to "nought extenuate, nor set down aught in malice". Before proceeding further, it may be well, for the sake of those who have not closely followed the discussion of this subject in the press, to define what is meant and what is not meant by the demand for out-patient reform. 1. Negatively, it is not meant or desired to deprive one single necessitous person in England of the benefits of gratuitous medical attendance in time of sickness, but only to restrict the use of the out-patient departments to the really poor. 2. It is not meant to cast blame upon our medical brethren engaged in treating out-patients for doing only what is possible under the circumstances in which they are placed, but to denounce and seek to reform a system which renders it possible for any physician or surgeon to be required to see sixty or eighty patients per hour. 3. Where the abuse has become so great that crowds of sick and suffering persons are kept waiting for hours in stifling out-patient rooms, and are after all dismissed without even the hasty glance of any qualified medical man, carrying with them a bottle of medicine ordered by some second or third year's student, an urgent demand for the reform of such a system can hardly be wondered at. Having referred to the proceedings of the Committee of 1871 on out-patient departments, of the Hospital Out-patient Reform Association, and of the Medical Committee of the Charity Organisation Society, as likewise to the presentation of the memorial, signed by three hundred members of the profession, to the Committee of Council of the British Medical Association, the paper proceeded:—Amongst the individual helpers in the cause of out-patient reform besides those already alluded to (*viz.*, Dr. Meadows, Mr. Timothy Holmes, Dr. Fairlie Clarke, Dr. Joseph Rogers, Dr. Ford Anderson, etc.), I may mention Mr. Erichsen, who, in his lectures on Hospitalism, points to the out-patient department as one of the sources of those septic influences which surround patients in our large hospitals, and render their recovery after operations so much more difficult than when treated at home or in small cottage hospitals; Sir Charles Trevelyan, whose wonderful energy and enthusiasm in the cause have brought him into contact or correspondence with nearly all the workers on the subject all over the kingdom; Mr. T. J. Phillips Jodrell, whose munificent donations to institutions connected with our profession have culminated in the establishment of the Jodrell Chair of Physiology in University College, London, and to whose efforts to obtain a reform of the out-patient department at St. George's Hospital I shall presently refer; Mr. Sampson Gamgee, whose excellent address on "Our Medical Charities" at the annual meeting of the Birmingham and Midland Counties Branch you have all probably read with pleasure; Sir William Gull, Dr. Robert J. Lee, and last, but not least, the writer of those very striking letters in the *BRITISH MEDICAL JOURNAL*, which, recapitulating with great ability the most salient features in the whole discussion of the subject, are simply signed "A Member of the Charity Organisation Society". Amongst the periodi-

*Read at the Section of Public Medicine at the Annual Meeting of the British Medical Association, Manchester, August 11, 1877.

cals and journals which have given their powerful support to the movement may be mentioned the *Westminster and Edinburgh Reviews*, the *Quarterly*, *Macmillan's* and *Fraser's Magazines*, the *Pall Mall Gazette*, and our own JOURNAL.

2. *Hinderers*.—In approaching the consideration of this part of the subject, I am forcibly reminded of the *Adventures of Philip on his Way through the World*, as narrated by Thackeray; in the course of which, as you will remember, poor Philip finds that the very person who of all others should have protected him from being robbed and deceived, namely, his own father, is the one who gambles away his inheritance and afterwards robs him of his earnings; for I have reluctantly arrived at the conclusion that the principal hinderers of all necessary reforms in the administration of our hospitals are to be found in the governing bodies, whether called Committees of Management, House Committees, or Boards of Governors, whose first aim ought naturally to be to render their institutions as efficient as possible. Having referred to the treatment of Dr. Mayo by the authorities of St. Bartholomew's Hospital, of Dr. Chapman by the Metropolitan Free Hospital, and of Mr. T. J. Phillips Jodrell by the governors of St. George's Hospital, Mr. Hardy proceeded:—The moral to be drawn from these examples and from the experience of the Hospital Out-patient Reform Association appears to me to be that, in future efforts for the reform of hospitals, we must endeavour to get beyond the immediate governing bodies to those from whom they receive their authority: in the case of the voluntary hospitals to the subscribers, and in the case of endowed hospitals, such as St. Bartholomew's and St. Thomas's, to the Corporation of London, and, if necessary, to Parliament. There seems, indeed, no reason that I can discover why charities which are being so misused should not all be placed by Parliament under the direct supervision of the Charity Commissioners.

3. *Passers-by*.—First among these I name those great medical bodies—the Royal Colleges of Physicians and Surgeons—which, standing at the head of their respective branches of the profession, might, if they would, exercise a most beneficial influence on questions such as this, but which have of late years apparently retreated from the honourable position they once occupied in the van of progress, and left to others the discussion and settlement of many questions of general interest to the profession. If anyone will take the trouble to look back over the old records, he will find that the College of Physicians, for instance, once took a deep interest in such questions as medical education, the prosecution of quacks, and even the out-door treatment of the sick poor. In 1875, I contributed to *Fraser's Magazine* a paper containing a detailed account of the establishment of the first London dispensaries by the College on its own premises; and there can be very little doubt that the step thus taken by the College stimulated, of course, indirectly and quite unintentionally, the development of out-patient departments at hospitals; for we find in Mr. Erasmus Wilson's *History of the Middlesex Hospital* that, at a quarterly council of the governors of that hospital held on May 1st, 1788, it was resolved that certain governors "be a committee to take into consideration the several publications relative to the medical dispensaries, and do communicate with the governors of other hospitals whether any and what mode can be adopted by the hospital to prevent the increase of such dispensaries which are very prejudicial to the regular established hospitals; and do consider whether all the relief held out for poor persons under the dispensary establishments cannot be administered by the hospitals as they now stand; and, if not, whether such improvements may not be made as shall fully answer all the purposes of charity proffered by the institution of such dispensaries, and be the means to encourage all persons inclined to subscribe to such charitable institutions to pay their money to a regular established hospital in preference to a dispensary". The Committee thus appointed resolved:

"1st. That it may be an advantage to the Middlesex Hospital to extend its plan to a more general visitation of out-patients, and that it may be done by a small amendment of its rules and orders.

"2nd. That it is the opinion of this Committee that such a plan might be more effectually carried into execution, if the governors of St. George's and the Westminster Hospitals should concur in the measure proposed.

"3rd. That the governors of this hospital, being governors of one or both these hospitals, be requested to procure a meeting of some of the governors from each of these hospitals to consider the proposition hereinbefore mentioned." (*History of Middlesex Hospital*, pp. 50, 51. By Erasmus Wilson, F.R.S. London: John Churchill, 1845.)

The plot, as it stands in the pages of the historian of the hospital, is a very pretty one, and it is quite in accordance with what we find in the present day, that while thus ready to spend money freely on out-patients with a view to possible subscriptions being diverted from the dispensaries, the governors of the hospital were so pinched in re-

sources for their proper work of in-patient accommodation, that "the number of patients applying for relief was greater than the house could accommodate", and that the wards were described by the philanthropist Howard as "close and dirty", and the hospital as "having, on the whole, an air of poverty". The governors being fully alive to the injury to their subscription list which might follow from Mr. Howard's description of the condition of the hospital, resolved boldly to deny its truth, and invite another visit from that gentleman; and their historian naively adds that "in anticipation of such a visit, conjoined, possibly, with the still small voice of conscience, great activity, in the shape of patching, mending, and washing prevailed, and quite sufficient was ordered to be done by the Board on that very day to prove that Mr. Howard's strictures were not without foundation".

It would be interesting, had we time, to pursue this matter further, but my present purpose is rather with the College which established, than with hospitals which so jealously opposed, the dispensaries, and I cite this instance of vigorous action to show that the present position of the College is widely different from what it once was, and that a true regard to its best traditions would lead to its interference now as actively as a century and a half ago. Among other passers-by, I might refer to the Council of the Hospital Sunday Fund, which at first seemed disposed in its report to dwell very fully upon the abuses of out-patient relief in the metropolis, but which, having looked upon the subject and seen the evils of it, has apparently made up its mind to pass by on the other side: to the Medical Society of London, which two or three years ago refused to discuss some cases brought before it as having been badly treated at St. Bartholomew's Hospital, on the grounds (as stated by its secretaries) that it could not allow itself to be made the medium of bringing accusations against the authorities of a recognised hospital: to the General Medical Council, whose interest in the matter, however, is confined to its bearing on medical education. But enough; it only remains to ask in which of these categories shall we place the great Association in connexion with which we are met to-day, and that is a question I prefer to leave to be answered by those who hear and read my words. There are, as a celebrated statesman used to say, three courses open to you: you may, if you like, shut your eyes to the facts which are constantly accumulating in your own JOURNAL, and which go to prove that, owing to the improved condition of the working classes, the impossibility of seeing with advantage anything like the numbers that apply at out-patient departments, and the injustice which is being done alike to our profession and to the sick poor by the present system, great changes must shortly be made in that system: or you may even think it your duty to oppose all change, however strong the reasons given for proposing it; but I do not attempt to conceal my hope that you will take neither of these courses, but that the whole weight of influence of our Association will be thrown into the scale in favour of this movement for reform, which has underlying it those eternal principles of justice, mercy, and truth that ensure its ultimate success.

SUCCESSFUL TREATMENT OF PNEUMONIA AND BRONCHITIS.*

By HENRY GREENWAY, M.R.C.S., Plymouth.

ABOUT ten years since, whilst making experiments in the treatment of constitutional syphilis by carbolic acid,—the results of which I have published—I was led to treat inflammatory affections of the lungs by means of the same drug, and my success was so constant that I deemed it right, about three years since, to bring my practice before the notice of the medical profession through the medium of the BRITISH MEDICAL JOURNAL. As I have not lost a single case of *uncomplicated* pneumonia or bronchitis, however severe, from the time I commenced the carbolic treatment until now, I trust my brethren will pardon me for drawing their attention to this subject on the present occasion. Although, where certain complications existed (such as some forms of heart and kidney diseases, with suppression of urine), I have used the treatment with great caution or have withheld it altogether, yet there have been complications which have not only not interfered with the treatment, but have been benefited thereby. I allude to lung affections in connection with either of the zymotic diseases, including whooping-cough. I have occasionally prescribed the drug with benefit in cases of phthisis to allay troublesome cough, but I have not found it of any service in asthma and simple congestion of the lungs. In very urgent cases of the latter ailment, I believe venesection to be the most reliable remedy,

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1, 77.

and I was glad to find Dr. Richardson condemning the present disuse of the lancet in such cases. My formula for the carbolic mixture, together with other instructions, was published in the BRITISH MEDICAL JOURNAL, July 18th, 1874, and I have had no occasion to deviate therefrom in the slightest degree. I always order Calvert's best medicinal acid to be used in the preparation. The dose of the mixture for an infant one year old is fifteen minims, but I remember a case in which the parent administered by mistake to her child doses sufficient for an adult, with the effect of producing hæmaturia, which passed off shortly after the discontinuance of the treatment. This is the only accident which has occurred within my knowledge by the employment of this remedy. The treatment has been adopted by many in this country, and last year I received a letter from a medical officer holding an important position in India, in which he says: "I have tried your carbolic acid treatment in pneumonia, and found it answer admirably; it seems especially fitted for natives".

As regards the *modus operandi* of the mixture, Dr. W. Marcet asks, in his able paper "On Consumption: a Form of Septicæmia" (see BRITISH MEDICAL JOURNAL, October 24th, 1874), whether the favourable results I had obtained by treating pneumonia and bronchitis by carbolic acid depended on the action of the acid as an antiseptic? In advanced cases of pneumonia, I think the theory may hold good; but it will scarcely account for the almost magical effect of the medicine in certain cases of acute bronchitis. May not its action on the pneumogastric nerve be the true explanation?

EXTIRPATION OF THE LACRYMAL GLAND IN OBSTRUCTION OF THE NASAL DUCT.*

By EDWYN ANDREW, M.D., Shrewsbury.

ALL who are engaged in ophthalmic practice will, I think, agree with me that the treatment of disease of the lacrymal passages is in a most unsatisfactory state, cure being the exception, and even palliation being often very difficult of attainment. Although rarely causing loss of sight, still these complaints constitute a large number of the little ills of life for which patients continue year after year to seek advice, wandering from one medical man to another in hope of that perfect relief which rarely comes.

The following remarks contain very little that is original; but I hope, by confirming the practice of the late Mr. Zachariah Laurence, who was the first to systematically introduce extirpation of the gland in the treatment of lacrymal obstruction (other surgeons having only casually performed it), to impress on those around me the value of the treatment in severe cases, and to raise it into a recognised operation, instead of being considered as a mere surgical curiosity by most surgeons. I have now performed it in a number of bad cases with the most satisfactory results, except in one instance where permanent ptosis was the termination.

The history of the last case, which I now give, will be a type of most of the others.

J. H., aged 24, a gasman, had suffered from right nasal obstruction for nine years; he had been treated by a great number of surgeons with all kinds of lotions; by slitting up the canaliculus; by frequent probing, and, for the last three years, he had worn a style. In spite of all this treatment, the eye was constantly suffused with water; there was trickling of tears over the cheek, and he was compelled to remove by pressure, several times in the day, the accumulation of muco-purulent matter in the lacrymal sac; the style and probing had produced necrosis of the adjoining bones, and there was *ozæna*. His own remark was, that he had received hitherto no benefit whatever; that the inconvenience was so great that he would willingly submit to any operation for his relief.

He was at once admitted into the hospital, and the gland removed. Seven days after, the lid was considerably swollen, but not tense; the power of raising it slight; but the discharge was lessened. A fortnight afterwards, there was much less lid-swelling, the power of raising it had increased, and there was a great diminution of discharge. Eight weeks afterwards: No swelling existed, there was perfect movement of the lid, no discharge, and only slight trace of wound; in fact, it would have been impossible to say which had been the diseased eye. I think no other treatment would have produced such a satisfactory result, the nearest approach being the destruction of the sac by caustic or the actual cautery.

The steps of the operation may be modified according to the size of the operator's finger; the smaller the finger the less the

opening required. As a rule, the external skin-incision should be from an inch to an inch and a quarter in length, commencing just above the external commissure, and extending upwards along the external margin of the orbit, the skin being first slightly drawn up. In the centre of this skin-wound, an opening should be made into the orbit with a scalpel, close to its margin, a director introduced, and the tissues divided downwards with a scalpel or scissors to the lower end of the external wound. An attempt should now be made to feel the gland with the tip of the forefinger by pushing upwards the inner boundary of the deep incision; failing this, the internal opening must be extended slightly upwards with the knife until the gland can be easily felt. The muscles, eyeball, and other structures, are now to be gently pushed downwards and inwards with a fine bone spatula, and held by an assistant; the gland may then be seized and drawn out by a double hook, first detaching it from the soft parts beneath, and lastly from the periosteum with the aid of a curved scissors.

The bleeding, which is generally free, is best stopped by a piece of ice, the wound should be thoroughly washed out with a carbolised lotion, and the edges brought together by two or three sutures; a drainage-tube being introduced into the most dependent part, a pad of dry carbolic gauze, with a piece of waterproof, is placed over the wound and retained by a carbolised bandage. The dressing must be changed as frequently as required by the amount of discharge.

To sum up: the exterior opening should be free, the internal as limited as practicable; for here the palpebral ligament is stronger than at other parts, and, by assisting to suspend the lid, it helps, to a certain extent, the action of the levator palpebræ superioris; hence the less this structure is interfered with the less is the liability to ptosis. The gland should be detached first from the soft parts beneath, so that the ducts should be entirely divided, when, should a portion of its structure be left, it will have no bad effect.

For this detachment, the curved scissors is far better than any scalpel. The drainage-tube, which, I believe, is not mentioned by other operators, I consider all-important; for, by preventing extravasation of blood and too great effusion of lymph, suppuration is almost certainly prevented, and that great evil ptosis avoided; for the history of this operation shows that the power of the levator has been destroyed by the effects of inflammation rather than by direct injury to its fibres. The discharge from the lacrymal sac generally ceases about two months after the operation; but, in very chronic cases with diseased bone, this may continue to a slight extent for four or five months.

In the case in which permanent ptosis resulted, the wound was left open until night, then closed by sutures; some blood accumulated underneath and produced general suppuration under the upper lid, with destruction of the power of the levator palpebræ superioris. In this case, I am confident the insertion of a drainage-tube would have prevented this disaster. In one case, I failed to detect the gland; but the result was quite satisfactory, the incisions made probably destroyed all the ducts; and I believe, if in all cases we could insure the destruction of these, the more severe operation of removing the gland might be done away with.

Mr. Bader, in his excellent manual, states that removal of the gland causes dryness of the eye and irritation of the conjunctiva in windy weather. In all my cases, these conditions have not been observed, the eye remaining quite moist.

In conclusion, by attention to the few suggestions given, I believe all the good, without any of the bad, effects of the operation may be obtained.

SURGICAL MEMORANDA.

SKIN-GRAFTING FROM THE PIG.

A LITTLE girl, with a large granulating surface of about seven inches square, the result of a burn, recently came under my care. I procured cicatrisation (and without any contraction) of the greater part of this surface by means of the insertion of more than three hundred skin-grafts. But, then, my supply of skin, not unnaturally, came to an end. I had resort in my difficulty to a young pig, and a few days ago I inserted upwards of twenty grafts of his skin, and with very good results. I can now see my way, I hope, to a successful termination of the case, provided I am not interfered with by the Society for the Utter, Total, and Immediate Suppression of Vivisection. I am not forgetful of the sorrows of the pig; but he suffers in very good company, most of his fellow-victims being sisters of mercy.

THOMAS F. RAVEN, L.R.C.P., Broadstairs.

* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Manchester, August 11, 1877.

A SIMPLE METHOD OF REDUCING THE MORE FREQUENT FORMS OF DISLOCATION OF THE SHOULDER-JOINT.

REDUCTIONS of dislocations of this joint, though generally easy to effect, are sometimes accompanied with such difficulty in its two most frequent varieties, viz., downwards and inwards and downwards, especially the former, as to need the administration of chloroform after extension, circumduction, etc., and all other methods of reduction have failed, and the patient has been subjected to much unnecessary suffering.

All this can be avoided, and the dislocation reduced in a few minutes without chloroform, and with little comparative pain to the patient, by simply seating him well back in a strong straight-backed chair, and gently lifting the affected arm upwards and backwards towards the spine of the scapula, and, until the humerus comes well in contact with the posterior part of the acromion process, no extension force being used more than is required to lift the weight of the arm.

This differs from a method over a century old (White's), in that the arm is not drawn vertically upwards, and extension and counter-extension have no act or part in the *modus operandi* of the operation, which is clearly explicable as follows.

1. The mere act of carrying the axis of the humerus in the direction specified paralyses, by relaxing and moving out of their line of action, all the most powerful of the muscles whose insertions are at some distance from the head of the bone, and are, therefore, engaged in retaining it in its false position. Also, it frees the neck of the bone from the constricting and retaining force exercised on it by the heads of the biceps and coraco-brachialis in the downward and forward displacements.

2. The humerus itself (chiefly through the intervention of its great tubercle) acting, first on the glenoid cavity, and next on the acromion process as fulcrum, lifts its head, either over the projecting lower edge of the glenoid cavity in the downwards dislocation; or, in the other instance, moves it around the point of the coracoid process and glenoid edge, and so enables it to be drawn instantly into its normal position by the powerful supra- and infra-spinati and teres minor muscles.

W. S. OLIVER, M.D., Surgeon-Major.

THERAPEUTIC MEMORANDA.

ADULTERATION OF LACTIC ACID.

As a local remedy in the treatment of diphtheria, I have found nothing so useful as a solution of lactic acid in lime-water; and, as I have reason to believe that it is used by not a few members of the profession, I venture, through your courtesy, to call their attention to a fact which recently caused me considerable anxiety during the treatment of a case; I mean the adulteration of the acid.

A few months ago, I was summoned one evening to see a young lady aged 13, who was complaining of shivering and feeling ill. I found two well-marked lichen-looking diphtheritic deposits on the tonsils, and at once ordered a "spray" composed of lactic acid, ʒiij; lime-water, ʒviiij; to be used every fifteen minutes for the first two hours, and afterwards less frequently during the night. Early next morning, I found the "patches" decidedly softer and *thinned away* at the edges. The spray was continued every hour; and in the afternoon I was sent for, as the patient complained of sharp pain in the throat, and refused to allow the spray to be used. On examination, I found no change had taken place in the appearance of the membranes since my last visit; but the substance of the tonsils around the edges of the deposits had an unhealthy *ulcerated* look, and was very tender to the touch. I ordered a gargle of chlorate of potash to be used occasionally, and the spray to be continued. On my visit next morning, I found the patient had passed a very restless night, and complained of great pain after each use of the spray, and also when she attempted to swallow anything. The tonsils were slightly swollen, and the *ulcerated* appearance had spread. There were several new patches of false membrane upon the uvula, the pillars of the fauces, and pharynx, accompanied by stiffness at the angles of the jaws. I began to fear an unfavourable termination to the case, but felt perplexed at the peculiar manner in which the disease had progressed. In not one of the fatal cases which I had seen had any symptoms of ulceration shown themselves in the parts free from the diphtheritic deposits; nor had any of the patients complained of the "spray" causing pain or even discomfort. I expressed my fears to the young lady's father, and he at once suggested whether there might be some impurity or mistake in the solution

which was being used. I took up the bottle—a dark blue one—little expecting it would afford any solution of my difficulty and anxiety; but it fortunately did, for, on pouring the solution into a glass, I found it very turbid, almost milky in appearance, and observed an abundant sediment falling quickly to the bottom of the glass. I drove home for some pure acid which I had, and prepared another solution in lime-water. It was, as it should be, perfectly clear and transparent. The new solution was at once used, and in twenty-four hours the symptoms had considerably improved; and from this time the unhealthy raw appearance gradually subsided, and in ten days from the beginning of the attack the patient was able to sit up.

On examining the precipitate, I found it to consist of tartrate of lime. I ordered another solution to be made in the pharmacy, which gave the same result; and then, on analysis, the lactic acid was found to contain a large proportion of tartaric acid.

It would be well, therefore, in using the "spray", to make sure that the acid is lactic, and not tartaric; the transparency of the solution affording a ready and reliable test.

DAVID YOUNG, M.D., Florence.

RINGWORM TREATED BY CARBOLIC ACID.

X., AGED 46, was admitted to hospital on December 21st, 1876, for ringworm, which, with the exception of the face, palms of the hands, and soles of the feet, covered the whole body. There was a history of syphilis; viz., a gleet and bubo about twenty-seven years ago. The eruption did not appear, he thinks, until a period of twelve years had elapsed; but since then, for fifteen years, he has had it, gradually extending, until, for the last five or six years, the whole surface of the skin, with the exceptions above enumerated, has become covered. He states that he has been under treatment at various times in London hospitals and elsewhere; but that he has derived very little benefit.

On admission, he was placed on liberal diet, iodide of potassium, and cod-liver oil; carbolic acid in glycerine (1 in 30) was ordered to be applied twice a day over the whole body. This, after a short time, was changed for an ointment of lard and carbolic acid the same strength, as the glycerine made his clothes damp and cold. At the same time, a patch about a foot square on the abdomen was treated by chrysophanic ointment, in order to make an observation on the comparative merits of the two therapeutic agents. The result was so strongly in favour of the carbolic acid that, after a month, the chrysophanic ointment was abandoned, and the carbolic ointment was the only local application used. The eruption faded very slowly; however, the progress of cure was uninterrupted; but it was not until August 27th, 1877, that he was discharged with a clean skin, having been under treatment nearly nine months. I think the iodide of potassium had a good deal to do with the favourable result.

R. E. POWER, L.R.C.P.Lond., Dartmoor.

OBSTETRIC MEMORANDA.

UTERINE CHIROSCOPY.

THE following case may, perhaps, serve as an illustration of Dr. Matthews Duncan's paper in the *JOURNAL* of October 27th on the investigation of the interior of the uterus at long intervals after delivery, the interval in this case being longer than in any of those mentioned by him.

On December 25th, 1864, in my absence from home, my assistant attended Mrs. T. in her first labour. Two or three minutes after labour, flooding came on. He found the placenta in the vagina; but, when he tried to remove it, the bleeding became more alarming. He sent for an old and experienced practitioner, who removed the placenta, and the hæmorrhage ceased. The patient was very much exhausted, but seemed to improve, though slowly, for the next three weeks; the pulse gradually falling from 140 to 100 per minute. The appetite was good; but the discharge continued, becoming, however, paler. At 2 A.M. on January 13th, 1865, or twenty-four days after delivery, I was sent for, and found that the patient had been flooding at intervals since midnight. I introduced my hand, and removed a lump of placenta about the size of a hen's egg, which was still so adherent as to require peeling off from the inside of the uterus. It was hardened and inoffensive to the smell. In the morning, the patient was much better, but the pulse had risen again to 130. From this time she steadily improved, and on January 30th was sitting up.

MICHAEL T. SADLER, M.D.Lond., etc., Barnsley.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

GUY'S HOSPITAL.

CASES OF HERPES.

(Out-patients under the care of Mr. R. CLEMENT LUCAS.)

Herpes Cervicis: Dean Swift's Herpes.—Charles S., aged 14, presented himself with an eruption of herpes, following the course of the branches of the superficial cervical plexus of the right side. He had fractured his left humerus four weeks before, and kept his arm in a sling, the knot of which pressed on the right side of his neck. There was a patch of vesicles on the back of the ear and others on the mastoid process; several groups were situated over the posterior triangle of the neck, on the shoulder, and front of the chest, the eruption reaching nearly as low as the nipple. One small patch was situated over the right edge of the sternum. There were two injected spots, but no vesicles, over the anterior triangle. The eruption had come out three days before the patient was seen, and it was accompanied, but not preceded, by pain. He was ordered a purge and a mixture containing quinine. When seen a week later, there was still some pain, and a gland had enlarged behind the sterno-mastoid, but the eruption was drying up. Mr. Lucas remarked that it was curious, seeing how closely herpes often followed nerve-distribution, that we were not more often able to trace a local cause irritating the affected nerves. The knot of the sling might in this instance have pressed injuriously on the nerves. Herpes zoster was occasionally associated with kyphosis, and he (Mr. Lucas) had once seen it follow fracture of a rib. This form of herpes is classical, for Dean Swift once suffered from a very severe attack of it, which he quaintly describes in his *Journal to Stella*. On May 29th, 1712, he writes: "I am plagued with these pains in my shoulder; I believe it is the rheumatic; I will do something for it to-night..... I am got into bed, and have put some old flannel, for want of new, to my shoulder, and rubbed it with Hungary water. It is plaguy hard. I would never drink wine, if it were not for my head, and drinking has given me this pain. I will try abstemiousness for a while." In his next letter, dated April 8th, he writes: "All these days I have been extremely ill..... The violence of my pain abated the day before last. The pains increased with mighty violence in my shoulder and collar bone and that side of my neck. On Thursday morning appeared great red spots on all those places where my pain was, and the violence of the pain was confined behind or a little to the left side, which was so violent that I had not a minute's ease nor hardly a minute's sleep in three days and nights. The spots increased every day, and red little pimples, which are now grown white and full of corruption, though small. The red still continues, too, and most prodigious hot and inflamed. I eat nothing but water-gruel, and am very weak; but out of all violent pain." April 24th: "Since my last I have been extremely ill. 'Tis this day month since I felt the pain on the top of the left shoulder, which grew worse and spread for six days; then broke all out by my collar and left side of my neck in monstrous red spots, inflamed, and thus grew to small pimples. For four days I had no rest, nor nights, for a pain in my neck; then I grew a little better. Afterwards, where my pains were, a cruel itching seized me beyond whatever I could imagine, and kept me awake several nights. I rubbed it vehemently, but did not scratch it; then it grew into three or four great red sores like blisters, and run, and am now in great pain, but daily mending. To-day I will venture abroad, and hope to be well in a week or ten days. I never suffered so much in my life. I have taken my breeches in above two inches, so I am leaner, which answers one of the questions in your letter."

Herpes following the Distribution of the Scapular Nerve.—A. S., a boy aged 14, stated that eight days ago he noticed a pricking and soreness in his right armpit, and on looking found some red spots, which had since increased in number and extended down his arm. When seen, the distribution of the second dorsal nerve was very exactly mapped out by crops of herpetic vesicles. In the axilla, there was a copious eruption, and crops of vesicles extended over the axillary border of the pectoralis major for a short distance. There were numerous vesicles on the inner side of the arm, extending to within an inch of the internal condyle of the humerus, and indicating the distribution of the intercosto-humeral branch. Two crops of vesicles were

situated on the front of the chest, one close to the sternum over the second intercostal space, pointing to the terminal branches of the nerve. On the back, there were also two groups of vesicles, one of which was situated just above the spine of the scapula; the other more internal, near the upper part of its vertebral border: these groups indicated the distribution of the dorsal branch of the second intercostal nerve. In this case, there was a remarkable absence of the neuralgic pains which commonly accompany this eruption, the only inconvenience from which the boy suffered being due to the soreness caused by the friction of his clothes. He was ordered a tonic, and on the following week most of the vesicles, with the exception of a few which now contained pus, had dried up. In rare cases, herpes zoster was found associated with chest troubles. Dr. Bathurst Woodman, in a paper read before the Hunterian Society, a few weeks before his death, said it "was often accompanied by bronchitis, broncho-pneumonia, pleurisy, or pneumonia". This was not Mr. Lucas's experience, who doubted the existence of any etiological relation between herpes zoster and pneumonia or pleurisy. Those who had found them associated had sometimes explained their coexistence by supposing that an eruption, similar to what was found on the skin, occurred on the pleural surface.

Herpes following the Course of the External Cutaneous Nerve of the Thigh.—A. C., a girl aged 12, came with an eruption of large vesicles, which extended from the hip to the knee on the antero-external aspect of the thigh, following the course and distribution of the external cutaneous nerve. No local cause was discovered. Mr. Lucas said that there was an engraving in Gray's *Anatomy*, which represented the external cutaneous nerve escaping from the pelvis beneath the sartorius. This was not the normal arrangement, though it sometimes occurred. Might, in such a case, any unusual action of the sartorius injuriously press the nerve against the bone? It was pretty certain that pressure on a branch of a nerve would not cause an herpetic eruption to appear over the distribution of other branches, otherwise herpes over the distribution of the circumflex nerve in the arm ought to be much more common than it is; for, as is well known, there is a so-called ganglion on the branch to the *teres minor*, which is nothing more than a thickening of the nerve, caused by the friction to which it is subjected between the long head of the triceps and the axillary border of the scapula. Similar nodes are not uncommon on the nerves of the thumb and forefinger in labourers, and there is usually one on the nerve to the inner side of the great toe, caused by pressure of the boot.

Herpes over the Terminal Branches of the Ilio-Ipsilateral Nerve.—A girl, aged 15, came with an eruption of herpes over the upper and inner part of the thigh and greater labium of the left side, accompanied by severe pain. Mr. Lucas said this was an affection important to recognise, as it might give rise to perfectly groundless suspicions. He had known it appear in a young lady three days after marriage, and her husband, a young officer, was suspected by the medical man first consulted of having communicated to his wife a venereal disorder.

SHEFFIELD GENERAL INFIRMARY.

TWO CASES OF JAUNDICE FROM BILIARY CALCULI.

(Under the care of H. FRENCH BANHAM, M.A., M.B., Physician to the General Infirmary.)

CASE I.—J. D., aged 60, a Canadian of spare habit, was admitted into the Sheffield General Infirmary in April last, with marked but not extreme general jaundice. He complained of frequent pains in the epigastrium, occasionally severe, and accompanied at times by slight shivering and tendency to vomit. There was great irritability of the skin, and he was much troubled with dyspeptic symptoms, particularly flatulency, irregular action of the bowels, and pain after food. There was some slight enlargement of the liver, and also of the gall-bladder, and tenderness on pressure over the latter. The urine was dark-coloured; but the feces, although light-coloured, were apparently not destitute of bile. The stethoscope gave no indication of the presence of gall-stones in the gall-bladder.

The patient stated that his habits had always been temperate, and that he had led an active, but anxious life. For several years previous to admission, he had been the subject of frequent transient attacks of jaundice, some of which were preceded by severe pain in the region of the gall-bladder. He had never to his knowledge passed a gall-stone. He sought admission to the Infirmary chiefly on account of the persistence of the jaundice, which had then continued more than four months, and was deepening as time went on. On first investigation of the case, I formed the opinion that there was a gall-stone impacted in the common bile-duct, not, however, causing complete obstruction.

After remaining in the Infirmary for six weeks, during which time

his condition remained unchanged, he was made an out-patient at his own request. A month later, he came to my house, bringing with him a gall-stone, which, he told me, he had that morning voided by the bowel. The stone had several indistinct facets, and measured three inches in its smallest, and three inches and a quarter in its largest, circumference. He stated that while an out-patient he had experienced considerable pain at times in the right hypochondrium; but for the past two or three days this had quite ceased, and the jaundice was subsiding.

REMARKS.—The case is of interest because of the size of the stone, taken in connection with the course by which, in all probability, it found its way into the bowel. The jaundice, as seen from the history of the case, was very persistent, but never at any time very intense; and the pain, although variable, was never of the acutely agonising character which is met with in the ordinary cases of biliary colic. It is a matter of frequent observation, that the slow passage of a large stone is rarely accompanied, at any time, with the intense pain which attends the quick passage of a small one. Calculi of the size of the one above described generally find their way into the bowel by ulceration through the fundus of the gall-bladder, and are not accompanied by jaundice, or only by transient attacks; and, indeed, frequently the symptoms do not give any definite indication of the existence of a calculus until it is voided *per anum*, or in some less fortunate manner brought to view. It may be questioned whether the calculus can have passed through the cystic and common bile-duct; the persistence of the jaundice, however, which must have been due to some obstruction or encroachment upon the duct, is more easily explained upon this supposition than on any other. Further, the improbability of its taking such a course does not seem so great when we consider the remarkable dilatation of which the gall-bladder itself is capable.

CASE II.—T. H., aged 51, engine-driver, was admitted into the Sheffield General Infirmary, February 2nd, 1877. On admission, he was deeply jaundiced and somewhat emaciated, and complained of loss of appetite, various dyspeptic symptoms, and occasional pain in the region of the gall-bladder.

Fourteen months previously, while engaged in his ordinary employment, being called upon to make some unusual muscular effort, he was seized with a sharp lancinating pain in the right hypochondriac region. On the following day, he had a bad bilious attack; the vomiting and purging came on at 5 P.M., and continued for several hours. In the early part of the same day, he was ailing, but apparently in an indefinite sort of way, except that he had no inclination for food. Two days after this attack, he noticed some yellowness about his conjunctivæ, which, in the course of a fortnight, had developed into deep general jaundice. At almost the beginning of the illness, he had experienced "uncomfortable sensations" about the region of the gall-bladder, and occasionally aching pains there. Seven months before admission, he was attacked with intense pain in the same region, radiating to the back and across the abdomen, and lasting for several hours, accompanied by shivering and vomiting. Since then, he had had several such seizures, which had been sudden in their onset and departure. He had followed his present employment for the last thirty years, had been a temperate man as regarded alcohol, but had taken a considerable quantity of tea. The physical examination showed a slight uniform enlargement of the liver, and the splenic dulness was also increased. The other abdominal organs were apparently normal. The urine contained much bile-pigment, but no sediment; the fæces were apparently devoid of bile.

February 26th. An eruption of lichen now covered the arms, legs, and shoulders, and was accompanied by considerable itchiness.

March 2nd. Œdema of the legs, which had been coming on for some days, was now well marked.

March 11th. He had a severe attack of epigastric pain yesterday, which continued for an hour and a half, followed by shivering, which lasted two hours.

March 13th. Œdema of the legs had almost disappeared. He had gained four pounds in weight since admission.

April 14th. He had a severe attack of vomiting, which had been preceded for some hours by epigastric pain. Slight rigor followed the vomiting. The liver-dulness had been slightly increasing since his admission; it now extended to a point midway between the ribs and umbilicus.

April 20th. He was found by the nurse at 6 A.M. to be unable to speak; and, when seen by me four hours later, although his countenance did not altogether lack intelligence, no certain sign of consciousness could be elicited. The nurse reported some slight convulsive seizures during the course of the day, and death took place at 6 P.M.

On the following day, a careful and satisfactory *post mortem* examination was made by Mr. Rennie, the resident clinical assistant. The body,

which was somewhat emaciated, was deeply jaundiced; in fact, of a dark greenish-brown colour. The thoracic viscera were healthy. The abdominal cavity contained a small quantity of bile-stained fluid. The intestines were healthy, but matted together in the neighbourhood of the duodenum by inflammatory adhesions. The spleen was greatly enlarged, and weighed twenty-three ounces. The liver was greatly enlarged; it weighed 6¾ lbs., and was soft and friable in texture. The gall-bladder was small and empty. The portal vein, hepatic artery, and duct were matted together by inflammatory adhesions. Within the common bile-duct, and less than a quarter of an inch from its entrance into the duodenum, there was a calculus about the size of a nutmeg. This calculus blocked up also the entrance of the pancreatic duct, which, in this instance, opened into the common bile-duct. The dimensions of the common bile-duct and hepatic duct were as follow: Common bile-duct, length 3.5 in., circumference 1.7; hepatic duct, length 1.25 in., circumference 1.75 in. The cystic duct was of normal dimensions. The right and left divisions of the hepatic duct were considerably thickened and dilated. Communicating with the hepatic duct, immediately above the union of the right and left divisions, there was a duct from the anterior part of the right lobe of the liver, in which was a pouch, about the size of a small walnut, having a recess containing a stone as large as a horse-bean. From the shape and dimensions of the pouch, it seems probable that it was formerly occupied by the stone, which then blocked the common bile-duct. On continuing our examination of this duct beyond the pouch, we found in it, after it had entered the liver-substance, two other smaller calculi.

REMARKS.—One of the most remarkable circumstances in this case is the long continuance of the jaundice. As stated by Dr. Murchison, "it is not often that a gall-stone leads to permanent jaundice; for, if it succeed in escaping from the cystic duct, where its presence will not cause jaundice, it will usually find its way through the larger common duct".

The *post mortem* examination, however, explains this phenomenon in this case. The gall-stone, not having come from the cystic duct, but from the radicle of the hepatic duct, would cause jaundice, not only during its passage down the common bile-duct, but from the time that it encroached in any material way upon the hepatic duct or its subdivisions. The contracted condition of the gall-bladder and the cystic duct were such as would be expected from the course of the stone; and the same may be said of the hepatic duct and its subdivision, which, as appears in the notes, were considerably dilated and thickened.

When the notes of the case were taken on the admission of the patient into the Infirmary, it was somewhat difficult to see how the unusual muscular effort referred to, which preceded his first symptoms, could have had any bearing upon his subsequent troubles. It seems, however, not unlikely that at this time the mischievous gall-stone was removed from its bed, remaining in which it might never have given rise to any disturbance. The rigors which attended his illness corresponded probably with some motion of the stone in the duct. Œdema of the legs is a symptom which rarely occurs in jaundice from simple obstruction of the duct; and its occurrence led me to inquire whether I had mistaken the cause, or whether, associated with gall-stone, there was not also some malignant disease. The disappearance of the œdema, the regular action of the bowels, the character of the urine (freedom from lithates), the weekly increase in weight, and the absence of other symptoms of any malignant disease, were sufficient, however, to remove the doubt. The cerebral symptoms are not explicable, unless, indeed, we consider them to have been caused by the great excess of bile in the blood—*i. e.*, to cholesteræmia. An opportunity of examining the brain, unfortunately, was not given.

HOSPITAL NOTES.

ST. GEORGE'S HOSPITAL: CASES UNDER THE CARE OF DR. WHIPHAM AND DR. WADHAM.

Extensive Pleuritic Effusion.—A man, thirty-four years of age, was admitted to the ward on account of a moderately severe attack of rheumatic fever. A slight attack of pericarditis followed, but this cleared up without leaving any sign of valvular disease. He was treated with salicylic acid, dissolved by means of ammonia, but no marked benefit was seen to follow its administration. The patient suffered two relapses, but finally convalesced and was able to get about the ward, when, two days ago, dyspnoea supervened, and he was found to have a large quantity of fluid in his left pleura. The effusion rapidly increased, and displaced the heart to the right of the sternum; there was a dry cough, orthopnoea was complete, and the patient was unable to obtain sleep. The physical examination presented one point of interest. Although there was evidently a large accumulation of fluid, the vocal

fremitus was not lost over the seat of the effusion, and respiratory sounds could be heard down to the base of the lungs. On the sound side, the vocal fremitus was very strong, much more marked than on the left side. Such a large effusion occurring within three days, and rapidly increasing, called for speedy relief. A large blister was applied to the chest, and directions were given that, if the symptoms were not relieved by night, the fluid should be drawn off by the aspirator.

Hemiplegia developing in a Police-cell.—A man, thirty-four years of age and looking much older, was arrested by the police on a charge of stealing, and locked up in a cell. The next morning, he was found to be insensible and paralysed in his right arm and leg, and was removed to the hospital. When examined in the ward, besides the right hemiplegia, there was seen to be a constant twitching of the left side of the face, both around the eye and the corner of the mouth. This, however, soon passed off; he recovered consciousness, and was able to speak. A month later, twitching of the left face returned; he complained of numbness of the left arm and leg and became rapidly unconscious. In this state of coma, his pulse was full and bounding, and he was bled to fourteen ounces; while the blood was flowing, consciousness began to return and was soon completely re-established. The right hemiplegia and twitching of the left face have remained, and he is not able to protrude his tongue. The urine is of high specific gravity, but is not albuminous. It seems probable that there is an organic lesion of his brain, but its exact nature cannot be determined.

Hemiplegia.—A man, thirty-six years of age, had been sent to the hospital as the subject of epilepsy and paralysis of the right leg. A week previously, he had suddenly been seized with a fit of some kind, in which he became unconscious and fell. On regaining consciousness, it was noticed that his right leg was very weak. Inquiry showed that for two years he had been subject to attacks of vertigo. Examination showed a considerable amount of paralysis of the right leg and arm; but the patient had not himself noticed the paralysis of the arm, and complained only of his leg. The features were somewhat drawn to the left, indicating weakness of the right facial muscles, and the tongue was protruded to the right. Taste, hearing, and smell were equally good on both sides. Auscultation revealed no signs of any valvular lesion, but there were evident signs of cardiac hypertrophy. As this might depend upon chronic Bright's disease, directions were given for a careful examination of the urine. A drastic purge was ordered.

Vesicetion in a Case of Opium Poisoning.—A patient was lately brought to the hospital under the influence of a fatal dose of laudanum. The pupils were contracted to pin points, the face was cyanotic, and he was perfectly comatose. Other remedial measures failing, he was bled to ten ounces, but without success, and died shortly afterwards. The fluid drawn off by the stomach-pump during life, the scrapings of the gastric mucous membrane after death, and some fluid taken from the intestines, were respectively tested for opium by perchloride of iron and nitric acid; all exhibited the red reaction with iron, indicating meconic acid, especially the fluid from the intestines. The urine also gave a similar reaction.

Psoriasis treated by Chrysophanic Acid.—A little girl had been troubled with psoriasis for many months, and various remedies had been used without any benefit. An ointment of chrysophanic acid, two scruples to the ounce, was then used, and produced a speedy disappearance of the cutaneous disorder. The general cutaneous surface, where the ointment had been rubbed in, was stained a deep mahogany-brown, while the spots previously the seat of psoriasis were left white.

In another case of psoriasis of five years' standing, under Dr. Whipple's care, the eruption was quickly cured by the use of the ointment of chrysophanic acid, and after its disuse the eruption did not reappear. Some transient misty feeling in the head and slight lachrymation were observed, but the urine was not affected.

Salicylic Acid as a Drug.—In some cases, the use of salicylic acid produces troublesome nausea and vomiting; to check this, Dr. Whipple frequently orders with it the dilute hydrocyanic acid, which has generally prevented this troublesome complication.

MR. HOLMES' WARDS.

Rupture of Kidney.—A man had sustained severe injury as the result of an accident. Some ribs had been fractured, and signs of emphysema had resulted, with hæmoptysis; firm bandages were applied round the chest, and this injury did well. Soon after admission, the patient passed much blood by the urethra, and this was followed by the formation of a large, firm, and tender swelling in the right loin, projecting forward into the abdomen. Pus then appeared in the urine, and the case was evidently one of rupture of the kidney, with perinephritic abscess. During the last week, the general swelling has lessened; and at the same time it has become more prominent at its anterior part. At present, there is no œdema of the skin or blushing; the blood has

disappeared from the urine, but a little pus is found in it on microscopical examination. A poultice is applied to the abdomen, but no active measures will be resorted to till there are further indications of pus approaching the surface.

Operation for Removal of an Exostosis.—Mr. Holmes operated two months ago upon a boy for the removal of a small exostosis of the tibia. A small opening having been made in the skin, a narrow chisel was passed to the neck of the tumour, which was then chipped off and left *in situ*. No ill effects followed. It has been stated that exostoses, when thus broken off, become absorbed; but in this case firm union has recurred, matters being now with the boy much as before the operation.

Keloid of the Face.—As the result of an injury from lime, several ugly patches of keloid had resulted round the face and eyes of a patient. Mr. Holmes has found that the removal of keloid scars and plastic transplantations often result only in a greater deformity; the skin transplanted frequently becoming affected with keloid as much as that removed. The growth is being treated with frequent applications of blistering fluid.

Primary Scirrhus of the Skin.—A woman, greatly exhausted and displaying in a marked degree the cancerous cachexia, was admitted on account of numerous scirrhus nodules in the skin. A large nodule, apparently primary, was found in the skin of the axilla; others covered the mamma, though the gland itself appeared to be free from deposit; numerous nodules were also found on the back and scalp. In many parts extensive ulceration had occurred. The case was manifestly beyond operative treatment, but hypodermic injections of morphia were used to lessen suffering.

Fracture of both Olecranon Processes.—A boy, as the result of a fall, fractured both olecranon processes. In neither elbow was there any displacement, and but little effusion followed. Both arms were put up on straight splints in an extended position, and the boy was kept in bed; a good result followed on each side. A case of this fracture, treated by Mr. Holmes some years ago, resulted in bony union; and a specimen is now in the museum of the hospital of a recent case in which firm bony union occurred, though there was much thickening around the fracture. Had the patient lived longer, it is probable this thickening would have been mostly absorbed.

Perineal Section. (Mr. HAWARD.)—A man was brought into the hospital who had sustained an accident, two hours before, by falling with his full weight across a bar, which struck him between the thighs. When admitted, the scrotum and penis were already greatly swollen and soft to touch; a large swelling was also rapidly forming in the left inguinal region. A large sized elastic catheter was passed, but no urine came. As it was thought that this might be due to obstruction of the catheter by clot, a little water was gently injected; the water passed in easily, but did not return. The man had passed water shortly before the accident. Examination of the bony pelvis indicated no fracture, and the finger in the rectum detected no injury. It was clear that the urethra was injured, and that extensive exudation of blood was occurring. It being certain that retention and extravasation of urine must quickly follow this state of things, the catheter was withdrawn, and the patient anaesthetised with ether. A median-grooved staff was held in the urethra, while Mr. Haward cut through the median line of the perineum on to the staff; the swelling of the tissues was so great that the blade sunk nearly four inches before it reached the staff. The finger being passed into the wound, an attempt was carefully made to pass a silver perineal catheter from the cut in the urethra into the bladder; the attempt failed, and the patient being much exhausted, further treatment was deferred. A free exit having been made for the extravasated urine, the wound was plugged with dry lint to check hæmorrhage, and the patient was returned to bed. In a few days, when swelling shall have subsided, the catheter will probably pass into the bladder with less difficulty.

CHLORAL IN WHOOPING-COUGH.—Dr. Mulligan of Wirksworth, writing in the August number of the *Practitioner* on the action of chloral in whooping-cough, says: "Early in the present year, I saw five cases of this disease in one house, the ages of the patients varying from eighteen months to ten years. All were uncomplicated; the characteristic cough was well marked, attended with a considerable discharge of thick glairy mucus. In the oldest, the spasms were violent; and in three cases the paroxysms terminated in vomiting. Belladonna and bromide of potassium were administered without benefit. I then gave chloral-hydrate in doses of from one to five grains three times daily with marked benefit. Seven other cases have since been treated successfully in the same way. The decided effects produced by this drug on reflex irritability are likely to result in much good from its use in this disease."

REVIEWS AND NOTICES.

ZIEMSEN'S CYCLOPEDIA OF THE PRACTICE OF MEDICINE. Vol. VI: Diseases of the Circulatory System, by Professors Rosenstein, Schroetter, Lebert, Quincke, Vogel, Wagner, and Pöschner and Steffen. The English Translation, edited by ALBERT H. BUCK, M.D., New York. Pp. 1014. Illustrated. London: Sampson, Low, and Co. 1876.

THE sixth volume of this important work contains, besides Diseases of the Circulatory System, chapters on Whooping cough, and on Diseases of the Lips, Cavity of the Mouth, and Soft Palate; and, when we mention that it numbers amongst its authors such names as Rosenstein, Schroetter, Lebert, Vogel, and Wagner, and amongst its translators Balfour of Edinburgh, Dwight of Boston, Emerson of New York, and Cohen of Philadelphia, we have said enough to stimulate the interest and expectation of all who are concerned in the study of cardiac diseases. Whether the examination of the contents of this volume will fully satisfy the expectations thus excited, is a question upon which some difference of opinion may possibly be entertained. There can be no doubt, however, that most of the articles bear the marks of thoroughness of clinical exploration and precision in pathological details. On the other hand, we think it may be fairly complained, with respect to other articles, that they scarcely present that originality of treatment or completeness of detailed exposition which we should certainly be led to expect in a work of such pretensions and magnitude. We notice especially the very brief and imperfect treatment which is accorded to the important subject of cardiac neuroses. A few pages only at the end of Schroetter's article on Diseases of the Heart-substance are devoted to "nervous palpitation", and these bear the most obvious signs of hasty compilation. There is no trace of any original interest in the subject on the part of the author; and we look in vain throughout the volume for any mention of angina pectoris or of exophthalmic goitre, two most important subjects, surely better fitted to be treated of in a volume which deals with cardiac diseases than whooping-cough and diseases of the lips.

We notice, too, in the translation of Professor Rosenstein's article, some specimens of English which, to say the least, are awkward and inelegant. For instance, at p. 21, we find "*thoraciac region*" for "thoracic region"; at p. 112, "*splenic disease*" for "splenic"; at p. 28, the term "*deep situated impulse*" applied to depression of the apex-beat, the translator, apparently, not being aware that "deep" means below the surface. At p. 22, we read of "a movement traversing the whole region from above and the right *towards below* and to the left". We venture to hope that "towards below" will not often be made to do duty for "downwards". It is only fair to add that in the other articles the translators have done their work well and carefully; and Dr. Balfour is especially successful in faithfully rendering his original into easy and graceful English.

Rosenstein contributes an Introduction to Diseases of the Heart and an article on Diseases of the Endocardium. In speaking of the causes of the sounds of the heart, he rejects Leared's and Talma's views, and maintains those formerly advocated by Stokes and recently corroborated by Ludwig, viz., that the first sound is partly muscular and partly valvular, the latter element predominating and being of chief importance *vis-à-vis* of its pathological states. The second sound he regards as wholly due to varying tension and vibration of the sigmoid valves. His observations on the pulse, arterial and venous; on the conditions which give rise to reduplication and division of the cardiac sounds; and his account of the mode of production of cardiac murmur, are careful, clear, and complete analyses of these several phenomena.

In speaking of reduplication, he makes the following judicious practical observation: "Wherever the transition from a doubled or divided sound to a murmur is very slight, the pathological signification of the symptom is undoubtedly that of a murmur. This is, in all probability, too, the case when the interval between the two parts of the double sound is particularly long" (p. 52). In confirming Ringer's observation that murmurs loudly audible in the horizontal posture sometimes vanish or become very indistinct when the vertical posture is assumed, he expresses the opinion, which is quite in accordance with our own experience, that the "sitting posture is the most favourable for hearing endocardial murmurs".

Diseases of the endocardium he divides into *Acute Diphtheritic (Ulcerative) Endocarditis*; *Acute and Subacute Verucose Endocarditis*; and *Contractive and Sclerotic Endocarditis*.

It may be doubted whether it is not somewhat premature to apply the term "diphtheritic" to that form of endocarditis which has been described as "ulcerative" in this country, first by W. S. Kirkes, and

subsequently by Ogle, Moxon, Whipham, and others. Rosenstein defends the use of this term on the ground that, in the dirty grey patches which may be detached from the endocardial surface, there are found what Virchow describes as "the most variously shaped granular particles" greatly resembling diphtheritic formations; and that these, "in a small but well-attested series of cases, have been proved with certainty to consist of parasitic organisms of the micrococcus genus". Similar parasitic organisms are also stated to have been found at the areas of the embolic metastases in other organs. It is also stated that when this disease arises in connection with the puerperal state, "undoubted diphtheritic affections have been seen on the mucous membrane of the uterus and vagina"; and that "the likeness between the diphtheritic matter found on the genitalia and that which covers the endocardial abscess is so strong, and parasitic organisms have been detected with such certainty in both cases, that nothing but the most stubborn incredulity could deny a connection, brought about by the blood, between the affection of the genitalia and the endocardial centre". Notwithstanding this statement, we shall probably hesitate some time longer before we adopt the term "diphtheritic endocarditis" in this country.

Rosenstein makes some original and interesting observations as to the etiology of the more common form of endocarditis, that which he calls "subacute verucose endocarditis".

With regard to the frequency of cardiac complications in rheumatism, he points with justice to the fallacy of trusting to the statistics collected by individual observers, and calls attention to the startling discrepancies discoverable in these: *e.g.*, Bouillaud fixes it at 55 per cent., Budd at 48, Fuller, Wunderlich, and Lebert at 23; while, if we confine our consideration to subacute endocarditis, Bamberger gives 20 per cent., Lebert 17.1, Wunderlich 15.7, and Roth 12.6! He says, "of one thing we may rest assured, endocarditis is far oftener assumed than really present"; and he regards these "unfruitful statistics" as dependent on "the expansive power of the statistician's conscience as regards diagnosing the presence of endocarditis". The truth is, that acute diseases of all kinds vary so much in their course and conditions, that statistics, to be of any value whatever, must be collected from the observations of a vast number of trustworthy investigators, the cases must be exceedingly numerous, and the observations extended over a wide area of time. And then, after all, as we cannot alter the variability in the manifestation of these diseases, of what practical value will be the deductions from these statistics?

Rosenstein, agreeing with Vogel, refuses to recognise any distinction between severe and light cases of rheumatism as regards their influence on cardiac complications; nor does he share the opinions of West and Rilliez and Barthez, that the majority of cases of rheumatism occurring in childhood are complicated by endocarditis. He says: "I have repeatedly seen cases of acute rheumatic arthritis in children which were not followed by endocarditis; and, indeed, I consider the disposition to endocardial affections, on the whole, smaller in childhood than after puberty." He points out strongly the dangers of pregnancy in cases where heart-disease has already been acquired, on account of the tendency it induces to the development of the recurrent form of endocarditis. When endocarditis follows scarlet fever, he does not believe that there is any necessary link between this affection and the rheumatic complications so frequently seen, nor does he admit renal inflammation as an etiological factor in the heart-disease which sometimes accompanies it, but regards "both as the results of a third force common to both".

In speaking of prognosis in mitral disease, Rosenstein says, "there are cases on record of patients who have lived over fifteen years with a valvular disease"; a fact which would certainly not appear remarkable to an English physician, for we are not unacquainted with cases of valvular disease where life has been prolonged for more than thirty or forty years after the establishment of the malady. Ought we to infer from this that we manage these cases better than they do in Germany?

In the treatment of valvular diseases, next to digitalis in value he places the *pneumatic method*, *i.e.*, the inhalation of compressed air by means of Waldenburg's apparatus. It raises the tension of the aortic system; and, in patients whose pulse could scarcely be felt, after breathing compressed air, the pulse became full and strong, and the urine, which had been very scanty, became abundant. He considers the pneumatic method a valuable substitute for digitalis when the latter aggravates gastric complications, or, for any other reason, does not agree with the patient.

The succeeding article, by Schroetter, on Diseases of the Heart-substance, appears to us to be a very unequal performance. That portion which treats of wounds and traumatic rupture of the heart is the most complete and valuable part of the essay; but his account of

hypertrophy and dilatation, subjects in which we naturally expected a full exposition and discussion of the most recent investigations and controversies, is reduced to a meagre compilation, which, moreover, has a loose and fragmentary aspect. So important a question as the relation of cardiac hypertrophy to chronic Bright's disease surely demanded something more than a mere passing reference in a work professing to be a Cyclopædia of Practical Medicine.

Lebert, in his article on Congenital Diseases of the Heart, gives a prominent place to the consideration of the relation between stenosis of the pulmonary artery and pulmonary and general tuberculosis. He believes the relation to be a causal one; and the diffused inflammatory destructive processes set up in the lungs to be induced by the irregular supply of blood to those organs arising from the stenosis of the pulmonary artery. He asserts that during the last twenty-five years pulmonary tuberculosis has been observed in one-third of all cases of this disease. The whole of this portion of Lebert's article merits careful study.

We naturally turn to Quincke's article on Diseases of the Vascular System, to ascertain if any new light is thrown by him on the controversy which has excited so much interest in this country as to the relation between chronic Bright's disease and the concomitant changes found in the vascular system. After mentioning a remarkable form of arterial disease, which Kussmaul and Maier have described under the name of periarteritis nodosa, and for the detailed account of which we must refer our readers to the volume itself, Quincke makes a few remarks on Gull and Sutton's so-called arterio-capillary fibrosis, and sums up his meagre notice of the researches of these observers by the conclusion that "further inquiries alone can determine how far these views are tenable; the measurements are undoubtedly in so far uncertain as that no attention could have been paid to the state of distension or contraction of the vessels". In subsequently referring to the "contradictory views" of Johnson, we doubt if the latter observer would accept the following as a correct statement of his opinion. "He (Johnson) leaves it doubtful whether this hypertrophy (of the muscular arterioles) is to be regarded as antagonistic to the cardiac hypertrophy, or whether it is due to the persistent irritation of these arterioles by abnormal contents—retention of the renal excretions—by which contraction and narrowing of the vessels, and ultimately cardiac hypertrophy, are produced." We certainly had imagined that Dr. Johnson had spoken, not doubtfully, but with very great positiveness, on this matter. He adds—"further observations of numerous cases are required to reconcile these contradictory observations, and the investigation is rendered all the more difficult that we have no positive knowledge of the actual size of the smallest arterioles in the various organs, nor of the normal relation between their lumen and the thickness of their walls, while the varying degree of contraction of these arterioles and the varying amount of cadaveric rigidity (quite irrespective of diversities in the methods of preparing the specimens) introduce serious complications into any attempts at comparative measurements".

The chapter on Aneurism is a fairly exhaustive, as well as a careful clinical, exposition of the subject, and will long remain a valuable summary of what is known about aneurismal affections. In referring to the signs of aneurism of the thoracic aorta, he calls especial attention to the fact that murmurs must not be regarded as common signs of this disease, "in most cases they are absent"; and he makes some sound practical observations as to the amount of importance that should be given to the results of comparative sphygmographic investigation of different arteries. These, he says, "may undoubtedly contribute much to the precision of our diagnosis of the situation and extent of these tumours; yet, in estimating the results, we must never forget the many other possible anatomical sources of similar alterations; and particularly we must never lay too much stress upon delay of the pulse as a diagnostic sign of aneurism, nor, indeed, in most cases, need we expect to find it".

We pass over Bauer's excellent and practical article on Diseases of the Pericardium to say a few words on Steffen's article on Whooping-cough at the end of the volume. We entirely agree with him in his statement that a catarrh of the respiratory organs lies at the foundation of whooping-cough, and that this depends on the inhalation of a contagium, which may be simply of a gaseous nature, or, more probably, consists of very minute particles. This sets up a catarrh, which produces a secretion of a specific character. This secretion contains the infectious matter, which increases with rapidity, and is exhaled in the breath of those affected. With respect to treatment, he strongly advocates the further trial of antiseptic inhalations—solutions of nitrate of silver, vapour of carbolic acid and turpentine, solutions of quinine, and the internal use of quinine. With this recommendation we also cordially agree.

In concluding our notice of this volume, we beg to say that,

although it shares the inevitable fate of all treatises which are the work of many hands—viz., inequality of execution—we yet unhesitatingly recognise it as a very valuable contribution to the study of cardiac and vascular affections. In most of the articles, the references to the literature of the subjects treated of are full and exact; and we find no sufficient ground, in this volume at any rate, for the complaint that the labours of English observers have been overlooked; the rich stores of information contained in the *Transactions* of our Pathological Society are referred to again and again, and the names of Balfour, Fuller, Murchison, Sieveking, Ringer, Corrigan, Leared, Peacock, Stokes, Herbert Davies, Graves, Richardson, Hughlings Jackson, Myers, Wilks and Moxon, Clifford Allbutt, C. Heath, Cockle, Holmes, and others, are repeatedly mentioned.

A GUIDE TO THERAPEUTICS. By ROBERT FARQUHARSON, M.D., F.R.C.P.; Lecturer on Materia Medica at St. Mary's Hospital Medical School. Pp. 300. London: Smith, Elder and Co. 1877.

DR. FARQUHARSON'S name is already well known in connection with the subject treated in this valuable and interesting text-book, in which he proposes to "present it in briefer compass and more systematic form than do larger manuals, and unencumbered with botanical or pharmaceutical details". An introductory essay precedes the systematic portion, which is followed by a well selected and rather novel series of "puzzle questions".

The essay contains general remarks on therapeutics, and special advice as to prescriptions. Like the rest of the work, it is cast in a modern mould, and is well up to the level of recent knowledge. Under the "delicate and difficult" question of dosage, small frequent doses are commended in acute cases, and "especially of drugs which are rapidly thrown out of the system". Minim doses of aconite hourly or bi-hourly in febrile catarrh or tonsillitis are so far generally adopted, that it seems scarcely necessary to introduce them with the formula "we are taught by Ringer and others", but Dr. Farquharson is so courteously desirous to acknowledge an obligation, that almost every page teems with names. This constant mention of authors would be more useful if accompanied by some definite statement or qualification, or at least by a reference to originals.

Antimony, ipecacuanha, calomel, prussic acid, are all commended in minute doses; whilst, on the other hand, succus conii and belladonna are ordered in ounces and drachms respectively. The author fairly objects that the dosage adopted by the *British Pharmacopœia* has obtained an authority to which it is scarcely entitled; for, to fix a maximum dose of succus conii or tincture of digitalis at one drachm, of quinine at ten grains, etc., does not represent the results of modern observation. Simplicity of prescription is commended; but it is pointed out that diuretics, "cough medicines", purgatives, alkalies, tonics, etc., often act better when "compound". The recognised modification of action, as of morphia by atropia, might be more fully stated and illustrated by such examples as the combinations of bromides with iron, hydrobromic acid with quinine, etc. A suggestion to give hydrocyanic acid with antimony to obviate nauseant effects seems new to us.

The law as to acids checking acid secretions, and alkalies alkaline, under certain conditions is explained after Ringer, and as the author has lately developed it in the *Medical Press* (July 18th); and the tolerance by children of full doses, e.g., of belladonna, arsenic, and iron is rightly stated. The influence of habit, of idiosyncrasy, of tolerance, etc., is also considered, but in no new light.

Passing to the main body of the work, the general impression given is of wide reading and of modern ideas. Dr. Farquharson would scarcely claim any originality in the *matter* of his book, but rather in its manner; and we could often wish for more definiteness of statement or evidence of personal observation. We learn that "sulphur is supposed to exert a stimulating influence on skin and mucous membrane"; "that mercury is supposed to stimulate absorption by rendering effused fibrine less cohesive", etc. "Fashion" is more frequently alluded to than any definite principle. Fashion may be a very real thing in modern practice, but it is scarcely a good ground to teach upon.

According to the plan of the treatise, inorganic substances are arranged first in alphabetical sequence, and then the organic in natural orders. Under each substance we have first its local external use, if any, and then parallel columns of physiological and therapeutical action: the latter is justly meant to be a corollary to the former as far as possible. The action on the nervous system is first considered, then the effect on circulation, respiration, temperature, and secretion; afterwards any "specific or general poisonous action; then contraindications, antidotes, and, finally, the dose, mode of administration, and illustrative prescriptions".

Under appropriate typical drugs we have, what is very desirable in a text-book, general considerations on *groups*, such as, under potash, diuretics, which are classified into stimulating, saline, and mechanical. We miss, however, tonics and stimulants, narcotics and sedatives, which would equally well serve as "pegs" upon which to hang information. The plan of parallel columns has a certain use, especially in connecting physiological with therapeutical action; but blanks are conspicuous sometimes. Thus, under carbolic acid, four lines on one side have to balance nearly two pages on the other; and we get occasionally curious neighbours, as when the action of phosphorus on the intestinal secretion is balanced by its employment in leucocythæmia. Some of the separate headings scarcely express themselves; thus, under Alum, "Action on Secretion", we learn merely that it "occasionally acts as an emetic or purgative". Still, many sections contain much information put in an interesting manner. Prussic acid reads well, and includes a note on Preyer's experiments. Under Phosphorus, Wagner's bone-observations are referred to; Chloroform and its congeners are fully given; and the sections on Belladonna and Digitalis have clearly been labours of love. The prescriptions are good and useful, especially for students, towards whom the author has evidently had a special eye, and for whose benefit doubtless he penned the observation, that "the preparations of iron are so very numerous, that no one but a student on the very brink of an examination would think of burdening his memory with them all".

Grammatically speaking, we think that a *q. s.*, *quantum sufficit*, should be introduced after the quantity of the last-named ingredient or excipient in a prescription, and before the preposition; thus:—"Infusi calumbæ *q. s.* ad uncias *sex*."

Space will not permit us to give more than one or two specimens of the terminal questions. "4. A patient comes to you in great alarm, thinking that he is paralysed; his legs feeling weak and heavy, and his gait becoming staggering; a few pimples of acne on his face... sleeplessness... what is a probable cause of his symptoms?"—"40. You are called to see a patient with advanced phthisis, in whom night-sweats are causing serious exhaustion. Astringent remedies having failed, what drug would you recommend, and in what doses?"

It is proverbially easier to criticise than to compose, and we do not wish to seem to undervalue Dr. Farquharson's idea as it stands, if we terminate with a notice of some, perhaps minor, lapses and omissions with reference to future editions. The Harrogate chalybeate is spoken of as a carbonate, but it is *par excellence* a chloride. Charcoal is good in diarrhoea, not only in flatulence; and, if Bragg's biscuits (which with us have never answered) be mentioned, Leard's capsules of vegetable ivory, or some of the many other varieties of charcoal, might be referred to. A sensitive dyspeptic readily recognises a difference between box, willow, etc. Under Sulphur, if the ointment of the *British Pharmacopœia* be too strong, an alternative might be given, or the value of added potash explained. Magnesia is valuable in lithiasis, and some of its fluid preparations deserve mention. Under Phosphorus its action on the blood is not mentioned, nor its ozonising power (Gubler). Capsules containing it are suggested, but there is no note of a good pill or emulsion, or tincture. Turpentine is given as a "prophylactic against (phosphorus) poisoning"; but it should be distinctly understood that only the crude ozonised turpentine has given good results. Sulphate of copper is also an antidote, but is not mentioned. Iodine injections are said to be good; but there is no note as to their strength nor possibly unpleasant consequences. Iodoform, valuable as it is, finds no place; oxide of silver, excellent in gastralgia, is also unnoticed. Under Tar, an oil of Cade and a "liquor carbonis" deserve allusion. In the section on Potassium, we find no reference to oxidation nor to ultimate effects on the blood; the palsy produced by it is set down as spinal, but it is at least as likely to be peripheral and muscular only (Podocœpow). A rather more serious omission occurs under Opium, where there is no mention of its often causing convulsion in children; and the statement that it "procures sound refreshing sleep in simple insomnia, exhausted nerve-conditions, delirium tremens, meningitis, and numerous other diseased conditions which the reader can readily recall", seems to need some qualification. To say that "Sir H. Thompson is of opinion that the bladder cannot absorb opium" is a very partial hint on an important point, and ample evidence might be found to the contrary (Dr. Brown-Séquard and others). Arsenic is said to have a tonic influence on the nervous system, without any qualification as to dose, etc.; its value as a caustic in lupus and cancer is considered to be overbalanced by its danger. The section on Quinine is good, but its use in pyæmia is unrecorded, nor have we any note as to "quinetum", "quinovia", or other recent and valuable alternatives. Under Ipecacuanha, its use as an *emena* in dysentery deserves record; and under Hyoscyamine, recent French evidence of its value in tremor (Oulmont, *Bulletin*, 1873) might be

added to the abstract of Lawson's observations. For all such additions, and for many others, room might be found, by a judicious economy of words and space, without much increase of size, in what we think, however, many will find—as it is—a very handy and a very welcome book.

ON THE INFLUENCE OF CERTAIN MENTAL AND BODILY STATES UPON THE IMAGINATION, ESPECIALLY AS ILLUSTRATED BY SHAKESPEARE AND OTHER POETS: WITH OTHER LITERARY REMAINS OF S. W. LANGSTON PARKER. Birmingham: Josiah Allen. 1877.

THE literary remains of S. W. LANGSTON PARKER, F.R.C.S., late Consulting Surgeon to the Queen's Hospital, Birmingham, have an interest for the lay as well as the medical reader. It is indeed for the former rather than the latter—for the friends who knew and loved him while living, and who wish to keep fresh his memory—that the book is written. With the exception of the references in the obituary notice of Mr. Bates, no mention is made of Mr. Parker's surgical works. These, as our readers are aware, were both numerous and important, and are interesting further as showing how the general practitioner of medicine may gradually specialise and limit his attention to particular departments of medicine or surgery. Mr. Parker, in the beginning of his medical career, wrote on diseases of the stomach, and then on dietetics generally. Afterwards, he published a monograph on some painful affections of bone, and, in the same year, 1852, he drew up for his students at the Queen's College a set of general directions for clinical observations on the more important points of surgery. Mr. Parker was at that time forty-nine years of age, and the special attention which he was then giving to surgery was not narrowed by a too exclusive devotion to it, but was widened and enlarged by a thorough knowledge of all departments of his profession. We would commend this observation to the profession. There are among us a growing number who seem to confound familiarity with a department sufficient for the attainment of skill in it with working in that department to the exclusion of all others. Such, we venture to say, has not been the way by which the most eminent medical men have achieved their success. Hippocrates was a general practitioner with a hospital appointment, who practised at Cos, and who, though the turn of his mind led him to prefer medicine, had attended to surgery and obstetrics. Galen worthily imitated his master. In more modern times, Sydenham had a wide acquaintance with the practice of his profession, though he also preferred medicine. Boerhaave was simply the greatest general practitioner the world has ever seen, his eminence being so great, that a letter addressed to Dr. Boerhaave, Europe, is said to have found its way to him from China. Haller could not have created physiology if he had not known all the domain of medicine conquered up to his own date. And the late Sir James Simpson was not more remarkable for skill in his own particular department than for his almost universal knowledge. Mr. Parker did well to follow the example not only of the greatest medical men, but of those who have attained the greatest distinction in all departments of knowledge; and we cannot help thinking that his researches into the natural history of syphilis and his improvements in uterine surgery were better, and not worse done, because in general practice he had become acquainted with all the ailments of suffering humanity. Some feeling of this kind seems to have been in the minds of his biographers, since the greater part of the book is taken up with the republication of a course of lectures which Mr. Parker delivered, at the age of 32, to the Birmingham Philosophical Institution in Cannon Street. These lectures are "On the Effects of Certain Mental and Bodily States upon the Imagination", and give evidence once more that a medical man may be at once skilful in the practice of his profession and an accomplished philosophical thinker. The form in which these lectures are cast is in itself beautiful; the diction is clear, and the words well chosen; while the amount of reading, both in philosophy and poetry, of which they give evidence, is not only considerable, but well selected. Comparatively few men of thirty-two years of age have such an acquaintance with the literature of their own and other countries.

The prospectus of a course of physiology indicates a wide view and a fair grasp of the subject, though it is not to it that the author owes his fame. The poetical effusions now published under the title of *Juvenilia* are exactly what the title implies, and prove that, had the writer devoted his attention to poetry, he would probably have attained more than average excellence. On the whole, we consider the book a not unworthy memorial of a man whose example we should like to see more widely followed in the profession, while his Birmingham friends will find in it a renewal of the days of Watts, Scholefield, Blair, Prince, Levison, and Miss Zwamley.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, OCTOBER 26TH, 1877.

THOMAS BRYANT, F.R.C.S., Vice-President, in the Chair.

A Case of Hysteria with Contraction of the Lower Limbs, Anæsthesia, and Ischæmia in a Boy.—Dr. HENRY THOMPSON communicated the report of this case. The patient, aged 14, son of a French father and English mother, was admitted into the Middlesex Hospital on May 10th, 1877. He had always been delicate, but had had no definite illness until two months before admission, when he began to lose flesh, became low-spirited, and complained of vertical headache. He had occasional paroxysms of laughing and crying, accompanied by a loose barking cough and globus. For a month, he had been unable to walk, owing to paresis, rigidity, and distortion of his lower limbs. On admission, his pulse, temperature, and respirations were normal, and remained nearly so throughout the case. His voice was almost inaudible, but was strengthened by weak faradism. The legs were firmly flexed upon the thighs, and the feet extended as in talipes equinus. The genital organs were ill-developed. Anæsthesia and ischæmia were prominent symptoms from first to last; and on May 18th, experiments were made to define those conditions, with the following results. At the time of observation, he was very impassive, but the senses of sight and hearing were normally acute. There was complete cutaneous and deep anæsthesia to ordinary and painful impressions on his cheeks, forearms, and legs, in fact, over the whole body; the punctures were made down to the bone, and none of the punctures were followed by any bleeding. Faradism being applied to the right forearm, the seats of puncture began to bleed, but the anæsthesia persisted. Gold coins were then applied, and it was noticed that, after their application for ten minutes, sensation returned over those regions, and punctures produced bleeding; the range of sensibility gradually diminishing in every direction from the area over which the coin was placed. These experiments were repeated on the 19th, 21st, 29th, and on several subsequent occasions, with invariably the same result. Like observations were made with other metals, insulated and non-insulated, and with wood, with the boy's attention drawn to it, or, on the other hand, wholly without his knowledge; but only with the gold could the above results be obtained. On one or two occasions the gold failed, but never when it had been applied so long as ten minutes. Once a puncture made into the leg when he was asleep produced pain and free bleeding. In about a month after admission, he had so far recovered the use of his limbs as to be able to walk about with the aid of a stick. It was not until fully three months after his admission that the anæsthesia and ischæmia passed away; and he left the hospital on August 25th, able to walk fairly well, and with his sensibility and capacity for bleeding everywhere normal. With the exception of being treated for two severe attacks of bronchitis, shower-baths, faradism, valerian, cod-liver oil, and iron were the only remedies adopted. Dr. Thompson pointed out that the case was one of pure and simple hysteria in a boy, who was singularly intelligent, thoroughly truthful, straightforward, and uncomplaining; but who appeared to have been foolishly indulged by an overfond mother, and was of rather an effeminate disposition, and was possessed of ill-developed genital organs. Possibly, the latter was the main element in his predisposition. The symptoms included paresis, contractions, and anæsthesia, amounting to analgesia, which, unlike the majority of cases, was distributed equally on both sides. Thirdly, there was the strange feature of ischæmia; and, lastly, the influence of the gold coins. The author of the paper then dwelt at some length upon the nature of this influence; he considered that what is known as the "moral" theory, which has the support of Dr. Russell Reynolds, although no doubt an element in this, as in every other case of hysteria, could not altogether explain the result of this experimentation. Thus, the gold was operative when the boy was told and believed it was silver; and the silver was inoperative, although the boy believed it to be gold. On the other hand, so far as the anæsthesia was concerned, a puncture made when the boy was fast asleep was evidently felt, and produced bleeding.

Dr. ALTHAUS said that the case described in the paper was particularly interesting just at this time when the investigations of Charcot and his pupils at the Salpêtrière had drawn considerable attention to the phenomena of anæsthesia in hysterical persons. During a recent visit to Paris, Dr. Althaus had carefully examined the cases in M. Charcot's wards, and had come to the conclusion that the phenomena described were all genuine, and could not possibly have been produced by shamming on the part of the patients. The anæsthesia and analgesia

in them were so profound that they were utterly unaware of long and sharp needles being thrust not only through the skin, but the cellular tissue, muscles, periosteum, and even into the cranial bones. There was at the same time a low temperature, loss of muscular power, and anæsthesia of the special senses, which had not been alluded to in Dr. Thompson's paper. There was also complete ischæmia, so that needles could be rapidly pulled out of the flesh of the patients without the slightest hæmorrhage occurring. It was at the present time impossible to explain why all these symptoms should yield in a very short time to the application of metallic plates; and M. Charcot had himself given up all attempts at explanation for the present. There was, however, no doubt of the fact that, when gold and other coins or plates were applied to the skin of the affected parts, the sensation returned, that profuse capillary hæmorrhage occurred from punctures, and that the special senses recovered their functions. At the same time, the temperature rose by 8 deg. or 10 deg., and the muscular force, as measured by the dynamometer, increased considerably. With regard to shamming, Dr. Althaus could not understand how, by any amount of artfulness, the patients could prevent hæmorrhage from punctures, or could, when they remained all the time under observation, cause the thermometer to rise by 10 deg. With regard to Dr. Russell Reynolds' explanation that the recovery of function was owing to mental impression rather than to the application of a special therapeutical measure, this would account for many phenomena, but not for all; it could, for instance, not explain why sensation should in some persons only return after the application of copper, while in others it would only return after gold or iron had been used. It had been shown that the application of all oxydizable metals gave rise to the development of galvanic currents, which varied in power according to their affinity for oxygen. In these researches, a Du Bois-Reymond's galvanometer multiplier of 25,000 convolutions was used. The needle remained unaffected only with platinum, but gave a deflection of 3 deg. with pure gold, 10 deg. with gold coins, and 15 deg. with copper; and a feeble galvanic current, corresponding in strength to that evolved by the metals, was equally effective in restoring sensation. Phenomena of this kind had, however, not only been observed in hysterical women, but also in cases of undoubted structural disease of the nervous centres; as, for instance, in a case of hemiplegia owing to cerebral hæmorrhage, in which there had been hemianæsthesia and hemichorea for several years, and in which the application of iron restored sensation—copper, gold, and zinc having remained inactive. A curious fact was that, while in the hysterical patients the effects of these applications were temporary, they were more or less permanent in cases of structural disease of the brain and spinal cord. Dr. Althaus finally described the curious phenomena of transfer of sensibility and nervous force altogether from one side to the other, which occurred in the patients alluded to during the application of the metals; and expressed his opinion that those who studied these perplexing phenomena would neither ridicule nor deny them; but that much further observation was necessary for assigning to these their proper place in the pathology of the nervous system.—Dr. BROADBENT had seen most of the facts described by Dr. Althaus. All the young females under his care with this affection had been engaged in sewing. He had had a case similar to Dr. Thompson's, the report of which he had sent in to the Society for reading and discussion, and which he would now shortly relate. The patient had hysterical anæsthesia of both legs below the knee, and had been treated by a metallic band, a cure resulting. She was a housemaid aged 17, and was admitted into St. Mary's Hospital in July 1877. She had enjoyed good health up to the age of fifteen, when the catamenia were established, but then began to suffer from pain in the back and side and headache at each period, and for four months had been unable to keep a situation on account of increased suffering. She never had hysterical attacks. Muscular weakness in the arms and loss of sensation in the legs gradually came on; and, on admission, pinching or pricking of the legs below the knees or of the feet was not felt. She did not even perceive that anything was being done when a pin was pushed under the toe-nails. She stood with the feet close together, or walked when the eyes were closed. The limbs were cold, and did not bleed when pricked. Sensibility was normal above the knees and on the rest of the body. There was a little tenderness on pressure over both ovaries, more on the left side. Compound galbanum pill was given, but no improvement in the condition of the legs had taken place after many days. A metallic band or garter was then ordered to be put round the right leg, just below the knee. Sensation gradually returned, and in six days (not in a few minutes, as in Dr. Thompson's case) was normal in this limb, while the left was still absolutely insensible. The band was now shifted to the left leg, upon which sensation returned in it; and thirty-one days after admission the patient left the hospital well. The treatment was suggested by the effects of the application of plates of gold or other metals in hysterical hemianæsthesia, as described by Pro-

fessor Charcot. In these cases, sensation returned in fifteen or twenty minutes; and it appeared to be important that a particular metal should be employed in a given case, gold being the metal most generally useful. Feeble galvanic currents were found to be set up by the contact of the metal with the skin; and it was supposed that in these might reside the agency by which the result was effected. In his (Dr. Broadbent's) case, no care was taken in the selection of the metal, and this, with the anticipation of the favourable result, brought it about. The attention directed strongly to a part could induce a pain there; why, then, should it not be able to produce improvement in the sensation at the same part? Dr. Broadbent did not understand the value of one metal over another in these cases; nor did he know if the result in his case was simply due to expectant attention or to some galvanic impulse.—Mr. BRUDENELL CARTER said that many years ago he had had his attention particularly drawn to cases of hysteria. He had heard frequent use made that night of the word "facts"; but facts which rested on the testimony of hysterical patients were not worthy of much credence. Statements from such patients as to colour, etc., must be received with much caution. Elliotson, when working amongst them, was only too easily deceived. As Dr. Risdon Bennett had pointed out, there was a large class of hysterical women who had no higher delight than that of trying to deceive their doctors, whose whole scientific education made them guileless, and perhaps only too easily duped. Mr. Maskelyne had lately said that one reason why Fellows of the Royal Society did not detect tricks was because the tricks were of such a nature as to be detectable by schoolboys rather than by scientific men, with their minds trained to appreciate phenomena of an entirely different kind. We ought to be careful in regard to such cases, and avoid the follies of the wise.—Dr. COUPLAND said that it seemed to him difficult to suppose that "ischæmia", at any rate, could be produced by any amount of shamming.—Dr. GLOVER thought that sensation was much more real than doctors were apt to think it; and that hysteria was a much more real disease than it was generally considered to be. He had lately seen a man apparently asleep, who did not respond nor open his eyes when spoken to. His right eye was as insensible to touch as if he had been under chloroform; yet that man had shortly before left his bed to micturate. He could scarcely feel the prick of a pin on his right hand, but felt it well on the left. He had also a decided loss of power on one side of the face on the afternoon of the day when he had been visited. At mesmeric experiments, he had seen young men have needles thrust beneath their nails without exhibiting any sign of feeling.—Dr. BARLOW thought that Mr. Carrier's observations would be much more useful if he would examine these cases himself. They had been most minutely inquired into in Paris by sceptical scientific men. Let us look at them, and not attempt to explain them off-hand, nor take refuge in the supposition that they were all sham. In hysterical patients, the larynx might often be most readily examined, as if there were a kind of anæsthesia about the fauces. In one such patient, he had constantly seen down the trachea to the bifurcation of the bronchi.—Mr. B. T. LOWNE said that, if one placed a cold body on the skin, it produced vascular congestion at the part, by which it was possible the blood might be caused to be poured out.—Mr. HOWSE inquired if this curious sequence of phenomena was visible at the very first sitting with the patient, or if they were only developed at subsequent sittings.—Dr. ALTHAUS did not think it was imagination or shamming of the patient which produced the curious results witnessed upon the application of the coins. If it were imagination, why should not a copper coin have the same influence as a gold one? In all the cases he had seen, the results differed as the metal of the coins that were used varied.

A Case of Injury to the Lower Part of the Spinal Cord, followed by Wasting and Contraction of the Muscles of the Lower Extremities.—Mr. LAWSON read a communication he had received from Dr. AIKMAN of Guernsey on this case. A man, aged 21, fell about twelve feet on March 30th, 1877. With the exception of severe nocturnal pains, which were not allayed by full doses of opium or of chloral, he presented no evidence of spinal injury for four months after the date of his accident, about which time atrophy of the muscles of the left leg set in. At present, his left leg was much atrophied; the muscles on the front of the leg not responding even to the electric stimulus, while the sural muscles and the flexor muscles of the foot remained in tonic spasm, even when the patient was fully under the influence of chloroform. No treatment having done any good, suggestions were asked for.

Dr. BUZZARD thought further particulars of the case were required. The history pointed to some hæmorrhage into the lower part of the spinal canal due to the fall. With the mention of great pain in the back, there

was none as to stiffness over the vertebræ. The patient gradually recovered from the first effects of the injury. A fortnight afterwards, wasting occurred, the *débris* of the extravasated blood in the cord had doubtless then set up neuritis and destroyed the conductivity of the motor nerves to the muscles. Thus, atrophy of the muscles was brought about, which was progressive. In such a case, the application of the continuous voltaic current, if slowly interrupted, would bring about contraction of the muscles, and gradually cure the patient.—Mr. LAWSON said that the muscles of the calf of the leg were in a state of continuous contraction, and were atrophied.—Dr. BUZZARD said there might be more or less atrophy and yet contraction. Some muscles would be more, others less, contracted if there were irritation, and the stronger ones would overcome the weaker.—Dr. ALTHAUS remarked that the boy could walk after the accident for two or three weeks. He, therefore, thought his symptoms were due to spinal myelitis. With hæmorrhage into his cord, he would not have walked. Myelitis was also accompanied by great pain in the back. He regretted that no mention was made of the use of the continuous current. Even when the interrupted current failed, the continuous current would often make the muscles react.

Cerebro-spinal Unilateral Sclerosis.—Dr. DOWSE read a report of this case, and exhibited some well-executed photographic drawings, showing its pathology. The patient, a woman aged 41, was admitted into the Central London Sick Asylum at Highgate, on January 12th, 1872, and died on September 23rd, 1876, so that she was under Dr. Dowse's observation for more than four years. She was completely devoid of voluntary motor power. In the year 1870, she was seized with a fit of unconsciousness, followed by left hemiplegia. In the year 1872, she was seized with right hemiplegia, and, three months after this, she came under Dr. Dowse's care in the following condition. There was complete paralysis of voluntary power of every muscle in the body, as far as one could judge; and as the nurse placed her at night, so she was to be seen, in precisely the same position, in the morning. Dr. Dowse said that he was really doubtful whether there was, or not, any voluntary or even muscular automatic power; but, after repeated observations, month after month and year after year, no movement of a voluntary nature could be detected, excepting upon one occasion, when she answered some few questions clearly and intelligibly, showing that most probably her reason was not affected. There was complete anæsthesia of the entire body, with flexed contractions of the four extremities, which were in a constant state of rhythmical agitation. There were apparently no trophic changes, and there was no appearance of a bed-sore until within a month of her death. There was no marked adipose or muscular wasting, and the muscles contracted readily to Stohrer's galvanic continuous current. The countenance was mask-like and devoid of expression. When she was spoken to about her home, the tears would flow freely down her cheeks, but no sign of emotion was ever visible beyond this. When agitated, the tremor of the limbs increased; and when asked to perform any act, it was clearly seen that an attempt was made to carry it out, but the will was unequal and powerless to execute. It was difficult to say how far the special senses were involved. The application of strong ammonia to the nostrils caused at first what was considered to be a voluntary movement of the head, but repeated applications did not produce the same effect. The sense of sight was thought to be good, and the ophthalmoscope gave no evidence of retinal changes. Both pupils were usually contracted, more especially the right. There was marked trismus, and no ordinary power could depress the lower jaw; yet, when food was brought to her, the rigidity became in a measure relaxed, although there was no direct masticatory power. There was marked paralysis of the facial muscles (bilateral), evidently from central causation. The sense of hearing was normal. When semi-solid food was given, it was necessary to place it well into the mouth, otherwise it would return, showing clearly that she had no voluntary power over the labial muscles. Sensation of the tongue and the special sense of taste were in like manner obliterated, as far as one could ascertain. The voluntary power over the tongue appeared to be greater than that over any other member of the body, for she would at times get it to the lower row of teeth, but it was never protruded. These were what might be noted as the objective signs presented by this patient, and so in a manner she vegetated until she died. What her sufferings might have been, it is impossible to say; for she had no voluntary power whatever to make these conditions manifest, even if they had an existence. The *post mortem* appearances were then noted; and the evidence was to the effect that the general surface of the convolutions of the hemispheres was normal. The motor ganglia on the left side were free from any gross lesion; but, on the right side, a brownish-looking degenerative change was seen to extend from the internal capsule of the corpus striatum, running along the under surface of the optic thalamus, through the

right crus cerebri, into the under and inner part of the right half of the pons Varolii, involving the right floor of the fourth ventricle. The drawings, from sections made by Dr. Kesteven, showed sclerosis of the right half of the pons, advancing in successive stages through the anterior pyramids, and then crossing over in direct relationship with the decussating fibres to the left lateral column of the spinal cord. Dr. Dowse remarked that it was now a recognised pathological fact, which had been more particularly demonstrated by M. Charcot, that lesions of the brain, when they succeeded in promoting consecutive degenerative changes, did so in direct harmony with what may be termed a direct histo-pathological law. He said it was interesting to follow out M. Charcot's statements concerning the association which existed between sclerosis of the lateral columns of the cord and hysteria, both with and without tremor; and had it not been for the marked facial paralysis in this case; he should certainly have felt inclined to look upon it as of an hysterical character; the more especially as there was such general and profound anæsthesia.

Dr. BUZZARD said there were interesting points of similitude in the case to those witnessed in many cases of hysteria. He had seen girls suffering from cerebro-spinal sclerosis who had been told that they had hysteria, and who consequently had evidently endured great hardships at the hands of non-sympathisers. This case did at first greatly resemble many cases of hysteria.

SELECTIONS FROM JOURNALS.

MEDICINE.

TOLERANCE OF CHLORAL IN DELIRIUM TREMENS.—Dr. P. H. Bishop reports in the *Boston Medical Journal* for September 6th a case of delirium tremens in which a man suffering from the usual symptoms took in delirium a dose of one hundred and sixty-five grains of chloral-hydrate in one draught. He slept thirty-six hours. His pulse during the first hour rose to 132; in the third hour, it had gone down to 88, and remained unchanged, full and soft. The temperature never varied from 99 deg. Fahr. Dr. Bishop adds that the amount taken, a trifle over one hundred and sixty-five grains, is the largest dose which was not fatal that he has ever heard mentioned or read of; and that there should not arise one single alarming symptom, such as diminished temperature, sighing respiration, a slow feeble pulse, or pallor of the features, renders the case remarkable. The patient awoke entirely relieved from his trouble.

TRACHEOTOMY IN CROUP AND DIPHThERIA.—M. Revillod, Professor of Clinical Medicine at Geneva, has arrived at the following conclusions on this subject (*Mouvement Médical*, October 13th). 1. Diphtheria is a generalised acute specific disease, characterised anatomically by the production of false membranes in the respiratory passages, showing itself by varying symptoms and lesions; sometimes assuming a mild form, in which the visible symptoms depend solely on the local lesion; sometimes an acute form, which testifies to a general poisoning. 2. The nosological distinction of the croupal and diphtheritic affections based on pathological anatomy is not in conformity with clinical data. These two forms arise from one and the same principle, because (a) all the intermediate stages are observed in both, as well in regard to local lesions as to general phenomena; (b) they develop themselves in the same epidemic, under the influence of the same contagium, and frequently follow each other in the same person. 3. Like all infectious diseases, diphtheria, which is endemic in towns, is epidemic in the country. Mortality from diphtheritic infection is greater in towns than in rural districts, in hospitals than in towns, in large hospitals than in small. It varies, as does also the strength of the contagion, according to the epoch and the country. Diphtheria differs from other virulent and miasmatic diseases by the special receptivity for it which is shown by some families, in consequence of which brothers and sisters are often attacked in succession, under conditions of time and place which preclude the possibility of contagion. 4. There is no specific against diphtheria. The most widely differing medicines may be used, according to the form and the various morbid manifestations of the diphtheritic seizure. Croup in the third stage can only be cured by tracheotomy. This operation is then indicated, and should be performed, whatever may be the conditions of age and constitution, or whatever may be the complications and the degree of asphyxia. Two cases in five should be cured. Chloroformisation is useless and may be injurious. The method of very slow or very rapid tracheotomy is more dangerous than the mixed method, which therefore remains the preferable one. The conditions of success depend (a) on the subsequent care of the case; (b) on the greater or lesser in-

tensity of the symptoms of diphtheritic poisoning. 5. One of the most frequent causes of death in patients who have undergone tracheotomy is a disturbance of the innervation of the pulmonary system, a disturbance which is but the extension of the paralyses observed in other regions, and which are made manifest by expiratory dyspnoea, anæsthesia of the trachea, and disorders of pulmonary nutrition.

PATHOLOGY.

CRETACEOUS DEGENERATION OF THE ARTERIES.—The *Bulletin* of the Société de Médecine publique et d'Hygiène professionnelle, contains a paper by M. Gubler, entitled "Suggestions for New Researches on the Causal Conditions of Cretaceous Degeneration of the Arteries". M. Gubler has remarked that this degeneration, which in process of time attacks every one, by no means affects all classes of society equally. Whilst the opulent and the citizen classes generally retain arterial suppleness and elasticity until the age of sixty, it is not uncommon amongst the indigent and the rural population to notice thickening and resistance of the radial arteries at the age of forty, thirty, or even twenty years. M. Gubler has tried to discover the reason of so striking a contrast. He first pitched upon alcohol as the great sinner; but, on reflection, and without exonerating it from a certain degree of participation in the atheromatous and calcareous change of the arteries, he has not been able to find the general cause of the facts observed in the toxic action of this substance. He is strongly of opinion that the true cause is to be found in the difference of diet; the animal diet of the rich and of those dwelling in cities, and the vegetable diet of the poor and of peasants. Staying, on the one hand, the composition of the alimentary vegetable substances, rich in mineral principles, more especially in earthy salts (phosphates and carbonates); on the other hand, the texture and the mode of favourability of the middle coat of the arteries, which present the most favourable conditions for retaining in the meshes of its tissues the deposits of incrustating matters introduced into the animal economy, M. Gubler establishes the pathological physiology of the production of arterial atheroma under the influence of a vegetable diet. Several facts are confirmatory of this view. The Trappists, who live on vegetable food exclusively, very soon show arterial degeneration. It is thus that in chalky soils where the drinking-water, loaded with earthy salts, adds its action to the vegetable diet, so as to introduce a large amount of these salts into the animal economy, arterial atheroma is more common and of earlier origin than in regions of siliceous formation.

SURGERY.

SARCOMA OF THE MEDIAN NERVE: RESECTION WITHOUT DISTURBANCE OF SENSATION.—Kraussold relates in the *Archiv für Klinische Chirurgie*, Band XXI, the case of a boy aged 5½, who, in consequence of severe and painful pressure with the hand ten months before, had a tumour of the upper arm. It had gradually developed, and was about as large as a hen's egg, lying in the right internal bicipital furrow, and reaching from the epicondyle to the upper third of the arm; there was distinct fluctuation. There were no disturbances of motion or of sensation in the forearm and hand. The swelling being supposed to be an abscess, an incision was made, when it was found that it was a sarcoma, the interior of which had become disintegrated; it was encapsuled, but, becoming spindle-shaped above and below, was found to be continuous with a thick cord which was recognised by its position as the median nerve. In extirpating the tumour, nearly 11 centimètres (about 4.3 inches) of the median nerve were removed. Some hours after the operation, the only disturbance of motion that could be detected was inability to bend by voluntary action the index finger and thumb; all the other motions of the fingers, hand, and forearm, as well as the sensibility of the limb, especially in the region of distribution of the median nerve, were normal. These conditions remained after the healing of the wound. The tumour was a small-celled sarcoma; a few changed nerve-fibrils were scattered within it, while others lay in its capsule. After recounting the symptoms expected to follow division of the median nerve, Kraussold comes to the conclusion that the absence of most of them in the present case may be explained in one of two ways: either by a pre-existing anomaly or by the numerous nervous anastomoses. The first supposition is rendered improbable by the fact that the divided median nerve was of normal thickness. The second assumption has more in its favour; the long duration and gradual development of the disease may have given time for a further formation of anastomoses. This case indicates the necessity for a very careful criticism of the descriptions of the remarkable results of suture of nerves, and of regeneration of nerves and restoration of their functions after division.—*Wiener Medizin. Wochenschrift*, No. 37, 1877.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 3RD, 1877.

A WEYMOUTH MYSTERY.

WE have received from Dr. Vawdrey Lush of Weymouth extracts from local newspapers and notes of a *post mortem* examination, recording particulars of the death of a commercial traveller named Frank Cole at Weymouth, under circumstances which seem to have aroused a large amount of popular interest. The important facts are soon told. A man aged 40, extremely corpulent, who had been very intemperate for years, had been finally "on the drink" for about a fortnight, continually fuddling himself with all kinds of liquor, especially brandy and water. At length his condition was such that the landlord of the hotel where he was staying advised him to get a draught "to revive him", and conducted him to a chemist's shop for that purpose. A draught sent in by the chemist was accordingly administered to the deceased on going to bed. In the morning, he was found dead.

A coroner's inquest was held, at which some very important evidence was offered by Dr. Vawdrey Lush, who was summoned in the morning to see the deceased, and established the fact of death. He made a *post mortem* examination on the following day, which, though under rather disadvantageous circumstances, was evidently directed with scientific intelligence to elucidate the really important points of the case. The body presented the ordinary appearances of chronic alcoholic poisoning; viz., a fatty liver, with the nodulated condition of commencing cirrhosis; enlarged spleen; an atrophic brain, with considerable amount of fluid in the subarachnoid spaces and at the base. The heart is described as having a large amount of external fat, as might be expected in a corpulent person; but the muscular fibres were found, on microscopical examination of many specimens, to be perfectly healthy. The only other viscera the condition of which need at present be noted were the urinary organs. The kidneys are described as not notably altered to the naked eye, but they were both congested. The bladder, however, contained *two pints of urine, having a specific gravity of 1010, and containing albumen to the extent of one-fifth*. The legs were also swollen; on one of them an elastic stocking was worn, but this is not stated with respect to the other.

Now for the circumstantial evidence. The chemist who made up and prescribed the draught, having been duly cautioned, made a statement at the inquest to the following effect: That the deceased entered his shop on the morning of the day preceding his death in a state of intoxication, being unable to stand still without overbalancing; and asked for a draught to quiet his nerves, as he was afraid to walk about, afraid of his own shadow, and could not be left alone. He also said he had taken a great deal of chloral, and it was of no use to him. The chemist, on some understanding that the deceased would not take any more liquor that day, made up a draught containing forty minims of laudanum and twenty grains of chloral, which was in the evening given to the landlord of the inn, and, as the evidence showed, administered entire.

Evidence as to the mode of death was given by the deceased's assistant, who slept in the same bed. Cole was not sober, and refused to be more than partially undressed; but he was better than before, so

far as intoxication was concerned, and his conversation was quite rational. He did not speak after taking the draught, which was about eight o'clock, or a little later. There was no disturbance in the night; but at seven in the morning the assistant woke and found Cole dead, in a perfectly composed attitude, but already cold and stiff. It should be stated that the deceased had not suffered from sleeplessness; and, though intoxicated, he was not noisy or excited, but muddled and tottering.

Dr. Lush and Mr. Capon gave it as their opinion that the dose given was dangerous to a man in the condition of the deceased, and that the draught given had, in fact, accelerated death.

On the other hand, two other medical gentlemen, Dr. Moorhead and Dr. Tizard made a subsequent *post mortem* examination, and arrived at the conclusion that death took place from fatal syncope due to fatty disease of the heart; but they do not appear to have established any facts relating to the condition of the muscular fibres, founding their opinion upon its external appearance alone. Dr. Moorhead and also Dr. Smith, another witness, gave it as their opinion that the dose given was not too large, and had no material effect in causing death. They quoted instances in which larger doses had been given to persons of intemperate habits, and in order to relieve severe pain.

These conflicting views not unnaturally somewhat perplexed the jury, who, however, returned in the end a verdict to the effect that death was not occasioned, but accelerated, by the medicines administered; further, that the chemist who supplied them had a competent knowledge of the effects of medicines, and administered them in the *bonâ fide* belief that they were suitable to the condition of deceased; and finally that the chemist in question had not acted with gross and culpable negligence.

With the first part of this verdict, expressing as it does the opinion of Dr. Lush and Mr. Capon, we must say we entirely agree. The dose prescribed, forty minims of laudanum and twenty grains of chloral hydrate, is, for a healthy person, very large, though not extreme, and not to be administered without grave reasons to a person of unknown constitution. In the condition of the deceased person, it is easy to see how it may have been fatal.

Besides advanced alcoholic cachexia, and consequent degeneration of the nervous system, it is quite plain that there was in this case serious renal mischief. Urine containing such a large proportion of albumen, and of low specific gravity, is certainly evidence, in the absence of other causes, that the kidneys were functionally disturbed in a very high degree. This is quite possible, even in the absence of notable change in the organs themselves, at least of change visible to the naked eye. It is highly probable that the morbid condition was acute, and in fact produced by the fourteen days' drinking bout. The suggestion that the albuminous condition of the urine might be a *post mortem* phenomenon may possibly be made, since it was thought at one time that serous transudation into the bladder might take place after death. But it has long been known that the reactions which gave rise to this suspicion were fallacious, as well as extremely slight in amount. This is, in our opinion, the most important feature in the case. When the excretory organs are acting imperfectly, poisons, and especially narcotic poisons, are greatly intensified in their effects. This is not only theoretically probable, but established by numerous instances, especially in the case of opium. There is probably no lecturer on *materia medica* in London who does not caution his pupils about the use of opium in kidney-disease; and, though we freely admit that the dangers are not yet sufficiently taken notice of in the text-books, they are not the less important or real. Very moderate doses of opium may produce, in persons with renal disease, most alarming symptoms. From this point of view, it is, comparatively speaking, a secondary matter what was the precise mode of death. Opium and chloral may produce death in more ways than one; but the broad fact remains that here was a con-

dition which would make a small dose equivalent to a large dose, and a large to an extreme dose. The history of the case also clearly shows that there must have been a certain amount of unchanged alcohol in the body which would intensify the action of the other narcotics.

It would be, of course, equally unreasonable to leave out of account the state of the nervous system induced by alcohol. There was evidently chronic degeneration of the nerve-centres such as might, and does, greatly affect the action of the heart, even when that organ is healthy. Disturbed innervation of the heart, again, might and would probably be greatly aggravated by the action of narcotic poison. Taking these three causes together—chronic alcoholism, albuminuria, and narcotics in large dose—they furnish a complete explanation of the cause of death; but it would not be safe to leave out either one of the latter two, since the explanation would then be hardly adequate.

It is, of course, impossible to deny that cases of sudden death in drunkards do occur, and that the immediate cause is sometimes obscure; but this is no reason for ignoring an accessory cause of death which is clearly in evidence. We think, too, it would be difficult to parallel the precise circumstances of the present case, as to comparative youth of the subject, absence of acute nervous symptoms, absence of cold or privation, or of violent exertion, in the recorded instances of sudden deaths from alcoholism alone.

With regard to the evidence of Drs. Moorhouse, Tizard, and Smith, there are two points worthy of attention. In the first place, the fatty degeneration of the heart, alleged as a cause of death, was not only not proved to exist, but, if the microscopical examination by Dr. Lush be trustworthy (which we have no reason to doubt), it was distinctly proved not to exist. In the second place, their instances of the safe administration of extreme doses of narcotics can hardly have been anything else than misleading to a jury. It is quite true that full and even heroic doses of opium or chloral have been given to patients suffering from chronic alcoholism without bad effects, but it has only been when they have been administered with a full recognition of all the circumstances of the case. No one can deny that there is always some risk attending their administration. A cautious practitioner will not give a large dose until he has felt his way with smaller doses and found that they are insufficient as well as harmless; he will, if he be wise, always ascertain, as far as possible, the condition of the kidneys; finally, he will not give such a dose at all unless it is plainly and urgently necessary, so that the risk, if any, is one which it is right to incur. It is, of course, needless to point out that no one of these conditions was satisfied in the present case, and, in fact, no one of them could be, as the prescriber was not a competent judge in such matters.

The following extract from the local paper relates a difference between the coroner and one of the medical witnesses which seems to require some explanation.

“Dr. Moorhead, addressing some remarks to the jury, was stopped by the coroner, who said: ‘I will not allow you to be an advocate, Doctor.’ Later still, the coroner said Dr. Moorhead was like an advocate for a defendant, and such evidence, he thought, was not such evidence as would commend itself to dispassionate men.”

We must urge that a medical witness should always endeavour to the best of his ability to draw the line between evidence and advocacy. The former belongs to his province, the latter does not.

In the foregoing remarks, we have confined ourselves strictly to the question of the cause of death. The further question, of the responsibility of the person who prescribed the dose, is one of a more involved character, and is evidently complicated by the consideration of his non-professional position. The jury—or, at least, eleven of them—seem to have regretted the legal consequences of their verdict, and the eleven afterwards signed a document stating that they did not attribute blame to the chemist on the grounds that though the draught accelerated the man's death, “had he been in a healthy state it would have been perfectly harmless; and taking into consideration

the advanced state of disease in which he was, a much smaller dose would have had the same effect”. We are only expressing a very general opinion when we say that extrajudicial statements by jurymen are always to be regretted, and the present case is no exception to the rule; but we cannot now discuss the medical opinions of the eleven jurors or the various legal and moral considerations which are connected with them.

WESTMINSTER SCHOOL.

THE question of the removal of St. Peter's College, Westminster, from its historical site under the shadows of the grand old Abbey and of St. Stephen's had, we thought, been finally settled by the Public Schools Act passed less than ten years since. That Act prohibited the removal of Westminster School, and moreover assigned to it, for its extension and improvement, so soon as they should fall vacant, certain properties immediately surrounding Little Dean's Yard (wherein the school is situated), which were then, and are still, in the occupation of the Dean and Chapter. The settlement thus come to, after careful and prolonged inquiry into the condition of the school in all its aspects, sanitary, moral, educational, and other, and of its *raison d'être* as a London school, was in complete accordance with the opinions of the Head Master, Dr. Scott, and of every one else immediately concerned in its management; and commended itself to the general sense, at any rate, of the metropolitan public.

Yet now, before the improvements which had been provided for have had time or opportunity for accomplishment, and without, so far as we know, the importation of any new fact or argument into the case, certain persons have begun to agitate in the pages of some of our contemporaries for the reversal of the decision so recently arrived at after the maturest deliberation, and for the banishment of this great London school from the metropolis for which it was provided.

We admit that, if the school fail in any degree as a public school because of its situation, that fact is a powerful argument in favour of its removal. But, with the evidence of the prosperity of Merchant Tailors', of the City of London, of St. Paul's Schools, and of the comparatively recently established schools of University and of King's College, before our eyes, it cannot be pretended that public schools are necessarily failures in London; and we deny that there is any failure in the case of Westminster. We know that the school is admirably managed, that its boys receive a thoroughly good education, that their *morale* and *esprit de corps* are excellent, and that their general health leaves little to be desired. The number of boys there (a little over two hundred) is no doubt comparatively small; but this is due, as regards the boarders, to the fact that there are only two boarding-houses for their reception; and, as regards the home-boarders, to the circumstance that the school-fees are considerable higher than those of its rival schools. The former defect will be remedied in the course of a few years, as tenants die or leases fall in; the latter defect, if it be one (and we are disposed to question it), admits, if need be, of an easy cure.

But the matter in which we, as medical journalists, are mainly concerned at the present moment, is the sanitary state of the school. Is the health of the boys affected injuriously by the local conditions of the place? To this question we have a very explicit reply from the physician to the school, who, writing to the *Times* some few days since, asserts, as the teaching of more than ten years' experience, that in *physique* the Westminster boys may compare favourably with the boys of any other school in the kingdom; and that not only is their general health excellent, but that never within his knowledge has enteric fever, or any other malady indicative of local conditions of insalubrity, broken out among them; and that, although scarlet fever, measles, mumps, and the like, have necessarily been imported from time to time, their spread has always hitherto been speedily arrested, and their presence has never necessitated the breaking up of the school.

We learn, again on Dr. Bristowe's authority, that, apart from the

health of the boys, the sanitary circumstances of the school are excellent. It stands on a gravelly soil, is dry and well drained, and surrounded on all sides by large open spaces. The college and the boarding houses are clean, spacious, and well-ventilated; the water-closet and other such arrangements are excellent; and the dietary is unexceptionable. Moreover, the provision made for healthful amusement is, for a London school, quite unrivalled. There are a gymnasium, a racquet court in Little Dean's Yard, a football area in Dean's Yard, and a cricket-ground of ten acres in Vincent Square, all the exclusive property of the school. It is difficult to see what more could be required for the bodily health of the boys, and how they could be materially benefited in these respects by removal to the country.

Dr. Bristowe's evidence on the sanitary question is conclusive. But, after all, it is only what we had a right to expect. We have spent millions, and are spending thousands annually, in improving the sanitary condition of the metropolis; we have drained it and purified it, opened it out and rebuilt it, until, notwithstanding its enormous increase in size, plague, dysentery, ague, enteric fever, and cholera have successively shrunk from epidemic virulence to the slenderest proportions, or have disappeared wholly; until no large town in the world can compare with it in healthiness; and until few rural districts are so free as London is from the diseases which are engendered by local insalubrity. It would furnish a curious, but withal unfortunate, example of the misapplication of sanitary science, if Westminster School, on the score of health, were to be removed from its healthy site in London to some marshy neighbourhood like that of Eton, to some low-lying imperfectly drained locality like that of Winchester, or to some fever-stricken district like that of Uppingham. We do not, by quoting them, intend to disparage these great schools, which we believe are now admirable, in spite of their surroundings.

There is another point involved in the removal of Westminster School, which we as Londoners are, in our own interests, bound to consider. Westminster School is not only a valuable middle-class educational establishment, in which the sons of gentlemen are certain to be brought into relation with suitable companions and to receive the education which makes gentlemen, but its endowments are exceedingly valuable; and, so long as it remains in London, these endowments are available for the sons of all those professional men—clergymen, lawyers, medical men, and others—who are compelled to live in London, and whose means do not enable them to indulge in the expensive luxury of placing their sons as boarders at a public school. It is well, therefore, that the nature and value of these endowments should be widely known. They comprise six, occasionally seven, exhibitions, tenable at the school, and offered annually for competition to candidates of ages between twelve and fourteen. These vary in value from £20 to £50, and are tenable for two years. They comprise also three junior studentships annually at Christ Church, Oxford, tenable for seven years, the total annual value of each of which is above £100. These studentships, which are twenty-one in number, are augmented in all cases of merit by gifts from the Carey Benefaction, the income of which amounts to £600 a year, and is divisible among the Westminster students at Christ Church. They comprise, in addition, three exhibitions of lesser value annually at Trinity College, Cambridge; and two or more exhibitions from the bequest of Dr. Triplett, tenable for three years at any college of Oxford or Cambridge. Lastly, an annual exhibition of £40 has been established in respect of a special examination for boys under seventeen years of age.

In conclusion, we assert that the removal of Westminster School would be a serious loss and an injustice to the inhabitants of London; that no case for its removal, either on sanitary or other grounds, has been made out; and that the clamour of anonymous theorists ought not to prevail against the well-considered enactments of the Public Schools Act. But we have confidence in the governors of St. Peter's College, and are satisfied that the interests of the school and of the public are safe in their hands.

ARMY MEDICAL EXCHANGES.

WE heartily congratulate the authorities at Whitehall Yard on the wisdom which has dictated their last departmental action. The withdrawal of leave of exchange from medical officers of the army was felt to be one of the most harsh and unnecessary restrictions to which that unfortunate body has ever been subjected, and the restoration of the right will undoubtedly have a good effect on the waning popularity of the service. Much discomfort and annoyance were caused on many occasions to officers with impaired health or heavy family responsibilities by a sudden order to proceed abroad; and, under the recent *régime*, all opportunity of postponing their tour of foreign service for a time was peremptorily forbidden. It is, of course, only fair that every one should take his turn of foreign duty, and that no one should be permitted to shirk systematically this part of his military responsibilities; but it is clear that cases frequently may and do arise in which some mutual accommodation may work well for both parties concerned, without impairing in any degree the efficiency of the service. A poor man may thus obtain a long desired opening for lucrative Indian duty; and various conditions of regimental popularity, adaptation of private means to meet special ends, and other points which will readily occur to our experienced military readers, can thus be adjusted with ease and comfort.

WE understand that Dr. Wiltshire will show the application of Professor Tarnier's forceps on the phantom, at the meeting of the Obstetrical Society on Wednesday next; and Dr. Fancourt Barnes will also exhibit an improved model phantom for obstetric classes.

A SERIOUS outbreak of scarlatina has taken place at the Albert Memorial College, Framlingham, and forty pupils are confined in the sanatorium. The College will in all probability be closed.

A NEW Blind Asylum for Devon and Cornwall has lately been opened in Plymouth by the Earl of Morley, in the presence of the Bishop of Exeter and an influential company. The new buildings have cost upwards of £7,000.

THE Building Committee of St. Mark's Hospital for Fistula advertise that they require a plot of ground for the erection of a new hospital. The site must be within five miles of St. Paul's, and in a healthy situation. Applications to be made to the Secretary, at the Hospital.

WE learn with pleasure that Inspector-General Domville, C.B., has been appointed principal medical officer in charge of Haslar Hospital. This distinguished officer succeeds Sir William Smart, K.C.B., who retires by expiry of service, full of honours, and universally beloved and respected.

FALSE reports having been spread that the Prince Imperial was recommended by his physicians to spend the approaching winter in a southern clime, and was therefore going to take up his abode at Ventnor, his private secretary writes to state that he is in strong and robust health, and that the report circulated is absolutely without foundation.

AN outbreak of typhoid fever has occurred at Witham, Essex, those attacked being principally children. About thirty are at present suffering from the disease, and six have already died. Active measures are being taken to prevent its spreading. All the schools are closed, and a fever-nurse has been engaged to visit the houses where the disease has broken out for the purpose of disinfection.

COLLECTIONS were made on Sunday in the various churches and chapels of Birmingham in aid of the local medical charities' fund, which is this year appropriated to the purpose of the General Hospital. The returns hitherto received show a total of nearly £2,800, which is about two hundred pounds below the corresponding total last year, the falling-off being generally attributed to the depression of trade and the collection recently made for the Indian Famine Fund.

INSTITUTIONS for the treatment of chronic alcoholism are much needed for the purpose of treating confirmed dipsomaniacs; thus far, however, their establishment has not been found very easy, nor has it seemed very easy for every one to carry them on satisfactorily. We are glad to notice that an institution for the treatment of chronic alcoholism has been started by Dr. Littleton Forbes Winslow, which promises to be efficient and useful.

RABIES AND HYDROPHOBIA.

We understand that Sir Thomas Watson will publish, in the next issue of the *Nineteenth Century*, an article on Hydrophobia and Rabies. Sir Thomas Watson will point out that our present knowledge of these diseases justifies the conclusion that they are spread solely by infection, and are in some large tracts of country unknown. He will urge the necessity of preventive sanitary legislation, such as will ensure the observation of dogs, and secure the isolation and, when necessary, the destruction of infected animals.

THE ILLNESS OF MISS KNOLLYS.

IN illustration of the precarious nature of typhoid fever, we are sorry to announce that, since the publication last week of the very favourable intelligence respecting Miss Knollys' convalescence which we had then received, the patient has suffered a relapse. On the 19th instant, the temperature was normal, and it so remained up to Friday, the 26th instant, in the morning, when, after a good night of eight hours' sleep, and without apparent cause, whether in symptoms of any kind or any error in nursing or regimen, the thermometer rose, and Miss Knollys had a febrile relapse, accompanied by much nervous excitement, and lately by sickness and cough from diaphragmatic spasm. The temperatures have since been high, ranging from 101 to 103.5 deg. On Monday night, Miss Knollys slept comfortably for six hours. On Tuesday morning early, the temperature was under 100 deg., but quickly rose to 103 deg. by 10.30 A.M. The highest point reached that day by the thermometer was 103.5 deg. Yesterday, it was rather less. To-day (Thursday), at 9 A.M., it was 102 deg. There have been as yet no untoward symptoms, although the temperature remains high; but it cannot be doubted that the relapse is severe. The Princess of Wales remains at Abergeldie, and evinces the deepest sympathy for her sick friend. We understand also that Mr. Oscar Clayton will not be able to return to London this week.

FREE DISPENSARIES.

WE are glad to see that Major-General Sir F. Fitzwigram, on a public occasion recently at Portsmouth, took the opportunity of saying that he looked upon the free dispensary system as an evil. He thought working men in health should be called upon to provide in some degree for the expense of sickness. He looked forward to the day when they might be able to develop those habits of prudence and forethought which would enable those who had means when in health, and now made no provision against the day of sickness, to rely largely upon the support of dispensaries and different hospitals. General Fitzwigram appeared to think that these views were possibly unpopular; we are, however, convinced that they are every day more and more entertained by thinking men of all classes, and we could wish that those who entertain such views would lose no opportunity, not only of expressing them, but of acting upon them. General Fitzwigram quoted Dr. Cousins as one who entertains similar views, based upon the facts of his hospital experience. Two or three men of such influence as these should be enabled to form a Committee and bring about a conversion of the free dispensary department into provident dispensaries, not only at Portsmouth, but extensively throughout the country.

PRESCRIBING CHEMISTS.

RATHER a remarkable illustration of the serious responsibility incurred by prescribing chemists, who just make up a draught according to their own ideas of treatment, without a medical prescription, is presented by the inquest (on which we comment in another column) held last week by

Mr. Giles Symonds, at Weymouth, on the body of Frank Cole, a commercial traveller, who was found dead in bed at his hotel at Weymouth after a "drinking bout", and after taking a draught supplied by a local chemist at the request of the landlord. Dr. Lush said the draught (which was a narcotic) was specially dangerous to a drunkard; it suspended the action of the heart. Mr. H. J. Capon, house-surgeon at the Dorset County Hospital, who assisted Dr. Lush in the *post mortem* examination, said death had been accelerated by a narcotic poison, but he should not like to say the draught caused death. Drs. Moorhead and Smith gave evidence to the effect that death arose from natural causes. The chemist in question appears to have had thus far a very lucky escape from very serious consequences attending what appears on the face of it to have been a distinctly illegal act. The whole circumstances, however, are, we imagine, of a kind likely to engage the attention of one of the medical protection societies. The public danger involved in the present assumption by dispensing chemists of medical functions seemed to be very strikingly exemplified in this instance.

MILK FRAUDS.

THE Inspector for the Brentford District has adopted a very satisfactory method of checking frauds on the public by milk-sellers. He stopped a milk-seller who was delivering milk, and insisted on being supplied with a pint from the larger can. The vendor wished to supply the milk from a small can, but this he refused to take. On the milk being sent to Dr. Redwood, the County Analyst, he found that it had been skimmed. The defendant was fined £5, with £2 2s. costs. If the same course were taken generally, a most salutary result would be obtained. The most determined offenders in this respect very often keep a supply of pure milk on the counter with which to serve any inquisitive agents of the inspector; they find themselves perfectly secure in supplying skimmed and watered milk at the houses of their customers at the price of pure milk.

HARBOUR POLLUTION.

WE are glad to see that the county magistrates have, at the instance of the Local Authority at Whitstable, ordered the abatement of a nuisance at Whitstable harbour. The town sewage and that of about two hundred ships goes into the harbour, and no means are taken to cleanse it. There was an outbreak of typhoid fever at Whitstable in August last, which was attributed to this nuisance. Whitstable harbour, however, is by no means the only one on this coast which suffers from disgusting pollution. A considerable proportion of the smaller harbours have mud bottoms, which are filthily polluted; and at low tide the stench from the harbour is the standing reproach of a great many small places which aspire to be health-resorts.

TRANSFORMATION OF SALICYLIC ACID.

M. BYASSON has sought to determine what are the transformations which salicylic acid undergoes after being swallowed by man. Numerous experiments have led him to the following conclusions:—Salicylic acid, swallowed by man in a state of salicylate of soda, appears in the urine, and may be detected twenty-five minutes after its demonstration by its reaction with perchloride of iron; a dose of forty grains is eliminated in from about twenty-six to forty hours. 2. In its passage through the body, a portion of the salicylate is eliminated unchanged, another portion is transformed into salicine, into salicyluric acid, and probably into oxalic acid. 3. The first urine passed, some hours after ingestion of thirty to forty grains of salicylate of soda, deviates to the left of the plain of polarisation; the deviation is due to the salicine produced. 4. The salicylic acid increases in the urine the proportion of azotised substances and of uric acid. 5. Salicine swallowed by man is eliminated unchanged, and with its optical properties, a few hours after it is taken. But by what chemical reaction is this transformation effected of salicylate of acid into salicine or salicyluric acid? On this subject only theories can be formed, but the fact is acquired to science. *A propos* of the demonstration of salicylic acid, M. Gubler has remarked

that in certain cases the urine is diminished in quantity, whilst in others it is augmented. When, indeed, salicylic acid acts upon normal kidneys, there is diuresis; on diseased kidneys, on the contrary, there is a diminution of the quantity of the urine; in these cases even albumen is sometimes found in considerable quantities. There are, then, two indications here: first, strong doses of salicylic acid may produce a renal lesion; and further, when the kidneys are congested, it is imprudent to prescribe this medicine. M. Bucquoy supports this observation of M. Gubler, and asks if it is not from uræmia that certain patients died so rapidly when treated with salicylic acid. He mentions further the cases in which this substance was the cause of abortion at six months.

HYDROPHOBIA.

DR. A. R. OXLEY, house-physician to the Radcliffe Infirmary, Oxford, writes to us: "Two deaths from hydrophobia have lately occurred in this Infirmary. The first case was that of a boy, aged 13, admitted October 6th, under the care of Dr. Tuckwell, with the history of having been bitten by a rabid dog in June, and of having developed symptoms on October 4th; he died on the 9th. The second was that of a child, aged 4, admitted October 20th, under the care of Dr. Gray, having been bitten by a dog with, at the time, questionable rabies, about four weeks ago, symptoms having been latent until October 18th. This child died on the 22nd. Both cases were treated by increasing doses of chloral dissolved in beef-tea, and administered by enemata, and it is interesting to note that in both, symptoms of excitement were almost completely kept in abeyance, both patients seeming to succumb to exhaustion, inasmuch as neither suffered any pharyngeal spasm for some time prior to death. Full notes of both cases, with their pathological bearings, will, however, be published shortly.

BAKERS' OVENS.

SOME weeks ago, a communication made to the State Medicine Society of Paris by one of its members revealed the fact that symptoms of poisoning had been produced in a considerable number of persons who had eaten bread procured from a baker in the suburb of Monceaux. These injuries, it appears, were due to the use which the baker had made for heating his oven of wood procured from old houses which had been pulled down. This wood, which was for the most part painted with lead, copper, or zinc paints, had, in combustion, left ashes containing these poisonous substances, which had more or less become attached to the walls of the oven, and had adhered in particles to the bread during and after the process of baking. Influenced by the revelation of these facts, the Municipal Council charged the Prefect of Police to make an inquiry as to the means of preventing the repetition of such circumstances; and an order has accordingly just been issued by the Prefect prohibiting in future the use for heating bakers' ovens of wood which has been covered with paint, or has previously undergone any metallic chemical preparation.

A FREQUENT SOURCE OF POISONING.

WE have to record with lamentable frequency instances of poisoning by carbolic acid, largely in use as a disinfectant. Mr. John Shaw of Liverpool called last week the attention of pharmacæutists to the subject, and said that for some years past he had taken note of the fatalities arising from that powerful and deadly poison, so far as he had noticed them in the public prints and journals, and found the number to be seventy. Twenty of these were caused by drinking the acid in mistake, instead of spirits, beer, wine, or water, etc.; twenty in mistake for medicine (eleven of these being in hospitals and other public institutions); eighteen by suicide; and the rest from a variety of causes. Accidents have arisen in several cases from ignorance of the powerful character of the poison, mothers in some instances giving bottles containing the acid to their children to play with. It was extensively used as a disinfectant, and the question would be, "Is the number of deaths produced by it of sufficient urgency to necessitate legislative restrictions as to its sale?"

OUR WINTER MIGRANTS.

WE are glad to see that improvements have been recently made by the Chemin de Fer de Lyon in the arrangements for the transit of invalids to the South of France; and, considering the numbers who proceed to Hyères, Cannes, Nice, Mentone, and San Remo, this is only proper. The night express (the favourite one for invalids) leaves Paris at 7.15 P.M., and reaches Marseilles at 11 A.M. the next day (instead of 11.40 A.M., as formerly), performing the distance of five hundred and thirty-six miles in fifteen hours and three-quarters. In addition to *coupés lits* and *coupé fauteuils*, the company have provided sleeping cars (*wagons lits*) on the American principle, holding four beds each, at an extra charge of thirty-six francs per person. This quite obviates the necessity for breaking the journey; and we have received very favourable accounts of the comfort with which it is thus performed.

HYDROCYANIC ACID POISONING.

THE danger of careless manipulation in laboratories or dispensaries of hydrocyanic acid has been illustrated afresh by the melancholy death of Mr. Ellis at Leicester, who seems to have met with his sudden death by stooping over an open bottle of hydrocyanic acid whilst studying its chemical properties in his chemical laboratory. The same fate well-nigh befell the late Dr. Dundas Thomson, F.R.S., the well-known chemist; he, however, although rendered insensible, fortunately fell prone on the floor, out of the influence of the vapour, and had not inhaled a sufficient dose to cause death, and, being quickly found, was recovered from the syncope which would otherwise have been fatal.

CEREBRAL LOCALISATION.

M. BOURDON has lately read an important paper on this subject at the Paris Academy of Medicine, in which he has treated on the determination of the motor centres of the limbs. M. Bourdon has analysed a large number of cases of partial paralysis of the limbs in which it has been possible to determine the seat of changes in the encephalon; he has then compared the results furnished by clinical observation with those which physiologists have obtained by experiments on animals. These researches not only present much scientific interest, but also give practical results with regard to indications and counterindications for the operation of trepanning.

SCHOOL HYGIENE IN FRANCE.

A COMMITTEE, comprised of engineers, architects, and members of the Paris Committee of Public Health, has been making a round of visits to all the schools of that city, in order to make themselves acquainted with their system of management and sanitary condition. Many improvements and necessary repairs in a large number of scholastic establishments will result from this useful preventive measure.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN.

A GENERAL meeting of the Society was held by permission of the Royal Medical and Chirurgical Society in their rooms, Berners Street, on Friday last, October 26th. The chair was taken by the President, Sir George Burrows. From the half-yearly statement read, it appeared that a sum of £1,298 10s. had been distributed among fifty-eight widows, twelve orphans and four orphans on the Copeland Fund. The expenses of the half year had been £109 14s. 9d. It was announced that the Directors, having a sufficient sum in hand, had determined to give a present at Christmas to the widows and orphans now receiving grants; the total amount of the present would be £326. During the half year, fresh applications had been received from four widows and two orphans; thirteen members had died; twenty-seven new members had been elected. Dr. Harvey Kimpton Owen was elected a Vice-President in the place of George Cooper, Esq., deceased. A legacy of £500 from Mrs. Mary Davis Parker was reported; and also £250 from the executors of the late James Graham, Esq. A vote of thanks to the chairman closed the meeting. We understand that it is in contemplation to discontinue the second general meeting in each year, and

to have only an annual meeting of the members. The attention of young medical men commencing practice in London, of house-surgeons at the Metropolitan hospitals, and of all medical men residing in London, has been continually called in these pages to this most excellent Society. Any member of the profession in London, notwithstanding that he may afterwards move away, can, by joining the Society when he is resident in London, always insure that for the small payment of two guineas annually his wife and children shall, if he die without leaving means for their support, be kept from a condition of penury and its attendant miseries. All further particulars will be readily afforded by the Secretary, Mr. J. B. Blackett, at the rooms of the Society, 53, Berners Street, Oxford Street, W.

PRACTICAL THERAPEUTICS.

At a late meeting of the Massachusetts Dental Society, Dr. Waters of Salem stated that bicarbonate of soda, such as used for cooking purposes, or any other alkali in neutral form, would afford instantaneous cessation of pain from the severest burns or scalds, and would cure such injuries in a few hours. Dipping a sponge into boiling water, the doctor squeezed it over his right wrist, producing a severe scald around his arm some two inches in width. Then, despite the suffering occasioned, he applied the scalding water to his wrist for half a minute. Bicarbonate of soda was at once dusted over the surface, a wet cloth applied, and the pain, the experimenter stated, was almost instantly deadened. Although the wound was of a nature to be open and painful for a considerable time, on the day following the single application of the soda the less injured portion was practically healed, only a slight discoloration of the flesh being perceptible. The severer wound, in a few days, with no other treatment than a wet cloth kept over it, showed every sign of rapid healing.

THE PUBLIC HEALTH.

THE mortality from all causes in the week ending October 27th was at the average rate of 23 deaths annually in every 1,000 persons living. The annual death-rate was 21 per 1,000 in Edinburgh, 23 in Glasgow, and 25 in Dublin. The annual rates of mortality per 1,000 last week in the twenty English towns, ranged in order from the lowest, were as follow. Portsmouth 18, Brighton 18, Bristol 19, Leicester 20, Sheffield 22, Bradford 22, London 22, Leeds 22, Sunderland 22, Plymouth 22, Birmingham 24, Norwich 25, Newcastle-upon-Tyne 25, Hull 25, Nottingham 25, Liverpool 27, Wolverhampton 28, Manchester 28, Oldham 30, and Salford 31. Scarlet fever showed continued fatal prevalence in Wolverhampton. The deaths from measles exceeded those returned in recent weeks. In London, 2,474 births and 1,499 deaths were registered. The annual death-rate from all causes, which in the five preceding weeks had steadily increased from 17.4 to 20.7 per 1,000, further rose last week to 22.1. The 1,499 deaths included 14 from small-pox, 67 from measles, 64 from scarlet fever, 6 from diphtheria, 28 from whooping-cough, 39 from different forms of fever, and 23 from diarrhoea; thus to the seven principal diseases of the zymotic class 241 deaths were referred, against 153, 195, and 214 in the three preceding weeks. The 67 fatal cases of measles showed a marked increase upon the numbers in recent weeks. The 64 deaths from scarlet fever were 4 less than those in the previous week. The Metropolitan Asylum Hospitals and the London Fever Hospital contained 154 scarlet fever patients on Saturday last, against 123 and 139 at the end of the two previous weeks. The 28 fatal cases of whooping-cough showed a further increase upon the low numbers in recent weeks. The 39 deaths referred to fever were 8 less than the number in the previous week, and 5 below the corrected weekly average; 3 were fatal cases of typhus, 32 of enteric fever, and 4 of simple continued fever. The fever patients in the Metropolitan Asylum Hospitals and the London Fever Hospital rose from 92 and 114 in the two previous weeks to 123. The deaths from small-pox, which had been 14 and 8 in the two preceding weeks, rose again to 14 last week, of which 9 occurred in the Metro-

politan Asylum Hospitals, and 5 in private dwellings. Five of the fatal cases were certified as vaccinated (including 4 described as imperfectly vaccinated), 4 as unvaccinated, and 5 were "not stated" as to vaccination. The number of small-pox patients in the Metropolitan Asylum Hospitals was 177 last week; the new cases admitted during the week were 64, against 28, 44, and 42 in the three previous weeks. The deaths referred to diseases of the respiratory organs were 371, and exceeded the corrected weekly average by 84; 212 resulted from bronchitis, and 113 from pneumonia. The effects of recent cold nights are here apparent. In Greater London, 2,989 births and 1,752 deaths were registered, equal to annual rates of 35.7 and 20.9 per 1,000 of the population. At the Royal Observatory, Greenwich, the duration of registered sunshine in the week was 10.8 hours, the sun being above the horizon during 70.7 hours; the recorded duration of sunshine was, therefore, equal to 15.8 per cent. of its possible duration.

A HOME FOR WOMEN DRUNKARDS.

ON Monday last, at the Mansion House, under the presidency of the Lord Mayor, a conference was held in aid of the establishment of an industrial home for the reformation of women who are habitual drunkards. The meeting was held in the saloon, and was largely attended, among those present being Mr. Samuel Morley, M.P.; Sir Robert Carden; the Rev. R. Temple West; the Rev. Ernest Wilberforce; the Rev. F. E. Lloyd-Jones, Ordinary of Newgate; the Rev. J. W. Horsley, Chaplain of the House of Detention, Clerkenwell; Dr. A. Carpenter; the Rev. Dr. Irons; Mr. J. Gurney Fry; the Rev. G. Merrick; Mr. Antrobus, and many more, including a large number of ladies. It was stated that during 1876, no less than 5,588 women were committed for drunkenness to Westminster Prison alone, being an increase of 708 in the year, and of 3,074 in the last six years. They were of all ages, from fifteen upwards, and many had been previously committed—some even as many as one hundred times. Short sentences and punishment appeared utterly to fail in effecting any reformation, showing the extreme need of a sanitarium or reformatory especially adapted for that class, no existing institution being able to give to such cases the special treatment and length of time absolutely necessary to effect a permanent cure. It was accordingly proposed to establish an industrial home on the principle that sufficient time should be given to enable the nerves to recover a healthy tone, as there would then be every hope, with the aid of religious and moral influence and constant medical supervision, that many whose lives were now a misery to themselves and others would be restored to a higher state of existence and become useful members of society. It is intended to make the institution of an attractive nature, and to classify the inmates as far as possible according to their capabilities and talents, as the great aim would be to develop and cultivate to the utmost the capacities and latent good which might be found even in the weakest and lowest. Length of stay would be regulated by medical advice, and it was the general opinion of the eminent doctors who had been consulted that the term should be as protracted as possible. A model laundry, on a scale sufficiently large to render the institution self-supporting, would be started, and the most careful attention would be given to provide such nourishing diet as might prevent the feeling of exhaustion, and consequent craving for stimulants, now so commonly felt among that class. A suitable house, with grounds, was to be had in the neighbourhood of London; and it was found, after careful investigation, that £4,000 would start the work thoroughly. The scheme was approved by a large number of medical men and the clergy, and by, among others, nearly the entire Bench of Middlesex magistrates. The Lord Mayor, in opening the meeting, expressed the very great pleasure it gave him to assist in a cause so excellent, and spoke, as a magistrate of some years' standing, of the terrible fascination which drink exercised over women who gave way to it, leading them into crime and urging them on to suicide and ruin. Dr. Alfred Carpenter, of Croydon, moved that "Experience, confirmed by statistics, proved that drunkenness had greatly increased, 80 per cent. of the committals to

our prisons arising, directly or indirectly, from that cause; and, further, that a large proportion of the inmates of our lunatic asylums lost their minds from the excessive use of stimulants". Notwithstanding these palpable facts, the Legislature would not interfere. When the explosion occurred at Regent's Park, and when there was a scare resulting from the possibility of the Colorado beetle obtaining a footing in this country, the Government went at once to work and passed stringent laws as to the conveyance of explosive compounds and as to the means of suppressing the destructive insect; and yet here was a destroyer in comparison with which as to the means of producing desolation these things were simply as nothing, but the law-makers stood still. The Ordinary of Newgate, the Rev. F. Lloyd-Jones, seconded the resolution, and detailed, from his official experience, many sad cases of ruin caused by drink, and the need that existed for some such institution as that suggested. The resolution was carried unanimously, as was also one proposed by the Rev. H. Brooks and seconded by the Rev. J. W. Horsley, declaring that it was the duty of a great Christian nation to grapple with such a fearful evil, and that one of the means to counteract its effects was the establishment of industrial homes for the reformation of women who had contracted habits of intemperance. Mr. Samuel Morley, M.P., said he did not think the proposals made went anything like far enough. Though he did not wish to say one word of discord, he felt it was almost contemptuously insignificant to proceed with such hesitating steps. He charged the medical profession with having been the cause of very much mischief in this matter, for while the most eminent among them had said that drink was one of the most insidious and terrible of all poisons, as daily used, the profession had failed to raise its voice in the great issue as they ought to have done. The next resolution was to the effect that the meeting, having regard to the increasing prevalence of habitual drunkenness and the train of evils produced from that cause, approved the establishment of an industrial home for the reformation of women so afflicted, and also for girls who were falling into habits of intemperance, and who, with proper care and treatment, might be rescued from a life of degradation or crime. This also was carried. A committee was appointed to carry out the scheme, and about £500 of the £4,000 required to bring it to a practical test by the establishment of the first home was subscribed. The business concluded with a vote of thanks to the Lord Mayor for allowing the meeting to be held in the Mansion House, and for presiding.

CARBOLIC ACID POISONING.

THE Chester coroner (Mr. Tatlock) held an inquest on Monday last touching the death of a woman named Alice Ann Ainsworth, wife of a tavern-keeper and boatman, who died from poison on Saturday night. The deceased was given to whisky drinking, and her husband stated that she generally took half a pint of that spirit daily. On Saturday evening, she had been working hard and went to bed about seven o'clock, saying she was tired. Before going, she was seen to take a drink of something on the stairs, and the tumbler out of which she drank being afterwards brought down by her son, it was noticed that it smelled very strongly. Her husband ran upstairs, found his wife in great pain and speechless, and at once went for a doctor. A bottle containing carbolic acid was found on the sill of a window on the stairs, which had been used for disinfecting the house, and there is no doubt the woman drank some of it in the dark in mistake for whisky. The jury returned a verdict to that effect.

PRESCRIBING CHEMISTS.

WHATEVER may be the practice of American pharmacists, their theory is at once more outspoken and more intelligible than that of many of the professing leaders of British pharmacy of the "mutual concession" school, who seem desirous of at once running with the hare and holding with the hounds. At the last meeting of the American Pharmaceutical Conference, the question was propounded, "What knowledge of therapeutics should the properly educated pharmacist possess?" The answer was that, "as the pharmacist should never assume the rôle

of the practitioner, there is no necessity for any special training in the therapeutics. He should, of course, be conversant with the general use of remedial agents and their average doses; but beyond this the pharmacist does not need therapeutical training." That we take to be sound common sense and plain speaking; but it is very different from the uncertain sounds which issue from some of our pharmaceutical oracles.

"DR. BARNARD."

THE report of the arbitrators in the Barnardo investigation has left the question of the professional status of Mr. or "Dr." Barnardo in a very unsatisfactory position. In a published letter of "Dr." Barnardo, dated October 22nd, he says: "1. *I am now a legally qualified medical man*, and was registered in 1876 according to Act of Parliament; and 2. As such, my right to the prefix of 'Dr.' is established by the decision of the Court of Exchequer, in the year 1860, in the case of 'Ellis v. Kelly.'" The diploma which this gentleman holds is that of a licentiate of the Edinburgh College of Surgeons, obtained in 1876. On the other hand, very grave charges are alleged against him by the Charity Organisation Society, in respect to a purchased diploma, on the basis of which he formerly assumed the title of Dr., and which are far from being cleared up by his subsequent statements. The whole matter rests in a position which seems to demand the investigation of the officers of the General Medical Council of Education and Registration.

THE MANAGEMENT OF INFECTIOUS HOSPITALS.

THE Medical Superintendent of a Metropolitan Asylum District Hospital has communicated the rules which were enforced at the hospital during its appropriation for the reception of small-pox patients. They seem to us to be so well devised, that it will be useful to put them on record for the information of the officers of other hospitals throughout the country; and, in bringing them to the notice of those officers, we may add that it may be desirable, if they observe any defects or deficiencies in them, to communicate to us their views on the subject, in order that they also may be placed on record. A perfectly satisfactory code of rules, which may be at hand for reference and general information, is a desideratum. The rules enforced were as follows. All letters, before being posted, were subjected for two hours to disinfection by iodine. No visitors were allowed during the favourable progress of a case; but, in the event of symptoms arising which threatened a fatal termination, the nearest known relative of the patient was communicated with, and permission to visit accorded. The visits were limited in duration, and all contact with the patients was discouraged. Before leaving the hospital, each visitor was carefully subjected to disinfection with iodine and carbolic acid in a room appropriated to this purpose. These rules were always cheerfully acquiesced in; and, while it was pointed out that they were enforced for the good of the community at large, the necessity of previous revaccination was urged for the safety of the individual. A daily report of the state of every inmate of the hospital was made after the morning round of the medical officer. This report was handed to the gate-porter, and enabled him to answer inquiring friends without their entering the hospital grounds.

LAMARCK, DARWIN, AND HUNTER.

PROFESSOR H. G. SEELEY of King's College gave, on Friday evening, the second of his course of lectures at the College for Men and Women, Bloomsbury, on "Evolution and the Geological Evidences which bear upon the Origin of the existing races of Plants and Animals". The subject of the lecture as described in the syllabus was the "views of Mr. Darwin upon the origin of plants and animals, and some modification of these views which are adopted by scientific men". In the early days of geological science, it was believed, said Mr. Seeley, that the meaning of finding successive forms of life in successive strata, from older to younger, was that there had been successive creations. This idea did not satisfy those who looked on life in its various forms as continuous, and believed that one set of forms had

sprung from another. Hugh Miller, by his endeavours to make the geological record fit in with the Mosaic account of creation, misled thinking minds for a long time from the right track. Darwin and Wallace, by their theories, if they have not fully explained all we want to know, have at least shown why it is we have types of life of different ages which we can compare. But, in regarding Darwin, it must not be forgotten that Lamarck had long before enunciated doctrines which cover some of Darwin's ground. Darwin indeed can be hardly said to have originated a theory. He formulated ideas that had long been afloat in men's minds, his principal being (1) the struggle for existence, (2) the survival of the fittest. Darwin has not pretended to deal with the whole question of evolution; he has simply limited himself to certain aspects of the question, such as the "origin of species". There remains the important consideration of the physiological causes which have brought about the changes which we see in successive forms of life. Dr. Hunter, the founder of the Hunterian Museum, was, Professor Seeley said, the first he believed, who had given the first indication of the line of study to be taken in this direction. He indicated that there should be a careful examination of the comparison of the use of an organ and its development. Without use an organ dwindled in the course of two or three generations, and with use it increased. An illustration was used of the relative size of the bone and of the muscle of wild and of tame rabbits. Several other illustrations were given, as of the relative size of the head and neck of the whale, as the result of swimming, of the length of neck of the giraffe, etc. The drift of all the illustrations was, that use of any particular organ or part of the body led to development, which in the course of generations became hereditary, and hence "evolution" depended on physiological action.

SCOTLAND.

THE Glasgow University Court have agreed to recognise, for the purposes of graduation in Glasgow University, the lectures on Anatomy delivered by Professor A. M. Buchanan in Anderson's College.

A CASE of small-pox is reported to have occurred in Edinburgh last week. The patient was a gentleman on a visit from London, and was removed from one of the hotels to the Fever Hospital. He is said to have been about three weeks in the city before the disease showed itself.

THE Extramural School at Edinburgh was opened on Tuesday, October 30th, by an able and interesting address from Dr. John Duncan, one of the surgeons to the Royal Infirmary. The University session opened on the same day; but Principal Sir Alexander Grant did not, as has usually been the custom, deliver any introductory address.

NEW WATER-SUPPLY FOR MOTHERWELL.

THE Motherwell waterworks, which have been in the course of construction for about two years, were formally opened on the 25th ult., and the supply of water introduced into the town. The works are situated about ten miles from Motherwell, at an elevation of 820 feet above sea-level. The gathering-ground, which abounds in natural springs, is about 650 acres in extent, five-sixths of which is pasture, while the remainder is made up of patches of peat. The reservoir is a natural basin, with a breastwork 40 feet in height at one end. It is capable of holding 20,000,000 gallons of water, equal to a supply of 25 gallons per head per day to a population of 7,000 for one hundred and fourteen days. There are two filters, each measuring 48 feet by 39, and of a capacity to supply a population of 12,000, thus allowing for a reasonable increase of inhabitants. The water-level of the reservoir is at an elevation of 520 feet above Motherwell Cross; but, this being an excessive height, a relief-well had to be introduced halfway, reducing the elevation to 240 feet, or a pressure of 100 pounds to the square inch, at which rate it is sent direct into the

town. Dr. Stevenson Macadam says in his report that the analysis of the water proves it to contain an average amount of saline matter in solution, and that it is of a comparatively soft nature. The organic matter is of a peaty character, and is non-putrescent, so that practically it does not affect the wholesomeness of the water for domestic purposes; it may, therefore, be confidently employed for the supply of the town. For a number of years, the town was badly supplied with water, having only a small supply from the railway reservoir. During the past few years, the place has rapidly extended, and the energies of the municipal authorities have been mainly directed to securing an abundant supply of water. All places of business in the town were shut in honour of the event, and a general holiday was observed in the district.

THE EDINBURGH ROYAL HOSPITAL FOR SICK CHILDREN.

THE directors of this hospital at their meeting last Friday elected Dr. Angus Macdonald as a director, and Dr. George W. Balfour as consulting physician, both in the room of Dr. Matthews Duncan. They also elected Dr. James Andrew to be one of the ordinary physicians in the room of Dr. Macdonald, and Dr. Underhill extra-physician in the room of Dr. Andrew.

THE UNIVERSITY OF EDINBURGH.

A MEETING of the Edinburgh University Court was held on Friday, at which, *inter alia*, it was ordered to be published that recognition had been granted to Dr. John Halliday Scott as a lecturer on Anatomy in the University of Otago, and to Mr. W. F. Hutton as a lecturer on Natural History there, whose lectures respectively should qualify for graduation in Medicine in the University of Edinburgh. Dr. W. P. Aitken and Dr. R. M. Morrison were appointed Assistants to the Professor of Chemistry.

THE LECTURESHIP ON THE INSTITUTES OF MEDICINE.

WE understand that the authorities of the Extramural School in Edinburgh have great difficulty in finding a lecturer for the coming session on the Institutes of Medicine, or Physiology. Hitherto there has been no want of able teachers in this branch in Edinburgh, as the names of Saunders, Gamgee, McKendrick, Pettigrew, and others, all formerly lecturers in this school, sufficiently testify; but at present so many of them have been called to fill professorial chairs elsewhere, that hitherto we understand the lecturers have failed to find a *confidè* in this department. Dr. Smart, who delivered the course last winter, was reluctantly compelled to decline undertaking it again, owing to the prostration produced by a serious illness during the past summer. After giving professors of physiology to Glasgow, Aberdeen, and St. Andrew's, Edinburgh is for the moment left in the lurch. Dr. Angus Macdonald is to deliver the winter course of Midwifery at this school, in the place of Dr. Matthews Duncan.

THE ROYAL INFIRMARY, EDINBURGH.

ON Monday last, Dr. J. O. Affleck was elected Assistant-Physician to the Royal Infirmary of Edinburgh. The vacancy among the surgeons, caused by the election of Mr. Annandale to the Chair of Clinical Surgery, is filled up by the promotion of Dr. John Duncan as full Surgeon. The vacancy among the assistant-surgeons will be filled up on Monday, November 5th. There are several candidates: Dr. A. G. Miller, Dr. Cadell, Dr. W. A. Finlay, Dr. McGillivray, and Dr. Bishop.

GLASGOW UNIVERSITY COUNCIL.

THE report of the Committee of the General Council of Glasgow University has just appeared. In reply to the remit, the Committee state that they are unable to suggest any means whereby the expense of contested elections in the Glasgow and Aberdeen Universities can be materially lessened. They do not well see how it is possible, when there are contests, to control candidates in the expending of money, unless all expenditure is declared illegal. It has been suggested that the voting-papers should be issued by the Registrar, as is done in the case

of elections of the Chancellor or Assessor; or that the papers at present issued should be signed by a Justice of the Peace of any county, irrespective of the place of residence of the voter; or, lastly, that the identity of the voter should be certified on the voting-paper by any one householder to whom such voter is known.

TESTIMONIAL TO MR. A. B. STIRLING.

WE understand that a movement is on foot, among the profession in Edinburgh, to present a testimonial and a purse of sovereigns to Mr. A. B. Stirling, for many years past Assistant at the Anatomical Museum in the University, as an indication of the esteem and respect in which he is universally held. A sum exceeding £200 has been promised in the course of a few days, and it is hoped that a handsome sum will be raised. Mr. Stirling's great skill as an anatomist and microscopist is well known, far beyond the limits of the Edinburgh school. The treasurer of the fund is Mr. John Murray of the *Challenger*, 1, Park Place, Edinburgh, who will be glad to receive subscriptions.

OPENING OF THE MEDICAL SESSION IN GLASGOW.

THE three medical schools of Glasgow inaugurated the session on Tuesday last by the usual addresses. In the University, Mr. Fergusson, Professor of Chemistry, addressed the students; in Anderson's College, Dr. Charteris gave an address; and at the Royal Infirmary Medical School, the introductory address was given by Dr. H. C. Cameron. It is impossible as yet to tell the number of students who are likely to attend this session, but judging from the numbers at these addresses, they are all likely to have a good year.

GLASGOW WESTERN INFIRMARY.

THE Directors of this Hospital have shown a praiseworthy desire to make it as efficient and complete as possible in all departments of medicine. There are already special gynæcological and skin wards in the hospital, while in connection with the out-door department, there is provision for treating diseases of the throat and for vaccination. There is now to be a clinique for diseases of the ear, and Dr. Thomas Barr has been appointed to conduct this, in connection with the out-door department. There is no arrangement for the treatment of diseases of the eye, but this is not much felt, as the Eye Infirmary (originally founded by the late Dr. Mackenzie) has recently removed to the west end of the city, not far from the Western Infirmary. There is, however, no provision for instruction in the diseases of children; and this is rather a serious hiatus which ought to occupy the attention of the Directors, in the interest alike of the rich, the poor, and of the students.

IRELAND.

A MEETING of the Council of the Royal College of Surgeons was held on Thursday, the 1st instant, to elect an Examiner in Midwifery in the place of Dr. Roe, lately appointed Professor of Midwifery.

THE epidemic of measles in Dublin, which had apparently all but disappeared, has within the last few weeks increased, the mortality being beyond the average from this disease.

DR. MCCREADY died at his residence, Grosvenor Road, on Saturday, the 27th ult., after a short illness, aged seventy-nine. He was the third in seniority of the Fellows of the College of Physicians, having been elected so far back as 1829.

TWO of the Introductory Addresses were delivered in Dublin last Monday, one by Professor Mapother, at St. Vincent's Hospital; and the other by Dr. Cameron, at the Medical School of the Royal College of Surgeons. Dr. Cameron's address was on the Pathology of Contagion.

THE INSPECTION OF INFECTED VESSELS IN PORT.

AT a meeting of the Belfast Board of Guardians held recently, the

Chairman read some correspondence in which Dr. Clements, Sanitary Officer of No. 1 Dispensary District, raised the question as to whether he could claim remuneration for inspecting vessels arriving in the port which had sick persons on board, when required to do so by the Customs authorities. The Local Government Board, to whom he wrote, stated that they were not aware of any provision in the Sanitary Acts under which he could claim any remuneration from the owners or agents of vessels for the extra duties. A discussion took place, the feeling of the Guardians being that they should appoint a special officer to examine vessels arriving in Belfast, and not leave it to the Customs' authorities. The consideration of the matter has, however, been deferred to a future meeting.

THE QUEEN'S UNIVERSITY, IRELAND.

A CORRESPONDENT writes to us complaining of the unfair attacks which, he alleges, are made by some sections of the medical press upon the Queen's University, Ireland. He points to the fact that since the opening of the Queen's University in Ireland 956 persons have graduated B.A., and 822 have graduated M.D.; and he refers to the published testimony of Dr. Parkes and Professor Humphry of Cambridge as to the high order and excellence of the examinations; he adds that if the roll of graduates of the Queen's University be compared with the roll of any great Scotch or Irish University for the same period of time, it will be found that, due regard being had to the proportion of numbers, the graduates of the Queen's University will be found to be enjoying as high a professional reputation and be doing as good professional work as those of any other of these universities. He complains that, for apparently interested motives, Queen's University is made the frequent subject of unfair misstatements by prejudiced opponents in the press.

INTRODUCTORY ADDRESS AT ST. VINCENT'S HOSPITAL, DUBLIN.

DR. MAPOTHER selected as his theme "The Lives and Writings of O'Ferrall and Bellingham", who had been the original surgeons when the hospital was founded in 1834. Their earlier careers were strongly in contrast: the former of most lowly birth, the other a member of a titled family; yet they rivalled each other in unceasing industry. In 1840, when aged fifty, O'Ferrall became almost completely blind; yet he practised medicine and surgery most successfully, his sense of touch having developed in an extraordinary degree. He even performed important operations. He died in 1868; and a few years afterwards, on the decease of his sister, his large fortune became the property of the hospital. Another recent donor, Mr. Mullins, had enabled the hospital to double the extent of its Seaside Home; and convalescents from other hospitals are to be admissible. O'Ferrall's best known writings are on ileo-cæcal abscess, hip-disease, the fibrous capsule of the eye and enucleation of that organ, the elevation of limbs and tumours before removal, and the plan of strapping the breast for deep abscesses and anthrax.—Bellingham was for twenty-five years the most active officer of the College of Surgeons in the positions of Examiner, Professor, and Secretary of the Surgical Society; and no man was ever more generally beloved for amiability and refinement. He died in 1857, from malignant disease of the liver, the primary deposit in the mammary gland having been removed about two years before. He was an ardent naturalist; and his papers on the Entozoa, in vols. 13 and 14 of the *Annals of Natural History*, are still a standard reference. He discovered a new human worm, the *Ascaris alata*. Of his numerous surgical works, that on *Compression for Aneurism* is best known. He originated the view that cure results from the laying down of fibrin from the blood, while its flow is made very gentle by partial compression. The application of two points of distal pressure and the use of a weight originated with him. The lecture will be published in full in the November number of the *Dublin Journal of Medicine*.

THE Paris École Pratique de Médecine is to be enlarged at a cost of 1,500,000 francs. The alterations are to be completed before the opening of the Exhibition of 1878.

THE CONJOINT SCHEME.

A MEETING of the Conference of Representatives of the Medical Authorities engaged in the formation of a Conjoint Scheme for Examinations in England was held on Monday, October 22nd, at the Royal College of Surgeons. It was announced that the Scheme, dated May 1st, 1877 (published in full at page 596 of the BRITISH MEDICAL JOURNAL for May 12th, 1877), and agreed to by the co-operating authorities, received the sanction of the General Medical Council on May 24th, and it was resolved to request the Medical Authorities to appoint severally their Members of the Committee of Reference, in order that the Committee may at once proceed with the duties assigned to them by the Scheme.

COLLEGE EXAMINATIONS IN PHYSIOLOGY.

We have received a copy of a memorial addressed to the President of the Royal College of Surgeons, relating to the College Examinations in Physiology and Histology. It is signed by more than a dozen well known teachers of physiology, among whose names we notice those of Prof. Huxley, Dr. Sharpey, Dr. Pavy, Dr. Burdon Sanderson, Prof. Rutherford, Prof. Arthur Gamgee, Dr. M. Foster, Prof. Allen Thomson, etc. The most important suggestion contained in the memorandum is, that the Examination in Physiology should be confided to special Examiners, and that these, whether Fellows of the College or not, should be persons known to be conversant with the subject on which they are to examine. In this way, it is believed that the examination would be rendered more genuine and thorough, without any extension of the range of subjects included in it. Although it would still retain its strictly elementary character, and would be less burdensome to the student, the kind of knowledge required of him would be of greater value because more real.

ST. THOMAS'S HOSPITAL.

It will be seen from the published reports of the meeting of governors of St. Thomas's Hospital on Wednesday, that the report of the Subcommittee recommending considerable reforms in the management of St. Thomas's Hospital has been only in part accepted; and it is very instructive to note what part has been rejected, and by what influences. Some considerable reforms have been adopted. The governors have ratified that part of the report which provides that in future a House Committee shall be constituted, which shall include two gentlemen who have been physicians or surgeons of the hospital; and this unquestionably affords a promise of greatly increased efficiency in the management of the hospital. It has been a standing reproach to this great institution, that its finances have been administered with startling extravagance and notorious incompetence to attain the same amount of public good as is attained in other great hospitals. Not only has the cost of the hospital construction exceeded that of any other similar institution by a most enormous excess, but, as we have more than once pointed out, the annual clear expenditure of upwards of £30,000 has not, under the recent administration, supported more than two-thirds of the patients whom such an income is capable of maintaining. A patient at St. Thomas's Hospital has cost £12, while a patient at Guy's has cost only £5. The consequence is, that upwards of one hundred and fifty beds have remained empty, the mere interest of the money expended in construction amounting to £100 a year for each such empty bed. In other words, the extravagance of administration has been such, that beds costing £15,000 a year have been, and are still remaining, empty. Under these circumstances, it certainly was not surprising that the Grand Committee thought it desirable that the next appointed Treasurer should be a person of special knowledge and recognised administrative power.

While, however, the Committee were considering the subject, and while it was known that, in the interests of the hospital, it would probably be their duty to make some recommendations for improving the efficiency of the Treasurer's office, an active canvass was being made throughout the City to retain this post as one of the perquisites and honours of the Corporation of London. Such a course was in itself obviously most improper, and indicative of anything but real regard to the interests of the hospital. At the meeting on Wednesday, the Corporation and its friends mustered in strength, and it was abundantly evident that there was a powerful organisation at work which was determined to keep this hospital as one of the appanages of the Corporation, and to treat the office of Treasurer as the outwork of City privileges. The measures had been well laid, and against such an organisa-

tion it is difficult for reformers to contend. Indeed, it was apparent that, with the spirit which was abroad in the majority of this meeting, the question had become one of Bumbledom against Progress. The resolutions, therefore, relating to the office of Treasurer were negatived; and it is probable that the aldermanic tradition will be perpetuated at the hospital, and that the governors will by a majority decide that the Treasurer of St. Thomas's Hospital shall be appointed without any reference to special administrative fitness for the office, but with special reference to the fact that he shall be a person clothed with the aldermanic gown. Such a conclusion may seem absurd; but this is only the most recent instance of the determination which the Corporation of London evinces to maintain at any cost old abuses, of whatever kind, if they be considered to be bound up with the corporate privileges.

THE GLASGOW AND ABERDEEN GRADUATES' CLUB.

THE second annual dinner of the Glasgow and Aberdeen Graduates' Association was held on Thursday last; Dr. Allen Thomson, F.R.S., in the chair. Among those present, as members or guests, were: Dr. Matthews Duncan, Professor Lister, Mr. Ernest Hart, Dr. Andrew Clark, Dr. Meymott Tidy, Dr. Aveling, Dr. Steele (Guy's Hospital), Dr. Goodhart, Dr. Fancourt Barnes, Dr. Stephen McKenzie, Mr. Couper, Mr. Oakley Coles, Dr. Brunton, and a considerable number of the graduates of this University, many of them occupying high positions in hospital and general practice. Dr. Allen Thomson, who has now taken up his residence in London, was heartily greeted by the company, of whom the great majority were former pupils under this illustrious and beloved teacher. By the wise arrangements of the dinner committee, the speeches were very limited in number, so as to afford opportunity for free and unconstrained social intercourse. Many of them, however, were highly interesting; and the occasion, being the first on which Scottish graduates resident in London had had the opportunity of welcoming three distinguished Professors of the great Scotch Universities who have just taken up their residence amongst us, was one of peculiar interest. Dr. Allen Thomson, in brief but felicitous language, expressed his delight at thus early in his London residence finding so large a nucleus of students of his own and the Glasgow University assembling in London to knit closer their ties to the mother University, and his satisfaction at seeing so many of them occupying positions of high distinction and much usefulness in the metropolis. Dr. Meymott Tidy proposed the health of Professor Lister, expressing, in enthusiastic terms, the high appreciation which throughout the world was entertained by the medical profession of the rare combination which Professor Lister brought to the service of surgery, the eminent and philosophic powers of research, with the capacity for the patient sagacious application to practice of the principles which he deduced from scientific investigation. Professor Lister said that he was deeply sensible of the cordial kindness and friendship with which he had been received in London; and that he had now thrice, at what he had felt to be the call of duty, uprooted himself, at the cost of the severance of tender and wide-spread attachments, to enter upon such spheres of work as had successively opened themselves to him; that he still felt the pangs of his removal from Edinburgh; but was cheered by the constantly strengthening hope of bright anticipations, such as those which Dr. Tidy had renewed. A similar welcome was offered to Dr. Matthews Duncan by Dr. Aveling, in the name of the Club; and Dr. Matthews Duncan, in reply, expressed his gratification at the cordiality with which he had been greeted in London, and spoke with much force of the high importance of the action of the great Universities in giving, not only scientific instruction, but a moral and cultured training, to the great body of graduates whom they fitted for general practice, and he lamented the absence of such an university system in this metropolis. Dr. Andrew Clark concluded the proceedings by a brilliant and eloquent eulogium upon the career, achievements, and character of Professor Allen Thomson, his early master, laying special stress upon the invaluable personal influence which he had exercised upon the students brought into his class.

FAREWELL DINNER TO DR. J. MATTHEWS DUNCAN.

OUR Edinburgh correspondent writes: On Tuesday last, Dr. Matthews Duncan was entertained at dinner, on the occasion of his leaving Edinburgh for London, by a number of his friends and admirers. The Chair was filled by Dr. KEILLER, President of the Royal College of Physicians of Edinburgh. About one hundred and seventy persons were present, including the Lord Justice-General, the Lord Advocate (Sir Alexander Grant, Bart.), the Rev. Dr. McGregor, Mr. Duncan McLaren, M.P.,

almost all the leading members of the medical profession in Edinburgh, and several from Glasgow and Aberdeen, and other places in Scotland and England, and a number of the general public. Letters of apology were read from Sir Robert Christison, Sir Noel Paton, R.S.A., Professor Annandale, and others, who were prevented from being present. The toast of the evening was proposed in his usual happy manner by Professor MACLAGAN. He sketched briefly the professional career of Dr. Duncan, beginning with the circumstance of his taking the degree of M.A. at Aberdeen before beginning the study of medicine, and insisting upon it as having an important bearing on his subsequent success. Very early in his professional life, he had begun to contribute to medical literature, and, by his writings, which had been very numerous, he had gained, and early gained, an European reputation. These writings were characterised by their exactness, the precision of the information they gave, the logical closeness of their reasoning, and the scientific basis on which they rested. Dr. Duncan would be greatly missed in Edinburgh both by the profession and the public, by the College of Physicians, and by the Medical School. After including, in a few graceful words, the name of Mr. Duncan in the toast, he wished Dr. Duncan all manner of success and prosperity, and bid him God speed.—Dr. DUNCAN, in replying, expressed his sense of the honour done him by the assembling of so many of his friends both in and out of the profession, and many of them from long distances, to bid him farewell. He viewed his own success in life as dependent upon a few great circumstances: good parents, devoted, above all, to the education of their children; a good grammar school, an excellent Alma Mater—Marischal College—and the influences to which he had been subjected in Edinburgh. Here he had enjoyed the friendship and even intimacy of such mighty men in medicine as Alison, Syme, Christison, Goodsir, Simpson, Miller, and many of their predecessors and successors. The Medical School had been all his life here in a most prosperous condition; but more than all of value to him had been the intellectual friendships he had formed. In going to London, he felt nothing so much as the loss of these; but, from what he had seen of the men of St. Bartholomew's and other great medical men in London, he felt satisfied he would make friends equally attached and equally useful; and he had already there, as the nucleus of such intellectual friendships, one of the first, one of the noblest specimens of the scientific practitioner that ever lived—Professor Lister.

Amongst other toasts was that of "The London Medical Schools", proposed by Dr. WATSON, President of the Royal College of Surgeons, and responded to by Professor PIRRIE and Mr. BENJAMIN BELL, both of whom were at one time Bartholomew's men.

THE PENGE CASE.

PROFESSOR VIRCHOW, whose European reputation as a pathologist commands respect, comments, in the last number of the *Berlin. Klin. Wochenschrift*, upon the details of the Penge case. He remarks severely, as might be expected, upon the extremely imperfect manner in which *post mortem* examinations are conducted for coroners' inquests in this country; and points out that, under the German system, the imperfections which were apparent in the evidence and procedure in this case, and which have led to very painful results, would be impossible. He remarks rather severely upon the discrepancies in the published opinions of one of the witnesses for the defence; and concludes by asking, whether Harriet Staunton died from tuberculosis of the arachnoid. His answer is: "Certainly not, according to the report of facts by Dr. Wilkinson; possibly so, according to the evidence of Dr. Longrigg"; but, he adds, the striking reduction in her weight makes it a matter of some difficulty to suppose even the possibility that her emaciation was the consequence of the tuberculosis; and, he adds, that Dr. Greenfield's additional hypothesis to explain it, that the woman was of unsound mind and the subject of general paralysis before becoming tuberculous, is one which cannot be inferred from the necropsy, and, in the absence of that evidence, there always remains the possibility that she was not supplied with food; adding, finally, that even if there were proof of the unsoundness of mind, there would still be evidence favouring the possibility of starvation. His professional judgment is *non liquet*.

ST. THOMAS'S HOSPITAL.—The Entrance Science Scholarships given this year at St. Thomas's Hospital have been awarded as follows; viz., the Scholarship of £60 to Mr. Wansborough Jones, B.A. Oxon, and B.Sc. Lond.; and that of £40 to Mr. A. E. Wells, of the University of London.

ASSOCIATION OF CERTIFYING MEDICAL OFFICERS OF GREAT BRITAIN.

MEETING AT STOKE-UPON-TRENT.

THE annual meeting of the above association took place last week at the Railway Hotel, Stoke-upon-Trent, when there were present Dr. Arlidge, President; Dr. Parson, Belfast; Mr. Johnson, Lancaster; Mr. Stansfeld, Bristol; Dr. Brown, Preston; Dr. Collings, Wolverhampton; Dr. Underhill, Tipton; Dr. Moore, Dublin; Mr. Galt, Dublin; Dr. Pierce, Manchester; Mr. Davies, Pendleton; Dr. Roden, Kidderminster; Dr. Day, Stafford; Dr. Fernie, Stone; Mr. H. Fernie, Macclesfield; Dr. Beales, Congleton; Mr. W. H. Folker, Hanley; Mr. J. J. Ritchie, Leek; Mr. Acton, Newcastle; Mr. J. Alcock, Burslem; etc.

THE PRESIDENT, after cordially welcoming the members of the association to Stoke, called upon the SECRETARY (Mr. J. M. Stansfeld) to read the annual report, which stated that at the last annual meeting a deputation was appointed to wait upon the Home Secretary in reference to the proposed new Factory Bill. Mr. Cross, it stated, had listened to the prayer of the memorial which was presented, and promised to give it his most favourable consideration. The Editor of the BRITISH MEDICAL JOURNAL was thanked for the able and comprehensive manner in which he had advocated the claims of the factory medical officers. Thanks were also tendered to Mr. Fielden of Todmorden for his able and very decided advocacy in their favour. The committee had met at Birmingham in March last to consider the best means for carrying out more efficiently the various sanitary clauses embodied in Mr. Cross's new Bill, and the suggestions made which it was thought desirable to adopt had been published in a pamphlet which was appended to the annual report. In conclusion, the committee called the attention of the association to the very able pamphlet by Dr. C. D. Purdon on *The Sanitary State of the Belfast Factory District*.

THE TREASURER (Mr. C. Johnson) reported an unfavourable balance of £15, and suggested the continuance, for another year, of the double subscription of 10s.

The next business before the meeting was the appointment of officers. The President (Dr. Arlidge) was reappointed for the tenth time to that office. The Vice-Presidents were also reappointed, as were likewise the Treasurer and Secretaries. One or two alterations were made in the committee, which, with these exceptions, was re-elected. It was decided to hold the next annual meeting at Manchester on the third Friday in September. The general business having been disposed of,

THE PRESIDENT, in the course of a long address, reviewed the events of the past year, and called attention to the work yet to be accomplished. Before commencing this task, however, he complained that the Association had had to carry on its combat for the professional position and usefulness of factory medical officers, and for the improvement and extension of the factory laws, almost single-handed, without the encouragement and co-operation which might fairly have been expected from professional gentlemen generally, and particularly from the medical press. One reason, he apprehended, why the factory laws and their administrative agents were but little heeded in the medical periodicals was that the editors and their colleagues were residents in the metropolis, and that inasmuch as factory workers did not come prominently into view in London, attention was very little directed to them. He, however, recognised the assistance rendered by the *Journal* of the British Association during the past and current years. He lived in hope that their cause as individual members of the profession and the cause of factory operatives in relation to their sanitary welfare would obtain due recognition, and receive the support of the whole medical profession during the forthcoming Parliamentary session. The past year had been fruitful of events of no mean importance. Following closely upon the interview of the deputation appointed at the last annual meeting with the Home Secretary, the draft of the Bill for the amendment and consolidation of the several Acts relating to factories and workshops was read in the House of Commons; but in spite of favourable conditions the Bill had to be withdrawn, in consequence of lamentable Parliamentary squabbles created by a handful of obstructives before it got into committee. He noticed the proceedings at the meeting held at Birmingham in March last on the subject of the Bill, and the statement which he (the President) was requested to draw up, which was entitled "Remarks on the Factories and Workshops Bill, 1877", copies of which were at the disposal of members of the association. It would be generally admitted that the Home Secretary's Bill was calculated to promote the beneficial operation of factory legislation; that it contained provisions which showed a real advance upon previous measures; that it accomplished

no small purpose in bringing together factories and workshops under similar enactments, and with fewer exceptional conditions than any previous Act; and that it maintained, if not in their integrity, yet in their general efficiency, most of the sanitary provisions of former Acts, adding some improvements. Every factory medical officer should thoroughly master the clauses of the Bill, and enforce upon members of Parliament the value and necessity of the amendments put forward. He pointed out some of the imperfections of the Bill, and spoke of the action taken by the Parliamentary Bills Committee of the British Medical Association; which Association, he said, would lend the weight of its authority and influence in all points in which the interests of factory medical officers and the general well-being of factory workers in a sanitary point of view were concerned. The fact of impending factory legislation should bring within the Association the whole body of factory surgeons. At the same time, the Association was not one which would put itself in antagonism with appointed authorities, with whom they desired to work in harmony. Their aim was the increased physical well-being of their artisan class; and towards the attainment of this end, the making of the Factory Acts more efficient as well in their general as in their medical organisation. After paying an eloquent tribute to Mr. Robert Baker, the chief inspector of factories, who had lately resigned his office, Dr. Arlidge said from its growth and importance factory legislation had become an annual theme at the meetings of the great associations which discussed social matters. At the late meeting of the Social Science Association, Sir George Young, the able Secretary to the late Royal Commission on the Factory Laws, read a paper on the proposed reduction to system of the modifications of the privilege of working overtime which was given by the Factory Acts to particular trades, and he (Dr. Arlidge) hoped the Home Secretary would adopt the suggestion laid down by so well qualified an authority. At the recent meeting of the British Medical Association in Manchester, Dr. Priestley stated that of the fifty cases of the Cæsarean operation which were known to have been performed in England and Wales up till 1865, no fewer than twenty-five occurred in Lancashire, and he attributed this to the pernicious influences surrounding the occupation of young girls and women in factories. These cases had become very rare since the passing of the Factory Acts, which showed that these Acts ameliorated the condition and lessened the danger and suffering of working women. Trades-unionists at their congresses had also testified to the value of legislative enactments of this kind. They seemed to desire to extend these laws and make their administration more effective. They especially considered the present system of inspection insufficient and the number of inspectors too few, and they would increase the number of inspectors and add to the inspectorial staff some of themselves, on the ground that as actual operatives they must know more of the industrial occupations carried on. He (Dr. Arlidge) did not offer an opinion on this claim; but, regarding the insufficiency of the staff for the work it had to do, he concurred with the trades-delegates, and he was sure the Association would agree with him. It was the opinion, very loudly expressed by many witnesses before the Royal Commission, that if this insufficiency obtained under the present Acts, how great would it be under the extended scheme of the Bill lately laid before Parliament. The President went on to refer to the claims put forward by lady speakers at the Social Science and Trades-Union Congresses, that women should be relieved from the provisions of the Factory Acts curtailing female labour. They asked that women should not be excluded from any kind of labour, and they seemed to regard Acts which interfered with their freedom as of a tyrannical character. With all respect to these strong-minded women, he (Dr. Arlidge) should regret the occupation of females in many trades from which they were now excluded. He insisted upon the necessity of women having the protection of the law in regulating their labour. He went on to say that the recognition of the value of factory legislation and its adoption by the principal countries of Europe must be pleasing to Englishmen as its initiators; but, although borrowers of the principle, Continental rulers had not appreciated the details of the factory laws; they had seized on the provisions forbidding work except at certain ages and under certain conditions as to hours of labour, and had constructed a machine according to the general pattern before them, but had failed to supply it with motive and regulating power. In other words, they had made laws and not provided for their administration. As a rule, they had made it the business of justice to look after the observance of the laws, and had no plan of supervising or directing the police in executing the duty. Moreover, they had ignored the sanitary organisation and the formation of a staff of medical officers to give vitality and force to their enactments. The consequence was, that the factory laws were more or less a dead letter in the several states which had on paper adopted them. This fact operated in no small degree injuriously to our manufacturing pro-

perity. Our factory owners and operatives were weighted by an efficient system preventive of overwork, undue work, and overtime, which, as a consequence, limited production and advanced the price of labour; whereas the foreigner, although professedly limited as to duration of labour, was really not so, and could employ juvenile labour without regard to time or the ability of the labourers. In the interests of humanity there should be reciprocity in this matter of factory regulation, and it seemed but reasonable that representations should be made from some quarter as to the hollow pretence of having factory laws existing only on paper.

Dr. RODEN proposed a vote of thanks to the President for the able paper which he had prepared and read to them.

Dr. PURDON seconded the vote, and it was carried with acclamation.

The PRESIDENT briefly replied; after which, Dr. PURDON proposed that a subcommittee be appointed to draw up an address to Robert Baker, Esq., M.R.C.S., Chief Government Inspector of Factories, who had just retired, and that the President should be requested to present it to him.

Mr. STANSFELD seconded the motion, which was carried unanimously.

It was also decided to solicit subscriptions from members of the association for the purpose of getting up a testimonial for Mr. Baker.

This concluded the business, the association shortly afterwards adjourning to dinner.

THE SICK AND WOUNDED IN THE RUSSO-TURKISH WAR.

THE following extracts from reports furnished to the Stafford House Committee have been kindly forwarded to us for publication.

Extract from Letter from Mr. Kennett, dated Constantinople, September 21st, 1877.—I find myself obliged to restrict my operations for want of funds, so much so that I cannot supply a properly equipped field-ambulance for the last batch of our surgeons sent out. I might have attached them to Turkish military hospitals, but in such a position, unless backed up by money and stores, they would find themselves much cramped in their work. As I consider that, under existing circumstances, the services of these surgeons can be best employed in the field, I have accepted the offer of the Red Crescent Society. Three surgeons will form the *personnel* of the largest and most important field-ambulance yet attached to any of the Turkish armies. It will be under the direct command of Baron Mundy, M.D., Professor of Military Hygiene, Imperial University of Vienna, and Head Surgeon of the Order of Malta. The ambulance will consist of five sections, each containing one surgeon, two dressers, and twenty-five stretcher-bearers. There will be one surgeon-in-chief, and perhaps some supernumerary surgeons. The medical staff will be mounted, and the sections will be accompanied by convoys of native wagons. It will work under the Red Crescent, but will be subsidised by Stafford House stores. In my quality of member of the "Committee of Organisation" of the Red Crescent, I do not lose all control over the operation and management of this ambulance. The Mundy ambulance will operate in the Plevna district, which I agreed to leave to the care of the Red Crescent. Eight surgeons of the Stafford House Committee and Lord Blantyre left this morning for Philippopolis, on their way to the front. Mr. Cullen and Dr. Sketchley are waiting for them at Philippopolis, with the horses and conveyances which they had purchased for our Stafford House Plevna ambulance and transport, but which will now be handed over to the Red Crescent at cost price. Want of means, and *this alone*, compelled me to abandon the Plevna ambulance, which is sure to do splendid service. It is, however, a consolation to me to know that it will be in good hands, and worked by men chosen by Stafford House. The Red Crescent hospitals of Beglerbeg (300 wounded), Kavac (250 wounded), and Dr. Sarell's hospital established *Ecole Militaire* (80 wounded) have been supplied with nearly the whole of their medical stores, blankets, etc., from the Stafford House depot. These hospitals are in full working order, under European surveillance. In conclusion, I beg to make an earnest appeal for further funds for Stafford House. It is heart-rending to be cramped in one's work at such a terrible crisis. With our organisation in good working order, as it now is, every £100 will relieve an immense amount of misery, and save the lives of many brave men.

12. Extract from the Report of Surgeons in the Rangoon District, for the month of September 1877. From Dr. Falc, dated Assai Pichai's Camp, near Senkieni, September 18th, 1877.—I beg to forward some details of the work we have done since we left Varna. We

reached Rasgrad on August 2nd, and after some days we went on to Schumla, where we were courteously received by Mehemet Ali, the Commander-in-Chief, who promised us all assistance, and telegraphed to the different stations as to where our services would be most urgently wanted. Accordingly, on August 14th, we set out for Rasgrad, and, joining with Drs. Busby and Lake, became attached to the divisions under Nedjib Pacha. For the next nine days, we treated, on an average, thirty sick cases a-day, mostly ague and dysentery. On August 24th, we moved along with Nedjib Pacha's Division up to Spagulai. Here we remained till August 30th, the sick-list averaging forty per day, all of which were treated by us, while we transported some of the more urgent cases to Rasgrad. There were also occasional wounded brought in from reconnoitring parties from day to day. On August 30th, we were present, with twenty ambulance wagons, at the battle of Karahassan, where nearly, if not all, the Turkish wounded fell into our hands. During that day and the following night and morning, we attended to (including operations) 251 wounded; remaining with them during the night, and transporting as many of the more urgent cases as possible to Rasgrad, the Turkish ambulance helping with the remainder. Next day, we passed on with the army to Karahassan, and there remained a few days, the sick-list averaging thirty-five per day. On September 4th, the army advanced to Yenikieni, where we spent the night; and next day, 165 wounded were attended to by us at the battle of Kezelevo. During that day and the following, we remained with the wounded, also throughout the night, making them as comfortable as possible beside a stack of barley. The night was very wet and cold; the wounded suffered terribly. Next day, after the wounded were transported to different places, we went forward to the village of Kezelevo to look for more wounded, but finding none, we went on to Cherissa, where, during that day and the following, 225 wounded soldiers passed through our hands; these being collected from the left bank of the Lom by the Turkish ambulance, Mr. Boyd at this time working with the Turkish ambulance. Our wagons here did good work in transporting the wounded to the Turkish hospital at Salorika. During the afternoon of the following day, we were joined by Mr. Pratt at Cherissa, accompanied by Drs. Beresford and McQueen, who attended to the remainder, we returning to the camp of Sabet Pacha. During the next few days, we were engaged in attending to the usual number of sick cases, about forty a-day, chiefly ague and dysentery, with occasional wounded; and on September 13th, we advanced with Assaf Pacha twelve miles in a westerly direction, and at night encamped near the village of Senankieni. Mr. Lake had, two days previously, left us in delicate health to recruit at Varna. Next day, September 14th, at the Battle of Senankieni, we attended 180 wounded men, employing our ambulances in transporting the wounded from the field. Next day, we asked His Excellency Assaf Pacha to lend us help in the transportation, which he at once did, sending for fifty wagons to help us to send them to Rasgrad. In this battle, as at Karahassan, almost all of the wounded were attended to by us. The wounded suffered badly in the night, which was very cold, we doing our best in making large fires and collecting fuel from the neighbouring woods. We have received many severely wounded which had been dressed by Turkish surgeons previously. In none of these cases whatever have we seen a splint used or the bullets extracted. We are glad to say we have received the greatest courtesy from all the authorities with whom we have come in contact.

2. Extract of Letter from Dr. Barker, dated Philippopolis, 16th September, 1877.—We started from Stamboul on our second journey to transport the wounded by railway ambulances on September 6th. An hour from Stamboul, we passed a train of six hundred wounded, most of them slight cases, but thought it better to go on, as they were so near the end of their journey. At Tcholon, we met another train, but they were very slight cases; and, there being no time to transfer Mr. Sketchley's stores, we went on, arriving at Adrianople at 8 P.M. the same evening, having given tobacco to the wounded in the second train. We slept in the van at Adrianople during the night, going on in the morning by the mail to Philippopolis. The following day (Saturday, the 8th instant), I accompanied Dr. Neylan to his hospital, where I was struck by the number of bad cases, there being a good many cases of erysipelas and pyæmia, also several cases of incipient gangrene. I gave chloroform for him in the morning to allow of the application of a splint in a bad case of fracture of the thigh, and also assisted in the dressing of wounded. In the afternoon, I gave chloroform for two cases of amputation, but was somewhat hindered by the Turkish surgeons, who dare not give it themselves, and who do not like to see anyone else giving it. The following day (Sunday, the 9th), I was to receive a train of two hundred wounded, but they could not be got ready. Cullen, arriving in the evening, brought me four ambulance railway wagons for the transport of the worst cases. Each contains

eight beds, and is well fitted up, having all the necessary appliances; these are to be attached to my van wherever it goes. Monday, 10th. We started at 1.30 P.M. with four hundred and twenty cases, most of whom were only slightly wounded. At Tirnova, we gave them soup. At Adrianople, Drs. Temple, Moore, McIvor, and Kirker assisted me to dress all the wounded, and picked out nineteen of the worst cases to stay behind. At 3 P.M., we resumed our journey. At Tcholon, each man received a bowl of soup, bread, and tobacco. The following morning, I dressed as many of the worst cases as possible, till we arrived at Stamboul at about 2 P.M., on Wednesday, 12th instant, when each received soup, bread, and tobacco. Thus ended my second journey.

2. Extract of Letter from Dr. Neylan, dated Philippopolis, 19th September, 1877.—Since sending my last report, the number of wounded has been considerably reduced, and on the 13th instant, as far as I could ascertain, only numbered four hundred. The cases were being continually shifted from one building to another, making accurate statistics almost impossible. All these cases, with scarcely an exception, were grave ones; and, as the bulk of them on their journey suffered severely from the roughness of the roads, exposure and neglect of their wounds, and as the drainage and hygiene of the private buildings amongst which they were distributed on their arrival here was of a very deficient description, pyæmia, erysipelas, tetanus, and gangrene soon made its appearance amongst them. The mortality, however, was not high, as I isolated the worst cases in tents some distance from the hospitals. I gave Dr. Menassian charge of a hospital containing sixty serious cases; and Dr. Rutzi (Croissant Rouge) another of equal number. A third to Dr. Valodo, a local doctor, who is a good surgeon and devoted to his work. The remainder were under the charge of military surgeons; but in nearly all I managed to give the chief control to the Polish and Hungarian doctors who are in the Turkish service here. From the time of our arrival here to the 15th, we had performed seventeen large amputations; of these, ten are on a fair road to recovery, three have pyæmia, two incipient gangrene, which I trust will limit itself, and two have died. From the 15th to the 17th inclusive, we have had five more; all, up to the present, are doing well. The first untoward incident occurred on the 12th instant. A man with a dreadful compound fracture of the leg, with the bones protruding and gangrene beginning, wished to be amputated. Drs. Menassian and Rutzi concurred with me, that immediate operation was his only chance. After making all necessary preparations, and whilst awaiting the man's arrival in the operating room, I was informed that the Turkish surgeons had stopped the operation, and told the man it was not necessary. I immediately went to Ibrahim Pacha; and, in the earlier part of my interview with him, found he was but little inclined to go into the matter, as he was much annoyed at the conduct of a doctor of the "Croissant Rouge", who, it was stated, had used a piece of wood to probe a wound. [This matter has been inquired into. The doctor in question used a wooden probe, not having any other. He is a Greek doctor, and has nothing to do with Stafford House. He has been recalled.—V. B. K.] When he did understand, however, he promised that no interference of the kind would again be allowed, and notified the same to all the military surgeons. The unfortunate man two days afterwards begged for operation, but the gangrene in the meantime had made such progress that interference was useless, and he still lingers in his agony. On the 15th, Dr. Woods from Adrianople (taking Dr. Steward's place) and Dr. Manoury of the French Protestant Society arrived here. I was at once able to place Dr. Woods in charge a hospital; and yesterday gave another to Dr. Manoury. On the same date, Dr. Stoker arrived with twenty serious cases, three of which were at once amputated. A few hours afterwards, three hundred arrived under Government charge. There were not many severe cases amongst them, and many were sick, not wounded. The number of sick soldiers has increased very much of late. They are placed in a large permanent hospital, under the exclusive care of the Turkish authorities, and seem well cared for. I have endeavoured as much as possible to economise the stores of Stafford House, and the money expenditure has been almost *nil*. [Except for pay of assistants, etc., and transport when necessary.—V. B. K.] I found the authorities here, if not elsewhere, were quite willing to provide the wounded with such comforts as tobacco, melons, and lemons if asked to do so. In addition to the hospitals under the special charge of Stafford House surgeons, I have inspected and superintended regularly the buildings under Turkish care at their special request. By this, many cases were found which required immediate active interference, as amputation; and those requiring most watchfulness and skill in their treatment were removed to our own hospitals. I have been ill for ten days, and intend leaving for a few days for change of air; and have appointed Dr. Menassian in my room until my return. [Dr. Neylan

returned ill to Constantinople, but insisted upon returning to his post Saturday.—V. B. K.]

². *Extract from Letter from Dr. Hume*, dated Schipka, September 20th, 1877.—After our unfortunately unsuccessful assault for the positions in this part, on Sunday night and early on the following morning, when we were so nearly successful, the wounded began to be brought in. In the course of the day, about 500 passed through our section of the ambulance; of these, about 200, the most severe, were treated by us in our own tent. On the next day, we had about the same number, though the entire number of wounded was not more perhaps than half that of the previous day, but the majority were very severe cases. I have never seen anything approaching so large a proportion of really bad cases in any collection of wounded before. The wounded are, as you know, sent from here to Kesanlyk, five miles, and thence to Philippopolis. Yesterday and to-day, some of us went to Kesanlyk to follow up our cases. Many have been sent on already. We found, however, our operation cases happily doing tolerably well under the roughest and most inadequate treatment. We have arranged for their transport to-morrow in Stoker's waggons. Mr. Streater, who will give you this letter, accompanies the transport, as do also Banfather, Smith, and Weller, who is himself ill, and on his way, I believe, to be nursed by Lady Strangford. You will, I think, be glad to hear that we have organised a little mountain transport. Suleiman has given us fifty men and an officer. Two of us are to take them up the mountain to fetch wounded, when it is advisable to do so. The first ascent was made on Tuesday last, and several wounded, who did not appear to have any likelihood of ever leaving the hillside, were safely brought down. We have three pairs of caicolets (would that they were more), but have not yet succeeded in getting mules to mount them, but we shall do so. I think the Pacha will give us anything we ask for, if he has it, and I have seen excellent mules going up the hill.

Extract Letter from Mr. Barrington Kennett, dated Constantinople, September 26th, 1877.—Dr. Moore has gone towards Plevna, and has probably arrived there by this time. Chefket Pacha, to whom he is attached, is very desirous that we should form a hospital at Orchanie, where large numbers of wounded are expected, and no provision has been made. I am sending up stores and what money I can spare. Mr. Pratt, who has just come down to Constantinople from the army of Mehemet Ali, reports that our surgeons are doing good work with the several divisions to which they are attached. Drs. Lake and Beresford, who have been for some time on the sick-list, are recovering. I regret to state that Dr. Weller is seriously ill. He is, however, receiving every care at Philippopolis.

Extract from Mr. Kennett's Letter, dated Pera, September 28th, 1877.—I enclose extracts of reports marked *g*³ and *h*². All our sections continue working well. Dr. Moore is at Orchanie, between Sofia and Plevna. I am sending Dr. Sketchley to assist him, and forwarding him large supplies of stores. He has been placed in a highly responsible position by Chefket Pacha. The last two batches of doctors whom you sent out are now at Philippopolis on their way to the front under the Red Crescent. Dr. Sarrell, an eminent surgeon of Constantinople, takes command of this English Red Crescent ambulance, in the place of Baron Mundy, who remains at Constantinople for the present, and is superintending the construction of a hospital barrack, floating hospital, and railway ambulance wagons. Dr. Beresford is better, and also Dr. Lake.

³. *Extract from Report of Dr. Stiven*, dated from Stafford House Hospital, Rustchuk, September 9th, 1877.—After anxiously waiting from day to day for something to do for the sick and wounded, we have at last received all at once all the work that two doctors can undertake. On the 31st of August, there was a "reconnaissance" here, at which date our hospital was prepared to receive fifty patients at any moment, fifty beds being then fully equipped. The other fifty beds were partially prepared, but, for want of coverlets or blankets and small soft pillows, were not fit to receive wounded men in. Having no patients to attend to, we thought it advisable that we should make ourselves useful in going out to the scene of this reconnaissance and doing what lay in our power in the shape of ambulance work. Taking bandages, splints, etc., with us, we went out and attended to the wounded as they were brought out from action; some thirty to forty men, comprising Turkish soldiers and Circassians, passing through our hands. We fully expected to receive our first instalment of patients that same evening, but were disappointed in that respect; still, we had the satisfaction of having done something in the shape of work. On the evening of the 3rd instant, the Caimacam paid us a visit, and informed us that a larger reconnaissance was on foot, and that the wounded would come direct to our hospital, to which we simply answered that we were ready and willing to receive them. Accordingly, on the 4th instant, we thought it advisable to stay at home and receive the wounded after

what the Caimacam had said, and well it was we did so, for we had a very hard day's work set before us. About 11 o'clock A.M., the wounded began to come in by detachments of twos and threes; and as they came we dressed them afresh, extracting bullets, etc., which work we continued till about 5 P.M., without intermission, and then we had to call a halt, for our one hundred beds were all occupied by wounded tenants. We dressed in all one hundred and ten wounded, but, of course, were obliged, for want of space, to send the remainder to the military hospital. Previous to the reception of these wounded, to make the beds more comfortable, we made several small soft mattresses from the cotton-wool and stuff like "tow" sent to us. The Caimacam, seeing that we wanted fifty more coverlets for the remaining unfinished beds, kindly lent us fifty from the military hospital until ours should arrive. We have now been in full swing for five days, and I am thankful to say that everything is going on satisfactorily, and, as far as the wounded are concerned, they seem very contented, happy, and comfortable. On the morning of the 7th instant, on account of our having about twenty to twenty-five Egyptian soldiers among our wounded, we received a visit from the Egyptian General Osman Pacha, who, after he had walked round and inspected all the patients, in a nice little speech, complimented us on the appearance of our hospital, and thanked us for our attention to the wounded, and hoped we would continue our care of them, etc. On the afternoon of the same date, the "Vali" Ahmet Kaiserly Pacha paid us the honour of a visit to the hospital, which he inspected, and personally expressed his satisfaction and thanks to me, in Turkish, for our efforts and attention to the soldiers. Early next morning, we received a visit from the Caimacam, who also expressed himself satisfied, and again repeated that the "Vali" Pacha had informed him that he was exceedingly well pleased with our hospital. The former always held doubts of its success, but these seem to be dispelled at present, for he immediately asked me, if it was possible, would we enlarge our hospital to another hundred beds, and bring two other English doctors up here to attend to them. If we would do that much, he would supply us with the mattresses, pillows, and coverlets, also what linen, sheets, etc., we required. Knowing that there is no room for wounded in the military hospital, or rather "barracks" and tents, after consultation together, we thought we would not do wrong by ordering another hundred bedsteads to be made, and to send for Busby and Lake to join us here to carry on the work of the intended new ward. It is quite a certainty that many wounded will be sent into Rustchuk, considering the present position of the army, and that this hospital is now the nearest to receive them, so I do not think the opening of one hundred beds will be a failure. If the war should continue into the winter months, we will have to get stoves, or something or other to heat the wards, but perhaps that is looking too far forward just yet, still, the cold months are not now very far off.

^h. *Extract from Third Report by Mr. Pratt*, dated September 27th, 1877.—I left Varna on Friday, September 14th, the date of my last report, and proceeded to Rustchuk, doing the latter part of the journey on horseback. The Stafford House Hospital there was full, and working most satisfactorily under the care of Drs. Stiven and Edmunds. The building is peculiarly well suited for a hospital, the ventilation perfect, the attendance and food good, and the patients most contented and grateful. I saw Ohannes Bey, the "chirurgien en chef" of the Turkish ambulance, and, after some discussion, thought fit, with Dr. Stiven's advice, to make him a proposition to the following effect, viz.: That the "matériel" for 100 additional beds, sheets, mattresses, coverlets, and other hospital material, shall be provided, as far as possible, and the building cleaned, by the Stafford House (so that the 200 beds, etc., should be unquestionably Stafford House property). And that the Turkish authorities, on their part, shall undertake to provide all "personnel", that is, assistant-surgeons, pharmacians, infirmiers, and servants of all descriptions, entirely at their own cost; also all repairs, oil, coals, etc. The whole to be under Drs. Stiven and Edmunds; they having entire liberty of treatment, subject only to the supreme medical authorities. On Monday, September 17th, I rode by Kadikeui and Senankieui to Nankieui, where I found Drs. Wattie, Busby, and Douglas, with their ambulances. On the 19th, I arrived at Chevasse. Dr. Beresford had left for Varna, owing to a severe attack of dysentery. Dr. McQuean and I decided that we should take his ambulance and transport, and work with Dr. Wattie till Dr. Beresford's return. The next day, I left for Costova, where I found Dr. Crookshank and ambulance (N.A.S.), and also the Heinrich ambulance (Croissant Rouge). I saw Dr. Roy (Turkish service) at Kazelova; he assured me that the wounded in his charge, and shot in the face, had only hard biscuit given them. I, therefore, gave him two liras to purchase sheep, which are very cheap, to boil down for broth. On Saturday, 21st, I arrived at Osman Bazaar, and the next day crossed the Balkans to Islinyeto, thence to Eski-Zaghra and Constantinople,

where I arrived on Monday, September 24th. Upon the whole, the work being done under Stafford House doctors is most satisfactory. I may state that I have seen no sign of distress among the Bulgarians north of the Balkans.

Extract from Report by Dr. Neylan, dated Philippopolis, October 1st, 1877.—News having reached Mr. Kennett that Philippopolis was full of wounded, who were without any proper attention, I was sent there on August 31st with Dr. Minassian and two assistants. On my arrival (September 2nd), I found two thousand wounded scattered about the city in thirty private houses. The cases brought from Schipka by the transport service under Drs. Stoker and Weller were well cared for; but the condition of those brought by the authorities was dreadful in the extreme. The journey from the Pass, occupying four days in open oxen-wagons over rough roads, without proper food or attention to their wounds, many of which were full of maggots, lessened considerably their chances of recovery. At a meeting convened by the military commandant (Ibrahim Pacha), I was given supreme control over all the hospitals. As a preliminary to getting affairs into order, I sent six hundred of the lighter cases to Constantinople; the remainder were placed in nine large buildings (Bulgarian schools, mosques, etc.) in airy situations. Myself and colleague took charge of three of these and had them filled with the most serious cases. The rest were under the care of the Turkish military surgeons, and were visited daily by me. Gangrene, pyæmia, erysipelas, and tetanus were rife, but the mortality was not high, as I at once isolated the worst cases in tents removed some distance from the hospitals. The serious nature of the cases will be seen by the fact that, in a hospital containing forty-five beds, there were eleven compound fractures of the femur and six penetrative wounds of the knee-joint. Carbolic acid and drainage-tubing worked marvels in wounds of the most foul description. Hypodermic injection of morphia was very much appreciated, all the occupants of a hospital where it had been once or twice used crying out for it. The sick, which at first were not numerous, increased afterwards, and, by the end of September, formed about one-fifth of the cases brought from the front. Nearly all were suffering from dysentery and intermittent fever. The authorities provided mattresses and blankets, and, after ten days, six hundred bedsteads. I had an operating room fitted up in a central position, to which all cases were brought. Dr. Woods (Lord Blantyre), Stafford House, and Dr. Manoury, French Society for the Relief of Ottoman Wounded, and Dr. Razi, Croissant Rouge, arrived on the 15th, and immediately took charge of a hospital each. It was extremely difficult to obtain the patients' consent to amputation; in fact, they rarely gave it, except when they thought themselves *in extremis*. All were "secondary", and many fifteen days after injury.

The result of forty-two major operations performed by myself and the above-mentioned surgeons from September 2nd to September 29th inclusive was to-day (October 1st) as follows.

Operation.	No.	Died.	Disch. wound.	Causes of Death.
Amputation through upper third thigh..	2	1	1	Pyæmia
" " middle " " " "	1	0	2	"
" " knee-joint " " "	1	2	2	Pyæmia and dysentery
" " middle third leg " " "	1	0	1	"
" " " Syme " " "	1	0	1	"
Disarticulation at shoulder " " "	1	1	1	Pyæmia
Excision of shoulder " " "	4	0	4	"
Amputation through upper third arm..	4	2	2	Gangrene
" " lower " " "	7	1	1	Intermittent fever
" " forearm " " "	7	1	6	Pyæmia
" " at wrist* " " "	2	1	0	Secondary hæmorrhage

A very large number of minor operations were done which I had no time to make note of. Chloroform was administered one hundred and thirty-nine times without mishap. Out of two thousand cases, there were only fifteen cases of sabre and bayonet-wounds and about one hundred and fifty shell-wounds, the rest being rifle bullet-wounds. In the vast majority of instances, the bullet passed through the arm or leg. I extracted twenty-eight bullets. About 60 per cent. were wounds of the fingers and hand (generally the left). There were many wounds of the knee and elbow-joints; wounds of the head were uncommon. In two instances, the inferior maxilla was blown completely away, and the men are recovering.

We had fourteen cases of tetanus, always arising from slight superficial wounds. Two recovered. They were all treated with fifteen-grain doses of chloral-hydrate, subcutaneous injection of morphia, and with occasional inhalation of chloroform.

The Turkish soldier makes an admirable patient, and is very grateful.

grateful, and resigned. Notwithstanding bad food, no drains in hospital, and neglect of wounds, the percentage of recoveries from wounds of a serious nature is very large. The abstemiousness, physique, and splendid constitution of the common Turk will be best understood by quoting a few examples of interesting cases.

Ex. 1. A regular had a rifle bullet-wound of the stomach, with gastric fistula, through which food escaped a few seconds after eating. A plastic operation was not possible, as tetanus, with severe opisthotonos, supervened. The tetanus has now ceased, and he is recovering.

Ex. 2. A compound fracture of the wing of the right ilium very much comminuted, with extensive suppuration in the right iliac and hypogastric regions. This patient rapidly improved, large sequestræ were removed, and the sinuses healed. He has returned to his duties.

Ex. 3. A colonel had seven wounds: five in the extremities, one penetrating wound of the thorax, and one of the abdomen. When he was first seen by me, dyspnoea was urgent and death seemed imminent. Three weeks after the injury, he returned to his regiment.

Ex. 4. A bullet entered the right buttock and emerged from the left, passing in front of the sacrum. Fæces and flatus escaped from the aperture of exit, and none from the anus. A digital exploration of the rectum revealed occlusion three inches above the anus. There was no injury to the sacrum. The man's health is otherwise good.

Ex. 5. A bullet entered the right cheek, under the zygoma, and was extracted from the opposite side, lodged in front of the coronoid process of the inferior maxilla. Both palate and nose were intact. The bullet must have traversed the ethmoid. There were no bad symptoms. He has since been discharged cured.

Ex. 6. A bullet passed through the right arm and entered the posterior border of the axilla. There was a fluctuating tumour over the upper dorsal vertebræ. He had marked angular curvature, and there was some difficulty in diagnosing between the spinal disease and the presence of the bullet. After an incision, a large piece of blue uniform protruded, followed by the bullet but little altered in shape.

Ex. 7. A soldier, during an attack on a mill, was fired at almost vertically from the roof, the bullet entering the fourth right intercostal space, emerged through the left rectus with "two spans of bowels". Both wounds have healed. There was no peritonitis. He has returned to his regiment.

Ex. 8. A bullet entered on the right side of the sixth cervical vertebra, and was found (and extracted) lodged with the apex between the left carotid artery and internal jugular vein. There were many other cases of great interest, such as injuries to the nerves, paralysis of the extensors and supinators, due to injury to the musculo-spiral nerve, and similar effects from injury to the anterior tibial nerve. A man has recovered from a bayonet-wound, which passed through the right lung, entering under the inferior angle of the right scapula and emerging between the sixth and seventh ribs. At this date, there are one thousand six hundred wounded and three hundred sick in the town.

HOSPITAL AND DISPENSARY MANAGEMENT.

AN EYE HOSPITAL FOR THE WORKING CLASSES ON THE SELF-SUPPORTING PRINCIPLE.

WE learn from an advertisement in the newspapers, as well as from circulars which we have received, that Mr. Jabez Hogg proposes to establish a self-supporting Eye Hospital for the working classes. Mr. Hogg has taken a great interest in the various plans which have been discussed of late years for mitigating the abuse of hospital out-patient relief, and we have no doubt this proposal has arisen out of a desire to contribute to the solution of a difficult question. There can be no doubt that the ophthalmic hospitals of London are much abused; and that, if they were to follow the example of the Children's Hospital in Great Ormond Street, and (after the first visit) were to refer all their out-patients for investigation, there would be need of several such hospitals as Mr. Hogg proposes. But we are not hopeful that the ophthalmic hospitals will take any steps of this kind; and until they do, we are afraid a self-supporting eye hospital, however desirable, will be an impossibility. It is not in human nature to pay for that which we are invited to receive as a gift. It would be better, as it appears to us, to co-operate with the provident dispensary system, and to try to make it more perfect by enabling it to offer special experience in such an important branch as ophthalmic surgery. Still, the evil of indiscriminate medical charity is so great, and this has now been so clearly demonstrated, that any earnest endeavour to grapple with it deserves encouragement, and it cannot be said that Mr. Hogg's experiment is altogether without good foundation.

HOSPITAL MANAGEMENT.

WE had to comment recently on the care which it behoves house-physicians and surgeons to exercise in allowing patients to be removed from the hospital when dangerously ill and when such removal is likely to be followed by death, even although, as in the recent burglary case on which we commented, the removal was ordered by the police authorities. We regret to find, by the sworn evidence at a late inquest, a case in which the house-physician of University College Hospital ordered and compelled the removal of a patient in the last stage of disease and actually at the point of death, on the ground of insubordination and rudeness to one of the nurses. The man died three-quarters of an hour after being carried away from the hospital. Such a circumstance, while, no doubt, a source of regret to the gentleman whose want of judgment inflicts such a reproach upon the administration of the hospital, must serve as a warning to house-surgeons generally, and they must temper their zeal for good administration with the most profound consideration for the welfare of the patients as being the main object to which all hospital administration is directed. We can see nothing in the case but the hasty indiscretion of an individual, but such acts discredit all hospitals, and have much more than a separate or individual influence, and if they were repeated would make it necessary to curtail the authority of the resident medical officers, a result which we by no means desire to see brought about.

TUNBRIDGE WELLS PROVIDENT DISPENSARY.

DURING the last few years, we have had occasion to notice the formation of provident dispensaries in many provincial towns, and now Tunbridge Wells must be added to the number. On October 1st, all the out-door visiting, which has hitherto been carried on by the Infirmary, ceased, and the new Provident Dispensary, which is situated in the immediate neighbourhood of the Infirmary, was opened. It will thus be seen that the two institutions are acting in harmony. This is just as it should be, and from such co-operation the best results may be anticipated. Unless the medical charities consent to put some check upon their liberality, it is impossible for provident dispensaries to hold their ground. Working people will not pay even a penny a week for that which they can get for nothing. But while the provident dispensary suffices for all ordinary sickness, the hospitals are needed for severe cases and for accidents. Thus each institution has its own proper sphere. Each supports and supplements the other; and it is most desirable that, as at Tunbridge Wells, there should be an *entente cordiale* between the two classes of institutions. The people of Tunbridge Wells have been accustomed to have a good deal done for them, and it is probable that they may be slow to enrol themselves; but there can be no doubt the town is one in which there ought to be a provident dispensary, and the present institution starts under most favourable auspices.

COUNTY MEDICAL CLUB.

SIR, In the account I gave in last Saturday's *Journal* of the Eye Medical Club, I showed that for attendance on 1000 members (half of whom are under sixteen years of age), together with fifty confinements, and allowing £10 for surgical extras, the medical man receives £115 a year; if this sum is paid from the honorary fund. In the proposed new County Club (the scale of payments I append to this letter), for the same 1000 members and fifty confinements and surgical extras, the medical man will receive £187; but as the honorary fund is only touched for the surgical extras and half the confinement fees, only £32 of this £187 will come from that source, the remaining £155 being paid by the members themselves. In poor neighbourhoods and some agricultural districts this will be a great advantage; and the nearer these clubs are to being self-supporting, so much the better for all concerned. To show how popular the Club is around here, I find in one neighbourhood six villages with a population of nearly 3000 no less than 1300 are in the club, or 1 in 2.3 of the whole population. And if, as I showed last week, the payments to the medical men are nearly double what they formerly were, then as a club we certainly have nothing to complain of; and in general practice this will answer our purpose as well as any club which is at present established.—I am, yours faithfully,
GEORGE FLETCHER, M.D. Cantab.

Earl Soham, Suffolk, October 1877.

Scale of Payments for the proposed County Medical Club.
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SPECIAL CORRESPONDENCE.

THE TURKISH ARMY IN ASIA.

[FROM OUR OWN CORRESPONDENT.]

Head-Quarters of Ahmed Muhktar Pacha, Oct. 5th, 1877.

FOLLOWING the time-honoured example of the English temples of Æsculapius, the English field-hospital here may be said to have commenced its winter session on the 1st of October. On the morning of Monday, after a long intermission of hostilities, very sharp firing in the neighbourhood of Jala, on our right centre, announced the fact that our friends the Russians, whom we knew to have received some considerable reinforcements, to the extent of 12,000 men we had reason to believe, intended to give us something to do at last. For about three hours, the firing was very close and continuous; and we could not quite make out why the enemy had brought out so many men, and a battery of heavy guns, against a handful of our cavalry, most of them Circassian irregulars, who were out probably on one of their ordinary foraging expeditions. I went down at once, with a party of men with stretchers and a tent, thinking to make a small shelter where the wounded might be dressed on the spot. On arriving at the village, however, upon which the Russian shells were pouring fast and thickly, I could only discover one man wounded. I got up to him just in time to find him dead. He was badly shot through the lung, and the hæmorrhage had been most profuse. On searching about the field and visiting the Circassian camp, which was in the immediate vicinity, I found seven wounded in all, and there was a report of another man killed. After a time, our batteries opened an answering fire upon the assailants, who immediately retired with considerable expedition. It was evident to see, however, that they suffered severely. I myself saw three consecutive shells fall right in the midst of the very compact bodies of troops; and in the hand to hand engagement between the opposing cavalry, to judge by the number of Russian coats, in which the Circassians had attired themselves, the number of their original wearers killed must have been considerable. Towards evening, the explanation of this attack became apparent. At the time that this little amusement was going on in the centre, a large force, which had worked their way round under cover of the night, attacked a Turkish position at Nachsivan, on the extreme right; and, owing partly to the superiority of the defenders' position, and still more to the indomitable courage with which the Turkish soldiers always engage with greatly superior numbers of the enemy, the Russians—in numbers at least three times greater than our troops—were three times, the last time finally and completely, repulsed, with very great loss. It is said that at least three hundred Russians were left dead on the field. The accuracy of this statement I cannot vouch for; but I know that upwards of one hundred Russian caps, with the number of the 75th Regiment on them, were to be seen in this camp before the evening closed. Our loss was officially reported to be eight killed and twelve wounded, besides a few scratches which did not put the recipients *hors de combat*. I can only give these figures as they were given to me, without being in any way responsible for their exact accuracy; but I have no doubt they are something like the truth. Having got this hint that it was time to set our houses in order, during the night I had all available tents pitched and arrangements for extra supply of water and other necessary details carried out, and the morning proved that all our preparations were not unwarranted; for with the early dawn commenced the most important battle which has been fought on Asiatic territory since the commencement of hostilities. As soon as an opinion could be formed where one was likely to be of use, I set out, with such necessary things as our horses could carry, in the direction of the Yhanilagh, a large hill between us and Kars, occupied by a few of our troops, against which the brunt of the Russian attack seemed directed. Column after column appeared on the horizon, marching towards this mountain, and for a time it seemed as if nothing we could do could prevent them making good their way to cut off our communication with Kars, and perhaps to turn our left flank.

But let me say shortly here, that although the position was for a time actually taken and occupied by a small force, the main body of the assailants met with such a reception a little further on at the hands of Mehmet, surnamed "Captain", Pacha, who occupied the smaller Yhanilagh, opposite to its namesake, that they were glad to make the best of their way back again. I was accompanied by a dragoman-servant, Fortunato by name, of Austrian descent, I believe,—well-named, indeed, I found him to be, for most fortunate was I to have his services—he had only arrived the previous evening from Erzeroum. I had also with me a Turkish soldier who is acting as our scullery-maid in days of peace. Poor Buckley, my junior colleague, had been acting

for a day or two, and that morning undoubted typhoid symptoms showed themselves. Poor fellow, it is a terrible thing for him to go through a smart attack of typhoid in this distant country, without friends or comforts, in a leaky tent, and with only the attention that I can give him in the midst of a pressure of work which has been almost too much for me. I hope, however, long before this is in print, he may be on a fair way towards convalescence and fit to go home. The disappointment to him may be imagined, to be thus shelved just as our work really commenced. Riding out about three miles, we came upon a batch of wounded just by one of our artillery positions. The fire here was hot and furious; in every direction, fragments of bursting shells whizzed round our heads, and for a moment I doubted whether one ought to stay even to attend to the wants of the poor wretches. However, after a minute or two, one gets used to fire, and carrying, as well as we could, four poor fellows very terribly wounded with shell under the apparent shelter of a ledge of rock, we commenced our work. Just as we had finished bandaging up the wounds, two arabas which I had despatched a soldier for came up, and in these jolting carts, the only ambulance conveyances we can get here, we sent the sufferers to our tents. One man, with a severe compound fracture of the thigh, died before his arrival. While we were engaged, a shell burst on the summit of the ledge from whence we had carried our patients, and killed two men, one an officer and the other an artilleryman, on the spot. A little further on, we found a group of seven wounded, all by musketry fire, and in different places we found and made as comfortable as possible for the time, in all, twenty-one wounded. After being dressed, the poor fellows had to be told to wait till we could get arabas to transport them to the tents; and as we could find no more wounded in that immediate vicinity, I thought it was time to make the best of our way back to our headquarters, where by this time, the wounded must be beginning to arrive from different parts of the battlefield. On the way home, fortunately, I spotted at some little distance three arabas, which were evidently being taken away stealthily from a little village adjoining to escape their being used by the military authorities. I rode up, with the soldier Omar, to this train; there were one man and two lads in charge of them. I told the man I must have them to fetch up some wounded, and that if he would go at once and bring them carefully, on his arrival I would pay him liberally. However, he flatly refused to have anything to do with the matter, and so I drew my revolver, pointing it at his head, and told him if he did not at once go with the soldier I would shoot him like a dog as he was. My threat was successful, and very submissively he went off with the trusty Omar, who kept him under judicious terror by the occasional demonstrative manipulation of his Winchester repeating carbine, and presently eleven out of the seventeen we had left found their way on these arabas to our ambulance. Having escaped the fire of the enemy, however, danger was by no means over, for after passing on our return by the spot where we had left one of the wounded, in pretended attendance upon whom was a soldier who ought to have been fighting with his comrades, and who had given me a good share of abuse about his friend being left where he was till the arabas might come up, a bullet which struck the rock we were ascending made us turn round just in time to see the wounded man or his companion, probably the latter, take another deliberate pot at us. This time, the bullet fell within five yards of my horse. As we were pretty well out of shot, and just turning the brow of the hill, I did not feel justified in riding back to see the end of the matter, but our loud shouts to stop firing were answered by another shot which fell short of us. Neither the patient nor his companion turned up at the hospital, or it would have been worse for them if I had seen them. When I arrived, I found about seventy or eighty had come in for attention, and the work to be done—having only the assistance of Fortunato, who worked as well as any dresser—during the whole of the day and most of the night can be better imagined than described. A striking feature was the enormous proportion of wounds of the index or trigger finger; the last three days, I must have amputated upwards of forty which were literally smashed to pieces. To describe the wounds would be impossible. Out of the two hundred and fifty, or thereabouts, that have come in for treatment, only six or seven were shell-wounds. Considering the very small amount of damage done by the costly artillery pieces, one wonders that their employment is not discontinued, except for siege purposes, by universal consent. There are several wounds of the lower jaw; in most instances, the jaw is smashed to pieces. A large number are wounded in the chest; in several instances, the bullet has passed completely through the lung. I have two Russian prisoners, both of whom are shot in the chest; one, I think, will not recover. There are, out of the whole number, some five or six cases which require amputation of one or other extremity, but I have been unable to get

the consent of the patient; of course, they will be anxious for it when it is too late: our usual experience in this country. This (Friday) morning, I have got them all comfortably dressed, some sent away to the Kars hospitals, some slight cases sent back to their regiments to attend as out-patients, and the rest, to the number of eighty-six, still remaining in the tents.

The battle continued with some severity during yesterday, and a few shots are still to be heard to-day, so we may expect the arrival of still more wounded.

This is the first moment I have had to sit down quietly or to rest at all since Tuesday morning. From that time till now, with the exception of a few hours' sleep in my clothes, I have been at work without intermission.

Some more Stafford House stores and a large selection of most useful splints and appliances, as well as "medical comforts", which Mr. Young of the Red Cross Society is sending out from Erzeroum, are on the road. I hope they may soon arrive, as my splints, such as they were, are used up; my chloroform all but gone; and I certainly have not more than fifty bandages left to meet all emergencies.

I have had no time to make inquiries at the two other Turkish field-hospitals; but I am sure, from their greater proximity to where the thick of the fighting has been, that they must each of them have had considerably more patients than ours. On the first day, a great deal of the fighting was on the Kars side, and many wounded would find their way to the hospitals there. Altogether, I should say that we cannot have less than from 2,000 to 3,000 wounded. The number of killed I have no means at present of judging, but the slaughter on the Russian side must have been terrific. Whilst our men were for the most part behind entrenchments, the enemy's troops were exposed to our full fire; and the assault which the Grand Duke made upon Soubatan, late on in the afternoon of the second day's fight, where immense bodies of his men were exposed to a terrific fire, without the slightest chance of their being able to do anything against our strongly entrenched position, can only be characterised as a most reckless waste of human life, and the most utter display of want of generalship, unparalleled, I should say, in the annals of modern warfare. He at present appears to be well beaten back to his starting-point, or even further, having sacrificed thousands of lives without gaining a single position or one inch of territory.

GLASGOW.

[FROM OUR OWN CORRESPONDENT.]

WE took occasion a few weeks ago to refer to the action of one of our Glasgow newspapers, and we called attention to the manner in which it takes up any sensational outcry against the charitable institutions of Glasgow. The result of the Maternity Hospital case, given in your issue of last week, illustrates this very strongly. It appears that the newspaper in question produced all this stir in the public mind, and nearly succeeded in seriously injuring a deserving charity on the evidence of a woman whose mere appearance and behaviour in the witness-box seems to have been enough to convince the jury that she was one of those persons who could not be trusted to speak the truth. The least care on the part of those who took up the thing would have convinced them that this was not a thing which would stand investigation, but it is to be feared that they have been too anxious to make a stir and extend the circulation of the paper to consider the consequences of their action.

We learn that the attempt to injure the Glasgow Royal Infirmary by representing that its nurses are chiefly Roman Catholics and that they misuse their position to spread their religion is likely to break down as egregiously as the other. The alleged facts on which the accusation was based turn out to be very far from the truth. It is surely a pity that people should have so little sense of responsibility in making attacks such as these. We regret that the newspaper which began and made so much of Flora Maclean, and also fostered the Catholic scandal against the Royal Infirmary, should be one owned and controlled by a respected member of the medical profession. We should have expected better things from him, and we trust that these two cases will serve as a lesson and prevent the repetition of such action. It is generally understood in Glasgow that the prosecution of Dr. Tannahill under the Anatomy Act will not be gone on with, though no authoritative intimation has been made.

This week is fruitful of addresses, no less than three having been delivered on the same day in the three medical schools of which our city can boast. All eyes are turned to the Andersonian and Royal Infirmary Schools to see what proportion of the extra-mural students they each may succeed in securing; and every effort will doubtless be put

forth by each to make the school thoroughly efficient and attractive to the students.

We learn that an aural clinique is about to be established in the Western Infirmary, under Dr. Thomas Barr. We have no doubt of this gentleman's capabilities, but we hear numerous expressions of dissatisfaction that the appointment has been made without any opportunity having been given to any others to compete for it. It is surely a mistake in a public hospital to institute what may very soon be an important department, and yet give no opportunity to those who have devoted themselves to this subject to contest the appointment. We believe that this has been done before in some other departments of this hospital. We can understand that at first, when everyone knew that appointments would be made in natural course, there would be little need to give intimation or invite candidates. But, at this date, we cannot but regard it as a mistake to found a clinique and appoint a surgeon without any notice to the profession.

LEEDS.

[FROM AN OCCASIONAL CORRESPONDENT.]

THE anti-vaccination league exists in great force here. Last week, an inquest was held upon a child who had died from "erysipelas" after vaccination. Though the doctor who performed the operation was exonerated from all blame by the coroner's jury, a crowd of three or four thousand persons who followed the child to the grave stopped on the way, when opposite the doctor's house, and groaned and hooted loudly. After the funeral, one of the speakers called for "three groans for the doctors"—the profession in general, that is to say,—and the groans were heartily accorded. Not very pleasant all this! There can be little doubt that now and then a child dies after vaccination who would not have died at that particular time if vaccination had not been done. Perhaps it would be well to treat every vaccinated child as a patient, as one suffering from a distinct disease (as, of course, is the case). When the local inflammation is severe, as it very often is, lead and opium lotion applied to the arm, and half-minim doses of tincture of aconite every three or four hours after an aperient has been given and the diet regulated, if required, have been found very useful, both in relieving the fretfulness and feverishness of the child and in rapidly curing the inflammation of the arm. The mere fact of giving the parents quiet instead of disturbed nights will produce no small amount of gratitude from them. There is, in fact, nothing to wonder at in the agitation against vaccination. When people see little or nothing of small-pox, when they know nothing, therefore, and fear nothing, concerning it, and when they see their children made ill and irritable and peevish by vaccination, so causing themselves loss of sleep and temper, no wonder they abuse those who enforce it. All that can possibly be done to allay this irritation should be done. The operation should be as light and the number of vesicles as few and as small as may be safe; and the after-treatment should be carefully conducted, even when no danger to life appears to exist. Printed slips of cautions and directions should be supplied by the authorities to be issued to the parents of all vaccinated children; sugar-pilules containing aconitine may be used so as to avoid the necessity of dispensing aconite in bottles; oxide of zinc suspended in water and applied to the inflamed unbroken skin, would probably be as efficient as the above-mentioned lotion. If not, lotions and other requisites should be paid for by the authorities in addition to the present vaccination fees; and, in short, everything should be so ordered as to make manifest to the discontented classes that every possible care is taken to avoid injury to their children, a point upon which they are at present not fully persuaded. It stands to reason, that if we compel persons to submit their children to an operation of this kind, productive of disease, however mild, as a rule, for the good of society in general, we are bound to take care that no harm shall befall them in consequence. Wise men will learn even from the ignorant and the foolish; and an extravagant, blustering, and abusive agitation will not prevent them from calmly considering any substantial facts and acting according to the teachings supplied by them.

FRENCH HOSPITAL COURSES.—The following hospital surgeons and physicians have been appointed as lecturers for ten years on their respective subjects: Dr. Besnier on Diseases of the Skin at the St. Louis Hospital; Dr. Archaenbault on Diseases of Children at the Hospital for Sick Children; Dr. Panas on Diseases of the Eye, and Dr. Tillax on Diseases of the Genito-Urinary Organs at the Lariboisière Hospital; Dr. Tournier on Syphilitic Diseases at the St. Louis Hospital; Dr. Mauriac on Syphilitic and Venereal Diseases at the Southern Hospital.

ASSOCIATION INTELLIGENCE.

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 7th day of November next, at Two o'clock in the afternoon.

FRANCIS FOWLE,

General Secretary.

36, Great Queen Street, London, W.C., October 25th, 1877.

SOUTH WALES AND MONMOUTHSHIRE BRANCH.

THE autumn meeting of this Branch will be held at Dowlais on Thursday, November 8th.

There will be a dinner after the meeting, at the Castle Hotel, Merthyr.

Gentlemen desiring to bring forward papers or communications, or to be present at the dinner, are requested kindly to give notice by November 4th to either of the undersigned.

ANDREW DAVIES, M.D.

ALFRED SHEEN, M.D.

} Honorary Secretaries.

October 16th, 1877.

BORDER COUNTIES BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held in Dr. Grierson's Museum, Thornhill, on Friday, October 12th; Dr. LOCKIE in the chair. There were present ten members and five visitors.

Previous to the meeting, the members drove to Drumlanrig Castle, the Dumfriesshire seat of the Duke of Buccleuch, where they were escorted through the beautiful gardens and grounds.

On returning to Thornhill, the meeting was held in the Museum of Dr. Grierson, when the following papers were read.

1. Dr. MUNRO of Southern Counties Asylum, Dumfries, read some notes of a case of Athetosis in a lad, which he considered a typical one, in that the disease seemed clearly differentiated from the allied affection chorea, almost entire fixity of position being attainable at will, while the movements were of the characteristic athetotic sort when any co-ordinate action was attempted. The lad was shown.

2. Dr. SMITH of Dumfries read a paper on Effusion into the Peritoneum analogous to Latent Pleurisy, which will be published *in extenso*.

After a short discussion on the papers read, Dr. GRIERSON conducted the members through his extensive museum, and displayed many objects of professional interest.

Dinner.—The members and their friends afterwards dined together at the Buccleuch Hotel; Dr. Lockie in the chair, and Dr. Gilchrist in the vice-chair.

WEST SOMERSET BRANCH: AUTUMNAL MEETING.

THE autumnal meeting of this Branch was held at the Railway Hotel, Taunton, on Thursday, October 18th, at five o'clock; SAMUEL FARRANT, Esq., President, in the chair. Thirteen members attended.

Post Partum Hemorrhage.—To the question (as sent by circular to each member) "What, in your opinion, is the best way of managing the third stage of labour, so as to diminish the risk of *post partum hæmorrhage*?" written answers from Dr. Clark, Dr. Cordwain, and Mr. W. Edwards were read by the SECRETARY; and the members present severally stated their views on it. The method most generally approved appeared to be to follow up the delivery of the child with a hand on the abdomen grasping the uterus and to manipulate it so as to assist the expulsion of the placenta and to keep the uterus contracted for some time afterwards; and then to effect the early removal of the placenta from the vagina. Bandaging carefully was also to be attended to. The administration of a dose of ergot immediately on the delivery of the child was recommended by some speakers.

Dr. Sayre's Treatment of Spinal Disease.—Dr. MEREDITH (who had witnessed the demonstrations given by Dr. Sayre at the Manchester meeting) explained the process of stretching and then enveloping the patient in a plaster of Paris jacket and taking off the weight of the head from the spine; and exemplified the description by means of apparatus similar to that used by Dr. Sayre.

Hypertrophied Heart with Diseased Valves.—A specimen was exhibited by Mr. RIGDEN.

Congenital Hernia into the Umbilical Cord.—This case was related by Dr. MEREDITH, and a preparation of the parts exhibited. From its great rarity, Dr. Meredith was requested to allow this case to be published in the JOURNAL.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: ORDINARY MEETING.

THE first ordinary meeting of the Session 1877-8 was held in the Queen's College, Birmingham, on October 11th. There were present: Mr. SAMPSON GAMGEE, President, in the chair, and thirty-nine members.

New Members.—The following gentlemen were elected members of the Branch:—Mr. G. C. Cooper (Hednesford), and Mr. J. J. Harvey, Mr. R. R. Hoare, Mr. Bennett May, and Dr. Taylor (Birmingham).

Cases of Skin-Disease.—Dr. MACKEY brought forward two patients the subject of skin-disease—1. Leucoderma; 2. False keloid and alopecia areata.

Papers.—1. Dr. WADE read a paper, entitled Some Therapeutic Notes.

2. Mr. J. F. WEST read a paper on the Removal of Foreign Bodies from the Air-passages.

CORRESPONDENCE.

METALLOSCOPY AND METALLO-THERAPY.

SIR,—With your careful remarks on the now celebrated cases of Dr. Charcot and M. Burq I fully concur. At the same time, as one of those friends of Dr. Charcot to whom he has exhibited these phenomena, I must remind you that the anæsthetic tracts, when deeply punctured, do not bleed; but that, after the application of the metal and the return of sensibility, the same part, when punctured, bleeds as under ordinary circumstances.

A woman may feign that a spoonful of colocynth powder is tasteless, and may take the vigorous stab of a steel pin with apparent indifference; but how is the bleeding controlled?

I may add that M. Charcot himself is among the most sceptical and cautious witnesses of his own experiments.—Faithfully yours,
Leeds, October 29th. T. CLIFFORD ALBUTT.

* * We have had the opportunity of seeing the metalloscopic demonstrations of M. Charcot carried out by himself and Dr. Burq at the Salpêtrière, and have especially noted the phenomena referred to by Dr. Clifford Allbutt; and in the BRITISH MEDICAL JOURNAL has already been published a full analysis of the report of M. Dumontpallier, in the name of the Committee of the Society of Biology. It is superfluous that we should bear personal testimony to the accuracy and care with which M. Charcot carried out this inquiry. Nevertheless, we retain a hitherto invincible scepticism of the interpretation of the results. In the first place, it must be remembered that the subjects of them are hysterics of the most exaggerated and enthusiastic order; they have in their time been "crucifixionists", epileptics, and cataleptics. One of them exhibited symptoms of the same order as Louise Lateau. We have seen nothing but failure follow the attempts of M. Magnan and others, such as Dr. Westphal of Berlin, to repeat the phenomena observed at the Salpêtrière on other cases of hemianæsthesia. Hysterics of the exaggerated type of the three hystero-epileptics of the Salpêtrière are the worst subjects in the world on whom to base any scientific conclusions. As to the change in vascular conditions, we do not assume to frame any theory; but it may be observed that, in the case of Louise Lateau, the vascularity of the parts to which her hysterical impulses are directed is very sensibly affected during the periods of "trance". Of the power of sensori-motor influences to determine local vascular changes, of course no one entertains any doubt, any more than that, in irregular and disordered conditions of the nervous system, patients are sometimes capable, without in the least knowing how, of determining local vascular change by unconscious cerebration. Of the interest of M. Charcot's demonstrations, no one who has had the opportunity of seeing them can doubt; but, after carefully observing them, we are disposed, with great respect for the scientific powers and clinical sagacity of that eminent physician, to believe that their interest lies rather in the strong light which they throw on the protean forms of hysterical neuroses, than as affording any basis for a science of metallo-ampy or an art of metallotherapy.—ED. B. M. J.

THE HOSPITAL FOR DISEASES OF THE THROAT, GOLDEN SQUARE.

SIR,—In your article on Special Hospital Management of last week, in which reference is made to the late inquiry into the medical management of the Hospital for Diseases of the Throat, it is stated that it was subsequent to "private differences" with the surgeon, or, as you term him, the "emergency surgeon", Dr. Morell Mackenzie "gave directions that the latter should not be summoned to perform certain operations". As this statement may have conveyed to your readers the impression that my resignation of the post of surgeon had been brought about by some private quarrel with Dr. Mackenzie, I shall be glad if you will allow me to state that such was not the case, and in no way was my withdrawal from the hospital affected by Dr. Mackenzie's private feeling towards me, but by his official course.—I am, sir, yours faithfully,
PUGIN THORNTON.
London, October 28th, 1877.

SIR,—In the article on "Special Hospital Management" in last week's BRITISH MEDICAL JOURNAL, in which particular attention is called to the case of the Throat Hospital in Golden Square, there are one or two inaccuracies which I shall be glad if you will allow me to correct.

It is stated that the charge that the management involved carelessness of human life could not be properly founded upon anything which appeared in the evidence; and, further, that the basis of the charge was, that the clinical assistant sent for to perform tracheotomy was not a properly qualified person; and that, when the charge was investigated, "it turned out to mean that he had not a registrable degree". Upon this view of the question, the whole of your observations respecting the charge of carelessness of human life are based, and you sum up the matter by stating that the issue has been mystified, and a grave conclusion deduced upon false data.

It is not my wish to express any opinion as to whether this charge was justified or not, but simply to point out that the case of the clinical assistant who had not a registrable degree had nothing whatever to do with the charge in question (that gentleman having left England some months before the occurrence of the cases upon which the charge was based); but his case was incidentally referred to, as showing that the care of the patients was intrusted for two or three months to a medical man who was not on the staff, to the exclusion of the regular medical officers. The facts are shortly these.

In 1868, when in-patients were first admitted to the hospital, a telegraphic wire was established between the hospital and the private house of the medical superintendent, with the view (as was distinctly stated in the Report of the Committee of Management for that year) that "the patients might remain under the constant and immediate direction of one of the regular medical staff", and to save the expense of a resident medical officer. A year or two ago, a distinct and additional wire was established between the hospital and the house of the surgeon (Mr. Pugin Thornton). It is quite true that, under the by-laws of the hospital, both physicians and surgeons were allowed to treat medical and surgical cases indiscriminately, and, therefore, that the surgeon would not, as at other hospitals, be required to perform all operations; but the wire was laid on to the surgeon's house by the Committee as an additional security in cases of emergency; and, to show that it was no unnecessary precaution, it is only requisite for me to state that the medical superintendent was unable to attend at night, as he suffered from asthma. Consequently, unless there had been this additional wire to the surgeon's house, the patients would not have been under the immediate direction of one of the regular medical staff; at all events, during the night. It was stated in his evidence given at the inquiry:

1. That telegraphic communication was established with the house of the surgeon (Mr. Thornton) in 1874.

2. That instructions were subsequently given by the medical superintendent to the matron not to use the telegraph to Mr. Thornton's house; but, in case of need, to send a messenger to a private clinical assistant.

3. That, after these instructions were given, a case occurred in which over three-quarters of an hour elapsed before one of the clinical assistants could be obtained, and that the patient died before his arrival. (It was, however, satisfactorily proved that in this case the man was dying, and there was no hope of his recovery.)

4. In a subsequent case of tracheotomy (one of great urgency), it was stated that, acting under the same instruction, the matron had to summon by messenger a clinical assistant who had only once before performed such an operation, although the surgeon who had performed the operation nearly fifty times, could have been summoned more

promptly by means of the telegraph wire that existed between his house and the hospital.—I remain, sir, your obedient servant,

H. K. EVANS.

Late Secretary to the Hospital for Diseases of the Throat.
London, October 31st, 1877.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE Saitley Local Board and Urban Sanitary Authority, Warwickshire, have increased the salary of their Clerk, Mr. Digby Jenkins, £20 per annum.

MR. NATHAN JOWETT, Clerk to the Idle Local Board and Urban Sanitary Authority, Clerk to the Windhill Local Board and Urban Sanitary Authority, and Assistant Overseer for the Township of Idle, and who was Assistant Overseer for the Township of Bolton for about twenty years prior to its annexation to the Bradford Union, has been presented by the inhabitants of the town of Idle and the neighbourhood with an illuminated address, a gold watch and guard, and a purse containing £72:14, in recognition of the faithfulness and integrity with which he had discharged the duties of the several offices, and of the valuable services he had rendered to the town. The Windhill Local Board have also increased his salary as Clerk from £25 to £50 per annum.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF LONDON.

A REQUISITION is in course of signature to the Chairman of Convocation, Dr. Storrar, asking that an extraordinary meeting of that body may be convened for the purpose of considering and discussing the following resolutions, and for deciding with reference thereto in such manner as to Convocation may seem fit.

“That, it being manifestly inexpedient that frequent application should be made to the Crown for new and additional charters, it is desirable that provision should be made in any such charter for all changes in the constitution of the University, either at the time urgent or likely to be soon required; and that, it being probable that initiative measures will be shortly taken towards procuring such a new or additional charter, the following proposals require the serious consideration of Convocation and the Senate:—1. An enlargement of the powers directly exercised by Convocation; 2. An increase in the proportion of Senators to be nominated or elected by Convocation, and the limitation of the tenure of office in the case of all Senators to a term of years; 3. The encouragement of mature study and original research among the members of the University, by the establishment of University lectureships, of limited tenure, in different departments of learning and science; 4. The introduction into the constitution of the University of such modifications as may remove all reasonable ground of complaint, on the part of any of the affiliated colleges, with respect to the absence of means for expressing opinion and giving advice to the Senate on the examination regulations, and on the changes proposed to be made therein from time to time. And that a Special Committee of ten members of Convocation be appointed to consider the abovementioned proposals, and to report thereon to Convocation as speedily as possible.”

The necessity for an extraordinary meeting of Convocation arises from its being desirable that the University should at once take into consideration the question referred to in 4; and, further, from the probability that the next ordinary meeting will be fully occupied with the important subjects now before the Annual Committee, and with business remaining over from the meeting held in May. The requisition has already received a number of influential signatures.

SANITARY INSTITUTE OF GREAT BRITAIN.—The first examination of Surveyors and Inspectors of Nuisances took place on Monday, October 29th, at the rooms of the Medical Society of London. Eight candidates presented themselves, five of whom were successful in obtaining certificates of competence, namely, Mr. H. M. Robinson, Surveyor, Ulverston; Mr. J. Parker, Surveyor, Bridgwater; Mr. F. Booker, Inspector of Nuisances, Bradford; Mr. W. S. Prebbles, Inspector of Nuisances, Blackburn; and Mr. Thomas Blanchard, Inspector of Nuisances, Evesham. Fifteen candidates have already entered their names for the next examination.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on October 25th, 1877.

Boulting, William, Belmont House, Heath Street
Brown, John, 12, Colebrook Row
Coley, Frederic Collins, 7, Morden Road
Collier, Herbert, Bohemia House, Turnham Green
Druitt, Lionel, 8, Strathmore Gardens
Lockwood, John Parker, New Hampton
Masters, John Alfred, Maidenstone Hill
Prentis, Charles, 11, Upper Phillimore Place
Price, Henry Elthington, Melrose, Stamford Hill
Prideaux, Thomas Engledue Pegamus, Scarborough
Steedman, Percy Andrew, Charing Cross Hospital
Thurston, Edgar, King's College Hospital
Tyrrell, Walter, Bethlem Hospital
Wilmot, Thomas, Fenon, Newark

The following candidate, having passed in Medicine and Midwifery, will receive the College Licence on obtaining a qualification in Surgery recognised by this College.

Pointon, James, Birkenhead

The following gentlemen were admitted Members on October 25th.

Barratt, Joseph Gillman, M.D. St. Andrew's, 8, Cleveland Gardens
Buszard, Frank, M.D. Lond., Northampton
De Tatham, Hamilton, M.D. Brussels, Junior United Service Club
Smith, Robert Shingleton, M.D. Lond., Clifton
Smith, David Boyes, M.D. Edin., 16, Holles Street
Steel, Graham, M.D. Edin., Edinburgh

MEDICAL VACANCIES.

THE following vacancies are announced:—

CASTLE WARD UNION—Medical Officer for the Workhouse and the Ponteland District.

CENTRAL LONDON SICK ASYLUM DISTRICT—Assistant Medical Officer and Dispenser for the Asylum in Cleveland Street. Salary, £100 per annum, with board and residence. Applications to be made on or before the 10th inst.

COOTEHILL UNION—Medical Officer for the Workhouse. Salary, £80 per annum, and fees.

DRAYTON UNION—Medical Officer for the Second District and Workhouse.—Medical Officer for the Fifth District.

EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—House Assistant Surgeon. Applications to be made on or before the 10th inst.

INFIRMARY FOR CONSUMPTION and DISEASES OF THE CHEST—Physician in Ordinary and Visiting Physician. Applications to be made on or before the 14th inst.

METROPOLITAN FREE HOSPITAL—Assistant Physician. Applications to be made on or before the 10th inst.

MIDDLESEX COUNTY LUNATIC ASYLUM—Assistant Medical Officer. Salary, £150, rising to £200 per annum, with board, washing, attendance, and apartments. Applications to be made on or before the 10th inst.

MILFORD UNION—Medical Officer for the Rathmullen Dispensary District. Salary, £120 per annum, and other emoluments, amounting to £50. Applications to be made on or before the 6th inst.

PORTLAND TOWN FREE DISPENSARY—Resident Surgeon and Dispenser. Salary, £100 per annum, apartments, fire, gas, and attendance.

TOBERCERRY UNION—Medical Officer for the Tobercerry Dispensary District. Salary, £100 per annum, and £20 as Sanitary Officer, and fees. Applications to be made on or before the 5th inst.

WEST BROMWICH UNION—Medical Officer for the West Bromwich South District.

WONFORD HOUSE HOSPITAL FOR THE INSANE, near Exeter—Resident Medical Superintendent. Salary, £350 per annum, with board, lodging, washing, and attendance. Applications to be made on or before the 3rd inst.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

*ELSON, Frederick Joseph, L.R.C.P. Edin., appointed Medical Attendant at Welbeck Abbey, vice W. M. Neale, M.R.C.P. Edin., deceased.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

FRASER.—At Counties' Asylum, Springfield, Cupar-Fife, on October 20th, the wife of John Fraser, M.B., of a daughter.

GRIFFITH.—On October 23rd, at Lewyn-ynn, Penygroes, the wife of John Thomas Griffith, L.R.C.P. Edin., of a son.

HADLEY.—On October 27th, at Ashted House, Birmingham, the wife of Clement Hadley, Esq., of a son.

THE PRACTICAL APPLICATION OF ELECTRICITY.—Dr. Herbert Tibbits has fitted up, at 30, New Cavendish Street, an electrical room and gymnasium for the paying classes, upon the model of that provided for the poor alone at the National Hospital for the paralysed and epileptic. He will be prepared to undertake the electrical treatment of patients whom other medical men, not having the time or proper appliances, may send to him.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.
THURSDAY...	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—	Medical Society of London, 8.30 P.M.—General Meeting.—Dr. Greenhalgh, "The Treatment of Dysmenorrhœa and other Uterine Affections by a new form of Pessary".
TUESDAY.—	Pathological Society of London, 8.30 P.M. Dr. Peacock: Aneurysm of the Aorta opening externally. Dr. P. Irvine: Two Cases of Abdominal Aneurysm. Mr. Wagstaffe: Aortic Aneurysm bursting into the Pericardium, following a cured Popliteal Aneurysm. Dr. Crisp: 1. Case of Imperforate Anus; 2. Military Tuberculosis in an Infant aged Three Months. Mr. A. Doran: 1. Perforation of a Diverticulum in the Jejunum; 2. Large Single Cyst of the Testicle. Mr. Davies Colley: Congenital Occlusion of the Small Intestine. Mr. H. Cripps: Cancer of the Rectum. Dr. Dowse: The Pathology of a Case of Paralysis Agitans. Dr. Burney Yeo: Cyst connected with the Liver. And other specimens.
WEDNESDAY.—	Obstetrical Society of London, 8 P.M. Dr. Galabin, "On the Choice of the Leg in Version"; and other papers.
FRIDAY.—	Clinical Society of London, 8.30 P.M. Mr. Bellamy, "A Case of Urethral Calculus"; Mr. Sydney Jones, "A Case of Urethral Calculus"; Dr. Gowers, "A Case of Unilateral Injury to the Spinal Cord"; Dr. J. Burnley Walker, "A Case of Left Hemiplegia and Hemi-anæsthesia associated with Loss of Speech: Recovery" (communicated, with remarks, by Dr. Broadbent).

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

MEDICAL ETIQUETTE.

SIR,—I must for one protest against the dictum laid down by you in the case of Medical Etiquette brought before you by "Perplexed" in your last number. It would interfere with the inherent right which every man and family possessed of being attended by any medical man they may select. I lately attended a woman in typhus fever, who died. Even before paying me, her husband having been taken ill, the friends procured for him the attendance of another medical man, much my junior, yet I never thought of finding fault with them, although there was perhaps some grounds of annoyance in their having thrown over an old and tried friend. Still, they may not have liked my mode of treatment, or they may have found that my charges would have been too onerous, or there may have been some other cause; but I never dreamed of questioning their right to select whoever they fancied, and they owe me no apology. Neither do I feel at all dissatisfied with my *confères*, who only did what I think he was entitled to do. In fact, I feel that I would be humiliating myself to take any notice of the matter.—Your obedient servant,
Portlaw, October 28th, 1877. JAS. MARTIN.

* * * We fail to see the analogy: in the case of "Perplexed", he was acting as *locum tenens* for another practitioner.

J. L. Any civilities in reply to a letter which has appeared in another journal should be addressed to that journal, as we do not feel called upon to interfere with the affairs of any contemporary journal. On the other hand, we shall be happy to give our best consideration to any facts which our correspondent may think worthy of notice, irrespective of any comment elsewhere.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and annexed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

SPECIAL HOSPITAL MANAGEMENT.

SIR,—I read with interest your article on Special Hospital Management in relation to the withdrawal of the support of the Prince of Wales and the Marquis of Bute from the Golden Square Hospital for Diseases of the Throat. You expose the inherent evils of "the quasi-private and semi-autocratic government of a hospital by one of its medical officers, who is also its practical ruler and official superintendent", and "who virtually appoints and dismisses the officers and rules his colleagues". You say very truly, that "such a mode of government is characteristic of the most faulty hospital management, and would not, we think, be possible in any other well managed public hospital in the metropolis". It is, however, to be feared that there are not a few such institutions in this unenviable position in the provinces. The Children's Hospital at Pendlebury, Manchester, during the time I was there as assistant-physician was entirely managed in this way; and, with slight modification, I believe it is so still. It is difficult to estimate the full extent of the evils resulting from such a system, but you have ably pointed out some of them. Those most particularly affected by it are usually in a position so delicate that they can only speak or move in the matter at all with great risk of injuring themselves: the greatest acts of injustice may be done to them, and they find that they have no real remedy.

I think you are doing great service to the profession by calling attention to matters of this kind. From my own experience, I can well bear out the truth of your remarks as to the destruction of harmony and self-respect in the staff whom the system tends to place in the position of mere dependents and nominees of the superintendent, and the numerous complications and differences which may arise with the clinical assistants, all springing from the same cause; and it is totally subversive of all true scientific progress, for in an atmosphere of mere dogmatic authority true science cannot advance.

A public correspondence took place in the beginning of the present year between myself and the authorities of the Children's Hospital; and as some points in it have, I find, been imperfectly understood, I should be glad if you would kindly admit this letter to your columns, your leading article affording me the opportunity of furnishing the additional explanation. My leaving the Children's Hospital, though brought about in a roundabout way, was due primarily to my declining—in manner, of course—to accept the position which was attempted to be forced upon me of a mere dependent and nominee of the senior physician; and I believe if the detailed facts of the case were fully known to the profession, it would arouse a general feeling of indignation at the extraordinary manner in which I was there treated.—I am, sir, your obedient servant,

Kendal, October 1877.

C. A. RAYNE, M.B.Lond.

MR. ST. JOHN ACKERS's letter has been duly forwarded, and no doubt he will receive the information required.

CHARITABLE BEQUESTS.

ACKNOWLEDGMENTS have been made by the authorities of the undermentioned charities of the various sums from the executors of the late Mr. H. Graham of 11, Cornwall Terrace, Regent's Park, out of the residue of the estate of the testator bequeathed for charitable purposes:—London Lying-in Hospital, £1000; City of London Hospital for Diseases of the Chest, £1000; Charing Cross Hospital, £500; Central London Ophthalmic Hospital, £1000; Poplar Hospital for Accidents, £250; Evelina Hospital for Sick Children, £250; Eastern Dispensary, £1000; East London Hospital for Children, £500; Great Northern Hospital, £1000; Hospital for Diseases of the Skin, £500; Hospital for Consumption, £250; London Hospital, £2500; London Homœopathic Hospital, £300; Lock Hospital and Asylum, £500; Metropolitan Convalescent Institution, £500; Mrs. Gladstone's Free Convalescent Home, £500; North-Eastern Hospital for Children, £1000; National Hospital for Consumption, £1000; Seamen's Hospital, £1000; Public Dispensary, Stanhope Street, Clare Market, £500; South London Ophthalmic Hospital, £250; Royal Hospital for Diseases of the Chest, £1000; London Ophthalmic Hospital, £1000; Royal Fever Hospital, £2000; St. Mark's Hospital, £500; St. Luke's Hospital, £2000; St. Mary's Hospital, £1000; Samaritan Free Hospital for Women, £1000; Sea-side Convalescent Hospital, £500; King's College Hospital, £2000; London Fever Hospital, £1000; North London Consumption Hospital, £1000; New Hospital for Women, £250; Hospital for Diseases of the Throat, £500; Metropolitan Free Hospital, £1000; Hospital for Epilepsy and Paralysis, £500; Surgical Aid Society, £500; Hospital for Consumption, Brompton, £2000; City of London Truss Society, £500; National Hospital for the Paralysed and Epileptic, £500; Royal Sea-Bathing Infirmary, £1000; Royal Hospital for Incurables, £1000; British Home for Incurables, £2000; Earlwood Asylum for Idiots, £2000; Hospital for Women, Soho Square, £500; Cancer Hospital, £1000; Chelsea Hospital for Women, £500; University College Hospital, £1000; Victoria Hospital for Children, £2,000; West London Hospital, £1000; Westminster Hospital, £1000.

MR. HIRD.—The number of new entries at Charing Cross Hospital was duly stated at page 544 of the JOURNAL for October 13th as "thirty-four for the full period and three occasional students". At page 575 of the JOURNAL for October 20th, the number of first year's men studying at Charing Cross Hospital, who had registered at the College of Surgeons, was stated to be twenty-six. These figures were obtained from the College. Has Mr. Hird read, at the same page of the JOURNAL, the explanation there given of the principle upon which the classification at the College is based?

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W. C., and not to the Editor.

THE FEEDING OF INFANTS.

We lately had occasion to offer some remarks on the general diets suitable for infants, and it is with regret that we see an article on infant feeding by a member of the profession in the last number of the *Hackney Standard*, in which the use of arrowroot, corn-flour, oatmeal, sago, Robb's biscuits, etc., is advocated as proper food for infants, without any precautions being given as to how such farinaceous food is to be specially prepared, and at what age and under what conditions these farinaceous articles of diet may be given with safety. All the experience of medical men who have had opportunities of carefully observing the effects of diet upon infants points to the danger arising from indiscriminate feeding of infants upon farinaceous food: and this fact cannot be too strongly impressed upon all. We fear that many a poor mother, trusting to the printed advice given under a medical authority, will be led by the article under criticism to the use of food for her infant totally unsuitable for the early months of life in average cases. By the term "infants," is usually understood children under twelve months of age; but it is possible the author of the article intended some of his observations to apply to older children, for his method of expression is none of the clearest, as will be seen from the following quotation. "I should mention that no child under twelve months should have meat, and even then it should be finely minced."

We should not have felt it our duty to criticise the article in question but for the importance of a knowledge of infant feeding to every head of a family, and we cannot but think that statements of medical men made to the public without due consideration of the advice given are likely to prove harmful to the community and dishonouring to the medical profession.

THE PENGE CASE.

SIR,—Permit me to suggest, through the *JOURNAL*, that those members of the profession who consider that Harriet Staunton died from starvation, and who do not approve of the action taken by those gentlemen who have thought proper to agitate for the reversal of the sentence passed by Judge Hawkins, should adopt some method to vindicate Drs. Bright, Longrigg, and the gentlemen who acted with them in furthering the ends of justice.—I am, sir, your obedient servant,
Leicester, October 31st, 1877. WILLIAM DUNOVAN.

PREVENTION OF ACCIDENTAL POISONING.

SIR,—I am induced, by reading a case of poisoning by mistake mentioned in last Saturday's *JOURNAL*, to suggest, as an additional precaution against accident, a little device which I have employed for years with advantage: that is, I direct the cork or stopper of all bottles containing liniments or other poisonous applications to be securely fastened to the neck of the bottle by a tether of string, so that the cork or stopper cannot be moved more than an inch or so, thus giving an additional intimation of the dangerous contents of the vial. A secondary advantage is the preservation of the cork to its right bottle, avoiding the contamination of other bottles by preventing the use of the wrong cork. Of course, this is only a supplementary precaution, but I have often found it a good one.—Yours truly,
October 1877. THOS. BIRT.

SCARLET FEVER AT SOUTHALL.

IN a special report to the Uxbridge Rural Sanitary Authority, Mr. C. Roberts, the medical officer, states that seventy cases of scarlet fever have been treated in the hospital opened at Southall last Christmas. Of these, only four proved fatal. He denies that the continued spread of the disease in Southall—the principal seat of it—is attributable to the patients' clothing not being properly disinfected before their discharge, as has been rumoured. There have been about three hundred cases in the neighbourhood since the first outbreak, the majority of the sufferers having been treated at their own homes. Twenty-nine cases have occurred at the St. Marylebone Workhouse Schools, the sanitary arrangements of which Mr. Roberts describes as in every way perfect.

A PUBLIC VACCINATOR asks where in Edinburgh he could get some capillary vaccine-tubes, as ordered by Mr. Husband.

TREATMENT OF EXCORIATION.

SIR,—In answer to your correspondent L.R.C.P. in last week's *JOURNAL* respecting this troublesome and sometimes obstinate disease, I would advise our friend to try an ointment composed of iodide of lead gr. xij; glycerine pur. ʒj; chloroform pur. ℥xl; benzoated lard ʒj; mix. A little to be smeared on the parts affected night and morning. It is rather severe in its effects at first, but it answers admirably. I also administer internally at the same time five-drop doses of Fowler's solution of arsenic three times a day.

N.B.—Malt liquors and wines should be particularly avoided, good claret excepted.—Yours, etc., AN ASSOCIATE.

SIMPLICITAS can be supplied by applying to the General Manager at the office of the *BRITISH MEDICAL JOURNAL*, 36, Great Queen Street.

A CONVALESCENT HOTEL.

MESSRS. COOK AND SON, the well known tourist agents, have decided to open a convalescent hotel for invalids at Luxor, Thebes, Upper Egypt. They have engaged the services of Mr. T. G. Maclean, M.B., B.S., London, late Demonstrator of Anatomy at University College, as Medical Superintendent, so that the patients will be placed under competent medical supervision. The climate of Upper Egypt during the winter is well suited to the successful treatment of laryngeal affections and incipient phthisis, that of Luxor being exceptionally fine. The charges at the Luxor Convalescent Hotel will be inclusive; and, as we are informed, they have been fixed at 13s. *per diem* for ordinary visitors, but a special tariff may be arranged for a lengthened period. It is not difficult to reach Luxor from Cairo by Nile steamer, and the fare for the vessel is only 10s. The distance from Cairo to Luxor and Alexandria, is less than 445. Mr. Maclean is well known to many of the profession in London, and we wish the Convalescent Hotel all success.

A STUDENT'S MICROSCOPE.

SIR,—Perhaps some of your readers who take an interest in microscopical work would inform me what they consider the best microscope of moderate price—say £4 10s. or £5. Amongst the variety now offered to the public, one is possible, especially one who has had the opportunity of examining them for himself, who can select. I would therefore be greatly obliged by a little assistance in the making of a choice by some one of experience in the matter.—Yours, etc., STEPHENS.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the *BRITISH MEDICAL JOURNAL*, should arrive at the Office not later than 10 A.M. on Thursday.

BROMIDE OF POTASSIUM.

SIR,—Having seen Dr. Farquharson's notes on the use of bromide of potassium in epilepsy, I would like to mention that I have a case under my charge in which the patient has been in the habit of taking thirty-grain doses of the bromide three times a day without intermission for over twelve years, with very good results. When he began to take it, he was incapacitated from following any occupation, and he is now managing a business which requires a considerable amount of brain-work; and he has had a perfect freedom from any epileptic seizure for five years, except one which he had about three months since, and which, he says, was through leaving off his medicine for four days while he was on a visit at the Isle of Man. I have a number of epileptic patients besides this one, and in every case I order the thirty-grain, and in one case forty-grain, doses: the only objectionable symptoms being the occasional breaking out on the face, but seldom have I found it to cause any influence on the intellectual faculties, excepting slight drowsiness, and that only in some few cases. The effects of these large doses are very satisfactory in all the cases I have had to deal with.

The bromide is said by Dr. W. G. Smith to possess undoubted anaphrodisiac powers. I very much question this, as the patient whom I mention having taken the thirty-grain doses for the last twelve years is the father of five children in the last six years, which does not speak very much for its powers as an anaphrodisiac. I would also like to mention an obstetric case which has occurred in my practice. A woman aged 26, the mother of four children, was advanced four months in pregnancy when she was seized with pains, her membranes ruptured, and she was delivered of a fetus and placenta. Upon examination of the uterus, I felt that it was enlarged above the normal size, but still nothing further came away, though ergot was administered; but she speedily rallied, and continued to increase in size; and is now about her full term of pregnancy. It is just five months since her miscarriage. This I merely publish as being interesting, and to elicit remarks from others more experienced as to whether I was justified in not attempting to empty the uterus at the time of the first parturition, leaving the case to nature as I did, or whether I ought to have attempted to procure the expulsion of the second fetus.—I am, etc., M.R.C.S. & L.S.A.

M.R.C.S.—There is nothing to prevent any one placing his name on his door if no medical titles are assumed.

MATERNAL IMPRESSIONS.

SIR,—Allow me to contribute two cases of maternal impressions which have come under my own observation during the practice of my profession. It will be observed that in both cases I was an eye-witness to cause and effect. The first case illustrates how the impression can be conveyed by physical, and the second case by mental, causes.

CASE I. A lady, in the early stage of pregnancy, while at a small conjuring entertainment, was accidentally struck on the forehead by the handle of a galvanic battery. The blow (a smart one) startled her very much, and left a "black and blue" for some days. I was sitting near her at the time, and rendered assistance. In the course of time I attended this lady in her confinement, and the child was born with a decided black and blue mark on the forehead. This child died when four weeks old of whooping-cough, but the mark remained very visible during its short existence.

CASE II. A lady, in the early stage of pregnancy, sent for me one morning to see her little boy three years old, in consequence of a puppy having bitten the glans penis. There was some swelling of the parts, which bent the penis in such a manner as to cause the child to micturate backwards between the thighs. The mother was very much alarmed at the time. I attended this lady in her confinement. Two days afterwards, I was requested by the nurse to examine the baby (a boy), because the penis was found to be deformed. The glans penis was quite round and bent, with the urethra looking backwards, precisely resembling the little boy's penis which had been bitten by the puppy.

I venture to think these two cases typical of their kind, and something beyond mere accidental coincidences.—I am, etc., JASPER CARGILL, M.D.
Monatree, St. Andrew, Jamaica, October 1876.

ENQUIRER asks the composition of Cremer's pomade.

A DEGREE OF DEATH.

IT was a fact well known (says the *Globe*) in Russia previous to the outbreak of hostilities, that the supply of doctors fell far short of the actual needs of the empire. This deficiency is now aggravated by the circumstance that the *élite* of the profession has been summoned to the seats of war, while the doctors at home have left their ordinary duties to wait upon the 70,000 sick and wounded soldiers at present located in various parts of the interior. The public are thus compelled in many places to prescribe for themselves; and their empirical treatment—by no means successful at the best of times—has been rendered all the more uncertain by the prodigious spread of epidemics. Official reports issued by the Municipal Council of St. Petersburg place the death-rate of the capital for the past quarter as high as thirty-five per thousand, at Moscow thirty-eight has been reached, and in the southern towns from forty to forty-five—a mortality surpassing that of India during the most unhealthy seasons. Scarlet fever, small-pox, and cholera are the diseases most prevalent, and, if anything, they rage with greater intensity in the country than in town. Writing from Kishineff, a correspondent of the *Globe* states that the Khotinski district in Bessarabia has experienced the enormous loss of three thousand children from scarlatina since last February. Among the adults, deaths from typhus fever have been correspondingly severe. For this frightful mortality the peasants themselves are greatly to blame. They are ignorant of the simple laws of sanitary science as practised among peasants in more enlightened countries, the moujiks lay themselves open to the reception of every epidemic that passes over the land. These evils are of course largely increased by the removal of doctors from the provincial towns to the military hospitals, and still more so by the careless manner in which the invalids from Bulgaria are being transported through the country. Unless the reports to be made by the military hospitals are more carefully examined, and the invalids from typhus fever, small-pox, and other malignant diseases daily pass along the lines, and stay for hours in the stations without any attempt being made by the authorities to prevent the spread of infection.

The proposal to adopt the "provident system" in connection with the Plymouth Public Dispensary, was put under consideration by the Sanitary Society at the annual meeting of the members, and a resolution was adopted, which may be relied upon to give full effect in a judicious manner to the resolution.

THE PUFF INDIRECT.

THE following marked paragraph, forwarded to us, appears in the *Nottingham Guardian* of October 10th.

"*Good News for the Blind.*—In a recent number of the BRITISH MEDICAL JOURNAL is a notice of a case which has attracted considerable attention in Nottingham. The facts are as follows. A lady of rank, formerly resident in Dublin, lost her sight some thirteen or fourteen years ago in consequence of a severe illness. The case was pronounced to be disease of the nerve of the sight; and, after treatment during two or three years by the most eminent oculists in London and the Continent, the patient was declared to be incurable. Years passed by: first one *savant* was consulted, then another, until all hope of benefit was abandoned. At last, in July of this year, a patient who had received his sight by an operation performed by Dr. Charles Bell Taylor of this town, urged the lady to consult the same oculist. At first, the case was considered hopeless; but an effort was made in the direction of cure, and ultimately, as we understand by a hitherto untried process, perfect sight was restored, and the afflicted lady, who could not tell night from day, even when exposed to the strongest sunlight, can now read small print, and discern miles of landscape. We are aware that many persons receive their sight under treatment at the Eye Infirmary of this town, as they might do at other similar institutions, but this is a case deserving of exceptional mention, since all the resources of modern art had previously failed, and excellent sight was restored, by a process for which we are indebted to the skill of a townsman."

COLOGNE WATER.

IF any one wish to supply himself with Cologne water, he may like to know that Mr. William Saunders, having received numerous requests for a formula for a good Cologne water which resembled the "Farina" variety, had made the attempt and submitted the following to the American Pharmaceutical Conference. Oil of neroli, 5 drachms 20 minims; oil of bergamot, 1 ounce; oil of rosemary flowers, 1 drachm 20 minims; pure alcohol, 6 pints; water, 2 pints. It is stated that the fragrance of this Cologne, when compared with the foreign, was scarcely distinguishable. It was suggested that acetic ether was an excellent addition to such a Cologne for the sick room. Nothing is more refreshing to a sick person than a little Cologne water for the handkerchief or for bathing the forehead; and we have often thought that the good Samaritans who visit hospitals and show much kindness to the patients, do not remember often enough how refreshing to the patient are some of these volatile perfumed spirits.

H. T. H.—The system by which medical men attach themselves to co-operative supply associations is one to which we have more than once expressed objections, such as we believe are felt by the profession generally to be perfectly valid.

OLD PRESCRIPTIONS.

WE are indebted to Dr. Grigor of Nairn for the following copy of Directions from Dr. St. Clair to the Right Honble the Lord D—d, 1752.—After deliberately considering the state of his Ldp's health for many years past, I unwillingly give it as my opinion that the immoderate use of Jesuits' bark, tho' successful in stopping and at least curing an obstinate ague, has nevertheless hurt his constitution, and particularly has given occasion to that habitual costiveness, with its consequences, which has continued ever since. But as this cannot be recalled, it now remains to relieve the present complaints as much as possible. 1. By procuring sleep without forcing it; 2. By rousing the spirits without disturbing them; 3. By restoring his appetite; 4. By keeping his belly regular. The discharge of blood by piles is hardly in the question, as the quantity is inconsiderable, and the discharge more likely to prove beneficial than hurtful. It is therefore not to be hastily restrained. For the other purposes what follows, I hope shall be found of use. 1. His Lordship will please pour a bottle of cold water on his whole head every morning as soon as he gets out of bed. That this may be done with more safety and convenience, he will be fit that his head be shaved all over once a week at least. 2. After drying the head, his whole body is to be rubbed over with a flesh-brush or flannel cloth. 3. Afterwards, he will take either an hour before or an hour after breakfast five of the Castor Pills, and wash them down with half a gill of the medicated wine. If wine in the morning prove uneasy to his head, he will dash it with a spoonful or two of common water. 4. It is of consequence that he ride out into the fields every tolerable day either on a quiet horse or in a wheel machine for two or three hours. The first when otherwise convenient is preferable. 5. An hour before dinner, he will take two teaspoonfuls of the stomachick drops in a small glass of common water. This may easily be done in the fields, if he happen not to be returned from his airing. 6. At seven of the evening, he will repeat the dose of five Castor pills with half a gill of the medicated wine. 7. Whilst he continues to sleep ill in the night, he will take a third dose of the pills at bedtime without the wine. If syrup of poppy be found necessary it may be added, but the seldomer the better. 8. Before he go to bed, he will bath his Leggs every night in luke warm water for a quarter of an hour, observing carefully that the water be not so hot as to oppress him or throw him into a sweat. 9. The wine, I expect, will keep his belly regular, once or twice a day. If it should fail of this effect, he will take as occasion requires his ordinary dose of laxative pills, prepared with rhubarb instead of aloes whilst any discharge of blood remains; when this ceases, he may return to the aloetic pills. 10. No other restriction of diet is requisite but that he abstain from heavie and high drest meat. 11. To prevent galling, washing and a little cerate will answer best. The medicated wine is made of the following. Take roots of wild valerian two ounces, black hellebore one ounce, white briony, mustard seed, of each half an ounce; English saffron, best cochineal, of each one drachm. On these, cut and bruised, pour a Sco'ts pint of Lisbon wine, and after standing three days in digestion filtrate the liquor or medicated wine. Half a gill for a dose. The irruption on your Lop's skin is a beneficial discharge of sharp humours in your blood; to remove them, please take a dose of purging salts dissolved in a bottle of water once a week; if they work off in three or four hours, as they commonly do, they will require no longer confinement. Take every morning, except when you have got purging, salts, a paper of sal polychrest in a little water, and drink above it a full gill of trifol tea, which ought to have stood twelve hours before it be used.

Directions for Weaning.—We are also indebted to Dr. Grigor for the following Directions for Weaning Master — by Dr. Smith.—The three first nights after the breast is taken from Master, give him a teaspoonful syrup of poppies when going to bed, and have weak sack whey and chicken broth in the room by him in case he want drink in the night time, and give a littill warm milk from the cow, diluted with warm water, a littill before he is taken out of bed in the morning. As soon as he is taken up and dipt, give him porridge and milk to breakfast, chicken-broth with bread crumbed in it for dinner, and after some little time he may get veal-broth or broth of any meat not strongley driven. About five o'clock in the afternoon, give

him a littill bowl of boiled water with bread softened in it, with a very littill sugar and milk. For supper, give the porridge and milk, as at breakfast. Two or three days after he is weaned, he is to get a teaspoonful of rhubarb tea or infusion half an hour before his porridge, and repeat this dose every third or fourth day for first two or three weeks; if needfull, give whey with the porridge the day he takes the rhubarb. If he want drink at any time through the day, he may be allowed to drink water gruel or milk and water; but every thing he takes must be warm, & days he gets the rhubarb, and no milk in the forenoon.

"THE OZONIZING POWER OF TURPENTINE."

SIR,—In your issue of the 27th instant, allusion is made on page 598 to some instances of what is termed "the ozonizing power of turpentine"; and as that expression conveys an erroneous idea of the facts referred to, I shall be glad if you will allow me to state that it is not ozone, but peroxide of hydrogen, which is produced by the mutual action of turpentine and atmospheric oxygen. This distinction is important, for it is precisely in regard to this point that Dr. Day and other experimenters have fallen into error, and given an incorrect interpretation of the facts observed by them. It is equally incorrect to say that Dr. Bond of Gloucester avails himself of this peculiar characteristic of turpentine in the liquid, which he names "terebene", a thick inflammable oil, which is, in fact, turpentine that has been altered, or, in chemical language, polymerised, and by that very alteration deprived of what you term "the ozonizing power". The product named "sanitas" is a totally different thing; it is an aqueous solution of the products resulting from the action of oxygen upon turpentine, comprising peroxide of hydrogen, camphoric acid, camphoric peroxide, camphor, etc., and is quite free from turpentine itself.—I am, sir, yours truly,

CHARLES T. KINGZETT.

Scientific Club, October 29th, 1877.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; The Derby Mercury; The Preston Guardian; The Scarborough Express; The Jewish World; The Scotsman; The Cork Constitution; The Freeman's Journal; The Hampshire Post; The Somersetshire Herald; etc.

** We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Graily Hewitt, London; Sir Wm. Smart, Haslar; Dr. J. Russell Reynolds, London; Dr. Harrison, Lincoln; The Chief Surgeon of the Metropolitan Police; Dr. E. Long Fox, Bristol; Mr. Harvey, Rochester; Mr. Hinds, Birmingham; Mr. T. F. Raven, Broadstairs; Mr. Balmanno Squire, London; Mr. Clement Hadley, Birmingham; Mr. H. A. Allbutt, Leeds; Mr. Ackers, London; M.D.; Surgeon-Major W. S. Oliver, Charlton; Dr. Coats, Glasgow; Dr. Wm. Fairlie Clarke, Southborough; The Secretary of Apothecaries' Hall; Dr. J. Milner Fothergill, London; Dr. Bond, Gloucester; The Registrar-General of Ireland; Mr. James R. Lane, London; Dr. J. Hughlings Jackson, London; M.D. Edin.; Mr. R. W. Parker, London; Mr. H. B. Harrison, London; The Registrar-General of England; Mr. T. Holmes, London; The Registrar of the Royal College of Physicians of London; Dr. J. Lowe, Blackburn; Mr. H. Greenway, Plymouth; Mr. Burdett, Greenwich; The Secretary of the Medical Society of London; Mr. Wanklyn, London; Dr. J. W. Moore, Dublin; The Secretary of the Obstetrical Society; Dr. W. S. Playfair, London; Dr. Wilson Fox, London; Mr. Christopher Heath, London; The Director of the Botanic Gardens, Melbourne; Mr. Oliver, Manchester; Dr. Edis, London; Dr. Rayne, Kendall; An Associate; W.; Dr. Martin, Portlaw; Dr. Andrew, Shrewsbury; Mr. Sampson Gamage, Birmingham; H. T. H., Enfield; Dr. Clifford Allbutt, Leeds; M. R.; Dr. Herbert Tibbits, London; Dr. W. L. White, Southport; Dr. E. D. Stewart, Glasgow; Dr. G. P. Batt, London; Mr. W. Donegan, Leicester; Mr. Kingzett, London; Dr. Sadler, London; E.; Mr. G. Eastes, London; Mr. W. T. Colby, Malton; Dr. James Sawyer, Birmingham; Dr. Holman, Reigate; Mr. H. W. Burton, Massachusetts; Mr. E. H. Jacobs, Leeds; Sir Joseph Fayer, London; Mr. Pugin Thornton, London; Dr. Prall, West Malling; Dr. Fletcher, Earl Soham; Dr. Mapother, Dublin; Mr. Brass, London; Dr. Bryan, Northampton; Mr. Robert Foss, Stockton-on-Tees; Simplicitas; Dr. Elsom, Whitwell; Mr. J. W. Sparrow, London; Dr. Vawdrey Lush, Weymouth; Mr. Herbert J. Capon, Dorchester; Dr. Michael Hodgson, Hull; Dr. H. Macnaughton Jones, Dublin; Mr. Huntly, Malton; Messrs. Churchill, London; Dr. Burdon Sanderson, London; Mr. Spencer Wells, London; Sir Thomas Watson, London; Dr. Cayley, London; Our Dublin Correspondent; Mr. F. Hird, London; Mr. T. Birt, Leamington; Mr. W. Donovan, Leicester; Dr. W. Macfie Campbell, Liverpool; Dr. Farquharson, London; Mr. W. J. Ting Dilwyn, Leominster; Mr. W. H. Williams, Sherborne; Dr. T. Chambers, London; Our Glasgow Correspondent; Dr. C. E. Underhill, Edinburgh; B. J. N., Birkenhead; Mr. A. Rice Oxley, Oxford; Mr. H. Davies, Cheltenham; Mr. J. T. Griffith, Penryn; Our Edinburgh Correspondent; etc.

BOOKS, ETC., RECEIVED.

Surgery: Past, Present, and Future; and Excessive Mortality after Surgical Operations. Two Addresses to the British Medical Association, 1864 and 1877. By T. Spencer Wells, F.R.C.S. London: J. and A. Churchill. 1877.

AN ADDRESS

ON
SOME RELATIONS OF PRACTICE TO
THEORY IN MEDICINE.

Delivered to the Fellows of the Medical Society of London on the opening of the One Hundred and Fifth Session.

By GEORGE BUCHANAN, M.D., F.R.C.P.,
President of the Society.

GENTLEMEN,—We meet to-day at the commencement of the one hundred and fifth session of this Society. During our century and more of life, we have seen one after another body established in London, with the object of promoting by conjoint study the advance of our science and practice. But it has remained the speciality of our body that, with younger societies growing and flourishing round us, giving themselves to one and another branch of medicine, and concerning themselves with one or another method, we have consistently included in the sphere of our work the whole round of medical science, medical art, and medical method. We have been eminently *the* Medical Society of London, and with us there has been natural place alike for medicine, surgery, and obstetrics; alike for physiology, pathology, and therapeutics; alike for preventive and curative, for public and private medicine. It is our boast that we are, before all things, a practical Society; and I venture to say that the reason of our being so is to be found in the universality of our work, in the mutual assistance that inductive and deductive methods afford to each other, and in the light that one department of medical knowledge is for ever shedding upon other departments. And, what is notably the speciality of our Society, we gather our observations and experiences from the widest area of practice, from the operating theatre and *post mortem* room, from hospital wards and out-patients, and also very remarkably from the vast stores of general medical practice. In this last respect we are, I believe, unrivalled; and it may be allowed that I should advert to-night, as a matter of primary interest to our Society, to the way in which the science of medicine is concerned with the daily doings of medical practice, and point out how the practitioner repays the obligations under which he is to the special cultivators of physiology and pathology.

I take it that the truest progress in medical science is to be made by those who are on the watch for empirical laws; who call to their aid methods of experiment and differential observation to confirm those laws; and who then seek to explain deductively the results at which they have arrived. The persons who labour at the generalisation and interpretation of phenomena are not always the same as those who have the function of establishing from experience the actual existence of law; and so far as the two classes of workers have been severed, a tendency has arisen to attach the notion of science too exclusively to the former. In truth, however, the empiricist, in the high sense of the term, the physician or surgeon, who in his daily work arranges and methodises his observations, is doing much more than exercise his art; for he is advancing, by a way itself pre-eminently scientific, to the discovery of ever-new truths in medical science. The facts, and their obedience to law, have to be learnt before the interpreter appears; and we may be sure that the high qualities of mind that are wanted in him whom I am calling the empiricist, will by no one be more keenly recognised than by him who has to follow with processes of explanation.

Let me illustrate my point of the indebtedness of the so-called science to the so-called art of medicine by the familiar truths about vaccination. Here is an example of the highest pathology, proceeding from absolutely empirical data. It is noticed that persons who milk cows with vesicles on their udders escape small-pox more than their neighbours. The facts are put together in such numbers and in such a way, and are so verified by experimental inoculations, as to demonstrate an empirical law of the utmost moment to the human race. At every step of the induction, rigorously scientific methods were applied, and a great scientific truth was arrived at. Here, medical art was in effect identical with medical science; there was no question here of what people call "practical deduction from scientific premisses". But now,

when this truth has been established, and not before, the pathologist appears on the scene, and asks why these things are so. He works at the question, and finds that human small-pox, transplanted into the cow and thence back to the human subject, has lost its intensity and its power of propagating itself by contagion, while retaining the power of protecting the human from further small-pox. And now it has become the turn of the pathologist to help the practising physician. The physician says to him: "Tell me what you infer from these facts as to the properties of infective material. The knowledge will certainly be useful to me for my own purposes." "What have you to say about contagiousness, as distinguished from inoculability?" "Find out for me, I pray, whether the employment of some similar transplantation and retransplantation may not yield a safeguard of a like nature against my abominable enemy scarlatina." At this moment, the pathologist is at work on the first of these questions, and will, we may hope, concern himself with the examination of the others; with what results on practical medicine, time only can show. But that which set him to work was the observation and induction, in the highest degree scientific, of a country doctor, whose business led him to attend to the ailments of milk-maids. When I point to his portrait among those of the founders of this Society, do I not give the strongest incentive to scientific use by all of us of the everyday materials that lie to our hands, and am I not right in declaring that there can be no thought of dissociating the art from the science, the science from the art, of medicine?

If I wished for an illustration of to-day, where practical medicine was, on a question of pathology, distinctly ahead of the mere pathological anatomist, and was helping to throw light even on physiological processes; of practical medicine in effect being "scientifically" in the front; I would take the instance of chest-tapping in pleuritic effusion. I see how this operation was originally resorted to in a mere hope of prolonging existence; as a last resource, when all other means had failed, for getting rid of water that was killing a patient. I note how, in the next place, some adventurous surgeons tried the effect of earlier tapping; and how there have now come to be grounds for assurance that, the sooner tapping is performed on a pleural cavity full of fluid, the better is the chance of recovery to the compressed lung. To the result, thus far, the pathological anatomist has contributed nothing: rather his fears have tended to delay the operation, and to hinder the practitioner in his use of the experimental inductive method. Not until the advantage of early tapping is established, has the question arisen: "What are the anatomical conditions impeding the rehabilitation of the lung after removal of the compressing fluid?" The problem thus presented, along with experience of the operation, to the anatomist, has led to more minute examination of the lung anatomy in pleuritic effusions, with the result of showing good grounds for belief that the diseased processes have influenced the pulmonary apparatus, no less in its circulatory than in its air-holding textures. Observation at Victoria Park has shown the pulmonary artery and its branches to be liable to plugging, in such a way as to prevent their resuming their function of blood-convection after the compressing fluid has been removed; and has led to wholly new inferences as to the methods by which permanent incapacity of the lung may be brought about. Here, it will be observed, it was the practitioner who directed the anatomist; and it was an induction, from bedside experience, that led to a complete observation of the facts of morbid anatomy, and to a clearer apprehension of pathological sequences.

The interpretations furnished to the empirical physician by the scientific reasoning to which he subjects his observations are, of course, in their turn fruitful of instruction; and ever new applications of his experience, when so examined, are suggested to him for his practical purposes. See how bark and quinine were first of all used, on non-medical observation, in the general treatment of intermittent fevers, simply as matter of cure; how, in the next place, quinine came to be recognised as preventing ague, if it were given in large doses immediately before the occurrence of an attack; and how a demand then arose out of this knowledge for a better understanding of the physical circumstances of the circulation in connection with the observed operation of the drug. It was in answer to this demand that new examination was made of the anatomy of ague, with the result of finding that, whereas the cold stage was characterised by a general contraction of capillaries, quinine had the antagonistic power of controlling this tendency to contraction. The physician here has led the physiologist to some new views about the capillary circulation. But he had also himself learned a lesson that he goes on to apply deductively thus: "I will see", he says (W. H. Power), "whether there are not other diseases that may come of a like contraction in some part of the capillary system, and I will observe whether in them some good may be done with quinine. Particularly, there is nervous asthma, as people call it; about which I have been re-

flecting that due supply of venous blood to a lung would seem to be quite as essential a condition for the physiological action of a lung as due supply of air can be, and that the dyspnoea which people generally connect with insufficient air-supply may equally come from interference with blood-supply. Your contraction of capillaries, if of a spasmodic kind affecting the lung-capillaries essentially, would I think very much account for such phenomena as I observe in this form of asthma. I shall certainly use quinine in the next case of spasmodic asthma that comes under my notice." So he goes, taking his newly acquired insight to the bedside, and finds that with quinine he can greatly control and often can indefinitely postpone the attacks of disease that have before seemed intractable. He has acquired, in his turn, a starting-point for new observations that may be expected to lead to the establishment of a fresh empirical law.

Curiously enough, it has been when these problems of therapeutics have been thought of in the light of physiology and pathology, that the notion of practical medicine being something of a different order from physiological and pathological work has arisen; it is then that the word empirical has been used with a scarcely concealed sneer; and it is then that we have heard most about the art, as if it were something estranged from the science of medicine. Happily, the time has now arrived when all this antique folly may be given up. The action of remedies in diseased states is recognised as among the most potent methods of discovery as to the nature of a diseased state, and even as to the conditions of a healthy state; and that this recognition should have been delayed, may more justly be regarded as a reflection on the pathologist and physiologist than on the therapist. Thus, from early times the physician has observed the action of digitalis as a diuretic of special benefit, in certain cases of dropsy of cardiac origin. Only recently it has occurred to anyone to inquire how this came to be so, and to discover that the drug produced a distinct action on the muscular tissues of the heart (and probably on that of the great vessels also), regulating and increasing the force of the cardiac contractions. Now, the physiologist observer comes to the physician with an explanation: "You have here an agent that, by increasing the blood-pressure in the vessels, assists the secretion of urine by the kidneys, at the same time that it renders the circulation capable of taking up the effused dropsical fluid. It is thus in effect what you call a tonic to the heart, and this is the way in which it operates usefully in the cases you have observed;" an excellent explanation, particularly as our physiological friend has already perceived it to involve some imperfectly understood points within his own particular branch of study; a scientific explanation, too; but not more scientific than the processes of observation and induction by which the virtues of foxglove were apprehended, and the circumstances of its usefulness ascertained many and many a year before.

Now that the truth has been accepted, that the domain of therapeutics is not distinct from the province of physiology and pathology, but that the latter sciences may learn from therapeutics as much as therapeutics may learn from them, it is to be hoped that the empirical facts of therapeutics will be more efficiently taken in hand. What could be more interesting than to receive answers to questions such as these, that are put loudly enough by the practitioner? How do counter-irritants act in the relief of pain? How do ice-bags applied to the chest operate in checking lung-hæmorrhage? How are we to look at pyrexia when we see the marvellous influence that cold bath treatment has on it? These are specimens of scores of questions that the empirist, scientific in the best sense, puts before his fellow-workers. And in the interpretation of these and like facts of experience lies the most immediate service that physiologists and pathologists can render to practical medicine.

"In such cases" (I quote Sir John Herschell) "the inductive and deductive methods of inquiry may be said to go hand in hand, the one verifying the conclusions deduced by the other; and the combination of experiment and theory which may thus be brought to bear in such cases forms an engine of discovery infinitely more powerful than either taken separately. This state of any department of science is perhaps of all others the most interesting, and that which promises the most to research."

Gentlemen, it is in this state that our science of medicine exists at the present day. Let us look, then, on our body constituted as I have shown it to be, as being charged in a special way with the advancement of medical science, for the very reason that it is, among all other societies, the most comprehensive in its range of work.

THE W. and S. Tuke Prize (one hundred guineas) has been awarded by a Committee of the Medico-Psychological Association of Great Britain to Dr. E. C. Spitzka of New York, for the best essay on the Somatic Etiology of Insanity.

REMARKS ON THE USE OF CARBOLISED CATGUT IN THE LIGATURE OF ARTERIES IN THEIR CONTINUITY.

BY JAMES R. LANE, F.R.C.S.,

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THE merits of the carbolised catgut ligature, when applied to arteries in their continuity, has again been brought under the notice of the profession by Mr. Bryant, in a paper read at the Clinical Society on October 12th, when, from the report of the discussion which followed, it appears that there is still considerable difference of opinion among surgeons as to its efficiency and safety.

Mr. Bryant related his experience of fourteen cases, and, notwithstanding the occurrence of slight secondary hæmorrhage in two of them, concluded by expressing his opinion that "we have in carbolised catgut the best ligature at our disposal." In the discussion, Mr. Barwell mentioned that he had tied five cases with catgut, all of which were successful. Mr. Maunder, on the other hand, although quite satisfied in five cases in his own practice, stated that the records of "serious consequences, such as solution, slipping of the knot, division of the coats of the artery in one instance, immunity from this in another, while death had followed from early hæmorrhage and embolism, had decided him, enthusiast in its favour as he had once been, never to use it again. It was obvious", he added, "that no such accidents attended the use of silk." Mr. Callender said that "in one case the catgut had given way and the pulse had returned in the sac of the aneurism. In three other cases, pulsation had returned in the vessel within a few days after the operation with catgut".

The question is an important one, and it is evident that a further accumulation of facts is necessary for its solution. I venture, therefore, to offer the results of my own experience, amounting to fifteen operations, comprising seven of ligature of the femoral artery, two of the external iliac, three of the carotid, one of the brachial, one of the radial, and one of the ulnar. The three latter occurred in the same patient; one of the femoral and one of the external iliac were also in one subject. The result in all of them, so far as it depended upon the ligature, has been eminently satisfactory.

The following case is, I think, worthy of a somewhat detailed account, as it serves to illustrate several of the points at issue. It was one of popliteal aneurism, in which I had occasion to tie the femoral artery, and, twenty-five days afterwards, the external iliac; the death of the patient subsequently affording the opportunity of examining the vessel at both the points ligatured.

The patient, aged 45, a strong and healthy man in outward appearance, and of very active habits, was admitted into St. Mary's Hospital on December 14th, 1876, with a tumour of the size of a large hen's egg, evidently aneurismal, in the left popliteal space. He had first noticed a small throbbing swelling a month previously in this situation, and it had gradually increased to its present size. His pulse indicated increased arterial tension; but there was no other evidence of cardiac disease. His urine was albuminous, and contained casts. I intended, after he had rested for a day or two, to employ compression with the Esmarch bandage; but, on the morning of December 16th, when getting out of bed, he felt something give way in the tumour, which began to increase in size. In the evening, I was sent for to see him, by which time the popliteal space had become greatly distended; the swelling extending downwards under the gastrocnemius, and outwards under the biceps tendon. There was a faint pulsation in the tumour, and the pulse was just distinguishable in the anterior and posterior tibial vessels. It being evident that the aneurism had burst, it was obviously necessary either to tie the femoral artery or to amputate the limb. I decided on the former course, and ligatured the vessel at the apex of Scarpa's triangle with carbolised catgut. The ligature was drawn tight, so as to divide the internal and middle coats, and its ends were cut short. The wound was brought together with silver wire sutures and dressed with lint dipped in carbolised oil. The limb was wrapped in cotton-wool.

On the next day, he appeared to be doing well; but, on the day after, the 18th, there were such evident signs of gangrene in the foot and leg that it was determined, after consultation, to remove the limb. I accordingly amputated at the junction of the middle with the lower third of the thigh, making anterior and posterior flaps. Four vessels were tied with catgut, and, as there was slight oozing from the main artery, notwithstanding its ligature higher up, this was secured in the same way. Examination of the limb after removal showed a rent an

inch long on the outer side of the aneurism. The sac was filled with coagulum, and there were large masses of clot effused amongst the surrounding parts. For several days after the amputation, he was in a very precarious condition, with high temperature, quick pulse, and violent delirium. The wound made for the ligature of the femoral, which at first appeared to have healed, discharged a considerable quantity of pus. The stump also suppurated freely. On the 24th, a separate collection of matter was observed on the outer side of the thigh, at its upper part. This was incised, and a drainage-tube was inserted through the opening and brought out at the stump. From this time, he went on favourably, the suppuration diminished, the wound looked healthy, his appetite was good, and he was daily gaining strength till January 3rd, when slight hæmorrhage took place from the stump. This recurred on the following day (January 4th), when six ounces of blood were lost. The bleeding was stopped by plugging the wound with lint dipped in solution of perchloride of iron. It appeared to proceed from the outer part of the anterior flap, probably from some descending branch of the external circumflex artery. There was further hæmorrhage on the 7th and 8th, which was only arrested with difficulty by careful plugging. It recurred on the 10th to an alarming extent, and it was then decided, in consultation, to secure the external iliac artery. I tied this vessel an inch above Poupart's ligament by the usual method, employing carbolised catgut and cutting the ends short. No further hæmorrhage took place; but the patient, who had been suffering from broncho-pneumonia for a day or two before the operation, died from this and from exhaustion consequent upon the loss of blood, on the morning of January 13th, sixty hours after the last operation.

No examination of the body was permitted by the friends; but I enlarged the wounds and removed the external iliac and femoral arteries. Their coats appeared to be healthy throughout. Dissection of the femoral artery, which had been tied twenty-eight days before death, showed an abrupt constriction at the ligatured spot, but no trace of the ligature remained. Above and below this the artery was filled with firm coagulum, which was closely adherent to the arterial walls for at least an inch upwards, above which it filled the vessel, but without adhering to it, up to the origin of the profunda. Below, there was an equally firm clot, also adhering to the vessel, and about three-quarters of an inch in length. The external coat was entire, and showed no sign of having ulcerated through. It formed a cord connecting the ends of the vessel, but was placed, not in the centre, but at one side, having been drawn apparently towards the side at which the knot was tied. The femoral vein was perfectly healthy. The suppuration in the thigh had evidently not extended down to the vessels, which were shut off from it by plastic exudation. The sheath of the artery above and below the ligature was somewhat thickened, but could readily be dissected off as a distinct layer from the proper external coat of the vessel.

Examination of the external iliac, which had been tied sixty hours before death, showed the ligature in its place. The internal and middle coats had been cut through, and the external coat constricted and drawn towards the side where the knot was placed. The loop of the ligature was beginning to soften down, but could be distinctly seen maintaining its hold securely. The knot, as might be expected, was less acted upon. There was a very firm clot above the ligature, filling the vessel for three-quarters of an inch and already adherent. From this it tapered upwards as far as the bifurcation of the common iliac. Below the ligature was an equally firm clot reaching downwards nearly to the origin of the epigastric and circumflex iliac arteries. The external iliac vein was perfectly healthy, and showed no sign of inflammatory action. There was some suppuration of the wound superficially, but it did not extend down to the artery. The deeper parts of the wound appeared to be closed by plastic effusion. The specimen has been preserved.

The action of the catgut ligature on these two vessels seems to me to leave nothing to be desired. Coagulation was perfect in both; the internal and middle coats had been cut through; but there was nothing to indicate any ulceration of the external coat, either commencing in the iliac or having taken place in the femoral. The external coat in both cases appeared to be drawn tightly across the ends of the coagula and gathered into a cord at one side. Both vessels were surrounded by an effusion of reparative material, which separated them from the parts where suppuration was going on, which, in the case of the femoral, was beneath the fascia, from just below Poupart's ligament to the amputation-wound. The advantage of this in sealing up the deeper parts of the wound is obviously very great, as compared with the old practice of leaving one end of a silk ligature ready to convey noxious secretions into actual contact with the vessel at the point ligatured.

The only other case in which I have had an opportunity of examin-

ing the vessel at the point ligatured occurred at the Lock Hospital in 1873, after operation on the external iliac artery. The patient was a girl aged 17, in feeble health and of dissipated habits. She was admitted with secondary syphilis and a sloughing abscess in the glands below Poupart's ligament. Hæmorrhage took place from this sloughing wound, proceeding, I believe, from ulceration into the superficial external pudic artery, near its point of origin from the common femoral. The bleeding recurred again and again, and was so serious that it became necessary to tie the external iliac artery, which I did on November 28th, using the carbolised catgut ligature. This was effectual in arresting the hæmorrhage, which did not return; but the foot and leg mortified as high as the knee, and the operation-wound almost immediately took on a sloughing action similar to that of the neighbouring bubo from which the bleeding had proceeded. Notwithstanding all these serious complications, the patient struggled on, but gradually sank, and died from exhaustion on December 30th, thirty-two days after the operation.

At the time of her death, the operation-wound had been converted into a sloughing cavity as large as the palm of the hand, extending down to, and involving, the abdominal muscles, which were softened and disintegrated into pulpy shreds. Examination showed that the slough nearly reached the vessels and outer surface of the peritoneum, but these did not appear as yet to be implicated in it. The artery was constricted and closed at the point of ligature, and was full of firm coagulum upwards beyond the bifurcation of the common iliac, and downwards for some distance into the femoral artery. No trace of the ligature could be discovered. The vein was full of soft coagulum, probably the result of the slow mode of death; for it showed no sign of inflammation. The neighbouring peritoneum was also sound. It would be difficult to imagine a chain of circumstances more unfavourable from beginning to end than those which were present in this case. In spite of them all, the artery was obliterated; there was a very efficient coagulum both above and below, and the ligature had disappeared. It is not, I think, going too far to attribute this favourable result to closure of the deeper part of the wound by adhesive effusion immediately after the operation, the new material not having been completely destroyed at the time of her death, by the sloughing process. On the other hand, had there been a ligature protruding from the wound, it must have carried the infection of sloughing phagedæna down to the vessel, ulceration of which, followed by softening of the incipient clot and secondary hæmorrhage, would have been an exceedingly probable, if not an inevitable, consequence.

In all the remaining twelve operations, recovery has taken place; suppuration of the wound has been present in ten, in some of them trifling, in others very profuse; but there has been no secondary hæmorrhage, no recurrent pulsation, or anything to indicate inefficiency on the part of the catgut ligature. In these ten cases, as well as in the three to which I have alluded in detail, no antiseptic treatment, excepting the catgut ligature, was adopted. The remaining two operations have occurred recently, and were for popliteal aneurism. In these, the carbolic spray was used, and every antiseptic precaution carefully observed. In both, immediate union took place, with the slight exception that in one a few drops of pus exuded from one point in the wound about a week after the operation.

Thus in the first thirteen operations, the progress of the wound was unfavourable, inasmuch as suppuration took place to a greater or less extent in all; but notwithstanding this, complete security from hæmorrhage was obtained. If by carefully following out the antiseptic treatment the wound can be made to unite by adhesion either wholly or in great part, as in the last two cases, the security, no doubt, will be much increased. I look upon the chief merit of the catgut to be, that it may be cut short and left in the wound without risk of irritation being set up; and that it thus admits of adhesive closure of the deep part, as shown in the cases first related, even although extensive diffuse suppuration, or even sloughing phagedæna, may be present nearer the surface.

I have always used a moderately stout ligature, and have tied the knot tight enough to secure the division of the inner and middle coats, taking care to observe that the first noose has not relaxed before the second one is drawn tight. It is important to attend to this, catgut being a somewhat stiff and slippery substance as compared with silk; and for further security, a third noose should be tied; and if this be done, subsequent slipping and loosening are impossible. The ordinary double knot, whether reef-knot or "granny", and whether of silk or catgut, is unreliable; and the difference between these two kinds of knot, which has been so much insisted upon, is not warranted in fact, as may easily be demonstrated by tying them round the ends of a pair of dressing forceps, when, if the blades be forcibly separated, either will give way, the one as readily as the other; whereas with a third noose,

the loop of the ligature will always break while the knot remains entire.

Mr. Lister has been credited with recommending that the catgut should be applied so as to close and not injure the artery, when the lymph which is effused around it will contract and permanently close the vessel. I cannot, however, find sufficient warrant for this statement. Mr. Lister, in 1869, said, after giving the results of some experiments on animals, that they suggested the revival of the old question, whether it would not be better always to avoid rupture of the internal and middle coats, so that the wall of the vessel would be left from first to last entirely intact. But he also said that probably it was a matter of indifference; and, judging from one of the experiments, that the injury done to the vessel at the outset by tight tying seemed to lead to changes which increased its power of resistance. And at the meeting of the British Medical Association in 1875 he said, "As to the catgut not cutting through the internal and middle coats, he always applied it so as to do so".

I believe that the division of these two coats is greatly conducive to safety by favouring the closure by adhesion of the divided ends, and, what is perhaps of more importance, by insuring, as far as possible, the formation of an efficient coagulum above and below the ligature. It is upon these processes that safety mainly depends; and properly prepared catgut, of sufficient strength and securely tied, may, I believe, be relied upon to hold the artery long, enough for their accomplishment, while it will probably in most cases soften down soon enough to prevent any ulceration of the external coat from being set up.

It appears to me that to ligature a vessel with catgut with just such a degree of tightness as to approximate its sides without damaging any of its coats must be a matter of extreme difficulty; and that in attempting to avoid doing injury, there will always be risk, with catgut especially, that the knot will either be tied so loosely as not to intercept the circulation, or so insecurely that it will be likely to open out under continued pressure of the current of blood. May not this be the explanation of the cases in which pulsation has returned in the vessel within a short time after the operation? I know of no reliable evidence in favour of this practice, and I would submit that it is more consistent with sound surgery to adhere to the long established rule of tight ligature and division of the two internal coats; while as regards material, I entirely agree with Mr. Bryant, that we have in carbolised catgut the best and safest ligature at our disposal.

ON THE MEDICAL INJUNCTION OF STIMULANTS IN DISEASE AND IN HEALTH.*

By DYCE DUCKWORTH, M.D., F.R.C.P.,

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I AM not unmindful that I open up in this brief communication a very large subject; but it seems to me that I can fairly well embody what I have to remark within the compass of a short paper, provided that I avoid arguments upon general principles, and exclude deductions from particular instances. There can be no doubt that the public is much stirred and interested at the present time upon the subject of stimulants. It has come home to the minds of a large number of true-hearted and patriotic Englishmen that the reproach cast upon this country for its notorious drunkenness is utterly grievous, and calls on all hands for the best efforts to remove it. We find, therefore, that such efforts have taken form in various organisations to promote temperance. It appears to me that all action in this matter should be based upon the soundest principles; and, as a problem of this nature manifestly lies within the sphere of medical men to solve, it is clear that the members of the medical profession should exhibit such unanimity upon the subject as becomes those who have received the fullest measure of physiological training in the community. And, indeed, the question of our national intemperance practically comes, in the meantime, to be dealt with by the clergy and the doctors. When the medical profession presents an united front, or, at all events, a stronger body in line than it actually does to-day, arrayed against this evil, it will be in a position to lay down principles which should guide the clergy in their efforts, and the time will then have arrived when the members of these two professions can together lay such a case at the doors of our legislators as they can neither gain-ay nor resist.

I apprehend that a vast deal of energy is lost in this cause, and no little harm done to the legitimate influence of medical men, because such

immense differences of opinion prevail amongst our members on the subject of stimulants. As one who signed the famous medical declaration respecting alcohol some years ago, my own position in regard to this question is fixed. I have never materially wavered in my opinion, and I think I see clearly the aspect in which this subject should be viewed by all thoughtful and observant practitioners of the medical art. But what do we find as the expressions of opinion of men from within our ranks? We have in London a Temperance Hospital. If a temperance hospital be a proper and superexcellent institution, then all the hospitals in the world are worked on an erroneous principle in this respect. We find one of our most original members, a man of unquestioned ability, and fertile in ingenuity beyond his fellows—Dr. Richardson—actively engaged in propagating teetotalism as the outcome of elaborate physiological experiment. We find the most skilful lithotritist of the day enjoining the same practice of abstinence. On the other side, we find, if not a large number of practitioners, yet very many, who, if not in a position to teach, certainly enforce by their injunctions, the principle of the value of full stimulation both in health and disease. We find further, and happily, that a clear majority enjoins what may be termed a legitimate and sensible course in this matter.

But, when we review this varied expression of opinions, can we allow that it is satisfactory or in any way creditable to our profession? If such gulfs exist within our own ranks, what opinion is to be formed by the laity who, in these days, are wise enough to think for themselves on most subjects? Here we have a vast body of men specially trained to observe, brought into the closest contact with their fellow-men under every conceivable variety of circumstances, differing, be it noted, about *facts*. Now, as my late revered teacher Professor Hughes Bennett used to say, it must always be discreditable for medical men to disagree about *facts*, though large latitude may be allowed for difference of views about *theories*. If this be so—and I accept this dictum—then there is no middle course for us to pursue. Stimulants, therefore, are *all right if they be rightly used*, or they are *all wrong if they be used at all or in any degree*. It behoves every one of us to have a clear understanding in this matter, and to frame our conduct upon well-ascertained and incontrovertible principles; for I suppose no one here will stand up to defend the exploded theories as to change of type either in humanity or the diseases of that humanity. We are all old enough to have witnessed some wave, or it may be waves, of fashion in therapeutic measures. Some may recall the bloodletting days, others the days of distinct stimulant treatment; some have seen mercury abused, and some have perchance seen attempts made to treat disease without this drug. But what do we all agree to say and to affirm to-day in respect of such reminiscences? Do we not say that all these waves successively represented unstable struggles towards the truth; that one was a Nemesis for its predecessor; and that assuredly all of them have now foamed out their own shame upon the everlasting shores of attained medical truth?

If we then cast our eyes over the prevalent varied opinions upon this subject of stimulants, we see several waves upon the horizon; and, when we confront such an outlook, I think we are not likely to be wrong if we believe that these perturbations, like others that have come before, will subside and leave us with some settled opinions. But the whole question must be taken up; and its claims for our best attention are very strong, especially at this time. I believe, then, firmly that a wave of fashion in physic very rarely, if ever, represents a wholesome thing in itself; and our duty is to resist being carried away upon such waves by holding on to the ever sure method of constant clinical watchfulness. The settlement of this vexed question comes, I apprehend, by honest clinical work in so far as the sick are concerned.

On the topic of stimulants for healthy people I shall express myself presently; but I would remark in this place that it seems to me inconceivable, if not absurd, that a solution of such questions could ever be attained by the best researches made in laboratories upon any of the lower animals. Arguments deduced from such sources, however, weigh very heavily with the laity; and it is easily intelligible that appeals should be made to such researches by zealous but non-scientific labourers in the great temperance cause. I am not here to decry the splendid work done in the laboratories of this or other countries, nor to discourage any earnest seekers after new truths in physiology—far from it; but surely the great laws affecting the physical wellbeing of our humanity are best to be learned by the study of that special humanity itself and of all that influences it. There must ever be a great gulf fixed between all that pertains to man and all that affects even the next inferior order of beings. We cannot in all respects apply the physiology of the lower animals to problems which man's body alone furnishes for us daily. The chief study of the medical mind should be *man*.

* Read at the Conjoint Meeting of the East and West Surrey Districts of the South-Eastern Branch.

Not to digress further in this direction, I pass on to state briefly what I hold and see to be the true and legitimate position which the thoughtful in the medical ranks assume in respect to the employment of stimulants in disease. I shall not find many to differ from me in the opinion that the whole course of illness, in most cases of the continued fevers, can be conducted in young persons without stimulants, provided no important complications or undue asthenia are present. There can be no question, I believe, that these do best on milk-diet for the most part, and, as a rule, require no stimulants. During convalescence, the addition of three or four ounces of wine to the diet for an adult seems certainly sometimes beneficial. In elderly persons, and in those who have been in the habit of using stimulants freely, it is frequently necessary to employ spirit and wine, sometimes in large amount. The same rules hold good for pneumonia; not so for cases of pleurisy, with or without effusion. In the exanthemata, cases void of special complications betokening either malignancy or asthenia require no stimulants, as a rule. But, given the typhoid or putrid state supervening in any such cases, resort must be had to alcohol. The well-trained clinical finger and ear will recognise the circulatory conditions which indicate it. Time would fail me merely to enumerate either the separate diseases or the special indications in and for which stimulation is deemed advisable, and only deemed so because of its distinct beneficial effect; I shall, therefore, only refer to some classes of diseases to illustrate what I mean by the legitimate employment of stimulants. In the varieties of Bright's disease, it is plain that alcohol is not wanted, either as a nutrient or a stimulant. In most, if not all, hepatic affections, in gout and gouty disorders, in affections of the urinary tracts and bladder, we find but rarely a place for alcohol. In rheumatic fever, no stimulant is called for, unless in those long-standing cases where the heart becomes weak, and the patient is exhausted by alkaline sweats, where truly alcohol is the best drug we know of; and especially do we not want stimulants in acute rheumatic pericarditis, save where there is perhaps danger of fatal syncope from large effusion. During convalescence, however, stimulants may be needed, if much myocarditis have occurred. In the majority of cases of valvular cardiac disease, whether it be mitral or aortic, or both, there are often clear indications for wine or moderate stimulation. In phthisis, the same rule holds good; and in all cases of chronic suppuration, the value of wine and malt liquor can hardly be questioned. Perhaps, no cases admit of more free stimulation than those of bronchitis, especially in old persons. The power of alcohol is also very great in several infantile affections, in bronchitis particularly, and as a fattening agent in marasmus. In the large class of nervous disease, much discrimination is needed. Great care must be exercised in cases of hysteria. Choreic patients are often benefited by wine, but most cases of chronic nervous disease are perhaps best treated with little or none.

Now, what is the outcome of this rapid and most imperfect sketch? It is surely this: that there is *no routine* in the matter of employing stimulants. Legitimate injunction of malt liquor, wine, or alcohol is, therefore, placed in exactly the same category with that of any medicinal drug or therapeutic agent we employ. Every case is judged upon its own merits. There is a reason for the giving, or for the withholding, for the particular stimulant *prescribed*, and in each instance the cardinal clinical rule is to be observed, *viz.*, to ascertain, so far as possible, what is the ailment, and what is the phase and import of it, to the particular individual before us. This, then, I maintain, is the position into which we, as intelligent and rational practitioners, relegate the question as to the use of stimulants in disease. We put alcohol, with its congeners, into our therapeutic armamentarium; it is to hand when wanted, just as are quinine, calomel, the lancet, or the cupping glass. We cannot do without it, or any of these things, but we employ them or not, as our bedside knowledge indicates.

To turn now to the second part of this communication, which shall be brief, what is the medical injunction respecting stimulants for the healthy? We have hitherto spoken of these agents as medicines, and so they are, be it observed, *to the sick*. But, is alcohol or wine food? Some physiologists tell us no. I do not believe them. Malt liquors, at all events, are simply thin soups with a modicum of alcohol, and I am fully satisfied of the nutrient power of wine and alcohol alone, under some conditions, or more especially in conjunction with other pabula. That those things are *necessary* to healthy and well-fed people leading what may be called normal lives, I do not believe. There is plain evidence to the contrary. The majority of healthy people leading wholesome lives can do without stimulants. To such persons, a moderate use of wine or malt liquor is, therefore, a luxury, but not necessarily a pernicious one in itself. But, I ask, how many people are there in the world of sound health persistently leading normal lives? Are we prepared to say that a little good beer is not a very valuable addition to the often scant fare and coarse food of multitudes of hard-

working people in the lower orders, or that it may not fairly be taken *in moderation* to counteract, as it will, the many sources of depression to which such people are inevitably exposed in this country? I think not. And, if I am told that persons of this class cannot get good beer, then I maintain that the legislature is in fault for permitting unwholesome liquors to be sold to any portion of the community. Medical men may, I believe, fairly tell the healthy and robust, the well-fed and well-housed, to forego the use of stimulants if they find that they fully maintain their health without them.

Knowing full well the injurious effects of even slight excess in strong drink, it should be borne in mind that total abstainers are generally large eaters, and thus the digestive and excretory organs may have as much work to do for the abstainer as for the slightly immoderate drinker. Hence the ultimate textural effects, if any, may not be very dissimilar in the two cases. I think it is proved that the addition of a little alcoholic food to a meal secures a more moderate ingestion of solids, and where it agrees, which it does not always, promotes a more satisfactory digestion of them. We have to recognise further that a large number of persons are distinctly better without alcoholic drinks in any form or quantity. They suffer from a series of anomalous ailments, chiefly dyspepsia and insomnia, and will never have their proper health so long as they take stimulants of any kind. It would be well often to try the omission of stimulants in such cases, and to watch the result.

We cannot fail to observe that persons of all degrees of intelligence and culture, who are never intemperate, begin at a certain time of life to limit themselves, as they say, to a daily allowance of alcohol. They drink so much beer or wine seven days a-week, be they busy, be they idle, be they out of doors, or be they immured. This is manifestly wrong, and such habits need correction from intelligent medical sources. There can, I hold, be no routine allowance of alcoholic food even for the healthy. There must be a relation between the nervous, muscular, and respiratory wear and tear and the consumption of this paralytic food. More may be needed or instinctively called for to-day, and less to-morrow; on some days none at all perhaps.

It comes to this, then, that *the rational individual must honestly and conscientiously find out for himself what the special needs of his system are*; and where a right-minded Christian individual is in earnest on such a matter, and has proper control over his appetite, he is not likely to go far wrong in the matter of stimulants.

If we have to deal with the subjects of drinking insanity, with the nervous classes of drunkards, with persons who are careless and self-indulgent, or who by their lives and callings are much in the way of drink, our duty as medical men is surely very plain. Let us urge teetotalism in all such cases. And here comes in a difficult part of the medical practitioner's duty. It is certain that by a too pliant demeanour we may retain the confidence of tipping patients, and by plain speaking we may sometimes lose that confidence. Our duty is still clear. The honour of our calling is at stake, and we are constrained to utter our suspicions, to warn the immoderate drinker, and to unmask the secret tippler. I may safely say for myself that I cannot recollect one instance out of very many where, by such conduct, I have not only not lost the confidence of such patients, but have not unfrequently gained more than I held before. The slyness and the accompanying moral obliquity of these unhappy persons stand abashed and crushed before a plain and unvarnished charge of the subtle entangling habit. We must yield neither to the gross nor to the astute drinker, otherwise we stultify ourselves, encourage immorality, and bring disgrace and contumely upon our profession. It were well if, as a body, we were well agreed upon certain principles to recommend to those who seek our advice in the matter of stimulants, and it were a better thing still if the public would both ask and act upon our injunctions thus founded.

I presume we are mostly well agreed that stimulants should, as a rule, be always taken at meal-times, and only then; and that no person in health should take them till the afternoon at the earliest, supposing conformity to ordinary English meal-times is observed. Herein lies the elementary pathway, I conceive, to reform of our national intemperance. I not only presume, but I am confident, that as a body our profession is unanimous in condemning the modern American habit of taking odd glasses of stimulants at all hours, and laments the grievous multiplication of the means of gratifying this mischievous custom; for truly the conduct of masses of young business-men, in our cities and large towns, in this respect is becoming disgraceful, and the practice is fast gaining in other circles and communities. Our countrymen of these classes have no excuse for this, for they are well fed, and have liquors with their meals in addition to their hourly drams; while Americans, who are notoriously the worst dietitians in the civilised world, are water-drinkers at meal-times.

Again, we are all agreed that children and healthy young persons are best without stimulants, and that the hardest of our lads need nothing stronger than very small beer with their dinner, even if they really need that. I think we require to exercise great care in our advice on this matter to the descendants of drunkards, and of the subjects of the various neuroses, having regard to the inherited instability of their various orectic centres.

There exists difference of opinion as to the effects of sudden and complete cutting off of stimulants in the persons of hard drinkers and the subjects of acute debauch. Such ought not to exist. There is ample evidence that no serious results will follow such a course. I should consider it bad practice now-a-days to find a patient with delirium tremens treated with any measure of stimulant. It can be, and ought to be, suspended at once; for it is proved to be unnecessary, unless some special complication calls for it. The practice of large hospitals and of our prisons fully confirms me in this opinion.

In conclusion, let me say a few words respecting the attitude of our profession towards the movement for promoting teetotalism. After all I have just uttered, you cannot suppose that this mission can have my approval. I believe that a mission against the drinking habits of all classes and communities conducted upon principles of total abstinence is a hopeless one to embark upon. It is simply to fight the air. Little can, in the nature of things, come of it. A crusade against our grievously prevalent intemperance, an intemperance in strong drinks more or less great in all classes, an intemperance amounting often to gluttony in respect of unnecessary delicacies amongst the wealthy classes, conducted upon principles of true moderation and sobriety, is a very different matter. In the one case, we have no scientific basis to work from, and we cannot stultify ourselves as medical men by countenancing so vain a mission. As well might we enjoin total abstinence from any wholesome and innocent practice. As I have already remarked, I recognise whole classes of cases in which such a practice is proper and advisable. Teetotalism is, therefore, a therapeutic measure for our injunction when necessary or advisable. If the examples set by good people would of themselves avail to rescue the mass of drunkards, England would be amongst the least drunken countries to-day.

In the other case, we can all, as enlightened, thoughtful, and scientific men, combine with vast power to check both intemperance and gluttony, and join hands with our clerical brethren in a mission of reclaiming and warning our erring fellow-countrymen, and, alas, countrywomen too, at once worthy of our art, our patriotism, and our Christianity. It behoves us, as calm-thinking and scientific men, to be very careful how we countenance this wavelet of opinion upon teetotalism; for so surely as we be carried away by any fleeting clamour, and fall in with any cant temporarily prevalent, so surely shall we, sooner or later, see the error we have made, and come to repent of the yoke under which we have put our necks. I flatly refuse to believe that the broad stream of common sense and legitimate freedom in this, or any other like matter, has flowed for centuries in a wrong channel, and that we alone in our day are called upon not only to divert, but to dam it up for all future time.

While I thus venture to express what I believe to be the calm and matured opinion, as well as the rational standpoint, of the profession, I am not here to decry the noble examples of total abstinence from strong drinks set by the clergy and others in conspicuous positions. Such men and women may well go forth, if their health permit them, to special combat with the vice of drunkenness, fully equipped. We, as a body, are at all events unable to resist the evidence they bear to the effect that their principles *alone*, in many cases, enable them to reclaim drunkards, and achieve results that would otherwise be impossible.

Since writing this short paper, I have chanced to read an epitome of the medical evidence given before the House of Lords' Committee on Intemperance. In my humble opinion, that evidence was eminently satisfactory. But I feel constrained to offer objection to some of Sir William Gull's statements. "In conditions of fatigue," Sir William is reported to have remarked, "people might very well drink water, or take food, and would be very much better without the alcohol." To me, this seems a venturesome, if not an unfounded, opinion. The statement is, in any case, too bald. It is certainly not in accord with carefully acquired experience in many instances of fatigued conditions. For myself, I may assert that I am fully satisfied of the power of stimulants in states of bodily, cerebral, and cardiac exhaustion. I would not for one moment be understood to recommend recourse to alcoholic stimulus in all cases of exhaustion; but I clearly recognise conditions—not of very common occurrence, certainly—of systemic fatigue which "water" will not allay, and in which the very idea of "food", even to a naturally wholesome and strictly temperate man, at such a moment, is simply loathsome. For such an one to take a glass

of wine is to be so far restored as within a short time to be enabled to eat such a meal as without the preliminary stimulant he could certainly not have faced. That is not an opinion; it is a fact. Another statement of Sir William Gull was to the effect that when "he personally was fatigued, he ate the raisins instead of taking the wine". This is certainly epigrammatical, if not paradoxical, but I venture to deprecate such a method in giving scientific evidence; for the authority of the expert is sure to be requoted, and his opinions will be carried on to various platforms and possibly receive even a literal interpretation, which, in this particular instance, would, of course, be absurd.*

I trust that the remarks which I have had the honour to make at this meeting may be received in the spirit in which they have been offered. As I have already remarked, society is a good deal disturbed and occupied just now with the questions I have touched upon. Much not unnatural warmth and indignation have been imported into discussions upon them, some only so recently as last week at the Croydon Church Conference. Those who hold fast to the old lines of freedom and moderation are held up to rebuke and disdain, and are even reckoned as enemies to the truths and progress of Christianity. There is, indeed, cause for indignation, and a stirring call to combat the bestial excesses and stupid intemperance which are rife around us; but, if this righteous fervour be laid in proper channels, it will, in my opinion, meet its true enemies in the intricate social habits of the present day, in the sadly increased facilities for drinking which spread around us, and in the ignorance and merely *nominal* Christian lives which are led by many of our countrymen. These are the roots of this upas tree, and to these must the axe be laid.

ACUTE RHEUMATISM: HYPERPYREXIA. RECOVERY.

By T. CLIFFORD ALLBUTT, M.A., M.D.,
Physician to the General Infirmary, Leeds.

MR. W., aged about 25, was attacked in August last with acute rheumatism. The disease pursued a favourable course, without heart-complication. Salicylate of soda was administered on Friday, August 10th. During apparent improvement, the perspiration suddenly ceased: a phenomenon which caused some anxiety to his medical attendant, Mr. Oxley of Pontefract. On Saturday, Mr. Oxley was still more uneasy on finding that all pain had entirely vanished, the limbs being thrown easily about in bed. The temperature also was found to be two degrees higher than the day before. Salicylate of soda was recommended in considerable and frequent doses; but the temperature continued to rise all that day and during Sunday. On Sunday night, there was much delirium; and early on Monday morning a message was despatched to me. On my arrival at about 9.30 A.M., the patient was lying on his back; his face was deeply flushed; and he tossed his head uneasily from side to side in delirium, or sank into stupor. The delirium and stupor alternated every few minutes. The temperature was now found to be about 107 deg., and was increasing every hour. Unconsciousness was complete, or nearly so. The pulse was very rapid, and the respirations also, though no accurate note of these symptoms was preserved. There was no visible swelling or redness of any part.

It was at once decided to place the patient in a cold bath. Unfortunately, the house, a large country residence, had been built before bath-rooms were in fashion, and a row of morning tubs could only be offered. Pontefract was some miles away, and time was pressing. An express was sent off for a full-length bath, and meanwhile an active housemaid discovered an old-fashioned slipper-bath, or rather boot-bath, in a garret. This was brought to the bedside, and a row of servants was placed upon the staircase to pass pails of hot and cold water. The bath was filled with water at 80 deg.; and the patient, a heavy man, was lifted from bed and his legs with difficulty thrust into the foot of the boot, so that he rested in a sitting posture upon a shelf within the heel. The rim of the bath reached the patient's waist. Regardless of floors and ceilings, very cold water was now poured upon the patient's head, who was held up in the bath, and whose temperature was now exceeding 107 deg. The difficulties of bathing and attention to the temperature of the water diverted the skilled observers from the patient, except so far as observation of the pulse was concerned. In five or six minutes, however, it was seen that he was quite conscious, and he had repeatedly expressed the intense relief

* Since I read this paper, I have, to my great amusement, actually heard the above gravely quoted at a meeting of the Church of England Temperance Society.

afforded to him by the bath. In ten minutes, he was joking with his friends, and enjoying himself thoroughly. The water in the bath was so continuously heated by the body of the patient, that it was with difficulty lowered to 70 deg. and to 60 deg. by constant baling out. With the recovery of the patient's consciousness, the use of the thermometer in the mouth became possible, and it was found that the upward movement of the temperature had been arrested. In this bath, cold affusions being poured continuously over the head and shoulders, the patient remained for forty-five minutes, when the thermometer had fallen slowly to 101.5 deg. He was still very comfortable and had no chill. He was now removed to bed, placed in a warm dry blanket, and a bottle put to his feet. His aspect and manner had for some time been perfectly natural, and his pulse and respirations were scarcely excessive. During the few hours which followed the bath, the temperature slowly fell to the normal. From this time forward, recovery was steady, and may have been aided by a few liberal doses of quinine, given with a view of preventing any renewal of the fever. It is but fair to add that the efforts of the medical men were admirably seconded by a nurse from the Bradford Institution, upon whom much necessarily devolved, and who carefully watched and recorded the temperatures throughout.

A NOTE ON ANTISEPTICISM AND COTTON-WOOL.

By SAMPSON GAMGEE, F.R.S.E.,

Surgeon to the Queen's Hospital, Birmingham; President of the Birmingham and Midland Counties Branch of the British Medical Association; etc.

THE interest which must attach to any surgical communication from Dr. Marion Sims is, in the present state of surgical opinion, possessed in an exceptional degree by his letter on antiseptic surgery, published in the number of this periodical for October 27th. Dr. Sims states that "in France antisepticism can hardly be said to have a foothold"; but, with all deference to my distinguished American friend, the theory and practice had its earliest advocates across the Channel. Without engaging in the question of priority between Lemaire and Déclat, it is on record that the latter, in 1861, applied carbolic oil (one part in ten) to gangrenous sores; that after that, *Maisonneuve* extensively used carbolic lotions in the *Hôtel Dieu*; and that in October 1865, Déclat advocated carbolic oil on the basis of Pasteur's germ-theory. Those who have not had an opportunity of reading his work* may be interested by a literal translation of two short passages.

"The fine researches of M. Pasteur give the explanation of these unexpected phenomena—the prevention of purulent infection, hospital gangrene, etc., by alcohol, camphor, and carbolic acid. Wherever there is decomposition (alteration) of an organic liquid or substance, it is caused by the physiological action of living beings, of which the germs pullulate in the air."

"It is to-day well demonstrated that carbolic acid and its compounds prevent the development and even partly destroy the germs in the air; accordingly, it is easy to understand the favourable action of that acid in all kinds of wounds, in burns, and in midwifery."

Dr. Marion Sims's testimony to the value of cotton-wool dressing is important additional testimony to that already at hand in its favour. Burggraeve of Ghent distinguished himself as an early and zealous advocate of the *appareil ouaté*. Still earlier (1842), Mathias Mayor,† taking for his motto *Simplex sigillum veri*, demonstrated and recorded the uses of cotton-wool as a dressing for wounds, with the originality and the ingenuity which characterised him as a *facile princeps* of surgical art.

What an interesting chapter might be written on surgical fashions! How true is it, to quote Charles Bell, that if we are not acquainted with the history of the art, and not aware of the observations and discoveries of the great men who have preceded us, we are in constant danger, in straining after new inventions, of only restoring what has been discovered, tried, and rejected before our time. In the treatment of wounds, two causes above all others have tended to retard progress—firstly, imperfect acquaintance with principles and methods which, in spite of their soundness, have remained comparatively unknown; secondly, the attractiveness of theoretical generalisations, which fascinate the majority and not unfrequently obscure the judgment of the most conscientious advocates. To take for granted that putrefaction and suppuration are identical, and to attempt a reform of surgical practice by the light of Pasteur's germ-theory, is an enterprise which calls for the strictest investigation. What is wanted is an ex-

haustive empirical inquiry into the various methods of treating wounds, with the full knowledge of acquired facts, and without theoretical pre-occupation. The old teaching of Alanson and Mynors, of John Bell and Larrey, of Mayor and Seutin, is substantially as sound now as it was in their day. To investigation and treatment, the thermometer and a variety of chemical and mechanical appliances will be found invaluable aids; but the judiciously progressive surgeon has no need of a revolution. If he make discriminative use of facts known to his predecessors and contemporaries, he will only need a well stored surgical head and gentle hands to make him a very successful healer of wounds, without the constant dread of M. Pasteur's reputedly ubiquitous and maleficent germs.

PERFECT RESTORATION OF THE SHAFT OF THE ULNA AFTER ITS COMPLETE NECROSIS AND EXFOLIATION.*

By A. W. STOCKS, M.R.C.S.Eng., Salford.

IN the first week in 1876, H. J., aged 16, having received no injury, had an aching pain in his right wrist. Next day, he was unable to work as a "drawer-in" in the mill, an occupation which requires a fair amount of manual dexterity. His arm began to swell on the ulnar side gradually from the wrist up to the elbow. An abscess formed and burst naturally at the lower end of the ulna, at the termination of the first fortnight of the disease. He came under my care on March 18th, when I found an opening in the arm, which was much swollen, near the styloid process of the right ulna, through which bare bone could be felt as far towards the elbow as the probe would reach. There was an abscess behind the head of the ulna, and the parts about the elbow were much thickened.

On March 23rd, after the application of Esmarch's bandage and of chloroform, the opening was enlarged freely towards the elbow, and the piece of bone produced, measuring six inches and a half in length, and involving the whole thickness of the bone, was removed. The longitudinal measurement of the left ulna was nine inches. Small osseous deposits could be felt in the periosteum on the finger being introduced into the cavity, the periosteum itself having apparently sustained very little injury. The wound was filled with lint saturated with carbolic oil, and a bandage applied over the whole arm, with a view of controlling the hæmorrhage when the blood was allowed to return into it. The arm was placed on an angle splint in the prone position. Next day, the lint and bandage were removed, and there was very slight hæmorrhage.

March 25th. The wound was granulating. He could bend the elbow slightly.

April 14th. The arm was put in a straight splint, with the hand free. Formation of bone could be distinctly recognised. He could pick up any light object from the floor.

June 13th. He could write his name.

June 23rd. There was slight power of pronation and supination. Small pieces of sequestrum came away from the inner side of the head of the ulna, the wound finally healing in the month of August last. The bone, being chiefly subcutaneous, can now be felt to be perfectly continuous and very nearly of its original shape.

It would seem that this case was one of idiopathic inflammation of the bone, both endosteum and periosteum being involved, followed by necrosis of the whole shaft of the bone. The chief interest in this case appears to be in the fact of the perfect restoration of the limb after such severe injury, and in showing the wonderful power of repair possessed by the human body when placed under favourable circumstances.

OBSTETRIC MEMORANDA.

PUERPERAL EMPHYSEMA.

BEING a reader of the JOURNAL for some time, and finding there the only cases of puerperal emphysema I can discover on record, I think I should report a case which came under my observation.

Last March, I was called to see a woman, aged 20, in her first labour. On my arrival, I found the os half dilated, and, about ten minutes afterwards, the waters escaped and the head came down slowly for about an hour and a half; then the pains became very violent, and, on examination, I found the head impacted between the ischial tuber-

Nonelles Appareils de C. Aude Fournier en Médecine et en Chirurgie, par le Dr. G. Déclat. Paris, Delahaye Ed., Octobre 1865, pp. 27-9.

† *La Chirurgie simplifiée*. Bruxelles, 1842.

* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Manchester, August 1877.

osities. The patient then complained of something being wrong with her face, and, on pressing my finger on the skin, I found the characteristic crepitus of surgical emphysema; the swelling rapidly extended to the chest and back; so, as soon as possible, I applied the forceps and delivered. In about ten days, the emphysema entirely disappeared, without any other bad symptom. The cases I find reported are recorded by Messrs. Downes, Worthington, and Atthill. Mr. Worthington believes that the emphysema is caused by a rupture of the upper part of the lung; Mr. Atthill remarks that there must be adhesion of the two surfaces of the pleura to allow the air to pass into the subcutaneous cellular tissue of the neck; he also remarks that, had there not been adhesion, the air would have escaped into the pleural cavity and have caused collapse of the lung. The opinion I formed was, that there was rupture of the lung into the posterior mediastinum; and that the air came up in the loose areolar tissue round the oesophagus, and so found its way to the neck. Why I believe so is because, during a pain on pressing my finger on the left side of the trachea, just above the sterno-clavicular articulation, I could feel the air passing up, and, on very slight pressure, I could detect the air crackling under the skin.

H. W. BURTON, L.R.C.S.I.,
Brighton, Massachusetts, United States.

SURGICAL MEMORANDA.

ANTISEPTIC SURGERY.

I.

I HAVE just read Dr. Marion Sims's letter on this subject with great interest; the more so because I, like him, have long believed cotton-wool to be not only the cheapest, but the simplest and best available "dressing for the abdominal section in ovariotomy". Dr. Sims says: "For the last ten years, I have used plain clean dry cotton-wool as a dressing for the abdominal section in ovariotomy, and I can truly say that no other dressing will compare with it." Without knowing anything of Dr. Sims's practice, I called attention to the value of cotton-wool as a dressing in 1871: "Treatment of Wound and Pedicle after Ovariotomy by Carbolic Acid, Opium, and Cotton-wool" (BRITISH MEDICAL JOURNAL, 1871). From that time, I have continued to use cotton-wool, but have dropped the carbolic acid and opium. I have also used collodion, perchloride of iron, and other compounds, with the cotton-wool; I have dropped them also. My only dressing now is dry lint and cotton-wool, a very simple but, at the same time, a very satisfactory and efficient application. I can, with Dr. Sims, truly say that, in my judgment, "no other dressing will compare with it."

THOMAS CHAMBERS, M.R.C.P. Edin.,
Physician to the Chelsea Hospital for Women.

II.

HAVING read the remarks of Dr. Marion Sims in the JOURNAL of October 27th with regard to a cheaper and more easy method of carrying out the Listerian treatment of wounds, I beg to offer a limited experience of a cheaper method on four cases which I have been allowed to treat antiseptically by permission of the surgeons and house-surgeon of this institution.

Having by an oversight fallen short of antiseptic gauze, I was quite at a loss to know how to keep these cases which had been under treatment in the usual method for some time, antiseptic, until more gauze could be procured. The only material at hand that I could use of an antiseptic nature was carbolised oakum; and I remembered that, when I was a dresser with Dr. P. H. Watson, oakum and carbolic oil well destroyed the smell of putrefaction; and also, from experience among the casuals in this hospital, with compound dislocation of fingers, etc., that, when such wounds were cleansed in carbolic acid (1 in 20), and immediately surrounded with carbolised oakum and gauze bandage, putrefaction was entirely prevented. In these cases, the spray was not used; I, therefore, resolved to try the carbolised oakum in the place of the gauze in the major cases under my care.

CASE I.—Compound fracture of the tibia and fibula, with great sloughing of the soft textures caused by direct violence. This case was aseptic, and had been under treatment about one month. The carbolised oakum was used in the place of the gauze; the only additional precaution taken was that the inner surface of the mackintosh was thoroughly washed with carbolic acid (1 in 40). The dressing was left on two days. When removed, it was perfectly aseptic. A similar dressing was again applied, and the wound remains perfectly antiseptic.

CASE II.—Compound comminuted fracture of the condyles of the humerus into the elbow-joint. This case had been under treatment a fortnight, and was aseptic. This, too, under a similar oakum dressing, has remained perfectly antiseptic.

CASE III.—Chronic abscess opening into the elbow-joint; was opened antiseptically about three weeks ago. This, too, is aseptic under the oakum-dressing.

CASE IV.—Lacerated wound of the palm and wrist, penetrating the wrist-joint, caused by the cogwheels of a washing machine. This case has also remained antiseptic with the same kind of dressing.

The reason for my sending these remarks is, that carbolised oakum being a much cheaper material than gauze, and in the hands of most surgeons, the antiseptic treatment may be thoroughly carried out by the simple addition of the surgeon teaching a nurse or attendant how to use and direct the spray, and the mackintosh being placed outside the oakum and well bandaged at both ends, so as to prevent discharges from getting directly beyond the edge of the dressing. The only disadvantage I found at first was that the oakum adhered to and stained the skin; but this, I found, was easily prevented by simply placing one layer of antiseptic gauze on the oakum next to the skin, and then I had obtained a perfectly safe and much cheaper antiseptic dressing. I cannot suggest any easier method. From what I have seen in the wards at Edinburgh and during a year's residence here, wounds of a major nature cannot be with safety kept antiseptic without the use of the spray and the precautions given by Mr. Lister.

MICHAEL HODGSON, B.A.,
Assistant House-Surgeon, Hull General Infirmary.

III.

I HAVE read with much interest Dr. Marion Sims's letter on antiseptic surgery in the JOURNAL of October 27th, as the views therein expressed thoroughly coincide with my own.

Some time ago, I was privileged to witness Lister's treatment of wounds by spray and carbolised dressings in the wards of the Edinburgh Infirmary, which, while it seemed to me to be admirably suited to hospital cases, was scarcely adaptable to private practice; and the question occurred to me whether Lister's plan could not be so simplified as to render it applicable to all cases, while at the same time its efficacy was not affected. The plan I have adopted is as follows. I dilute the carbolic acid with water of a sufficiently high temperature to render the spray agreeable to the patient, the wound being sprayed by a common glass spray-distributor, which may be purchased of the druggist for a few pence. After this, the wound is covered with a layer of cotton-wool which has been saturated with the carbolised lotion. This mode seems to answer admirably, and certainly cannot be open to the objections usually urged against antiseptic treatment, being neither "complex" nor "expensive"; and as to the "time" taken up by it, that is very little, and the surgeon is amply repaid for its expenditure by the sense of comfort experienced by the patient. I shall not soon forget the effect produced by the use of Professor Lister's method in a case of cancer under my care. The stench from the wound was almost unbearable, causing sickness and diarrhoea to the inmates of the house. After the second application of the spray, however, all this was changed, to the great delight of both patient and nurses. Like Dr. Sims, I look upon the antiseptic treatment as one of the greatest advances of the age, and hope ere long to see it in general use, and as highly estimated as it deserves to be.

WALTER HARDIN, F.R.C.S. Edin., Southsea.

AURAL SPOON.

HAVING experienced some difficulty in evacuating the contents of chalazia in the eyelids, as also in removing granulations and small polypi from the middle ear, and external to it at the edge of the membrana tympani, I had a small spoon or scoop, suitable for the above purposes, made by Mr. Hilliard of this city. Having now used it repeatedly, and having found the results satisfactory, I bring it, trivial though it is, before the notice of the profession.

The instrument is six inches in length, the handle being three inches and a half, and the stem together with the spoon two inches and a half; the spoon has sharp edges, and is one-eighth of an inch in width, in order that it may be easily passed through a small-sized aural speculum, if desired, and the granulations scraped from the interior of the ear.

In examining cases of tympanic disease by Gruber's method, the addition of a convex lens behind the mirror has been of great service to me, as a magnified view of the appearances is thus obtained. When used for removing the gelatinous material in cases of chalazion, the

spoon is introduced through an incision made on the conjunctival aspect of the little tumour into its cavity, and the contents are easily evacuated. Spoons of different sizes might be employed, but as yet I have not found one larger than that described to be necessary.

J. CRAWFORD RENTON, M.B., Assistant-Surgeon,
Eye Infirmary, Glasgow.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

DR. MATTHEWS DUNCAN'S WARDS.

Abdominal Tumour.—A single woman, aged 54, stout and well developed, with a somewhat depressed aspect and sallow complexion, complained of tumours in her abdomen, and, when questioned, said that her health had been failing for two years, and that she had suffered much abdominal pain. For the last three or four years, she had been conscious of a tumour occupying the central region of her abdomen; but her health had continued good and menstruation had been regular till she had a fall two years ago, to which circumstance she attributed her present illness. During the last two years, she has never menstruated; her health has somewhat failed; she has occasionally had sickness and vomiting; at times, the pain has been "frightful"; and she has also sometimes been troubled with vomiting.

For the purpose of examination, the patient lay in bed on her back. The abdomen was seen to be very large and prominent, especially in its upper half presenting an unusual amount of distension. The following measurements were then taken: girth at umbilicus, 44 inches; from umbilicus to the ensiform cartilage, 11 inches; from umbilicus to pubes, 6.5 inches; from umbilicus to either anterior iliac spine, 10 inches.

On passing the hands over the abdomen, several hard masses were easily felt, especially when the patient was directed to take a deep breath. Percussion indicated an area of abdominal dullness extending three inches above the umbilicus; but the tumour could be felt four inches higher than this. The flanks were both resonant, and the tumour was found to occupy almost the whole of the lower portion of the abdomen, and was felt to extend towards the left beyond the limit of dullness. Internal digital examination showed absence of hymeneal obstruction; the uterus appeared small, and could scarcely be felt on account of its high position, so that it was impossible to make out its exact position and connections.

In his clinical remarks upon the case in the lecture theatre, Dr. Duncan said: "In this case of abdominal tumour, it is impossible to make an exact diagnosis as to the nature of the tumour. The abdomen is very large, measuring in girth forty-four inches, whereas the pregnant woman at term usually measures only thirty-seven inches. The question of pregnancy may be practically put aside, as the woman is fifty-four years of age. The probability founded upon mere guessing and empirical experience might suggest an ovarian tumour; but there appear to be no sufficient data for an exact diagnosis. It might be a huge fibroid tumour of the uterus. The irregular outline of the superficial dullness, the hardness of the mass without any appearance of cysts, and the considerable amount of pain experienced by the patient, are points in favour of the view that the tumour is a cancerous mass. In this case, operative interference appears to be quite out of the question."

Extra-uterine Fœtation.—A married woman, aged 38, complained of abdominal pain and occasional slight hæmorrhage during a period of four months. The woman menstruated last during April; and in June she was attacked with severe hypogastric pain, which remained, on and off, to a less degree, till the end of October.

When admitted to hospital (September 19th), she complained of abdominal pain, especially towards the left groin, and running down the left leg, with swelling of the same foot. The lower portion of the abdomen was seen to be very full and prominent, especially just above the pubis and to the left of the median line. A tumour was here distinctly felt, soft and elastic to the touch, occupying the whole of the hypogastrium, with ill-defined margins, especially in the upward direction. On internal examination, the vagina was found moist; the cervix short, and drawn rather far back; the os soft to touch, and

patulous. The fundus uteri appeared to be pushed over to the right, and there fixed. To the left of the cervix, and extending throughout the left side of the pelvis, was a tumour, most prominent towards its anterior portion, and bulging down the roof of the vagina; a large pulsating vessel could be felt in this direction. The tumour was elastic, and, as felt from the vagina, appeared to fluctuate. Movements could be occasionally felt resembling those of a fœtus; these either occurred spontaneously or followed abdominal palpation. On auscultation over the abdominal portion of the tumour, the fœtal heart could be distinctly heard beating at the rate of 134 to the minute, with a somewhat irregular rhythm, while the mother's pulse was 92. No placental *souffle* was heard. The woman's breasts were enlarged. Her general health remained good. There were, however, from time to time, severe attacks of pain, but no fever. Dr. Duncan proposed to perform gastrotomy after the seventh month, or sooner if any signs of labour set in.

Immense Perimetritic Abscess.—A charwoman, aged 32, enjoyed good health till the onset of the present illness, which she attributed to "catching cold" three months ago, at the time of a menstrual period. She was suddenly attacked with severe abdominal pain, obliging her to take to her bed. The pain was specially referred to the left iliac region, and continued more or less continuously for a fortnight, when the patient was admitted to hospital. Three days before admission, she became aware of the formation of a swelling towards the left iliac region. There was pain on defæcation, and micturition was both painful and frequent. When examined on admission to the ward, a well-defined abdominal swelling was found extending up to the umbilicus, and occupying each iliac region; it was dull on percussion, and exceedingly tender, especially towards the left side. On internal examination, a large and tender swelling was found behind the uterus. While she was in hospital, a menstrual period occurred; it was profuse, and lasted seven days, during which time the tumour manifestly increased in size and became very tender. After the patient had been under observation about two months, pus appeared in the urine in quantity, and the abdominal tumour became decidedly smaller. It was evident that the abscess had burst into the bladder, and thus spontaneously discharged itself. The patient is now convalescent, and an excellent spontaneous cure has been brought about.

MR. SAVORY'S WARDS.

Amputation of the Hip-joint.—An old man was admitted to the hospital for the removal of a large tumour connected with the left femur. The tumour was smooth upon the surface, strongly pulsatile, and apparently malignant or semi-malignant in character. Amputation at the hip-joint was the only treatment possible, and this was performed by Mr. Savory. During the operation, some difficulty arose from the bone becoming fractured near the joint, as well as from the large number of vessels that required to be ligatured. Compression of the internal iliac artery failing to arrest the hæmorrhage, a tourniquet was applied to the abdominal aorta. A condition of partial syncope followed, and this was attributed to interference with the movements of the diaphragm in an old man with ossified thorax, rather than to pressure upon the solar plexus. After the operation, the patient vomited once, but otherwise continued in fairly good condition. The temperature fell, during the first six hours after the operation, to 96 deg. Fahr.; at the end of twelve hours, it was found to have crept up to 97 deg. Fahr.; and during the second day, it remained between 99 deg. Fahr. and 100 deg. Fahr. This moderate amount of febrile reaction was looked upon as favourable to the patient. The man has been fed with spoonfuls of beef-tea, and eggs and milk thoroughly iced. The patient was kept very quiet; there was no oozing of blood, but he continued to complain of thirst, and some pain, referred to the leg which he had lost. Upon examination after amputation, the tumour appeared to be well defined and almost incapsulated. Fragments of bone were found in the tumour and upon its surface. The specimen is being injected for the purpose of further examination. It would appear that in such pulsating tumours, rupture of the capsule causes the pulsation to cease, as is the case with aneurisms.

Hip-joint Disease in a Paralysed Leg.—A boy, eight years old, was brought to the hospital on account of pain in the left hip-joint. The child had from infancy been lame on this leg, apparently as the result of infantile paralysis, but during the last four months he had suffered much pain in the hip. When examined, there was found to be considerable tenderness of the joint, with heat, swelling, and other signs of acute hip-joint disease. These symptoms attracted but little attention from his mother, on account of the paralysed and useless condition of the limb. A stirrup was fastened to the foot, and the child was sent home, the mother being advised to keep him in bed with continuous extension of the leg.

MR. THOMAS SMITH'S WARDS.

Amputation of the Leg; Spontaneous Onset of Erysipelas.—A man, aged 74, had been much troubled with pain in one foot, the result of acute senile strumous disease, and had come up from the country, wishing to have his foot amputated. The arteries of the leg were found to be hard, especially the anterior tibial; Esmarch's bandage was, therefore, not used. There was no albuminuria or other sign of organic disease. On the sixth day after operation, the temperature rose to 102 deg. Fahr., and erysipelas attacked the stump. Next day, the temperature rose to 105 deg. Fahr. and the tongue became dry, but the patient said he felt well; he appeared cheerful, and his appetite remained good. Moderate doses of stimulant were administered, the limb was painted with collodion, and the wound, which had become sloughy, was poulticed. This appeared to be a case of spontaneous traumatic erysipelas, no case of erysipelas having occurred in that ward for over two years, and there being no known source of contagion in the hospital.

Acute Necrosis of the Os Calcis.—A boy had been attacked with acute necrosis of a portion of the os calcis, the symptoms having set in seven weeks before the time of the operation. Sinuses had formed on the outer side of the heel, and the operation was undertaken to remove the sequestrum. Esmarch's bandage having been applied, the sinuses were laid open and the dead bone was easily gouged out; the cavity was then swabbed out with a solution of chloride of zinc, and subsequently stuffed with lint soaked in carbolic lotion. The wound was partially closed with a couple of silver sutures, and the foot when dressed was supported on a pillow. Mr. Smith remarked that a case of acute necrosis of this character was much more favourable for recovery than an ordinary case of caries, as depending less upon constitutional causes, and, therefore, less likely to recur in the bone left.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 6TH, 1877.

CHARLES MURCHISON, M.D., LL.D., F.R.S., President, in the Chair.

Aneurism of the Arch of the Aorta, opening externally.—Dr. PEACOCK read an account of a case of this nature. W. A., aged 46, was sent up to town by Dr. Adey of Hastings, and was admitted into St. Thomas's Hospital on December 4th, 1871, with a large pulsating tumour in the front of the chest, which had existed seven months. He was kept continually in bed, and had a plain nutritious diet with a small quantity of wine. Under this treatment, the tumour subsided so as only to be felt as a hard knot in the second intercartilaginous space, immediately to the left of the sternum. He remained in St. Thomas's Hospital till May 1874, and then went, first, to the Victoria Park Hospital, and afterwards to Guy's, and was readmitted into St. Thomas's in June 1876. He was then much altered for the worse. The tumour was much larger and the integument over it very thin, and, soon after his readmission, livid patches appeared on the most prominent parts, followed by excoriation, and in a short time an opening formed, from which there were repeated ooings of blood. He died on October 4th, 1876, exhausted. On examination, the aneurism was found to occupy the whole of the arch of the aorta, from near the origin of the vessel to the point where the left subclavian artery was given off. The tumour thus found lay behind the manubrium of the sternum, which was considerably absorbed. The sternal end of the left clavicle and the end of the third rib were also destroyed. From this sac a second opening, which lay in front of the upper part of the sternum. This was not bounded by any distinct sac, and had only the skin covering in front, and in this there was an opening about the size of a shilling, partly closed by clot. The case was interesting: 1. From the extreme infrequency with which aortic aneurisms open externally; and 2. From the opening not being the result of sloughing, but apparently produced by ulceration. Dr. Peacock said such a termination was very rare. The skin over the aneurism often became very thin; but he never knew an actual opening to occur before. In the twenty-five volumes of the Society's *Transactions*, seventy-four cases of such aneurisms had been recorded; in two only did an opening occur. The man, however, did not die of external hæmorrhage.

Abdominal Aneurism.—Dr. P. IRVINE related a case of aneurism of the cœliac axis. It occurred in a man aged 49, who had no symptom at first, but pain in the knee-joint. There was a good history; the man having only had a gonorrhœa twenty-nine years before. Soon some more grave signs showed themselves, the temperature rose, and the man bore the look of illness. There was no pyæmia. An incision was

made in the knee, and low purulent inflammation followed. Then came on pain in the abdomen, which was tender to the touch. There were also hurried respiration, pain in the chest, and rusty expectoration. A low form of pneumonia involved both lower lobes. The day before death, a movable body, without pulsation, about the size of two fists, could be felt in the abdomen. The man died suddenly, being clearly pyæmic. On *post mortem* examination, the thorax was found covered with fat, and there was a great deal of fat elsewhere. There was an aneurism of the cœliac axis, as large as an orange. It broke down on handling, and there was little clot. There was suppuration all around the mass. There were also concretions in the right kidney, which led to pus in the kidney and around it. The right renal vein was compressed, and the vena cava narrowed so that a quill only could pass. There were pyæmic abscesses in the lung. There was no albumen nor pus in the urine till a few days before death. Dr. Irvine thought there was old-standing suppuration and a young aneurism. The abscesses had reached the vessels and set up traumatic aneurism. The compression of the vena cava probably caused the albuminuria.—A second case was of one aneurism of the abdominal aorta itself. It occurred in an old soldier aged 42, of steady habit, who was thought to be suffering from lead-poisoning. There were signs of aneurism. On palpation, a pulsating tumour could be felt; there was a murmur to be heard both at front and back. Albuminuria existed for some time. There were also pains in the belly; but the chief complaint was headache, of the character found with intracranial tumour. Iodide of potassium gave relief to the pains. At times, he was delirious. He died suddenly. On *post mortem* examination, he also was found to be well laden with fat. The aneurism extended down to the renal artery. It consisted of two parts: an aneurism with firm walls, and a second, which formed the far larger part. This last was merely a clot, from rupture of the true aneurism. The left kidney and its artery were embedded in this clot. The cœliac axis was not affected. Nothing was found in the head, and the headache was uræmic. There were no changes in the kidney. The pressure on the veins caused the albuminuria.—The PRESIDENT said there were two points of interest in these cases: Was there any lumbar pain, and any murmur? The answer was: There was no lumbar pain in either case; there was a murmur in the second case all along, and in the first after the formation of the tumour.—Dr. DOWSE asked if there was pain at the xiphoid cartilage in the first case.—Dr. IRVINE said that there was not. The heart was healthy, and the abdominal aorta nearly absolutely healthy.

Aortic Aneurism bursting into the Pericardium.—Mr. WAGSTAFFE related the notes of a case. The man first had a popliteal aneurism, cured by the application of an Esmarch's bandage to the limb for twenty-four hours. In ten days, the man left cured. After that, he had sciatica of the same side. Ultimately, he dropped dead in the street. On *post mortem* examination, the pericardium was found full of blood. It came from a small aneurism, of the size of a thimble, at the root of the aorta, close to the semilunar valves. The opening was no bigger than a pin-hole. The other organs were healthy; and there was no other disease of the aorta. Such an aneurism was rare, springing from the root of the aorta. The opening was very small. In all such cases, death was very sudden. There was no lamination of the clot.—Dr. F. TAYLOR said death was not always sudden, but might arise from extreme collapse. He could remember two such cases. In one, there was a large extent of dulness in the thorax, but its true cause was not suspected.—Dr. CRISP said suddenness was not so very marked a manner of death in these cases. He should like to know the effect of the bandaging the limb upon an aortic aneurism.—Mr. BUTLIN asked if any microscopic examination was made of the clot in the popliteal aneurism.—Dr. GOODHART said there was often an amount of inflammation around such aneurisms. The amount of clot in such cases was small, and so had little influence on the leakage.—Dr. P. IRVINE said he last year exhibited two such cases: in one, there was a long slit; in the other, the aperture could only be found with great difficulty.—Mr. WAGSTAFFE said, in answer to Mr. Butlin, that a microscopic examination had been made. The great part of the clot in the popliteal was quite organised, the central clot alone remaining unorganised.

Imperforate Anus.—Dr. CRISP showed a specimen of imperforate anus. He said operations for this defect rarely did well. In this case, for which he was indebted to Dr. Haynes, the intestine projected. The child was born under the care of a midwife, who had given it purgatives, but only took it to Dr. Haynes when it had lived fifty-six hours. It was then too late for any operation.

Miliary Tuberculosis in an Infant.—Dr. CRISP related a case of this disease in a child aged three months, which was found dead in bed. It had always been delicate, and its mother had died of phthisis; so had some others of her children: one of them, still alive, was now

phthisical. On *post mortem* examination, the brain was found quite healthy, except a little serum in the ventricles. The viscera were free from disease, except one lung, which was studded with tubercles, which, under the microscope, presented the usual appearances. A bronchial gland was found, of the size of a marble, in complete caseous degeneration. This was the cause of the disseminated tubercle throughout the lung.—Dr. W. H. DAY showed drawings of microscopic sections of two cases of miliary tubercle.—Dr. DOUGLAS POWELL said that these cases bore out the view of an hereditary predisposition to tubercle.

Perforation of Diverticulum in the Jejunum.—Mr. ALBAN DORAN exhibited a specimen for Mr. Hacon of Bedford. It came from a boy aged 4, a robust little fellow, who, after a hearty dinner, consisting largely of peas, began to vomit and suffer intense pain. He died. Flatus and ingesta were found in the abdominal cavity. There was a small diverticulum, consisting of all the coats of the bowel, in which was a pea, and immediately below it a distinct narrowing of the bowel. These were evidently congenital.—The PRESIDENT said such diverticula often led to death by rupture or perforation.

Large Single Cyst of the Testicle.—Mr. DORAN gave an account of a cyst of the testicle removed by Mr. Jonathan Hutchinson. It occurred in a gentleman aged 36, who was strumous. He had a slight blow on his testis, which was enlarged. Tapping was performed, and some fluid escaped; but the enlargement and induration remained. Then the testis was reached, and, after cutting through healthy structure, some blood escaped. The testis was removed, and found to contain a cyst full of reddish fluid and some blood-clot. There were some small cysts in the cyst-wall. When the testis was floated in spirit, some filaments floated from it, which were found to be tubuli seminiferi of varied calibre, from 1-100th to 1-500th of an inch. There were round cells in the little masses in the cyst-wall, such as are common in the mamma. There was no syphilis and no tubercle. The disease was not cystic, but adenoid sarcoma.

Congenital Occlusion of Small Intestine.—Mr. DAVIES-COLLEY related a case in a child four days old. The first day, it was well, and passed a scanty motion. The next day, it vomited; on the third, its abdomen was swollen, and coils of intestine could be seen through the walls of the abdomen. A catheter could only be passed *per anum* three or four inches. He thought it might be an intussusception, so he operated and let out some meconium. This gave relief; but the vomiting returned and the child died. On *post mortem* examination, the small intestine was found dilated and thickened, and then contracted towards the cæcal valve, just like a band. The mucous membrane ended in a *cul-de-sac*. The opening had to be made just above the contraction. Such cases were rare. A thin fluid only was found below the contraction, and no meconium. If the contraction took place late in foetal life, there might be some meconium in the lower bowel.—Mr. WAGSTAFFE asked how the contraction was formed.—Mr. DAVIES-COLLEY replied that he could form no idea. It occurred at the point where the vitelline duct joined the small intestine.

Diphtheritic Membrane in a Case of Enteric Fever.—Dr. GREENFIELD showed for the President a fresh specimen of this lesion. It came from a child aged 5, under Dr. Murchison's care, which died of enteric fever. There was much swelling for two inches in the lower part of the ileum. The ulceration was slight, and the ulcers small and with deep sloughs. On the larynx and upper trachea was seen a thin pellicular exudation. It extended to the posterior surface of the soft palate. There was swelling of the solitary glands in its neighbourhood. There was also broncho-pneumonia. The fatal symptoms only showed themselves a day or two before death. The question arose, What was the relation of the diphtheria to the enteric fever? Was the swelling in the glands of the bowel due to diphtheria? Or, in this case, were the lesions merely coincidental? The fever came first in this case.—The PRESIDENT stated that the child had been in St. Thomas's Hospital fifteen days. Another child of the same family was in hospital with enteric fever. There were no throat-symptoms till two or three days before death. He said that diphtheria was not uncommon in enteric fever. It was not true diphtheria; that is, there was no new poison introduced into the system. Such a complication had been found at the Fever Hospital commonly when there was no diphtheria.—Dr. FELIX SEMON said that Professor Traube thought this was not a true diphtheria. It was not descending, but was found in the larynx itself. In answer to a question put by Mr. PUGH THORNTON, the PRESIDENT said the diphtheritic membrane was only seen in the advanced stages, usually the third week. The child had no difficulty in swallowing the day before death.—Dr. CLIFFORD ALLBUTT said this diphtheritic complication was found more in some epidemics of typhoid fever than in others. There was some kind of cousinship betwixt diphtheria and typhoid fever. Their causation was

much the same, and they sprang up together in the same localities as epidemics.

Cancer of the Rectum.—Mr. H. CRIPPS exhibited two specimens of this disease. In the first case, the disease had existed two years. On examination, the mucous membrane was found sound for three inches; then the constriction could be felt. There was great pain, but never complete stoppage of the bowels. There were no indications for operation. On *post mortem* examination, there was found cancer in the *cul-de-sac* betwixt the bowel and the bladder; also a cancerous mass behind the bowel, which had largely destroyed the sacrum. The liver was found full of secondary cancer; the peritoneum was not involved in the disease. In the second case, there were great pain in the anus, and tenesmus, with a discharge from the anal orifice. A cancerous mass was found implicating the posterior part of the bowel. An operation was performed a year ago. The man had no pain afterwards. He has now good health, and has nearly complete control over the bowel, diarrhoea alone causing leakage. The mass was of a scirrhus nature.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, NOVEMBER 1ST, 1877.

T. CARR JACKSON, F.R.C.S., President, in the Chair.

Edema Trocar.—Dr. CLEVELAND exhibited Dr. Southey's perforated trocar and drainage-tube for tapping œdematous legs. He had found it very effective in a case where incisions had failed. The trocar was inserted obliquely; and the fluid ran out in a continuous stream.—Dr. BROADBENT said these tubes were very useful. They kept the patient dry; and gangrene did not follow their use.—The PRESIDENT and Mr. OWEN spoke; after which Dr. CLEVELAND replied.

Hypertrophy of the Heart, with Albuminuria.—Dr. W. H. DAY related a case of this complication in a child aged 12½. Its chief complaint was headache, with languor and recurrent vomiting. The apex-beat extended an inch below the nipple. The heart-sounds were those of hypertrophy; and there was an increase of arterial tension. Various lines of treatment were pursued, as iron, small doses of corrosive sublimate, and finally arsenic cautiously. The headache and the albuminuria were always aggravated by animal food. He thought the cardiac changes secondary to the renal mischief.—Dr. FARQUHARSON gave details of a like case, which terminated fatally. Here the heart weighed no less than ten ounces, though the child was but seven years old. There was no valvular disease to account for the great size of the heart, so the kidneys were examined. The left was converted into a scrofulous abscess, and the right was far advanced in degeneration.

Imperforate Rectum.—Mr. EDMUND OWEN exhibited a specimen of imperforate rectum. An operation was attempted from the anus, but failed to reach the gut. Amussat's operation was then successfully performed. Eventually, another attempt was made to connect the rectum with the anal orifice, but this terminated fatally. The question of such cases was this: "Was life worth preserving under such circumstances?"—Dr. CLEVELAND, the PRESIDENT, and Dr. ASHBURTON THOMPSON doubted if it were.—Dr. FARQUHARSON inquired as to what could be done for the infant if no operation was performed.

Uric Acid Calculus.—The PRESIDENT exhibited such a calculus, which he had recently removed from an old gentleman aged 71 by lithotomy. In a few weeks after the operation, the patient was driving about.

Death after Parturition.—Dr. ASHBURTON THOMPSON read the notes of a case of a primipara who died two hours and a half after delivery with the forceps. *Post partum* hæmorrhage was readily arrested; and, after emptying the uterus, the total loss was not more than forty-three ounces. The death was not due to hæmorrhage, but rather to some cause of shock in all probability. He then proceeded to discuss the several hypotheses as to the probable cause of death.—A discussion followed, in which Mr. OWEN, Drs. CLEVELAND, GRIFFITH, and FOTHERGILL took part; after which Dr. THOMPSON replied.

THAMES VALLEY BRANCH.

OCTOBER 17TH, 1877.

Tubercular Meningitis.—Mr. GEORGE FARR WHITE read notes of three cases, which had all the symptoms of tubercular meningitis, and which recovered under the use of bromide of potassium, blisters to the back of the neck, and mercurial inunction.—Dr. LANGDON DOWN remarked that Dr. McCall Anderson of Glasgow and Dr. Clifford Allbutt of Leeds both thought that cases of tubercular meningitis did recover, and that he himself had frequently noticed in the *post mortem* examina-

tion of idiots patches of old tubercular deposit at the base of the brain, and around the vessels, constricting them very perceptibly.

Hæmaturia in Children.—Dr. ATKINSON gave the history of two cases of hæmaturia arising in children under one year old. Both occurred within two months, in houses only a few doors removed from each other. Though the cause of the hæmorrhage was different in the two cases, viz., renal calculus in one and purpura in the other, there were curiously many points of similarity. 1. The age at which the hæmorrhage commenced was about the same, viz., seven months. 2. Both children had to be brought up by hand, and to a great extent upon Swiss milk. The one with renal calculus was fed upon Swiss milk and Mellin's food, which is non-farinaceous; and the other upon Swiss milk, and subsequently Nestlé's food, which consists of bread and Swiss milk dried. 3. Both children were somewhat strumous. 4. The mother in one case used to be subject to bad attacks of menorrhagia; and the father in the other had just recovered from a severe attack of enteric fever, in which there was alarming hæmorrhage from the bowels just prior to the conception of the child. The points of difference, however, were very marked. The child with the calculus cried if moved. The bowels were irritable and disordered. The urine had a copious pink deposit, and exhibited, under the microscope, amorphous matter like urate of ammonia. The one with purpura had distinct purple patches about the face, and the vaccination-marks were quite livid. The child was very restless, and never quiet unless being rocked about. The bowels were confined. There was no deposit in the urine, and nothing was apparent under the microscope, but blood-corpuscles and a few epithelial cells. In the case of the child with the renal calculus, the treatment consisted of alkalis and sedatives. In the other, the administration of tincture of perchloride of iron and raw meat-juice, and the rubbing of the body with cod-liver oil, were tried. By these means, it gradually recovered.

SOUTH-EASTERN BRANCH: EAST AND WEST SURREY DISTRICTS.

CONJOINED MEETING, OCTOBER 18TH.

C. W. CHALDECOTT, Esq., in the Chair.

Hysteria.—Dr. BRISTOWE read reports of two cases of this affection. —Dr. HUGHLINGS JACKSON questioned whether masturbation were a cause.—Mr. STILWELL referred to some cases of mania under his notice.—Dr. GALTON inquired as to the possibility of distinguishing the second case from one of mania in event of having to advise as to the prospects of marriage in such a case.—Dr. LANCHESTER referred to the slight effect upon the muscular system of the prolonged loss of power in these cases. He mentioned a case of flexed hand, which slowly recovered, with great muscular pain during recovery.—Dr. BRISTOWE stated that there was no evidence of sexual cause. The latter case was distinguished from mania by the multiform character of the symptoms.

Cases of Brain-Disease.—Dr. HUGHLINGS JACKSON showed ophthalmic drawings from a case of optic neuritis and retinitis of Bright's disease; he also read notes of a case of epileptiform seizure followed by right hemiplegia, stating that this paralysis after convulsion was generally transitory. He further narrated two cases of rapid meningitis. In one, a man was at business two days before death; another, aged 41, was picked up in the street, and appeared apoplectic; but, at the *post mortem* examination, subarachnoid meningitis was found; there being only a history of pain in the head for two days previously. He read notes of another case, in which the discharge of a loaded gun at the right ear caused noises in that ear, with tendency to walk to the left side, and occasional giddiness and vomiting.—Dr. HOLMAN asked whether any other cases were known of such sudden termination of acute tubercular meningitis.—Dr. BRISTOWE mentioned a case of death in three days, and described two cases of Menière's disease, with supuration of the ear.

The Medical Injunction of Alcohol.—Dr. DYCE DUCKWORTH read the paper on this subject, which is published at page 660 of the present number.—Dr. CARPENTER said that the great point was that stimulants were not necessary but luxuries; he compared their effect to that of fire-bellows.—Dr. JEAFFRESON believed that there were healthy people to whom wine was essential.—Mr. HEARNDEN advocated the occasional use of stimulants when food was deferred.

Cerebral Tumour.—Dr. BURNEY YEO exhibited a gliomatous tumour of the posterior part of the left cerebral hemisphere. There was an illness of five months; the first indication of the disease was manifested in writing-power. There was loss of power of one side, optic neuritis, unconsciousness for one week, and, as the patient recovered, severe pain in the head and vomiting. The symptoms recurred. The pain in

the head was relieved by croton-chloral in six-grain doses. The slight recovery was probably due to the tumour being in a part where there was surplusage of brain-tissue.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

SEPTEMBER 28TH.

F. BAGSHAWE, M.D., in the Chair.

Diphtheritic Paralysis.—Dr. PARSONS read notes of a case of ordinary diphtheria, followed by paralytic symptoms, as evinced by difficult deglutition, numbness in the hands and toes, shuffling gait, etc. Recovery ensued after the use of the continuous current and the administration of iodide of potassium and cinchona, followed by that of iron and strychnia.

Hip-Disease.—A girl was shown by Mr. CAMPBELL presenting the ordinary symptoms, which had been greatly relieved by the actual cautery after Professor Syme's plan. The resulting wound had been kept open three months.

Pericarditis and Pleurisy.—Dr. ALLEN narrated a case occurring in a child only one month old. The child was ailing about five days, but was not under medical care; and the condition of the heart and lungs was only revealed by a *post mortem* examination ordered by the coroner.

Xanthelasma.—Dr. TROLLOPE showed a patient, a woman aged 40, exhibiting the typical features of this disease. Jaundice occurred six months before the nodules began to appear, which they did first on the palmar surface of the tips of the fingers, then on the buttocks, ears, and outside the elbows, where the nodules were very large, several being aggregated into a mass. There were also streaks or splashes of white in the creases of the bend of the arm, and the characteristic macule on the eyelids, and a yellowish patch on the mucous membrane of the gums and lower lip. The appearances closely resembled those delineated in the plates illustrating Dr. Hilton Fagge's case in vol. xix (for 1868) of the *Pathological Transactions*. The case had been under Dr. Trollope's observation for eighteen months; and when she was first seen her liver was greatly enlarged, and she had intense jaundice, which condition still continued. Latterly, the spots on the fingers had become more confluent and less prominent; and hard elevations like nodes had showed themselves along the tibiae. Treatment, as usual in these cases, had been of no avail. The patient had lately been in St. Bartholomew's Hospital. Dr. Trollope referred to Dr. Pye-Smith's able paper in the current volume of the *Guy's Hospital Reports*, for a summary of the history of the disease in question.

Aneurism of the Abdominal Aorta.—Dr. COOKE showed a specimen of aneurism of the abdominal aorta. The interest of the case lay in the fact that, for three years, agonising pain, requiring the hypodermic injection of morphia several times daily, was the only symptom. Only six months before death, were the usual symptoms, e.g., pulsation, heaving impulse, systolic thrill, and systolic and diastolic murmurs, developed. The aneurism proved fatal by rupture into the right pleural cavity; and, at the *post mortem* examination, several of the bodies of the vertebrae were found extensively eroded.

Aneurism of the Descending Thoracic Aorta.—Dr. TROLLOPE showed a specimen. The disease was absolutely undetected during life, the patient suffering from angular curvature of the spine, to which his symptoms were referred. Pain in his case was pretty constant, but not very severe, it being referred to the right hypochondrium. He had besides tenderness on pressure over the affected vertebrae. There was the history of severe strain whilst lifting a heavy piece of timber some two years previously. The patient had none of the ordinary symptoms of aneurism; only a little cough, feeble breathing at the base of the right lung, emaciation, and, just before his death, slight dysphagia. He was in hospital two months, and died the day after he left, quietly sinking from syncope. At the *post mortem* examination, a large aneurism, as large as two fists, was found lying on the dorsal vertebrae, from the fourth to the ninth. It commenced in the aorta below the arch. The aorta was lost in the tumour, which extended up behind the vessel, and was filled with large masses of laminated fibrine and but little fluid blood. The right pleural cavity contained about a pint and a half of bloody serum; but the point of rupture of the aneurism was not evident. The bodies of the sixth, seventh, and eighth dorsal vertebrae were quite destroyed; the eighth intercostal cartilage remained entire.

BEQUESTS.—The following bequests have been made, among others, to some of the charitable institutions of Edinburgh by the late Misses Whyte: 1. £50 to the Institution for the Relief of Incurables; 2. £300 to the Indigent Gentlewomen's Fund; 3. £100 to the Hospital for Sick Children; 4. £50 to the Destitute Sick Society; and several others.

BRITISH MEDICAL ASSOCIATION :
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 10TH, 1877.

THE BRISTOL MEDICAL SCHOOL.

FOR many years, the Bristol Medical School had, in a quiet and unobtrusive way, done good service in training medical practitioners for the West of England and South Wales. During the past few years, the school has been conspicuous on the lists of the College of Surgeons by reason of the large proportion of its students rejected at the examinations. And now, the school has become notorious, and has been thrust upon public notice by reason of an appeal from the staff of the Bristol Royal Infirmary to the Council of the College of Surgeons, and a resolution of the Council in answer to the appeal.

The Bristol Medical School is a private institution owned and governed by its staff of lecturers, who are members of the staff of the Royal Infirmary and of the staff of the General Hospital, and collectively are known as the Faculty of the School. Four years ago, a proposal to establish a College of Literature and Science for Bristol took active shape, and efforts were made to incorporate the Medical School as a department of the College. The negotiations were prolonged and barren; in the end, the University College of Bristol was founded, and the Medical School, preserving its private and proprietary character, was tacked on to the College—affiliated is the term in use at Bristol—by the slenderest of attenuated bonds.

The University College is an association incorporated under the Companies' Act. The printed articles of association, to which is added a memorandum of agreement between the College and the Medical School—both bearing date June 24th, 1876—are before us. The agreement provides for the strict independence and automatic action of the Faculty in every particular, and it would appear by the articles that the sole bond of union between the two institutions is that, in consideration of the large subscription of £1,000 by the Faculty, and other subscriptions gained by help of the Faculty, the College agreed to provide the School with buildings and apparatus out of the money collected for the establishment of the College. There is a provision in the agreement for future closer union; but the Medical School cannot be wholly incorporated with the College without the consent of at least two-thirds of the Faculty for the time being. We understand that this agreement did not commend itself to a section of the Faculty, who wished complete incorporation with the College. Herein it is not difficult to see a source of dissatisfaction which has culminated in an appeal to the Council of the College of Surgeons. Nor is the surmise unwarranted that the members of the staff of the Infirmary were the section who favoured the scheme of complete amalgamation with the College. Perhaps this is not all; perhaps there have been other factors, intrinsic to the Faculty, which co-operated to bring about the present state of things. However this may be, the facts are before the public that the entire staff of the Bristol Infirmary have requested the Council of the College of Surgeons to interfere in the affairs of the Medical School, and that the Council have given their answer to the appeal.

There can be no doubt that so large and important an institution as the Bristol Infirmary, to which two-thirds of the students of the Medical

School resort for clinical teaching, must have a large and direct interest in the educational efficiency of the school. The school is, at least, responsible to the Infirmary for much of that groundwork upon the solidity of which the security of the clinical superstructure greatly depends, and there is evidence, in the results to Bristol students of the primary examinations of the College of Surgeons in recent years, that the responsibility of the School in this respect had been evaded, or was greater than the Faculty could undertake. In answer to the appeal of the Infirmary staff, the Council of the College of Surgeons have adopted a resolution, which we print elsewhere. The Council find it inexpedient at present to inspect the School, and this on the ground of a statement made to the Council in July last by the Faculty of the School. The statement is to the effect that the School has been recently in a transitional state, owing to its proposed amalgamation with University College. Here, some explanation is required. The agreement between the College and School, made in June 1876, left the School, for all educational purposes, exactly in the same position as before. The question arises, Has any proposal been made to University College to undo the agreement of June 1876, and to effect complete amalgamation with the College? We have authority for the statement that no proposal of the kind has been made to the College, and that a proposal for incorporation made to the Faculty by the Infirmary lecturers has been rejected by the Faculty. This explains the attitude of the Infirmary staff, and accounts for the appeal to the College of Surgeons, but it does not explain the statement of the Faculty; either the Faculty have strangely misconceived their own relations with University College, or the Council of the College of Surgeons have misinterpreted the statement on which they rely.

The Council of the College of Surgeons have, however, taken some definite steps in regard to the Bristol Medical School. The Council have resolved to require certain reports from the Faculty at the end of the present winter session, one of which should set forth the steps that have been taken to carry out amalgamation with University College. Upon these reports, the Council propose to determine whether or not they shall take any further steps in the matter, and whether or not they shall continue to recognise the School. This may seal the fate of the Bristol Medical School; for the recognition or non-recognition of a provincial school by the College of Surgeons means the existence or non-existence of the school.

The Bristol Medical School ought not to be in such a position as this. Now, when the intellectual activity of the ancient city is springing into new life in the shape of the young and vigorous institution whose second session was inaugurated by Dean Stanley only a week ago; when Oxford and Cambridge and rich city guilds of London unite in sending money and men to aid the citizens of Bristol in making their University College a great educational centre for the west; when four hundred students on the College-roll proclaim the new institution a success—such is not a time when the Bristol Medical School should stand before the public attainted of incapacity, and before the College of Surgeons on trial for its life.

THE ARMY MEDICAL SCHOOL AND ITS CRITICS.

IT is now nearly twenty years ago since the late Lord Herbert of Lea and some other less known, but not less valued army reformers, satisfied by the experience which the Crimean war supplied in great abundance of the want of proper organisation in the medical department of the army, as well as of the defective education of its medical officers, established the Army Medical School as a direct corrective of the latter of these two evils, and as an indirect remedy for the former. For thirty-four sessions, the school has been quietly but steadily doing its work, under the instruction of a staff of teachers whose singular competency for their work it would be impertinence to eulogise, and under

the control of a senate in which the best teachings of modern science are supplemented by the equally important teachings of wide practical experience. During this period, no fewer than 1,408 medical officers have passed through the school, and have gone to all parts of the world where the British forces are quartered, to diffuse there, in one way or another, the information which they have acquired within the walls of Netley Hospital. It is scarcely possible to exaggerate the enormous influence which such an institution as this must exert on the cause of civilisation and of humanity alike. That of even the largest medical school must be inconsiderable by the side of it, since the alumni, who carry with them its *imprimatur* into the world, are not the mere ruck of students—good, bad, and indifferent—who pass through the ordinary portals which give admission to the medical profession, but men who have been first of all selected by a competitive examination in subjects involving both the theory and the practice of their art, and who have afterwards proved that they have adequately availed themselves of the special training provided for them in the school by a further qualifying examination at the close of their curriculum at Netley. If, therefore, as we, and, as we make bold enough to think, the rest of the world have hitherto supposed, the gentlemen who have left the Army Medical School have been men who have superadded to at least ordinary personal abilities the benefits of fair general culture and of as thorough a professional training as it is possible to give them, we conceive that we are making no inordinate demand on the intelligence of our readers in assuming that the Army Medical School has already done a work which has more than justified the prescient wisdom of its founders, and which year by year increases in beneficence as its influence extends.

But it may be asked, Whence the necessity of singing the praises of the Army Medical School at this time of day? *Quis vituperavit?* Where are its detractors? We must confess that we should have been ourselves inclined to ask this question; and that even now, in spite of very good reasons which lead us to believe that the school, like all really useful and successful institutions, has not escaped the notice of those malicious critics who are ever ready to magnify the weak points in the most useful of human efforts, we cannot but think that the influence of such persons must be of so feeble and limited a character as to be unworthy of any particular notice. It appears, however, that there are those connected with the school, for whose discretion we have a great respect, who entertain a different opinion, if we may judge from the fact that it has been thought desirable, in the Introductory Address at the commencement of the present session, to notice the existence of innuendoes against the work of the school which seem to have been circulated by persons of some authority. The address in question, which was delivered by Professor W. Campbell Maclean, M.D., C.B., the Professor of Military Medicine in the School, now lies before us, and, though it is stated, in a notice which is affixed to it, to be "printed for private circulation only", it cannot, we presume, from the very nature of the circumstances under which it was delivered, be supposed to be a document of such a confidential nature as to preclude any notice being taken of it in a professional journal such as this. We have the less hesitation in taking this course, as the address assumes the existence in certain quarters of an undercurrent of antagonism to the school, which, it is well that those who are responsible for setting it in motion should understand, receives no support of any kind from the most competent sources of opinion in the medical profession.

Professor Maclean, after explaining to his audience, in brief but forcible language, the responsibility with which, as medical officers of the army, they would be invested, and the duty which was incumbent on them to prepare for such a position by availing themselves as thoroughly as they could of the special training which was offered to them for that purpose in the school, proceeded to address himself to what is evidently the object which he had more particularly in view; viz.,

to defend the curriculum of the school from certain criticisms which have been levelled against it. "It has been whispered", he says, "that some men have gone forth from this school whose advice has not been thought worthy of the respect it is our earnest desire should always attach to that given by men trained here." It appears to be further alleged by the critics in question that "some of the young medical officers from Netley are too much given to 'theory'; that their advice is 'unpractical', involving the expenditure of too much money". Now, although we can readily understand that the professors of the Army Medical School may naturally be annoyed at charges which, they feel conscious, have no reasonable foundation in fact, we trust that they will excuse our looking at such a mode of criticism from a more indifferent point of view. To gentlemen whose time is chiefly passed in the work of education and research in the calm seclusion which is to be found on the shores of the Southampton Water, the charge that their teaching is deficient in the important element of practical utility probably appears of a very grave nature. We, however, who are too much accustomed to this kind of objection to educational progress of all kinds, and who know pretty well the class of critics from whom it proceeds, may reassure them as to the smallness of the effect which it is likely to produce, however irritating its character may be. Indeed, no one would seem to be better able than Professor Maclean himself to deal with this sort of attack, if any real ground should at any time appear for supposing it to carry greater weight than we can conceive it to do at present. "To say", he urges, "that the advice given by some Netley trained officers is too theoretical really conveys no information. It may mean merely that it was not acceptable to the person or persons to whom it was given for reasons that may or may not be reasonable; or it may be that the reasons for the advice said to be too theoretical were not appreciated or perhaps understood."

And then the Professor proceeds to show, with an eloquence which is worthy of his theme, the illustrations which the late Arctic Expedition and the Madras famine afford of the grave results which have followed at a very recent date from the neglect of advice given by competent sanitary advisers, on the ground of its being matter of mere "theory". As he remarks, if examples were needed of the danger of divorcing sanitation from rational medicine, none better than these could be found. The objection that the advice given by medical officers on sanitary matters is unpractical is, as he truly adds, an objection that has been urged again and again as a sufficient answer to almost every proposal to correct sanitary mistakes that would now be regarded as a disgrace to any civilised community. And he relates to his audience, in language so telling that we could wish that every combatant officer in the army should read it, some of the episodes in our recent eastern campaigns, which illustrate the disastrous effects that have followed from the neglect of the teachings of medical science by men who preferred to act upon their own inspirations and the "rule of thumb". From the first Burmese war, the war in China in 1840, the march of the 62nd Regiment from Bangalore to Masulipatam, and of a detachment of artillery from Mhow to Poona, and from the blunders committed in connection with the Secunderabad barracks, Professor Maclean draws a moral, which nothing but wilful blindness can ignore, as to the folly of founding practice in matters of this kind upon anything else than scientific theory.

For criticisms of the kind with which the address has thus far dealt we are, as we have already observed, quite prepared; but we must, we confess, express our unaffected astonishment at what follows. It appears that the professors at Netley teach that such diseases as small-pox, scarlet fever, and cholera are diffused by what are called specific contagia; that each of these diseases propagates true; and that consequently they are unquestionably infectious. Now, it is stated by the Professor that there is a school of sanitarians in this country holding opinions not in harmony with this teaching, and not unlikely to sym-

pathise to some extent with those who hint that the instruction on sanitation given in the Army Medical School is too theoretical. This opposition school of sanitarians holds, it appears, that there is no such a thing as a specific disease or a specific contagium, and that none of the diseases above named are capable of being transmitted from person to person. If there be a school in England holding such views as this, we shall have some curiosity to learn of whom it is composed, and what is the authority of those who profess to speak in its behalf. That it numbers amongst its adherents none who have in any way distinguished themselves, either for contributions to sanitary science or for genuine sanitary work, we think we can most decidedly assert; and, unless they are to be looked for amongst the enthusiasts who oppose vaccination and hound down experimental physiology, we know not where they are to be found. Of one thing we feel that we can assure the professors of the Army Medical School with some confidence, and that is, that, if there existed no better *raison d'être* for the institution which they so ably represent than to carry on, amongst other duties, the work of diffusing through the world the noble lessons in sanitary science which for so many years flowed from the lips and pen of their lamented colleague Dr. Parkes, the medical profession at least would not tolerate without a vigorous protest any attempt to emasculate the system of instruction which they have so laboriously evolved. To answer in his own words the question which Professor Maclean himself asks, "The people of England are *not* prepared to admit that Dr. Parkes lived and laboured in vain." The work which he did in giving a scientific foundation to the art of preventive medicine is too widely appreciated, not only in this country, but also abroad, to offer any encouragement for official nobodies to meddle with an institution with whose name and fame his own were so deeply identified.

MEDICAL OFFICERS OF HEALTH AND THE ARTISANS' DWELLINGS ACT.

UNDER the Artisans' Dwellings Act, the initiative in proceedings for declaring urban areas to be unhealthy may be taken by the sanitary payers, or by two justices of the peace. Bearing in mind, therefore, authority, by the medical officer of health, by not fewer than twelve rate-the great waste of human life which is going on in certain of the older and more crowded portions of most of our large towns, it is somewhat difficult to acquit many medical officers of health of a charge of apathy with respect to the application of the provisions of this Act in the towns over which they preside. The course recently adopted with reference to a proposal to condemn as unhealthy two small areas of the city of Bristol, by Mr. David Davies, the medical officer of health to the city, opens up another question which has an important bearing upon the relations of medical officers of health to the Act.

In August last, Mr. David Davies received a memorial signed by a considerable number of the guardians of the poor for the union of Bristol, complaining of the unhealthiness of two small areas, and supporting their complaint with statements of excessive rates of mortality and of sickness within these areas during 1876. After inspecting the areas complained of, the medical officer of health has reported thereon to the town council, as the urban sanitary authority for Bristol, to the effect that he is unable to declare the areas unhealthy within the meaning of the Act. He admits important structural defects, he admits outbreaks of typhus within the area during 1876, and his facts seem to prove that during that year the death-rate was equal to 42 per 1,000 of the estimated population; and yet he decides that there is not sufficient ground for condemning the areas. The main reasons which influenced Mr. Davies in his decision appear to have been a doubt of the accuracy of the mortality statistics furnished by the memorialists, his apparent inability to verify or disprove such statistics, and his belief in a theory that all towns are bound to possess squalid and fever-stricken localities, to remove which would only tend to concentrate similar evils

in other parts of the town. It appears to us that Mr. Davies was bound to have investigated the mortality statistics of these areas in greater detail, and for a longer period than one year, and also to have ascertained the present population of the area, which is especially necessary for such a purpose. Without such statistics, it is indeed difficult to agree with the decision of the medical officer of health, as his report concedes so much of the case urged by the memorialists. In his objections to the application of the provisions of the Act to these areas, he appears to set his individual judgment against the spirit of the Act, about which sanitarians have expressed so much unanimity; he is evidently biassed in great measure by a strong prejudice against the erection of blocks of improved dwellings, such as are springing up in so many parts of the metropolis under the auspices of the Peabody Trust, the Metropolitan Association, and other associations having a similar object in view. Surely, a medical officer of health is not called upon to criticise the spirit of the Act, although he is bound under the Act to pronounce whether the area is unhealthy within the meaning of the Act; and it becomes, therefore, important that the term "unhealthy" should be more definitely understood, as it is evident that Mr. Davies' definition of the term is completely different from that which has been generally adopted. In the meantime, it cannot be too generally known that the death-rate in Bristol has been remarkably stationary in recent years, while that of most other large towns has been declining, and further, that the rate from the seven principal zymotic diseases was higher during the three years 1874-5-6 than in the three preceding years. It remains to be seen whether the Town Council of Bristol will be guided in this matter by the theories of Mr. Davies; but it is satisfactory to know that the Act provides an appeal to the Local Government Board in cases like this in which a memorial is disregarded or rejected by the medical officer of health and by sanitary authority, and we shall be surprised if the memorialists rest satisfied with the decision conveyed by Mr. Davies' report.

MADAME A. DAGNON is reported to have recently died in Bordeaux at the age of 116.

DR. BILLROTH of Vienna last week performed his one hundredth ovariotomy. We understand that he intends to publish a detailed report of the results of his operations.

THE statement made to the Wednesbury Local Board of an infantile mortality of 53 per cent., is now said to have been a clerical error for 10 per cent.

IN the annual report of the Queen's College, Birmingham, presented last week, there was evidence of increased prosperity in all departments. The number of new entries this session amounts to thirty.

THE *London Gazette* intimates that the Queen has appointed Andrew Fergus, M.D., President of the Faculty of Physicians and Surgeons of Glasgow, to be for five years a member for Scotland of the General Council of Medical Education and Registration in the United Kingdom, in the place of Joseph Lister, Esq., resigned.

WILLIAM GREENWOOD, a quack doctor, who was recently fined £5 for issuing indecent bills, was last week again brought up at Sheffield. He had intimated his intention of appealing, but had neglected to do so. As he now declined to pay the fine, he was sent to prison for two months.

WITH regard to the Turkish Compassionate Fund, the Baroness Burdett Coutts says that in stores and goods about £3,000 worth has been received, and shipped on board the yacht *Constance* and otherwise; in money between £17,000 and £18,000. Out of this, £2,000 was spent in materials for clothing, hosiery, blankets, etc., under Mr. Layard's direction, and £12,000 have been remitted to the Ambassador.

OUR Birmingham correspondent writes: An inquest has been held in Birmingham on an infant poisoned by green coloured paper which it tore from a box and swallowed. Arsenic was stated to be the cause of death.

DR. R. FARQUHARSON, who has for some years held the office of Lecturer on Materia Medica and Therapeutics in St. Mary's Hospital Medical School, has been elected Assistant-Physician in the Hospital on the vacancy caused by the death of Dr. Henry Lawson.

THE Deaconesses' Institution, Tottenham, will despatch Dr. Laseron with a staff of sisters and two warders to the seat of the war on the 12th instant. They have received free passages from the Governments of the intervening countries, and ask for a supply of ambulance stores to take with them.

M. HAIRION, Professor of Ophthalmology in the University of Louvain, has been appointed President of the Royal Academy of Medicine in Belgium; and the office of Vice-President of the same institution has been conferred on the distinguished ophthalmic surgeon M. Warlomont. MM. Hairion and Warlomont are joint editors of the *Annales d'Oculistique*.

THE publication of an Italian translation, by Dr. Scambelluri, of Sir Henry Thompson's work on the Diseases of the Urinary Organs, has been commenced. The translation is announced as being made from the last edition, with the authority and approval of the author. This is the first Italian translation of the book, which has already been rendered into French, German, Russian, and Spanish.

CHARGE OF OFFENCE AGAINST THE LUNACY ACTS.

ON Wednesday last, the 7th instant, Dr. Samuel Turrell of Windsor was prosecuted before the justices of the county of Bucks sitting in Petty Sessions at Slough, at the instance of the Commissioners in Lunacy, for detaining an insane lady at a college in Datchet for profit, without the statutory order and medical certificates. Dr. Bucknill, who had visited the lady under order of the Lord Chancellor, gave evidence of her insanity; and, after a lengthened hearing, the justices committed Dr. Turrell to take his trial for misdemeanour at the next assize.

CHEAP MEDICAL SERVICE.

A MEDICAL night service has, as we have before mentioned, been in operation during the past year throughout the City of Paris, under the direction of the police; the police making themselves responsible for the payment of the fees of those medical men whose names are entered on the list at their own wish, and who have been summoned for cases of urgency or accident during the night. It is now stated that the balance of the unrecovered fees, which has fallen upon the Police Fund for 1876, amounts only to £37.

WELL-WATER.

DR. PRICE JONES has reported to the Kingston-on-Thames Rural Sanitary Authority that the water of the Lamas well, which, it is stated, has always been drunk by Her Majesty when staying at Claremont, should not be used for drinking purposes unless well filtered. It was brought out two years since, as the result of an inquiry in the Public Health Section of the Social Science Association, that the great majority of surface drinking-wells throughout the country were polluted by animal matter of a more or less dangerous character; and it is improbable that the ravages of typhoid fever can be stayed until local sanitary authorities devote their attention to the quality of water derived from such wells throughout the rural districts. A large number of these which are in use, even for the residences of the wealthy, prove, when examined, to furnish water of a dangerous quality. Two such instances were brought under our notice during the autumn, in fine mansions in Surrey which had been let at high rents to vacation tenants. Dr. Jones has usefully directed attention to this source of danger to the health of the rich as well as of the poor.

RABIES AND HYDROPHOBIA.

THE Scientific Grants Committee of the British Medical Association, at a meeting held on Wednesday, appointed a Committee consisting of Mr. Callender, Dr. Burdon Sanderson, Dr. T. Lauder Brunton, and Mr. Ernest Hart, to organise an investigation into the causation, pathology, and treatment of rabies and hydrophobia; and the Committee of Council of the Association have granted the sum of £100 towards the expenses of the inquiry. It is understood that the inquiry will be divided into various heads. Under the first, an investigation will be made into the locality and order of succession in time of the registered deaths from hydrophobia in this country during the last few years; and this will form the basis of an attempt to trace the history of various local epidemics with the aid of such medical men, medical officers of health, and veterinary surgeons, as may be found to be in possession of facts relating to such epidemics. The pathology of rabies will be investigated by the aid of microscopic and chemical research, to be carried on by eminent pathologists and physiologists; and, for this purpose, *post mortem* specimens will be requested from those whose duty it becomes to make the necropsy of fatal cases of hydrophobia and rabies. Special directions will be issued as to the best means of preserving for microscopic examination parts of the nervous system, and the salivary organs, of which the examination is most likely to afford the necessary information. The tabulation and investigation of any methods of treatment which have seemed to afford a hopeful prospect, and the investigation of the action of remedies to which efficacy has been attributed, will form the subject of the third part of the inquiry. The investigation is one which appears to be urgently called for; and the assistance and co-operation will be invoked, not only of specially skilled experts in histological and chemical investigation, but of those members of the profession generally who have had recently, or who may have during the progress of the inquiry, cases either of rabies in the dog or of hydrophobia in man.

MISS KNOLLYS.

THE convalescence of this lady appears to progress gradually, but safely. On Sunday, Monday, and Tuesday, the morning temperature was 99.0 deg., and the pulse 84, in each case after a night of tranquil sleep of eight or nine hours' duration. On Sunday, the temperature rose during the day to 101.1 deg., but fell again in the evening. On Monday, at 6 P.M., it was 100.8 deg.; and on Tuesday, at noon, it was 100.0 deg. Later each day, it again fell. On Wednesday, both in the morning and evening, and again this morning (Thursday), which was the fourteenth day of the relapse, the temperature was normal. The patient has now passed five good nights; and there are no symptoms, the cough and diaphragmatic spasm, etc., having all disappeared. We learn that Miss Knollys takes nourishment well; and that, considering her relapse, her strength is good.

AN ALLEGED CASE OF TRANCE.

PARAGRAPHS have recently been circulated concerning a remarkable case at Malton in which it was said to be for a long time doubtful whether the patient was not in "trance" instead of being dead. From inquiries which we have instituted, we learn that all the wonderful incidents alleged are nonsensical misstatements. The following are the authentic details. Mrs. Ellen Williams, aged 45, married, began to be ill on or about the 25th of August, 1877, complaining of general indigestion, also a small abscess on the scalp. She continued a sufferer from these two causes until October 9th, when she died. One week before she died, she showed all the symptoms of obstruction of the bowels, which was the immediate cause of her death. The death took place on Tuesday, October 9th. She was attended by Mr. Joshua Huntley, who informs us: "I heard nothing more of the case until the Sunday following, when the nurse who had attended told me she was not dead, but that they had been giving her brandy all day, that she was warm, had not changed in appearance, also that they had put off the funeral. I was requested to see her on Monday morning, the 15th of October.

I visited her, and found the body in the coffin, cold to the touch; the countenance was pale; the features were not fallen, and the muscles not very rigid. The abdomen was large. I placed my stethoscope to the heart, which was still. I opened the eyelids, exposing the eyes, which were cold, and shrinking or falling. I pressed the abdomen, when fermenting fluid oozed out of the mouth. I pronounced her dead; but the friends did not believe me. The body was kept and watched until Sunday, October 21st, when I was requested again to see it, and found it becoming offensive. The features were decomposing. Fluid was oozing from the mouth. The abdomen was greatly distended. Death and destruction were evident. I believe the doubts continued even after this, as on this Sunday some rubbing remedies were tried." Thus it turns out that there was nothing extraordinary in this case, except the folly and superstition of the relations and friends of the dead person; and this is probably the real explanation of most of these wonderful stories.

DEATH FROM ETHER.

THE following brief note appears in the daily papers of a case of which we hope next week to receive fuller particulars. "At Lincoln, on Monday, Annie Elizabeth Steele, daughter of the late Captain Steele of the 10th Lancers, died under the effects of ether, administered for an operation for cancer, at the house of Dr. George May Lowe, in whose family the deceased lady had lived many years. The ether was administered by Dr. Mitchinson, in the presence of Dr. Lowe and Mr. Septimus Lowe. A verdict of 'Death from natural causes' was returned at the inquest held on Tuesday, as the *post mortem* examination had shown a hidden organic disease fully accounting for death."

THE ALBERT MEMORIAL COLLEGE, FRAMLINGHAM.

THE Governors of the Albert Memorial College at Framlingham have adopted most energetic measures to suppress the outbreak of scarlet fever at that establishment. Drs. Bartlet and Elliston of Ipswich have made, at the request of the Board, a complete investigation, and have reported upon the whole of the circumstances attending the outbreak and course of the disease. It is understood that this report is conclusive as to its introduction from without. Dr. Fletcher of Earl Soham is in charge of all the sick, and Mr. Jeaffreson of Framlingham has also been consulted. There has been unfortunately one death, although generally the fever has been of an exceedingly mild type; and, as often happens with these mild epidemics, some of the boys have had some severe renal complication. Dr. Elliston and Dr. Bartlet have both attended during the week, in consultation with the resident medical men, and are understood to be opposed to the dispersion of the boys, until the whole school has been put in quarantine for at least ten days—a measure which we think very desirable. In the meantime, the Governors have draughted a large number of convalescents to farm-houses in the neighbourhood, to undergo quarantine, previously to their return to their homes or to school.

WASTE-PIPES TO CISTERNS.

MAJOR FRANK BOLTON called attention in a recent report on the Metropolitan Water-Supply, to the following clause in the Board of Trade Regulations relative to waste-pipes, which, if carried out in its integrity, would prevent contamination of the water from the gases generated by sewage, which are extremely liable to flow back into the cisterns and become absorbed by the water, unless the overflow-pipe is brought outside the house and the end left exposed to the air, instead of being carried into the drain. Regulation 14. "No overflow or waste-pipe other than a 'warning-pipe' shall be attached to any cistern supplied with water by the Company, and every such overflow or waste-pipe existing at the time when these regulations come into operation shall be removed, or at the option of the consumer shall be converted into an efficient 'warning-pipe', within two calendar months next after the Company shall have given to the occupier of, or left at the premises in which such cistern is situate, a notice in writing requiring such alteration to be made." The particular object of the

above is to prevent the waste of water; but if the overflow-pipe be brought outside the house and the end left exposed to the air, instead of being carried into the drain as is often the case, it will effect an object of far greater importance by getting rid of the poisonous effluvia and gases from the drains which would otherwise ascend through the pipe, and not only be partly absorbed by the water in the cistern but be partly mixed with the air in the houses, thereby becoming a cause of fever and disease. The attention of all householders ought to be given to the fittings and cleanliness of their cisterns, upon which depends in a great measure the purity and abundance of the domestic water-supply.

BIRMINGHAM GENERAL HOSPITAL.

OUR Birmingham correspondent writes:—The first elections of salaried assistant officers for out-patients at this hospital took place last week, and were conducted by the new method of a limited election committee (100), chosen by ballot, in addition to the ordinary committee and the staff. Dr. Bindley and Dr. Saundby were elected Assistant-Physicians; and Messrs. W. G. Archer and T. F. Chavasse, Assistant-Surgeons. The candidates for the Dental Surgeoncy were not found to be technically qualified. With regard to the Assistant-Surgeons, although they represent two of the best known professional families of the district, and are themselves exceptionally well qualified, yet we understand that considerable local feeling has been expressed on account of the non-election of a gentleman, a Fellow of the College of Surgeons, and a graduate of London, several years senior to the gentlemen elected, and one also who had been a really good house-surgeon for four years. This gentleman, however, relying probably upon his recognised merits, had not sent round any testimonials; and it is evident that a constituency elected haphazard can scarcely be cognisant of all the bearings of an election unless they be fully set before them. Under other circumstances, we cannot but think that the gentleman referred to must have been chosen by a large majority, or honest service would be sorely discouraged.

DEATH OF MR. ROBERT DUNN.

WE deeply regret to hear of the sudden death, on Sunday morning last, of Mr. Dunn, for many years Treasurer of the Metropolitan Counties Branch, and universally beloved and respected for his simple amiability of character and scholarly attainments. Mr. Dunn's services to the Branch have not only been of long standing, but have been rendered with such invariable courtesy and singleness of purpose, and accompanied by so much genial warmth in his interest in the affairs of the Branch and in his dealings with his fellow-members, that the news of his death will be a source of grief to a large number of our associates, to whom he had personally endeared himself.

MR. BARNARDO'S DEGREE.

THE following is the paragraph in the award of Mr. J. B. Maule, Q.C., Recorder of Leeds, the Rev. Canon Miller, and Mr. William Graham, formerly M.P. for Melrose, on the charges brought against "Dr." Barnardo in respect to his medical qualification and the title which he has been in the habit of using.

"That the said Thomas John Barnardo had assumed and used the style and title of 'Doctor', meaning that he was a physician, without any legal, substantial, or real right to such title and style." It appears that Dr. Barnardo entered as student the London Hospital in October 1866; had finished his attendance in 1870, and did not after this proceed to a degree. He alleges that in February 1872 he obtained what purported to be a diploma of the grade of Doctor of Medicine from the Dean of the Faculty of the University of Giessen, for which he paid fifteen pounds; that he underwent, as a qualification for such diploma, a nominal and superficial examination at St. George's Hospital, London. No diploma here mentioned was produced, nor any receipt for the payment made for it; nor did it appear that this examination took place with the sanction or cognisance of the hospital authorities. He further states that he first discovered in September 1875 that a fraud had been practised on him in granting this diploma, which he, therefore, then destroyed. As medical student, he

had been familiarly called Doctor by his friends, which title, having thus become attached to his name, was adopted by him. He has never had an English diploma to give him a real title to the degree, nor has he practised as a physician. It is thus strictly true that during the time here referred to he had no legal or real right to the title and style of Doctor. It was not until March 1876 that he obtained a diploma at Edinburgh.

ADVANCED TREATMENT OF THE INSANE.

IN the last published Report of Her Majesty's Commissioners in Lunacy for Scotland, the gradual spread of the "open-door" system of management of asylums is particularly noticed. In certain of the District Asylums, which, from their construction, are particularly suited for its adoption, the system is at work. This plan of management was first put into practice by Dr. Batty Tuke at the Fife and Kinross District Asylum some years ago, and it is understood that he has introduced it at his private establishments for the upper classes in the neighbourhood of Edinburgh. Dr. Batty Tuke has also introduced in these institutions a system of nursing which cannot fail to be of great practical importance. This consists in the supervision of lady patients by educated ladies only. It may be remembered by some that Dr. Bucknill, in his evidence before the Dillwyn Committee of the House of Commons, stated that he had seen the system at work in a Scotch asylum near Edinburgh; and that subsequently one of the Scotch Commissioners, Sir James Cox, stated that he was unaware of the existence of any such system in any institution under the supervision of the General Board of Lunacy. We have been favoured with a copy of the last minute made by Sir James Cox in the "patients' book" of the Saughton Hall and Balgreen Asylums, the following extract from which, we think, sets the matter at rest. "In Balgreen, the experiment has been made of placing the patients under the care of educated ladies, who associate with them in their rooms, and accompany them in their walks and drives. The experiment has proved so satisfactory, that it is in contemplation to extend the experiment to Saughton Hall."

EPIDEMIOLOGICAL SOCIETY.

THE first meeting of the present session will be held on Wednesday next, November 14th, at 8.30 P.M., in the rooms of the Medical Society, No. 11, Chandos Street. The retiring President, Mr. J. Netten Radcliffe, vacates the chair in favour of Surgeon-General John Murray, who will deliver an inaugural address. The long and distinguished career of Dr. Murray in India, extending over nearly forty years, and marked throughout by the greatest enthusiasm in accumulating exact information as to cholera and other diseases of hot climates, renders his experience of the highest interest. After a long residence in Agra as civil surgeon, Dr. Murray became Inspector-General, and was placed at the head of the medical department of Bengal. Medical officers of the Indian army now in London, and any members of the medical profession interested in the progress of epidemiological science, are invited to attend.

HEALTH OF FOREIGN CITIES.

A SUMMARY of the weekly returns with which the Registrar-General is favoured by various local authorities abroad shows that the average annual death-rate during the third quarter of this year, in thirty Indian and Foreign cities, was 31.8 per 1,000, against 20.5 in twenty of the largest English towns. The population of these thirty foreign cities is estimated at rather more than eleven millions of persons. The lowest death-rates in these cities were 19.0 and 21.0 in Christiania and Copenhagen; whereas the rate was equal to 51.0 in Alexandria, 53.2 in Bombay, and 125.4 in Madras. The 12,419 deaths in Madras included 3,010 from dysentery, 1,131 from cholera, and 943 from small-pox; this excessive zymotic fatality is partly attributed by the Medical Officer to the immigration of crowds of half-starved fugitives from the surrounding famine-stricken districts. In Calcutta 218, and in Bombay 1,129 deaths were referred to cholera. Typhoid fever caused 322 deaths in Paris during the quarter, against 386 and 212 in the two preceding

quarters; in Paris, the annual death-rate from this disease was equal to 0.65 per 1,000, while it was only 0.23 in London. In St. Petersburg and Philadelphia, typhoid fever was especially fatal. Small-pox was more or less prevalent in Madras, Brussels, and Vienna, though in each of these towns the fatal cases showed a considerable decline from those in the preceding three months. In Berlin, 269 deaths resulted from scarlet fever; this disease also prevailed in Stockholm, Brooklyn, and Philadelphia. To diarrhoea or diarrhoeal diseases 3,111 deaths were referred in Berlin, 460 in Munich, 2,675 in New York, and 1,193 in Brooklyn. Whooping-cough caused 130 deaths in Alexandria.

HEALTH OF SHREWSBURY.

THE towns on the Severn, remarks the Registrar-General, have a character of their own, influenced to some extent by the peculiarities of that affluent river, which carries its waters from the mountains of Wales through fertile lands to the Bristol Channel. Floods are extensive and not unfrequent. Shrewsbury, Worcester, and Gloucester are county towns on its banks; and among them Shrewsbury has the most picturesque site. During the three decennials ending in the year 1870, the mortality of Shrewsbury district (which for statistical purposes extends over a large part of the country around, and comprised in 1871 a population of 25,784 persons living on 18,032 acres, whereas the population of the municipal borough was 23,406 persons living on 3,674 acres) was at the rate of 26 per 1,000 of population in 1841-50; of 25 in 1851-60; of 26 in 1861-70. After a correction for the county lunatic asylum, the rates are reduced by *one* in each of the two last decennials, to 24 and 25. This is far from a satisfactory state of things. It is not the fault of the climate, and the town itself has many admirable building sites. The mortality in the surrounding Atcham district was 18, 18, and 17 in the same decennials. The excessive mortality of the town was due to small-pox, measles, scarlet fever, whooping-cough, typhus and typhoid fevers, diarrhoea, brain, lung, stomach, and liver diseases, which abound most where the waters are at all impure, where houses or courts are crowded, and sewerage is imperfect. The town has taken an enlightened view of its own interests, and is contemplating, under the advice of its excellent Health Officer, important improvements. The Council has bought up the water-company, so that the water-supply can be improved; and the sewerage, which is attended with some engineering difficulties, will no doubt be dealt with effectually. The gross mortality in the six years 1871-6 was reduced to 23, which might be reduced further by corrections. The annual mortality of young children under five years of age was reduced from 70 per 1,000 in 1861-70, to 55 in the last six years. In the same two periods, the mortality of children in the Atcham district, including the numerous parishes surrounding Shrewsbury, fell from 36 to 29 per 1,000. Thus Shrewsbury has still much way to make up; and it is true that the tide turned in 1877, when scarlet fever prevailed, and the mortality ran up to the old rate of 26, or corrected, 25, in 1,000. But the Town Council is alive to this; and instead of being discouraged, will no doubt accelerate the measures now well understood for the improvement of their ancient historical town, so that at the end of the decennial the inhabitants may be as healthy as their neighbours, and then Shrewsbury will be the most salubrious county town on the Severn.

THE WAR.

THE two English doctors on the staff of the Stafford House Committee who were recently captured by the Russians at Teliche, having been left in charge of the Turkish wounded, are Drs. Douglas and Nicholls. They have been treated with great courtesy by the Russians, dining at the Grand Duke's table, and will be forwarded to the charge of the English Ambassador at St. Petersburg. Drs. Ca-son and Buckley, two of Lord Blantyre's surgeons, are shut up in Kars. The *Times'* correspondent states that the Stafford House and National Aid Societies are doing wonders wherever there is work for their surgeons; but, excellent as are their efforts, they are almost rendered nugatory by the

dishonesty of the financial departments of the Turkish administration. Large sums are sent from Constantinople for hospital purposes to Philippopolis, but, instead of being properly applied in carrying out the requirements of the patients, find their way into other channels, and just as the poor fellows need good nourishing food in place of surgical aid, that fails them, and the cemetery becomes filled. It would prevent nine-tenths of the deaths occurring in the hospitals here (in Turkey) if the funds of these excellent societies could—say in case of emergency (of which their surgeons would be the judges)—be applied in supplying these urgent wants.

HORSE EATING.

THE Paris Committee for the Propagation of the Consumption of Horse-Flesh as Food furnishes the following information. During the third quarter of 1877, the Paris butchers of this class of meat sold to the public 443,310 kilogrammes (about 435 tons). In the corresponding period of 1876, the quantity was 373,410 kilogrammes, so that the increase has been 69,900 kilogrammes.

HOSPITAL SATURDAY AND SUNDAY IN LIVERPOOL.

AT the annual meeting of the promoters of these collections at Liverpool, the Mayor presided. It was stated that the amounts contributed in the five years were: 1873, £9,821; 1874, £11,185; 1875, £9,716; 1876, £9,946; and 1877, £10,019. The Mayor remarked that he felt justified in assuming that the institution might be depended upon to yield at least £10,000 a year, which, capitalised at 5 per cent., represented the magnificent sum of £200,000.

HOSPITAL SUNDAY IN CUMBERLAND.

THE eighth annual report of the Hospital Sunday for the benefit of the principal medical charities of Cumberland and Westmorland, just issued, states that the collection of this year amounted to £1,023 9s. 5d., and was distributed as follows: Cumberland Infirmary, £448 18s. 9d.; Carlisle Dispensary, £106 14s. 4d.; Carlisle Fever Hospital, £104 1s.; Cumberland and Westmorland Convalescent Institution, £216 16s. 5d.; Whitehaven and West Cumberland Infirmary, £126 18s. 2d.

FAMINE MORTALITY.

THE *Times* correspondent telegraphs from India: "Cholera prevails at Nassick, Ahmednuggur, and Sattara, eighty-seven deaths having occurred during the week. The price of food and grains has not appreciably fallen. The total expenditure up to date is 11,106,034 rupees. According to the Sanitary Commissioners' Registration Report, the mortality in the Madras Presidency during July last was 151,078, or an increase of 41,357 over that of June. The total shows nearly three times the average death-rate for July. The ratio of births to the population was 20.01, against 24.04, the mean of five previous years."

DR. MACKENZIE BACON.

AT a congregation of the University of Cambridge, on November 1st, the Honorary Degree of Master of Arts was conferred on Dr. George Mackenzie Bacon, the resident medical superintendent of the Cambridgeshire and Isle of Ely Lunatic Asylum. In the course of an eloquent Latin speech, the Public Orator, after referring to the fact that in the ancient world Athens alone set up in her market place an altar to the Goddess of Pity, and that even Athens knew of no hospitals, noticed the vast improvement that even recent times had witnessed in the treatment of pauper lunatics. Referring to Dr. Bacon, he drew attention to the valuable services he had gratuitously rendered for the last nine years to the medical students of the University, by affording them facilities for clinical instruction in diseases of the brain, concluding as follows. "Ipse Hippocrates medicinæ pater discipulos suos jurejurando obstrinxisse dicitur, sese magistri sui filii artem medicam nullâ acceptâ mercede esse tradituros, quanto autem præstantius est hunc Hippocraticis discipulum nullo jurejurando devinctum sed suâ sponte motum, non jam in suorum præceptorum progeniem sed in alienæ Academiæ adolescentes tantum beneficium gratis contulisse. Tu vero qui

alumnis nostris magno cum fructu medicæ artis magister sponte exhibisti, honoris causâ artium magister nobis esto." Dr. Bacon was then admitted to the degree of M.A. in the usual manner.

QUEEN'S COLLEGE, BIRMINGHAM: ANNUAL DINNER.

THE annual dinner of past and present students took place last week, the Rev. W. Poulton, M.A., Warden, in the Chair. It was very well attended, excellent speeches being made by Dr. Russell, Mr. Gamgee, Mr. West, and others; and the excellent spirit that prevailed furnished a good illustration of the present prosperity of the Medical School.

LAUNDRY REFORM.

IN a note on this subject in a recent issue, we noticed the proofs of infection conveyed by clothing, as brought forward by Dr. Heslop, Dr. Jones, and others. We may further add, as a point worthy the attention of children's hospitals more especially, that we find, in the tenth report of the Children's Hospital, Birmingham, the following paragraph, printed with the object of obtaining for it a wide circulation amongst the class from which its subscribers are drawn. "The linen of persons suffering from a catching disease should never be washed or ironed with the linen of other people. Infected clothing should never be sent to a laundress; it should either be burnt, or boiled and disinfected, apart from other clothing, on the premises." And, for circulation amongst the poor, the same paragraph has been ordered to be printed on fly-leaves concerning the management of infectious diseases, which are distributed gratis to the mothers of the patients. It is so difficult to really impress the public with true sanitary ideas, that this example might, with great advantage, be generally followed by similar institutions.

SCOTLAND.

ON Monday, Dr. A. Gordon Miller, son of the late Professor Miller, was elected to fill the vacancy of Assistant-Surgeon to the Royal Infirmary, Edinburgh.

PROFESSOR CLELAND, who has succeeded Dr. Allen Thomson in the Chair of Anatomy at Glasgow, delivered on Monday his inaugural address. In it he dwelt chiefly on the Darwinian theory of evolution, and expressed himself as an opponent of that theory.

THE SCOTCH LUNACY LAW.

ON Friday last, a deputation of asylum superintendents, members of district boards, and managers of Royal asylums in Scotland, waited on the Lord Advocate, at his chambers, with the view of bringing under his notice an omission in the Scotch Lunacy Law, there being no provision at present for granting pensions to old and deserving officers of the Scotch district and parochial asylums, as in England and Ireland. The deputation included, among many others, Professor MacLagan, Dr. Mackintosh, Dr. Clouston, Dr. Howden, Dr. Jamieson, Dr. Ireland, etc. The deputation was introduced by Dr. MacLagan, who strongly supported its views. Dr. Mackintosh (Murthly), after referring to the petition which was presented to the Lord Advocate some months ago, drew attention to the anomalous position in which asylum officials are placed in Scotland, in comparison with England and Ireland. He had hoped that the matter would have been taken in hand by the Scottish Board of Lunacy, but the Board had no intention of moving in this or any other legislation at present. The service which he represented was as much a public service as the army and navy, or as the civil and parochial services, and probably it was not exceeded by any of them in the increasing attention which is necessary, or by the harassing nature of the duties. It, therefore, seemed a simple act of justice to place the service on a footing, with regard to superannuation allowances, similar to that occupied by the public asylums of England and Ireland. He would also urge as speedy a solution of the question as possible. They were persuaded that the insertion of a clause in the sense indicated in the Act would be an important stimulus to such institutions, both as regards the efficiency and stability of the staff and

the comfort of the inmates. In reply, the Lord Advocate said he would give the subject his most favourable consideration; it seemed a very proper matter to be brought before him, the only question being when he could get an opportunity of introducing a clause to remedy the present defect.

GLASGOW ROYAL INFIRMARY.

As our Glasgow correspondent anticipated last week, the directors have issued a report which contains the results of an investigation in view of the accusations made by the Secretary of the West of Scotland Protestant Association. This gentleman asserted that an unduly large proportion of the nurses are Roman Catholics (the proportion being reported to him as about 70 per cent.), and that preference was shown to nurses of this persuasion. A Committee of the Directors, in a report just published, give a detailed statement of the facts, and show that the proportion of Roman Catholics to Protestants among the nurses is about the same as among the patients; namely, about 32½ per cent. of Catholics to 67½ of Protestants, the proportion of the latter being larger among the day-nurses. The other accusations are shown to be equally devoid of foundation, and the report can hardly fail to satisfy all who look at it fairly. It is to be hoped that the directors of the Protestant Association will make their secretary sensible of their disapproval of such an unwarrantable attack.

ROYAL EDINBURGH HOSPITAL FOR SICK CHILDREN.

A NUMBER of the directors of this hospital who had been associated with Dr. Matthews Duncan in its establishment in 1859, and who have also been directors along with him since that time, met some days ago in the chambers of the secretary to the hospital, and presented Dr. Duncan with a very handsome timepiece, bearing the following inscription: "To James Matthews Duncan, M.D., LL.D., one of the founders, physicians, and directors of the Royal Edinburgh Hospital for Sick Children, from directors long associated with him in the management of the hospital, in kindly remembrance of it and them, 29th October, 1877." The testimonial was presented by Mr. George Barclay, who, in very feeling and appropriate terms, dwelt on the long and valuable services to the hospital which had been rendered by Dr. Duncan. Dr. Duncan made a suitable reply, in which he expressed the deep satisfaction he experienced in having been permitted to bear a part in the foundation of a charity so beneficial to the community and to the profession.

MR. ANNANDALE'S INAUGURAL ADDRESS.

ON Thursday, November 1st, Mr. Annandale, the newly elected Professor of Clinical Surgery in Edinburgh University, gave his inaugural address in the Chemistry Class-room. The Principal and many of the professors accompanied him to the platform, and the body of the hall was crowded with students, who gave the lecturer a most enthusiastic reception. The address was devoted principally to an historical sketch of the occupants and progress of the Chair to which he has been appointed, with an introduction, giving an account of the general history of surgical teaching in the school. Mr. James Rae, a member of the Incorporation of Surgeons, was the first to deliver general lectures on surgery at an early date in last century. To checkmate him, Dr. Muns, the first professor of anatomy, had his commission extended to the teaching of surgery also, a proceeding which gave rise to endless protests and much bickering. Lectures on general surgery were subsequently delivered extra-murally by Benjamin and John Bell, the latter of whom was the founder of the surgical reputation of this great school. In 1803, Mr. James Russell was appointed the first Professor of Clinical Surgery. He was succeeded, in 1833, by James Syme, whose character and achievements, as a great surgeon and a great teacher, were fully and enthusiastically noticed. He was to be considered as the originator and perfecter of a great system of clinical instruction, which had been handed down to his successors and to the University as a great and lasting legacy. Liston, Lizars, and Fergusson were also great men, who had a just claim to have shared in the promotion of the great

surgical school of Edinburgh. Edinburgh was too small for so many distinguished workers, and some of them had removed to London, and had there done great things for the reputation of the Edinburgh school and for English surgery. In 1869, Mr. Lister had been appointed, on the retirement of Mr. Syme; and, though he did not think it would be proper for him to sketch to them Mr. Lister's progress and career as a surgeon and man of science, it was imperative upon him to acknowledge the high and well-deserved reputation he had brought to this University, and to the school of surgery, by his great scientific discoveries. In conclusion, Mr. Annandale referred to some points in which he thought the teaching of clinical surgery might be further improved. He would like to see lecturers on special departments of surgery, attached to the Chair and recognised by the University, who might give occasional clinical lectures on these special subjects—such, for instance, as ophthalmic surgery or ovariectomy. He would endeavour also to introduce into his wards more bedside instruction, such as he had been in the habit of giving in a smaller way in the wards of which he previously had charge, and some good tutorial teaching.

IRELAND.

MR. GLADSTONE, the Ex-Premier, paid a visit to the King and Queen's College of Physicians last Saturday.

A BAZAAR in aid of the funds of the Belfast Hospital for Sick Children will be held on the 20th, 21st, and 22nd December next.

SIR RICHARD WALLACE, Bart., M.P., who lately laid the memorial stone of the Convalescent Home, Belfast, has forwarded a donation of £50 to that institution.

MR. R. G. BUTCHER, the well known Dublin surgeon, has contributed £1,000 to the Royal National Lifeboat Institution, to defray the expenses of the Ferrit (co. Kerry) Lifeboat Establishment, in memory of his father, the late Admiral Butcher, and his brother, the late Bishop of Meath.

DR. NIXON, Physician to the Mater Misericordiae Hospital, has been appointed Lecturer on Institutes of Medicine; and Mr. Hayes, Surgeon to the same Hospital, Lecturer on Diseases of the Eye and Ear, in the Catholic University School of Medicine.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

MR. W. J. SMYLY has been elected one of the two Examiners in Midwifery for the diploma of Midwifery of this College, in room of Dr. Roe, recently appointed Professor of Midwifery. The Examinership is open to Fellows of the College only; and on this occasion, Mr. Smyly, who is Assistant-Physician to the Rotunda Lying-in Hospital, was the sole candidate.

OBSTETRICAL SOCIETY OF DUBLIN.

THE opening meeting of this Society for the ensuing session will be held in the hall of the King and Queen's College of Physicians on Saturday next, the 17th instant, at 8 P.M. Dr. Darby of Bray, the President of the Society, will deliver the inaugural address.

THE BLACKSTAFF NUISANCE, BELFAST.

AN influential deputation waited on the Belfast Town Council last week, with a memorial signed by four hundred and seventy ratepayers, inhabitants of the Cromac Ward and Ormean Districts, in reference to a scheme at present before the Town Improvement Committee, for covering in the Blackstaff River, and urging the necessity for some such plan being carried out. The condition of this river has long been a great nuisance to the inhabitants of Belfast, and a special hardship to those in its neighbourhood, and it was urged that the Corporation should apply to Parliament for power to effect the desired object. It is stated that 65 per 1,000 die in the neighbourhood of the Blackstaff

for every 18 to the same number in other parts of the town. After the deputation left, the report of the Town Improvement Committee on the same subject was brought before the Council, and unanimously adopted. In this report, certain improvements connected with the river in question are recommended to be undertaken; so that very shortly this nuisance, which has been so many years an eyesore and disgrace to Belfast, will be greatly abated if not altogether removed.

PATHOLOGICAL SOCIETY OF IRELAND.

MR. EDWARD HAMILTON, Surgeon to Stevens' Hospital and an ex-President of the Royal College of Surgeons in Ireland, has, we are informed, been nominated President of this Society for the ensuing session. The meetings of the Society will commence on the 24th instant. Under the new rules—which exclude students from, and permit discussion at, its meetings—the working of the Society will be looked upon with the closest interest, equally by those favourable and those opposed to such vital changes in the constitution of so old an established society. Viewed from either point, the Society is to be congratulated on the appointment in such a crisis of a President possessing the keen acumen and judicial tact that Mr. Hamilton unquestionably does. We trust he will succeed in saving the Society from the storm which, aroused by a want of politic co-operation between some of its senior and junior members, seriously imperils its existence.

MEDICAL SOCIETY OF THE KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.

THE annual general meeting of this Society, for the election of officers and Council, was held on the 31st ult. The report of the outgoing Council was read by the Honorary Secretary, Dr. Duffey. It suggested that, in addition to the usual papers read before the Society, *vis à vis* communications and discussions on selected subjects should, as opportunity arose, be permitted at its meetings; also, that all past Presidents of the King and Queen's College of Physicians, be *ipso facto*, honorary members of the Society. Both suggestions were adopted by the meeting. The following gentlemen were elected the officers and Council for the session 1877-78. *President*: Samuel Gordon, M.D., President of the College of Physicians. *Vice-Presidents*: James Little, M.D., Vice-President K. Q. C. P. I.; Sir Dominic Corrigan, Bart., M.D.; William Stokes, M.D.; and Alfred Hudson, M.D. *Council*: Drs. J. Hawtrej Benson, J. F. Duncan, J. M. Finny, T. Fitzpatrick, A. W. Foot, T. W. Grimshaw, R. J. Harvey, T. Hayden, H. Kennedy, S. M. MacSwiney, J. W. Moore; and W. G. Smith. *Honorary Secretary*: G. F. Duffey, M.D. The opening meeting of the Society for the session, at which the President will deliver an inaugural address, will be held on Wednesday next.

SURGICAL SOCIETY OF IRELAND.

THE election of members of Council of this Society took place on Monday last, in the College of Surgeons, and seemed to give rise to much interest, no fewer than forty-six balloting lists having been handed in. The outgoing Council, twenty-one in number, with one exception, sought and obtained re-election. For the remaining seat, there were three candidates—Drs. Jacob, Thornley Stoker, and Wheeler, the first of whom was elected.

CORK MEDICAL SOCIETY.

THE first meeting for the session of the Cork Medical Society was held in the Cork Institute, at eight o'clock, on Wednesday evening, October 31st. There was a large attendance of members. The President, Professor O'Keeffe, M.A., M.D., read an inaugural address. He referred to the various cases that had been under discussion last year, commenting on each in detail; pointed out how the meetings of the Society tended to cultivate friendly feelings amongst professional brethren, and to promote the advancement of a science on which depended much of the happiness of the world. Seniors and juniors alike had taken part in the debates, and he was glad to say they had been always listened to with the most courteous attention. The past session had been a most

successful one, several pathological specimens had been exhibited, and many papers bearing the impress of erudition and research had been read for the Society. He was reminded by the minutes that one of their meetings had been adjourned owing to the lamented death of one of their members, the late Dr. Gregg; and he felt that too great a compliment could not be paid to so amiable a gentleman, so eminent a surgeon. The President then urged his hearers to do everything during the coming session for this long established and eminently useful society.

DUBLIN HOSPITAL SUNDAY FUND.

THE fourth annual collection on behalf of this fund will be made tomorrow (Sunday) in most of the places of worship of all religious denominations in the dioceses of Dublin and Glendalough, with the exception of those belonging to the Roman Catholic Church. It is pleasing to notice that the amount of the collections has steadily increased; being in 1874, £3,306; in 1875, £3,619; and in 1876, £3,873; while the ordinary income derived by the hospitals from annual subscriptions has not diminished. In 1874 eight hospitals, in 1875 twelve, and in 1876 fourteen hospitals participated in the fund; and this year an additional hospital—the Dublin Orthopædic—has been admitted. We trust to be enabled to announce another decided increase in the collection again this year, and hope the weather will prove more propitious than it has done on former Hospital Sundays.

DRUNK OR DYING.

AN adjourned inquest was held last Saturday in one of the Dublin hospitals, which involved a charge of neglect on the part of a resident pupil of the institution. The circumstances of the case appear to have been briefly as follow. A woman, aged 37, was observed, while apparently walking steadily, suddenly to stagger, grasp at the railings of a house, and then fall. The occupier of the house, who witnessed the occurrence, ran to her assistance. He found her very cold, and endeavoured to revive her by pouring brandy down her mouth. Neither the policeman, who then brought her on a car to the hospital, nor the person who first saw her, considered at this time that she was drunk. She was carried in an insensible condition and in the act of vomiting into the hospital, where she was at once attended to by the resident pupil. He pronounced her drunk, administered an emetic, and used the stomach-pump. She had a strong pulse. He gave her also a stimulant draught. Asked if she felt better, she answered, "not distinctly, but as any other drunken woman would, 'Yes'". The resident then ordered the woman, *still insensible*, to be taken to the police-station, but to be brought back to hospital if she got worse. On arrival at the police-station, "she appeared to be working in a fit". She was kept in the station, before a fire, from 10.30 P.M. until 3 A.M. the following morning, when she was sent back to the hospital, where she died—never having regained consciousness—in about five hours. The woman was stated to have been of intemperate habits, and to have been recently in a hospital with anthrax. The necropsy was made by one of the surgeons to the hospital, who deposed that death was the result of extravasation of blood on the brain, and that all the organs usually affected by chronic alcoholic poisoning were diseased. The jury found that the deceased died in consequence of excessive drinking. They added to the verdict their opinion that the resident pupil committed an error of judgment in not detaining the deceased in hospital; and they further expressed their opinion that all such cases should in future be placed under medical treatment. Although there are several points in this case well worthy of comment, we would call attention solely to a glaring defect in the administration of the majority of the Dublin hospitals, which this inquest strikingly exhibits. It will hardly be credited that in three only of the nine general surgical hospitals of Dublin is it at present possible to act in accordance with the self-evident opinion expressed in the rider to the verdict we have just quoted, in consequence of there being no qualified resident medical officer in any of the remaining six. It speaks much to the credit of

the resident pupils in these hospitals—two of which, including the one in question, receive more accidents and urgent cases, perhaps, than all the other seven combined—that “errors of judgment”, to use a mild expression, do not more frequently occur. While there are so many competent recently qualified men willing to serve as house-surgeons, it is not just that the credit of a hospital, and the great responsibility continually occurring therein, should be placed on a second or third year’s student. We believe that the purchase system of hospital appointments, which unfortunately exists in Dublin, is the reason why such appointments are not general. We trust that, now that public attention has been again so prominently called to this subject, the hospital authorities will lose no time in taking steps to make these appointments, which we, in common with many others, consider absolutely essential.

UNIVERSITY OF LONDON.

A MEETING of the Senate will be held on Wednesday next, November 14th, at which a deputation from the Annual Committee representing Convocation will attend. This deputation will be prepared to submit a statement which has been approved by the Annual Committee. The statement, which is of a very conciliatory character, is intended to show how great a breach has been made in the constitution of the University by the recent proceedings of the Senate in the proposed admission of women to medical degrees. It cites the resolutions passed by Convocation on July 27th, regretting the action which the Senate had taken in this question, and notices the points which were urged by the graduates who proposed and supported those resolutions. It remarks that no fundamental change should be made in the constitution of the University without the joint action of the Senate and Convocation, and should be effected by means of a new Charter; that the adoption of the Russell Gurney Act would produce such fundamental change in the constitution of the University; that, in adopting the Act, the Senate would be dealing with medical degrees in a manner not permissible in regard to the degrees of other Faculties, without a new Charter; that, as the Act was permissive and applied to many other licensing bodies, there was less reason for its adoption by the Senate without consulting with Convocation; and that the action of the Senate was felt to be the more opposed to the privileges of Convocation as it rapidly followed the passing of the following resolution by Convocation on May 8th, 1877:—“That this House is of opinion that it is inadvisable for this University to admit women to the degrees in medicine before it shall have considered the general question of their admission to the degrees of all Faculties.”

The position of the University is a critical one; for, with the efforts now being made to found a central University in Manchester, and perhaps another elsewhere, a want of sympathy between the Senate and the Graduates of the University of London would be a serious drawback to its future prosperity.

THE PEDESTRIAN FEAT OF WILLIAM GALE.

WE have received the following report from Mr. F. J. Gant, Surgeon to the Royal Free Hospital.

That the human body can undergo prolonged exertion far beyond the endurance of animals of greater muscular strength, is a well-attested physiological fact, and which seems to indicate an additional source of power in the human will, independent of the cerebral nerve-force of automatic motion, to which perhaps the apparently voluntary movements of animals may be due. This will-force in man varies greatly in different individuals, and its development, to the highest degree, in the organisation of William Gale, might account for his power of walking fifteen hundred miles in one thousand hours, or one mile and a half at the beginning of every hour, for a period of six weeks—the unprecedented pedestrian feat he recently accomplished. But, in the trial of endurance to which he is now subjecting himself—that of walking four thousand quarters of a mile in four thousand consecutive ten minutes—another physiological element is demonstrated: the operation of the will-force *independently* almost of recuperation of the cerebral nervous-centre, during the ordinary cessation of its functions in sleep. This remarkable feature in Gale’s case so far reverses our preconceived notions respecting the relation of voluntary power to the brain; that organ seeming to be the instrument of the will, rather than the will being a functional manifestation of cerebral activity. Nor does

the exercise of voluntary power, in man, appear to be necessarily dependent on the *periodicity* of sleep, and certainly not on nocturnal periodicity, as if sleep were “the death of each day’s (cerebral) life”. In the case of Gale’s walking by day and night, every ten minutes a quarter of a mile, at an average rate of from three to four minutes, sleep can occur for not longer than six minutes at a time, and at variable periods in the whole twenty-four hours. From tolerably accurate clinical observations, it is computed that he thus obtains about three, four, or five hours of broken rest in each day and night.

Gale is a short man, being only five feet three and a half inches in height, of most marked muscular development, weighing eight stone seven pounds, and is forty-five years of age. To say that he is a healthy man, does not sufficiently express the two leading peculiarities of his physical constitution: a remarkably vigorous circulation and an equally peculiar placidity of mental disposition. He is a strange compound of the sanguine and phlegmatic temperaments. Very modest and unassuming, he is self-contained and fully confident in himself. He has performed some of the most unparalleled feats of prolonged pedestrianism during the last twenty years, including the present undertaking; with regard to which, however, on a previous occasion in the provinces, some doubt having been alleged as to the accuracy of the record, the famous pedestrian placed his good name and reputation in the hands of the whole of the London press to watch and to witness him do it once more.

Three weeks have now elapsed since the commencement of this self-imposed task; and at the end of the first week, Gale’s health suddenly changed so far as to render it doubtful whether success would crown his efforts. This unfavourable condition was partly due to his having laboured under a severe cold, with rheumatic pains in the limbs; but his difficulties were principally referable to his having indulged in a very injudicious diet with regard to food, although abstaining as usual from all alcoholic stimulants. Lobster and pickled pork, walnuts and grapes, followed by hot buttered-muffins and six cups of tea, was not quite the *régime* calculated to carry a man through the trial of endurance he is undergoing. I at once put the “patient” on a regulated diet, consisting of fish, fowl, chops, eggs, and rice-puddings or other farinaceous matter; it being desirable that the animal food should be easy of digestion, and combined with a proportion of carbonaceous material to maintain heat, in the active exercise of the body by day and night. Tea is the only fluid he drinks, although he is allowed a glass of beer occasionally, should he feel inclined to take it. Having regard to the almost uninterrupted course of exertion, and the deprivation of sleep, I requested him to take nourishment in small quantities, and at frequent intervals, rather than any full meal, which might oppress the stomach and induce somnolency. Under this plan of dietetic management, he has remained in good health; the functions of organic and animal life being well maintained.

His daily state is nearly as follows:—Average sleep, three to four hours; no headache or other cerebral symptoms; no cachectic appearance or marked loss of flesh; pulse varies from 70 to 76, strong, regular, and of normal tension; appetite and bowels regular; feces solid and of a dark brown or dim green colour occasionally; urine, whole quantity in twenty-four hours not accurately determined; mixed samples of whole quantity, specific gravity 1022, falling occasionally to 1017, slightly acid or neutral, in a few hours is ammoniacal, and deposits earthy phosphates, no albumen. The veins of the left leg are largely varicose, but supported by an elastic stocking from knee to ankle. After walking each quarter of a mile during the day, he reclines in an arm chair, with his legs elevated and slightly flexed; and at night he lies down on a couch. Whenever, for an hour or two, or more, he has a drowsy appearance on sitting or lying down, his head drops and he falls immediately into a placid sleep, accompanied sometimes with a slight puffing of the cheeks in expiration; and he as readily awakes when his feet are moved, in about five minutes, to resume his task. The dress is light and easy: a thick jersey is worn, or two or three during the night; knee-breeches and drawers, thick worsted stockings, and low laced boots, which can be slipped off without twisting the feet; and the soles of these pedestrian boots are thick and broader than the upper leathers, thus to afford a firmer basis of support, and a security against any pinch of the feet, in walking.

TESTIMONIAL.—Mr. F. Charles Bryan, surgeon, upon the occasion of his leaving Yorkshire, was presented by his friends and patients in Burton and neighbourhood with an address (containing expressions of deep regret at his leaving), together with a valuable gold signet ring, as a mark of the high esteem in which he had been held during the short time he had been rendering his professional services amongst them.

HOSPITAL AND DISPENSARY MANAGEMENT.

THE TORBAY HOSPITAL AND PROVIDENT DISPENSARY.

WE are glad to learn that it is proposed to introduce some changes into the arrangements of the Torbay Hospital, and to place the outpatient department on the provident footing. This is a plan which has been in operation for some years at the Royal Albert Hospital, Devonport; and we have often recommended it to the notice of our readers. On comparing the proposed rules with those of other provident dispensaries, it appears to us that, on the one hand, the scale of members' payments is unduly low; and that, on the other hand, the "provident fund" is charged with an excessive share of the general expenses. To deduct one quarter for the cost of drugs is a very large proportion, especially when the dispensary is to be worked in association with the hospital. From both these causes, the balance divisible at the end of the year among the medical officers is likely to be smaller than it ought to be.

DERBY PROVIDENT DISPENSARY.

THE forty-seventh annual meeting of the Governors of this Institution was held at the Dispensary, St. Mary's Gate, on October 11th, under the presidency of the Mayor. From the report, it appeared that 1,898 members had been enrolled during the year, and that there were 5,260 members on the books. The receipts for the year from all sources had been £1,117 16s.; and, after paying the various expenses of the establishment, there remained a balance of £608 4s. 11d., divisible amongst the medical officers. The Secretary reported that a legacy of £50 had lately been left to the institution. A Branch Dispensary has been opened in Leonard Street; and the cost of fitting it up has been paid out of the reserve fund.

COUNTY HOSPITAL APPOINTMENTS.

THE necessity of occasionally revising the rules of public institutions is proved by the report published in the *Lincoln Gazette* of a meeting lately held at the Lincoln County Hospital, on the occasion of the election of an honorary surgeon to the institution to fill a vacancy caused by the death of one of the medical staff. According to rule, an honorary surgeon must be "a Fellow or Member of the Royal College of Surgeons of either London, Edinburgh, or Dublin". It further appears there had been three candidates canvassing for the appointment—Dr. Lowe and Mr. Wilkinson, both holding the degree of Licentiate of the Royal College of Surgeons of Edinburgh, and Mr. Mason, a member of the Royal College of Surgeons of England. On the day of election, Dr. Lowe sent a letter to the governors, stating that, having taken legal opinion on the subject, and finding that he was excluded by Rule 47 from obtaining the office of honorary surgeon, he was compelled to ask their permission to withdraw his name. The question then arose as to the eligibility of the other candidates. It was considered, on the one hand, that Mr. Wilkinson, holding the same diploma as Dr. Lowe, would be disqualified, if the legal opinion quoted were correct; whilst, on the other side, it was argued by Mr. Tweed that a licentiate of the College of Edinburgh was eligible; and, further, that, if the rule were to be taken in its literal sense, Mr. Mason could not be elected, because it read that only a Fellow or Member of the Royal College of Surgeons of London was eligible, whereas no such institution existed, Mr. Mason being a member of the Royal College of Surgeons of England. The common sense construction of the rule, it was submitted, was clear and simple; namely, that they should elect a qualified person; one who held a diploma or licence from either of the three institutions. Mr. J. Banks Stanhope presumed that Dr. Lowe had taken legal opinion on the question; and that a person did not withdraw unless he had a pretty strong legal opinion that he was not eligible; the Chairman adding, or unless he had not a sufficient number of votes to win. After considerable discussion, the election proceeded, Mr. Wilkinson being successful with an overwhelming majority.

Now, it would appear that, according to the literal reading of the rule, Fellows and Members of the Royal Colleges of Surgeons of England and Ireland and Licentiates of the Royal College of Surgeons of Edinburgh are not eligible to hold the appointment of honorary surgeon to this provincial hospital, the only qualification existing, as named in the rule, being the Fellow of the Edinburgh College. Such could never have been the intention of the framers of this rule, and, no doubt, the remarks about the common sense construction of the rule were correct, and the governors were justified in proceeding with the election. Position on the staff of a county hospital being a very honourable one, and giving considerable status to a medical man,

vacancies are much looked forward to and often obstinately contested. The power of election being generally in the hands of the body of governors, it behoves them to see that the rules are in conformity with the times; and it is to be hoped that the governors of the Lincoln County Hospital will see the absurdity of the rule which caused so much discussion at the late meeting; that they will at once rectify it, and, in so doing, will not take local legal opinion, but be guided by the medical staff of the hospital.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

THE next meeting is appointed to be held at the West Kent General Hospital, Maidstone, on Tuesday, November 20th, at 4.50 P.M.: ADOLPHUS HALLOWES, Esq., in the Chair.

Dinner will be ordered at the Star Hotel at 6.30.

A paper on Acute Chorea has been promised by Charles E. Hoar, Esq., M.B.

Mr. Sydney Jones of London is also expected to read a paper.

FREDERICK JAMES BROWN, M.D., *Honorary Secretary*.

Rochester, November 5th, 1877.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETING.

THE next meeting will be held at the Library of the County Hospital, Canterbury, on Thursday, November 22nd, at Three o'clock. The President of the Canterbury Medical Society will preside.

Dinner at the Fleur-de-Lis Hotel at 5 o'clock precisely. Charge, 6s. 6d., exclusive of wine.

Notices have been received of the following communications to be made to the meeting.

1. To receive the resignation of the Honorary Secretary, and appoint a successor.

2. Mr. T. W. Reid: A Case of Poisoning by Yew Leaves.

3. Mr. Tyson: A Case of Poisoning by Phosphorus.

4. Mr. Rigden: Two Hundred consecutive Obstetric Forceps Cases in Private Practice, their causes and results.

5. Mr. Clement Walter: Case of Hydrophobia.

Gentlemen who intend to be present at the dinner are particularly requested to inform me on or before Tuesday, the 20th instant.

EDWARD WHITFIELD THURSTON, *Honorary Secretary*.

Ashford, November 4th, 1877.

SOUTH EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A CONJOINT meeting of the above Districts will be held at the Dispensary, Queen's Road, Brighton, on Friday, November 30th, at 3.15 P.M.: F. A. HUMPHRY, Esq., Surgeon to the Sussex County Hospital, in the Chair.

All members of the South Eastern Branch are entitled to attend these meetings; and visitors from the metropolis or elsewhere are particularly invited.

Notice of intended communications is requested to be sent on or before Wednesday, the 14th instant, to either of the Secretaries, in order that they may be inserted in the regular circular.

Dinner will be provided at 5.30 P.M., at Markwell's Hotel.

W. J. HARRIS, Honorary Secretary of the West Sussex District, 13, Marine Parade, Worthing.

THOMAS TROLLOPE, M.D., Honorary Secretary of the East Sussex District, St. Leonard's-on-Sea.

November 6th, 1877.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE first meeting of the session was held at the York House, Bath, on Wednesday, October 31st; H. MARSHALL, M.D., President, in the chair. There were also present thirty-five members.

New Member.—F. K. Green, Esq. (Bath), was duly elected a member of the Branch.

Annual Meeting.—Dr. MARSHALL warmly congratulated the Bath members on having invited the Association to meet at Bath in August 1878, and proffered cordial co-operation.

Paper.—Dr. SHINGLETON SMITH read a paper on the Use of

Quinine in the Treatment of Pyrexia, which led to a very animated discussion, lasting the entire evening, in which Drs. Goodridge, F. L. Fox, Davey, Cole, Skerritt, Siddall, and Mr. Michell Clarke took part.

Habitual Drunkards Bill, 1877.—Mr. FOWLER gave a short summary of the principal clauses in the above Bill, which he hoped would be introduced next session; and laid upon the table petitions to both Houses of Parliament for signature.

SOUTHERN BRANCH: DORSET DISTRICT.

A MEETING was held at Blandford on October 31st, 1877; Dr. BACOT, President, in the chair.

New Members.—Messrs. Williamson Daniel, Ingram, and Spooner (Blandford), Mr. Lys (Bere Regis). Mr. Capon and Dr. Norton (Dorchester) were elected members of the Branch and district.

Election of Officers.—Dr. Bacot was re-elected President; Mr. Nunn (Bournemouth) and Mr. Wyke-Smith (Wimborne), Vice-Presidents; Dr. Lush (Weymouth) and Mr. Parkinson (Wimborne), Joint Secretaries and Treasurers for the ensuing year.

Meetings in 1878.—It was resolved that the April meeting in 1878 be held at Bournemouth; and the October meeting at Blandford.

Communications.—Dr. LUSH read a Medico-Legal Case.

It was resolved: "That the Secretaries be directed to make inquiry of the Medical Defence Association respecting the conditions on which this district can be affiliated."

Club-practice.—A discussion took place on the question of Club-practice; and the general feeling was that the present rate of payment was unremunerative, and should be increased.

THAMES VALLEY BRANCH: ORDINARY MEETING.

A MEETING of this Branch was held in the Board Room of the Richmond Infirmary on October 17th.

New Members.—Dr. N. H. K. Kane and Mr. W. Jeynes of Norbiton were elected members of the Branch.

Papers.—The following papers were read.

1. Mr. G. F. WHITE: Tubercular Meningitis.
2. Dr. F. P. ATKINSON: Hæmaturia in Children.

Dinner.—The members, to the number of twelve, afterwards dined together at the Greyhound Hotel.

SOUTH-EASTERN BRANCH: EAST SUSSEX DISTRICT.

A MEETING of the members of the above district was held on Friday, September 28th, at the Castle Hotel, Hastings; Dr. BAGSHAW of St. Leonard's in the chair.

New Members.—Mr. D. H. Gabb of Hastings, Mr. D. W. Duke of St. Leonard's, and Dr. E. P. Thurston of Ore were nominated for membership of the Association and of the Branch. Dr. Kirkman of Silverhill was nominated as a joining member.

Communications.—The following communications were made.

1. Dr. PARSONS: Case of Diphtheritic Paralysis.
2. Mr. CAMPBELL: Case of Hip-Disease.
3. Dr. ALLEN: Pericarditis and Pleurisy in a Child.
4. Dr. TROLLOPE: Case of Xanthelasma.
5. Dr. COOKE: Aneurism of the Abdominal Aorta.
6. Dr. TROLLOPE: Aneurism of the Descending Thoracic Aorta.

Effect of Sea-Air on Skin-Diseases.—A discussion on this subject was commenced by the CHAIRMAN, and shared in by several of the members.

The Dinner took place at the Castle Hotel; most of those were present who had attended the meeting.

The Next Meeting was fixed to take place at Brighton, conjointly with the West Sussex District, at the end of November; F. A. Humphry, Esq., Surgeon to the Sussex County Hospital, will take the chair.

SOUTH-EASTERN BRANCH: EAST AND WEST SURREY DISTRICTS: CONJOINT MEETING.

A CONJOINT meeting of these districts was held on October 18th, 1877, at the Red Lion Hotel, Dorking; C. W. CHALDECOTT, Esq., in the chair. Twenty-nine members and visitors were present.

Next Meetings.—It was proposed by Dr. LANCHESTER, and carried unanimously: "That the next meeting of the East Surrey District be held on December 13th, at Croydon; and that Dr. Philpot be requested to take the chair."

It was proposed by Mr. JARDINE, and carried unanimously: "That the next meeting of the West Surrey District be held at Guildford; and that Mr. Henry Taylor be requested to take the chair."

Papers, etc.—The following communications were read.

1. Dr. BRISTOWE: Two Cases of Hysteria.
2. Dr. HUGHLINGS JACKSON: Cases of Brain Disease.
3. Dr. DYCE DUCKWORTH: The Medical Injunction of Stimulants in Health and Disease.
4. Dr. BURNEY YEO: Cerebral Tumour.

Dinner.—The members and visitors afterwards dined together.

CORRESPONDENCE.

THE PENGE CASE.

SIR,—The reasons which induced the medical witnesses for the prosecution in this case to give the opinion that the death of Harriet Staunton was caused by starvation and neglect were published in the JOURNAL of October 27th, and I had hoped before this to be able to explain more fully some of the disputed points in the case.

I find it impossible, however, in the limits of an ordinary letter, to answer in detail all the objections which have been urged against the opinion we hold; but, lest silence should be considered as any proof of assent to these remarkable views, perhaps you will kindly allow me to state that I hope shortly to place before the profession, in another form, a complete history of the case, in which each and all of these objections shall be fully and carefully considered.

I cordially agree with the opinion expressed in the concluding sentence of Dr. PAYNE's last letter, that, "in a matter of such moment, it is desirable that all objections which can fairly be raised should be fully discussed and left to the arbitration of those best qualified to judge"; and, however startling it may seem to Dr. Payne, I believe it will not be difficult to show that the opinion we gave was in strict accordance with science and truth, and that any other opinion would have been inconsistent with the facts. I am sure it will be of interest to the profession to know that Dr. Alfred Taylor has most kindly offered to edit and revise this pamphlet with medico-legal comments, so that, whatever may be the literary defects of my report, it will at least be an authentic record of a great *cause célèbre*, enriched by Dr. Taylor's notes and the weight of his great experience.

In the meantime, let it be remembered that our opinion was based on facts, and that it was confirmed in a very remarkable manner by the circumstantial evidence, while the objections urged against it rest, for the most part, on pure hypotheses.—I am, sir, yours faithfully,

Forest Hill, November 6th, 1877. JOHN M. BRIGHT, M.D.

THE WEYMOUTH MYSTERY.

SIR,—We crave permission in your next impression to make a few remarks relative to what you designate in the leading article of your last number "A Weymouth Mystery".

We may observe, *in limine*, that we have no sympathy with counter-prescribing by chemists, who have at least no moral, if they have any legal, right by such practices to tamper with the lives of their fellow-citizens. It was, therefore, only under a painful sense of duty that we acceded to the urgent request of the chemist implicated in this case, acting under legal advice, and with the concurrence of the coroner, to make a second *post mortem* examination of the body of the deceased commercial traveller Frank Cole. We were informed of the nature and composition of the draught administered, which was not intended, as is alleged, to "revive him", but to induce sleep, as Cole told the chemist in the morning that he had not had any sleep the previous three or four nights.

Dr. Lush, at the first inquiry before the coroner, stated that he had not found sufficient disease to account for death unless by the action of poison. Without entering into minutiae, we may observe that we examined carefully all the leading viscera discoverable, but that the heart, stomach, and one kidney were missing, having been previously removed by Dr. Lush. The kidney present weighed eight ounces, and presented a mottled appearance on its surface, being in an early stage of "granular degeneration". We discovered a few granular tube-casts in the urine, of which we found about half a pint in the bladder, having a specific gravity of 1015 (not 1010, as stated by Dr. Lush). This important point was verified by two urinometers. Of the liver, it is unnecessary to say more than that it was considerably enlarged, being five-and-a-half pounds in weight, and apparently in a state of fatty

degeneration. With regard to the brain, there was no evidence of apoplexy or extreme congestion. In reference to the heart, Dr. Lush, at the previous inquiry, gave evidence that all its cavities were found "unnaturally empty". This condition he attributed to "paralysis of the heart" by a narcotic poison, that poison being probably opium, acting in conjunction with liver and kidney disease. Although this opinion has been endorsed by yourself in your editorial remarks, you will, we hope, allow us to take the liberty to controvert it. In the first place, your fundamental proposition, and the hypothesis you found upon it, we directly challenge as being unwarranted by the facts of the case. That there was any considerable amount of urea retained in the blood owing to renal disease we cannot admit, since the degeneration was only in an early stage, and there was copious excretion of urine, the specific gravity of which was 1015. Surely it is incorrect to assume there was much urea uneliminated, when the bladder was found to contain two-and-a-half pints of urine of such specific gravity, and only precipitating the small quantity of one-fifth of its volume of albumen. But even supposing the existence of uræmia, and that a fatal result had been produced by the combined action of opium and urea, would not that result have been brought about by coma or convulsions, and not by syncope? In the case of death by convulsions or coma, the right chambers of the heart would have been full instead of being empty, as they were found by Dr. Lush. It is, so far as we are aware, contrary to the recognised teaching of physiology, as well as to clinical experience, that opium or urea occasions death by syncope, which was admitted by Dr. Lush to be the immediate cause of death in this instance. There was no evidence of blood-poisoning by biliary matter.

The conclusion, then, is inevitable, that in this case the fatal syncope was due either to the chloral or to some organic disease of the heart itself. Now, as regards chloral, while we admit that an overdose would paralyse the heart, there is, we believe, no recorded instance of death of an adult from a smaller dose than thirty grains, and that, probably, in the case of a patient who had an idiosyncrasy with regard to this drug. That Frank Cole had no such idiosyncrasy is proved by his statement that he had previously taken chloral, no doubt in much larger doses, without any hypnotic or injurious effect.

We have known patients of intemperate habits who have, either by accident or design, taken as much as one hundred and twenty grains of chloral with impunity. In this week's JOURNAL is mentioned a case of delirium tremens, quoted from the *Boston Medical Journal*, in which one hundred and sixty-five grains of chloral were taken without fatal results. That such a small quantity of chloral as twenty grains paralysed the heart is, therefore, in our opinion, in face of the facts above referred to, simply incredible.

Then, with regard to the heart, we found it, when received by us, and while saturated with spirits of wine, to weigh eleven ounces and a quarter; but, on evaporation of the spirit, its weight was reduced to nine ounces. This lightness is not surprising, considering the extent to which it was loaded with fat. Externally, it appeared simply a mass of fat, to such a degree that twelve experienced medical brethren who saw it declared that they had never seen a human heart so fatty. In some places, the fat was an inch in depth, so that the right ventricular wall might be correctly described as a layer of fat with a muscular lining. Further, on submitting the muscular fibre to microscopic examination, we found what we considered undoubtedly oil-globules arranged in a linear manner within some of the fibrillæ, more particularly those from the right ventricle.

The deliberate opinion we formed, therefore, was that death was due to syncope, arising chiefly from this fatty state of the heart, but possibly, though improbably, accelerated in a very slight degree by the small quantity of chloral. We say *chiefly*, because we think the state of the system at large, resulting from vitiation of the blood by alcohol, as well as from deprivation of nitrogenous food for several days, formed a not unimportant factor in the etiology of the fatal issue. We are fully aware of the danger of giving opium in cases of advanced Bright's disease, which, however, did not exist in this instance. We also concur in your remarks that "cautious practitioners should not give a large dose of either opium or chloral, until they have felt their way with smaller doses, and found that they were insufficient as well as harmless".

We did not approach this inquiry in the character of advocates; and when Dr. Moorhead was called to order by the coroner, it was simply because he stated that the heart had been pronounced by twelve experienced medical men the most fatty they had ever seen. As the issue involved a charge of manslaughter which, in our opinion, was undeserved, we cannot but think Dr. Moorhead *was* warranted in mentioning the fact for the information of the jury.

Had Dr. Lush, in conducting the *post mortem* investigation, insisted

upon having associated with him an independent medical man representing the chemist, in whose judgment the latter and his friends had confidence, instead of being satisfied with the house-surgeon of the county hospital, whom the chemist looked upon as a subordinate, a more satisfactory solution of the pathological problem might have been arrived at, and this medical scandal would probably have been avoided.

For our part, while we reluctantly undertook the inquiry, under a deep sense of responsibility, we see no reason to alter our opinion, which was founded solely upon the pathological data of the case; and whether we brought "scientific intelligence" to bear upon the elucidation of the "mystery" or not, we are at all events sustained by the consciousness of having done our duty in the interests of truth and justice.

We are, sir, your obedient servants,

J. MOORHEAD, M.D.
HENRY TIZARD, M.D.

Weymouth, November 6th, 1877.

* * There appears to be a difference between Drs. Moorhead and Tizard on the one hand, and Dr. Lush on the other hand, as to a matter of pure observation, viz., the condition of the walls of the heart, on which, in the absence of the objects, it is impossible to form an opinion. The letter of Dr. Bacot, which we publish, is another element in the case. There is also a difference of observation as to the urine; while the account now given of the weight and appearance of the kidneys indicates more advanced renal disease than was at first suggested. We do not regard the deleterious effects of narcotics in renal disease as necessarily due to uræmia, and the explanation of them may be obscure, though the facts are undoubted. We repeat that we refrain from expressing an opinion as to the precise mode of death in this case. The combined effect of all these factors—alcohol, opium, chloral, renal disease—with a heart acting, from whatever cause, feebly, constitutes an extremely intricate physiological problem, in which certainly no one factor can be estimated as if it were acting alone. Our impressions as to the amount of food and sleep taken by the deceased, founded on the evidence of Cole's assistant, as reported, do not agree with the conclusions of our correspondents, so that there may have been some discrepancy in the evidence.

SIR,—I have read with a great deal of interest your article in this week's JOURNAL on the "Weymouth Mystery"; and, having had an opportunity of examining microscopically some of the muscular fibres of the heart, I am in a position fully to endorse Dr. Lush's statement, that there was no fatty degeneration of the fibres. The specimen was shown at the Branch Meeting held on October 31st at Blandford, Dr. Lush having, previously to making any statement of the case, called the attention of those present to the specimen.—I am, sir, yours truly,
W. G. BACOT, M.D., F.R.C.S.E. (Exam.)

Blandford, Dorset, November 6th, 1877.

CHLORAL AND OPIUM.

SIR,—In reference to your report of the Weymouth case, may I state the peculiarity of a case under my care in the use of both laudanum and chloral? In this case, a person of great corpulence and slight albuminuria, there is a peculiar sensitiveness to the effect of opium in any form. One minim of tinctura opii will produce all the symptoms of opium poisoning, and even two-and-a-half minims of the syrup of chloral-hydrate will produce sleep. When first told of the power of this medicine, I laughed at the idea that such could be the case, and said any one would wonder what such a mixture was ordered for; the prescription being: Syrup of chloral-hydrate, half a drachm; syrup, half an ounce; and water to an ounce and a half: a teaspoonful for a dose. If such an effect should be produced in my case, I see no reason why forty minims of laudanum and twenty grains of chloral should not have produced the fatal termination in the "Weymouth mystery"; and certainly I consider no chemist should have prescribed such a dose under any circumstances, but have requested the party to consult those qualified to prescribe.—Yours truly,
Clifton, November 3rd, 1877. THOMAS E. CLARK, M.D.

GREENOCK.—Dr. Wallace reports that, for the four weeks ending June 30th, the mortality was at the annual rate of 18.4, and for the five weeks ending August 4th it was 21.0, per 1,000 inhabitants; the former being unusually small, chiefly in consequence of the small number of deaths of children under five years. The deaths from zymotic diseases amounted to 12 per cent. of the whole in the first period and 17 per cent. in the latter, the number of deaths from diarrhoea and enteric fever having increased. He complains of the difficulty in obtaining information as to the occurrence of cases of infectious disease.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

MR. DOWNES: SUPERANNUATION AND THE WEST BROMWICH BOARD OF GUARDIANS.

A MEETING of this Board was recently held, which had been specially convened to enable Mr. Longe, the Inspector of the District, to make a statement in reference to Mr. Downes, who, it will be remembered, was refused superannuation allowance, and whose hard case was the subject of a question in Parliament last summer.

In the course of Mr. Longe's very sensible observations on the general question of superannuation, he stated that "the Local Government Board were of opinion that the case of Mr. Downes was a very remarkable one, and the action of the Board of Guardians seemed to be a mistake, quite contrary to the intention and object of the statute, and different from the principle and practice of Boards in other parts of the country. He believed that Mr. Downes had discharged his duties to the Board in a satisfactory manner, for no complaint had ever been made to him while he had been inspector of that district. Mr. Downes was upwards of seventy-five years of age, incapacitated from work, and had been the servant of the Board for about thirty-nine years. It was not an economical question, for a sum of £30 a year would not affect taxation upon a rateable value of £300,000". It was thereupon moved by Mr. Bissel that superannuation allowance to the extent of £35 a year should be granted; but, on being put to the vote, it was lost by 16 to 6, several of the opponents of the motion inveighing in somewhat offensive terms on what they chose to assert was unwarrantable conduct on the part of the Central Board in reminding them of their duty under an Act of Parliament. The Chairman of the Board made himself conspicuous for his opposition.

Constituted as many Boards of Guardians are, it appears to us as unfortunate that it should be in their power to veto the grant altogether; but the action of this Board, as well as of some others, in refusing superannuation allowance, not only to medical officers, but also to masters of workhouses and relieving officers, will ultimately result in the Act being amended to the extent of depriving them of such power, whilst leaving them the authority of fixing the amount, subject to the intelligent supervision, and revision if necessary, by the central department.

We cannot leave this subject without heartily condoling with poor Mr. Downes in his undeserved treatment, and without expressing how much we appreciate the generous action of Mr. Longe, who has doubtless been prompted thereto by Mr. Sclater-Booth, the President of the Local Government Board, who, it will be remembered, gave an unusually sympathetic and kind reply to Sir Trevor Lawrence, who asked a question on the subject, the outcome of our comment on this painful case in our issue of August 4th.

At the last meeting of the Council of the Poor-law Medical Officers' Association, the following resolution was passed.

"That this Council has seen with much satisfaction the action of the Local Government Board in directing their inspector, Mr. Longe, to attend a meeting of the West Bromwich Board of Guardians for the purpose of urging upon them the reconsideration of the case of Mr. Downes, who, it will be remembered, was refused superannuation allowance by this Board after thirty-nine years' continuous service without any complaint ever having been made against him, and he having reached the advanced age of seventy-six. The Council also begs to express its regret that this generous procedure on the part of the central authority should fail of success."

INFECTIOUS DISEASES.

At a meeting of the Birmingham and Midland Association of Medical Officers of Health, held in the Grand Jury Room, Public Offices, Moor Street, Birmingham, on Thursday, October 11th, 1877, the following resolutions were adopted.

"That the Birmingham and Midland Association of Medical Officers of Health desires respectfully to draw the attention of Her Majesty's Committee of Council on Education, to the frequency with which scarlet fever and some other forms of infectious disease are spread through the agency of public elementary schools, and to urge upon the Council the desirability of making some provision for allowance not only for the closure of such schools when an epidemic prevails in their neighbourhood, as is done at present, but also for the non-attendance of par-

ticular children living in houses in which infectious disease exists, and who are kept at home in compliance with the instructions of the Sanitary Authority, so that the pecuniary interests of the masters and managers may be brought into less conflict with those of the public health than is the case now.

"That, in the opinion of the Birmingham and Midland Association of Medical Officers of Health, the legislative provisions which at present exist for arresting the spread of infectious disease are very insufficient; and this Association desires to urge strongly upon Her Majesty's Government the importance of instituting a comprehensive inquiry into this subject, as early as possible, with the view of ascertaining what measures are expedient in the public interest for the purpose of attaining the above mentioned object.

"That the Secretary be requested to forward a copy of these resolutions to the State Medicine Committee of the British Medical Association, to the Public Health Committee of the Social Science Association, and to any other Societies or Associations having the promotion of Sanitary Science for their object, with the view of obtaining their co-operation in bringing this subject under the notice of the Government, and that the Council of the Association be authorised to make such arrangements as they may think desirable for so doing."

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BARNSELEY.—Dr. Sadler reports that there were 662 deaths of inhabitants in the borough, and calculates the population at 28,820, which give a death-rate of 22.97 per 1,000, being the lowest rate recorded for at least twelve years, the average being 26. In the rural sanitary district, it was 22.34 per 1,000. There were 1,344 births, which gives a birth-rate of 46.6 per 1,000 population. The deaths of infants under one year amounted to 232, being 35 per cent. of the total mortality and 17 per cent. of the births, which is a high rate. There were 114 deaths from the seven principal zymotic diseases, or 4.38 per 1,000 population. Inflammatory diseases of the lungs caused 4.46 and tubercular diseases 3.5 deaths per 1,000. An outbreak of small-pox occurred in May, June, and July, and was prevented from spreading to a large extent by isolation of the sick, and as far as possible by preventing unnecessary visits. There was only one death. The sewerage arrangements must be very defective, as about £1,000 a year was spent in emptying cesspools; and Dr. Sadler remarks on this, that hitherto, by high water-charges and in other ways, the use of water-closets has been checked as much as possible, which, he also points out, is injurious to the health of the inhabitants.

GLASGOW.—Dr. Russell has published some most elaborate tables of the mortality at Glasgow for each of the wards, which show singularly large variations in the death-rates. Thus in one—Blythswood—the annual death-rate during the last three months of the year was only 15.41; whilst in others it was 37.88 and 39.03 respectively, with varying rates of 18.40, 19.21, up to 32.75 per 1,000. The death rates under five years oscillated between 46.66 and 127.80 per 1,000 living at that age. It is evident that much of the difference must depend on variations in the amount of comforts which the inhabitants possess, as well as on their different sanitary conditions. The birth-rate also varied between 17.10 and 49.08 per 1,000 population; but the death-rates do not correspond with the birth-rates. The general birth-rate was 37 and the death-rate 23 per 1,000 living, and the deaths under one year amounted to 15½ per cent. of the total births and 25 per cent. of the total mortality. Dr. Russell gives some statistics of the deaths of legitimate and illegitimate children, showing that there was a much larger proportionate number of deaths amongst the latter. Amongst other interesting tables is one showing that in one group of subdistricts, having 69 persons to an acre, the death-rate per 1,000 population was 26.65; in the next group, having 64 (164?), it was 43.02; in the third, with 235 to an acre, it was 34.77; and in the fourth, with as many as 344, the death-rate was 35.15. This does not accord with what is generally observed; but the percentages of deaths under one year to births show the influence of density of population, as they were 12.54, 13.96, 17.94, and 19.33 per 100 births in each group. The population was estimated at 538,765 in the middle of 1876. The total deaths were 13,688, and births 21,032, so that there were 154 births to each 100 deaths.

CAMBRIDGESHIRE.—Dr. Armistead's annual reports are valuable contributions to permanent sanitary science, as well as records of the work carried out in the districts to which he is medical officer of health. More conspicuously than any other reports which have been received, they may be taken as standards or models by or on which medical officers generally frame the annual returns now required by

the Local Government Board. In the first place, the size of the sheets on which they are printed is folio, and folio is the official size at Whitehall. Next, they are very clearly printed, for which boon the sanitary authorities themselves must be thanked, for it entirely rests with sanitary authorities whether their medical officers' reports shall be printed or no. The Local Government Board ought to insist on these annual reports being printed; for, when a sanitary authority is too niggardly or too careless to order its health-officer's report to be printed, it places not only the officer, but also the district, at a disadvantage. Publicity is the best friend sanitary progress possesses; and publicity, by provoking criticism, is sure to secure public support to sound schemes. Further to describe the plan on which the reports in question are constructed, it must be mentioned that first comes the table of deaths for the year, classified according to diseases, ages, and localities, and showing also the population and births. This table is the one drawn up by the Local Government Board itself. We would suggest the addition of Cancer to the list of specified diseases. It is surely a mistake to confound so important a factor in our death-rate with "all other diseases". With this exception, no objection can be made to the official term. The next noticeable feature in Dr. Armistead's arrangement is, that he cumulates his information, and so, as years roll on, the comparative and periodical sickness and deaths strike the eye clearly and systematically. Then follows the mortality in the subdistricts—the mortality in the parishes at different ages and from different diseases; then observations on new cases of sickness and deaths amongst paupers; next are notes as to action taken for preventing the spread of disease, and proceedings for removal of conditions unfavourable to health, permanent works, and, finally, a summary of the sanitary inspection of the district and a table of details of a sanitary survey of each parish. The points of general interest in Dr. Armistead's reports are as follow. The rash in scarlet fever appears in four days from the first infection. Typhoid fever most certainly spreads by direct contagion. Permanent hospitals for the reception of infectious cases are most emphatically required; and the present laws as to infectious diseases and their prevention are most insufficient. Dr. Armistead uses the Wanklyn process for the analysis of water, and on its testimony has procured the closing of many wells. Water-supply, however, is evidently one of his district's chief difficulties.

WAKEFIELD.—The population is assumed to have been 32,000, amongst whom there occurred 631 births and 361 deaths, which give an annual rate for the half-year ending June 30th of 39.43 births and 22.56 deaths per 1,000 population, the latter being below the average. Mr. Wade apparently believes that a high birth-rate necessarily leads to a high death-rate: a fallacy which we thought was exploded. He attributes the unusually low mortality chiefly to the mild winter and more equable temperature of the second quarter, but believes also that it partly arose from the improved purity of the water, the better ventilation of the sewers, and the covering in of the middens. The death-rate of infants was only 15 per 100 births, and from zymotic diseases was less than usual. Mr. Wade enters at some length into the question of the best mode of ventilating house-drains and sewers, and of preventing the ingress of sewer-air into houses; and recommends the insertion of a syphon between the house and the sewer, as well as the introduction of a ventilating shaft into the house-drain.

KESWICK.—The annual death-rate in the month of August is returned at the very low figure of 11.5 per 1,000 population; that for the Lady-day quarter having been 14.7, and for the whole of 1876 only 15.2, which is lower than that of almost any other watering-place. There was not any death from zymotic diseases during the quarter; and, excluding whooping-cough, the annual rate from these diseases for the last three years has been only 0.2 per 1,000 population *per annum*. Dr. Fox also states that the mortality of the surrounding rural district is almost as favourable as that of Keswick itself, thus differing from Llandudno, Harrogate, and many other health-resorts.

MILITARY AND NAVAL MEDICAL SERVICES.

LORD EUSTACE CECIL, Surveyor-General of the Ordnance, has sanctioned the acceptance by the Royal Arsenal authorities of a two-wheeled ambulance litter, presented by the Order of St. John, as an acknowledgment of the courtesy shown by the War Department in permitting the purchase of an ambulance wagon and stretchers from the Arsenal stores. By the recommendation of Colonel Heyman, R.A., Superintendent of the Royal Carriage Department, the litter will be kept at the Arsenal hospital, and will be available in case of accidents either in the town of

Woolwich or of the Arsenal itself. These litters have been patented by the Order of St. John, and several have been supplied at cost price to the Metropolitan Police and various institutions. The litter can be detached from the wheels, and used to carry the patient to his bedside.

ILLNESS OF THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT.

A MILITARY contemporary, in writing of the illness of the Director-General of the Army Medical Department, expresses a belief in the improbability of that officer resuming, or at any rate continuing, the duties of his appointment. We are informed that these apprehensions are not justified by the facts of the case. In the early part of last month, Sir William Muir had a severe attack of hæmatemesis, apparently attributable to hepatic disorder with some splenic enlargement brought on by previous tropical service, and to overconfinement to the desk in the discharge of official work. From this attack Sir William has made, so far, a favourable recovery, so that now he has regained a great part of the strength of which the hæmorrhage and necessary confinement to bed had deprived him. His friends, who attach great importance to his continued supervision of the new system which has been inaugurated in the Army Medical Department under his direction, therefore entertain the hope that Sir William Muir may shortly be able to carry on all the duties he was discharging before his illness. It is known that even now no official decisions are made in the department, on any other but mere matters of routine, without the Director-General being consulted regarding them, although he has not yet left his private residence for Whitehall Yard.

THE ARMY HOSPITAL CORPS WARRANT OF AUGUST 14TH, 1877.

SIR, The disciplinary authority conferred upon medical officers is a very important and great concession, and must tend very materially to the success of unification and the benefit of the service generally. The blot on the scheme, however, is the retention and augmentation of the officers of orderlies. I am sure time and experience will prove it. The authorities (I cannot add "medical", for I am not in a position to know what part they could have taken, or have acted, in the reform) have missed a favourable opportunity of increasing a grade which would be a boon to the service and a greater reward to the deserving non-commissioned officer than a commission: I mean that in the Army Hospital Corps sergeants-major, quartermasters, ward-masters, stewards, and compounders of medicine should have been created "warrant officers", and that the "staff-officer" and every other officer in whatever capacity required should be a medical officer. This would be unification.

There may be officers of the Army Hospital Corps and others who do not entertain such views as mine, but I am confident that they are a very small minority. My remarks are not intended to wound the feelings and susceptibilities of any one, but merely to point out a certain source of misunderstanding and discord, and express sorrow that when the old regulations for the Army Hospital Corps were undergoing revision, it was not deemed expedient to get rid of an extraneous element in the Army Medical Department altogether.—I am, sir, your obedient servant,
ARMY MEDICAL OFFICER.

OBITUARY.

MATTHEW LEE, M.D., BRADFORD.

THE subject of this notice was born in Kilbeggan, Ireland, in 1838; his father, a Government officer, being stationed there in that year. In 1859, Mr. Lee commenced his attendance at the Leeds School of Medicine as the pupil of his brother-in-law Mr. Lodge. Having obtained his qualifications in 1862, he became medical officer for the Horton District of the Bradford Union; and this appointment he retained to the end of his life. Gifted with high natural abilities, of cultivated tastes and keen perceptive powers, Dr. Lee early made himself known widely beyond the district in which he resided; and, although he was not connected with any hospital, he had, before reaching his thirtieth year, performed lithotomy twice and ovariectomy thrice. As a general practitioner, he was successful in an extraordinary degree; his cheerful manner and ready wit making him an always welcome visitor; most of his large circle of patients being at the same time kind and attached friends.

He was locally an active member of the British Medical Association and of the West Riding Medico-Chirurgical Society. It is a matter for painful regret that so energetic and useful a life should have been lost so early. He died of phthisis, at his own house, on October 13th, aged thirty-nine years.

DR. JOHN WALTERS, J.P., was re-elected, at the head of the poll, on the 1st instant, as a Member of the Council of the Borough of Reigate.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, October 25th, 1877.

Aldrich, Arthur Woolledge, Mildenhall, Suffolk
Baker, Frederick Grenfell, Cambridge Gardens, Notting Hill
Jeffreys, James Graham, Richmond, Surrey
Nundy, Edward, Rotherham Hospital
Rogers, Maurice Cohen, 23, Wimpole Street

The following gentleman also on the same day passed his primary professional examination.

Wray, George Bury, University College Hospital

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 1st, 1877.

La Page, Clement, Nantwich, Cheshire
Peacock, Henry George, Melton, Suffolk

The following gentlemen also on the same day passed their primary professional examination.

Allinson, Henry Calthrop, King's College Hospital
Craddock, Frederick Hurst, St. Bartholomew's Hospital

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, October 9th, 10th, and 11th, 1877, the following candidates were successful.—For the Licence to practise Medicine: Previous Examination.

Butler, Frances Jane

Final Examination.

Abbott, Charles Edward
Canavan, Patrick
Finegan, Lawrence Patrick Joseph
Kehoe, Matthew Joseph
M'Cann, Joseph George
Mackey, Stephen William
Macnamara, Rawdon, jun.

Miley, William Kildare
Mitchell, Daniel
Nicholson, Joseph John
Owen, William H. J.
Pollard, Evelyn Richard Hugh
Russell, Thomas O'Dwyer
Smith, James

For the Licence to practise Midwifery.

Abbott, Charles Edward
Canavan, Patrick
Finegan, Lawrence Patrick Joseph
Kehoe, Matthew Joseph
M'Cann, Joseph George
Mackey, Stephen William
Macnamara, Rawdon, jun.

Miley, William Kildare
Mitchell, Daniel
Nicholson, Joseph John
Owen, William H. J.
Pollard, Evelyn Richard Hugh
Russell, Thomas O'Dwyer

QUEEN'S UNIVERSITY IN IRELAND.—The annual meeting of the University for the conferring of Degrees and the declaration of University distinctions, was held in St. Patrick's Hall, Dublin Castle, on Friday, October 12th. The following Degrees in Medicine and Surgery, and Diplomas in Midwifery, were conferred by His Grace the Duke of Leinster, Chancellor of the University.

The Degree of Doctor in Medicine, October 1877.—First Honour Class. William Allen, Galway; James Clarke, Belfast; William Whittle, Belfast. Upper Pass Division—Gervase Robert Percy, Belfast; Wm. John Sprott, Belfast. Lower Pass Division—Daniel Francis Barry, Cork; Patrick Maurice Carleton, Belfast; John Power Carmody, Cork; Thomas Reid Denham, Belfast; Robert E. Donovan, Cork; Isaac Chichester Dundee, B.A., Galway; Chas. Fredk. Knight, Cork; Joseph Stanislaus Lawlor, Galway; Robert Lindsay Love, B.A., Galway; Michael J. Lyden, Galway; John Wesley Megarry, Belfast; Thomas M. O'Brien, Galway; Patrick O'Connor, Galway; John O. G. Sandiford, Cork; James Stuart, Belfast; Garnett George Tatham, Belfast; David Taylor, Belfast; Henry Tomkins, Belfast; Francis Henry Walsmley, Belfast; John Edward Walsh, Cork; Edward Alexander White, B.A., Belfast; James O'Brien Williams, Galway; John Wilson, B.A., Cork; Thomas John Withers, Belfast. June 1877—Archibald R. H. Bland, Cork; Wm. Henry Bracken, Belfast; George Henry Bull, Cork; Wm. Corry, Belfast; Robert Donaldson, Cork; Hugh L. Donovan, Cork; J. J. Kent Fairclough, Belfast; Denis Harrington, Galway; Henry O'Neill, Belfast; Wm. A. Quayle, Belfast; Robert H. Robinson, Belfast; Henry George Thompson, Galway; Wm. Henry Thornhill, B.A., Cork; James Tidbury, Cork; Charles Workman, Belfast.

The Degree of Master in Surgery, October 1877.—Denis Harrington, M.D., Galway; Henry O'Neill, M.D., Belfast; Wm. Allen, Galway; Daniel Francis Barry, Cork; John Power Carmody, Cork; James Clarke, Belfast; Thomas Reid Denham, Belfast; Joseph Stanislaus Lawlor, Galway; Robert Lindsay Love, B.A., Galway; Michael J. Lyden, Galway; Thomas M. O'Brien, Galway; Patrick O'Connor, Galway; Gervase Robert Percy, Belfast; John O. G. Sandiford, Cork; Wm. John Sprott, Belfast; James Stuart, Belfast; John Edward Walsh, Cork; Edward Alexander White, B.A., Belfast; Jas. O'Brien Williams, Galway; Thomas John Withers, Belfast. June 1877—J. J. Adams, M.D., Belfast; David Bradley, M.D., Belfast; John Mulrennan, M.D., Cork; Archibald R. H. Bland, Cork; George Henry Bull, Cork; William Corry, Belfast; Robert D. Donaldson, Cork; Hugh L. Donovan, Cork; J. J. Kent Fairclough, Belfast; Wm. A. Quayle, Belfast; Robert H. Robinson, Belfast; Henry G. Thompson, Galway; Wm. H. Thornhill, B.A., Cork; Jas. Tidbury, Cork; Charles Workman, Belfast.

The Diploma in Midwifery, October 1877.—Denis Harrington, M.D., Galway; Henry O'Neill, M.D., Belfast; Maurice J. O'Sullivan, M.D., Cork; William Allen, Galway; Daniel Francis Barry, Cork; Patrick Maurice Carleton, Bel-

fast; James Clarke, Belfast; Thomas Reid Denham, Belfast; Robt. E. Donovan, Cork; Charles Frederick Knight, Cork; John Wesley Megarry, Belfast; John O. G. Sandiford, Cork; Wm. John Sprott, Belfast; James Stuart, Belfast; Edward Alexander White, B.A., Belfast; Thomas John Withers, Belfast. June 1877—Dr. J. J. Adams, Belfast; Archibald R. H. Bland, Cork; George Henry Bull, Cork; Wm. Corry, Belfast; Hugh L. Donovan, Cork; Wm. A. Quayle, Belfast; Wm. H. Thornhill, B.A., Cork; James Tidbury, Cork; Charles Workman, Belfast.

The following prizes were awarded in the Medical Faculty:—Peel Prize in Composition, limited to the competition of Undergraduates in Medicine—Prize awarded for the Essay signed "Vix Medicatrix Naturæ", Alfred Henry Keogh, Galway; Proxime accessit, "Quid est in somnis gelidæ nisi mortis imago", Henry Tomkins, Belfast.

Peel Exhibition awarded at the First University Examination in Medicine—Robert Thomas M'Geagh, First, £20 a year for two years.

MEDICAL VACANCIES.

The following vacancies are announced:—

CASTLE WARD UNION—Medical Officer for the Workhouse and the Ponteland District.
CENTRAL LONDON SICK ASYLUM DISTRICT—Assistant Medical Officer and Dispenser for the Asylum in Cleveland Street. Salary, £100 per annum, with board and residence. Applications to be made on or before the 10th inst.
COOTEHILL UNION—Medical Officer for the Workhouse. Salary, £80 per annum, and fees.
DRAYTON UNION—Medical Officer for the Second District and Workhouse.—Medical Officer for the Fifth District.
EAST SUSSEX, HASTINGS, and ST. LEONARD'S INFIRMARY—House Assistant Surgeon. Applications to be made on or before the 10th instant.
GENERAL HOSPITAL and DISPENSARY FOR SICK CHILDREN, Manchester—Directing Physician. Salary, £500 per annum. Applications to be made on or before the 21st instant.
INFIRMARY FOR CONSUMPTION and DISEASES OF THE CHEST—Physician in Ordinary and Visiting Physician. Applications to be made on or before the 14th instant.
LIVERPOOL ROYAL INFIRMARY—Resident Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications to be made on or before the 20th instant.
METROPOLITAN FREE HOSPITAL—Assistant Physician. Applications to be made on or before the 10th instant.
MIDDLESEX COUNTY LUNATIC ASYLUM, Colney Hatch—Assistant Medical Officer. Salary, £150, rising to £200 per annum, with board, washing, attendance, and apartments. Applications to be made on or before the 10th instant.
NORTH-EASTERN HOSPITAL FOR CHILDREN—Fourth Physician. Applications to be made on or before the 10th instant.
PORTLAND TOWN FREE DISPENSARY—Resident Surgeon and Dispenser. Salary, £100 per annum, apartments, fire, gas, and attendance.
ST. GEORGE'S UNION, Middlesex—Medical Superintendent for the Infirmary in Fulham Road. Salary, £400 per annum, with furnished residence, coals, gas, etc. Applications to be made on or before the 14th instant.
WEST BROMWICH UNION—Medical Officer for the West Bromwich South District.
WESTON-SUPER-MARE HOSPITAL and DISPENSARY—House-Surgeon. Salary, £70 per annum, with board, lodging, and washing. Applications to be made on or before the 19th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

ARHIS, William G., M.D., appointed Assistant-Surgeon to the Birmingham General Hospital.
*BINDLEY, Philip, M.B., appointed Assistant-Physician to the Birmingham General Hospital.
CHAVASSE, Thomas F., M.B., appointed Assistant-Surgeon to the General Hospital, ^{Birmingham}
HAWARD, T. E., M.R.C.S.Eng., appointed House-Physician to the Westminster Hospital.
ROBERTSON, Frederick Freer Leslie, M.B., appointed House-Physician to the Royal Hospital for Diseases of the Chest, City Road, *vice* A. G. Williams, M.R.C.S.Eng., whose time has expired.
*SAUNDREY, Robert, M.D., appointed Assistant-Physician to the Birmingham General Hospital.

BIRTHS, MARRIAGES, AND DEATHS.

The charges for inserting announcements of Births, Marriages, and Deaths, is 2s. 6d., which should be forwarded in stamps with the insertion.

MARRIAGES.

BROWN—SHEPARD.—On October 18th, at St. George's Church, Tredegar, by the Rev. Thomas Smith, Vicar of St. Mary's Walkley, Sheffield, assisted by the Rev. Edward Jones, Vicar of St. George's, Tredegar, George Arthur Brown, Surgeon, of Tredegar, to Hannah Elizabeth, younger daughter of Horace Shepard, Esq., Solicitor, of Polar House, Tredegar.
GRESHAM—THORNE.—On October 27th, at Holy Trinity Church, Bromley Common, Kent, by the Rev. A. Rawson, M.A., F. C. Gresham, M.D., M.R.C.S.E., L.S.A., eldest son of Chief Justice Gresham, Grenada, West Indies, to Julia Mary (May), daughter of the late Capt. J. N. Thorne.

DEATHS.

*DUNN, Robert, F.R.C.S.Eng., aged 78, at 31, Norfolk Street, Strand, W.C., on November 4th.
LEE, Matthew, M.D., at Bradford, aged 39, on October 13th.

DONATION. The Building Fund of the Adelaide Hospital, Dublin, has received a donation of £100 from Miss Fetherston H.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4.15.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—	Medical Society of London, 8.30 P.M. Dr. Drysdale, "On Pigmentary Syphilitic Affections in the Female: with Cases".
TUESDAY.—	Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Barwell, "On a Large Aneurysm of Aorta, Innominate, etc., treated by Double Distal Ligation"; Mr. Morratt Baker, "On Removal by Operation of a Hairy Mole occupying half the Forehead".
WEDNESDAY.—	Hunterian Society, 7.30 P.M.: Council Meeting, 8 P.M.: Dr. Stephen Mackenzie, "On a Case of Capillary Bronchitis, with Remarks on Treatment";—Epidemiological Society, 8.30 P.M. An Inaugural Address will be delivered by the President, Surgeon-General John Murray.
THURSDAY.—	Harveian Society of London, 8 P.M. Casual Communications. Mr. Osman Vincent, "A New Treatment of Lumbar Abscess"; Dr. Broadbent, "On a Case of Acute Dementia in a Child: Recovery".
FRIDAY.—	Medical Microscopical Society, 8 P.M. Mr. J. Needham, "A Case of Hydrophobia".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

- CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.
- AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.
- PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.
- WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.
- COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.
- CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

MEDICAL ETIQUETTE.

SIR,—A. purchases a practice of B., who, among other appointments, holds that of medical officer to an union, an appointment which had been in the practice for many years. B., after three months' introduction, retires from the practice and resigns his union appointment, for which A. applies in due course. There are only two other practitioners in the town, who are in partnership. 1. Is it in accordance with professional etiquette for the junior partner to compete for the appointment? 2. Is it so, taking into consideration the fact that the senior partner distinctly gave A. to understand, before the said practice was negotiated for, that, so far at least as he himself was concerned, he would offer no opposition to A.'s succeeding to the union appointment?—I am, etc., M. B.

* * * There is here a question of valid understanding rather than of etiquette. Public appointments are not private property, to be transferred absolutely at the will of the incumbent without control. If the gentleman in question desire to apply for any such advertised vacancy, and can do so without a breach of faith, we do not see that he would commit any impropriety in making such application. Public appointments in the Poor-law and elsewhere are not created for the benefit of the individuals who hold them, but of the public generally, and in this case, of the sick poor; and their very theory requires that they should be given to the best and most suitable persons, and that they should not be considered as appointments which the existing incumbent has the right to transfer for a valuable consideration from hand to hand. The guardians are the trustees of the public, and it is no part of their duty to recognise or accept private transfers of such appointments, unless they consider that they are also for the public good, or at least that the public interests, of which they are the trustees, will not suffer.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

THE PENGE CASE.

SIR,—Admitting that the medical evidence for the prosecution does not clearly show that murder has been committed, I think it may fairly be said that that for the defence goes a long way short of proving it has not. Dealing with some of the facts that Dr. Payne has taken up in his letter of October 27th, I may say I do not think it at all extraordinary that Harriet Staunton should have felt weak and bad when her child (her first born and only child) was taken away from her to the hospital, nor that she should have apparently failed to understand the news of her child's death. We (general practitioners) often see persons affected in this way, who are certainly not the subjects of cerebral disease. As regards the swelling of her feet, may not this have been due to poverty of blood and exudation of serum? The drowsiness spoken of, as occurring before her removal to Penge, may have been caused by extreme exhaustion, and her inability to walk may have been due to the same thing. Supposing this explanation with regard to the cause of the symptoms to be correct, it is only natural she should have shaken violently when she arrived at the end of her journey. As regards her having a fit on being put to bed, this, according to the evidence of Dr. Fowler (*vide* letter October 20th) is just what we might expect. There may or there may not have been any paralysis of one arm or side of the body, but we have no more certain evidence of this than of the attempts to feed her. The absence of vomiting, strabismus, twitching of the muscles of the neck or extremities, and the presence of diarrhoea, are against the theory of tubercular meningitis. As regards the *post mortem* examination, Dr. Fowler, who attended upon the Welsh fasting girl, states that the condition of the heart, stomach, intestines, and omentum, coincides very closely with that described by Mr. Biggs in the case of Mark Cornish (*vide* letter BRITISH MEDICAL JOURNAL, October 20th). Again, Professor Virchow says: "The striking reduction in the weight of Harriet Staunton makes it a matter of some difficulty to suppose even the possibility that her emaciation was the consequence of tuberculosis"; and he adds, "that Dr. Greenfield's additional hypothesis to explain it, that the woman was of unsound mind and the subject of general paralysis before becoming tuberculous, is one which cannot be inferred from the necropsy, and in the absence of that evidence there always remains the possibility that she was not supplied with food"; adding, finally, "that even if there were proof of the unsoundness of mind, there would still be the evidence favouring the possibility of starvation".

Every medical man engaged in private practice will, I am sure, heartily thank you for the honest and fearless manner in which you have upheld their cause in this trying and difficult case. The *Lancet*, no doubt from motives just as conscientious, has taken the opposite side; but the strong remarks made by that paper against the medical evidence adduced on the side of the prosecution, I venture to say, will damage its position with the body of general practitioners.

I perfectly agree with Mr. Donovan, that some means should be taken to vindicate Drs. Bright and Longrigg and the gentlemen who acted with them in attempting to further the ends of justice.—I am, sir, yours obediently, M.D.

SIR,—I perfectly agree with Mr. Donovan in his remarks in your JOURNAL of Saturday last. The profession should in some way express their sympathy with Messrs. Bright, Longrigg, etc., in the treatment they have received from some of their professional brethren. Some few years ago I attended Harriet Staunton. She was then a well nourished woman, remarkably neat and clean both in person and dress, and from what I knew of her she was the last person who would voluntarily become dirty or negligent of either. Surely, tubercle in the brain could hardly account for the dirt, and vermin, and filth, in which this poor woman was found, any more than it could change the baby's name to "Harris". It appears to me that a little common sense will do us more service than a good deal of theory.—I am, yours very truly, THOS. WATTS.

Frampton-on-Severn, November 5th, 1877.

E. R. M.—The last author on the subject of physiognomy, or facial expression, is Mr. Darwin, whose works are published by John Murray, Albemarle Street.

FEES TO MEDICAL WITNESSES AT INQUESTS.

SIR,—Can you or any of your readers throw any new light on the question of fees to medical witnesses at coroners' inquests in hospitals. We have a small hospital in this town in which a coroner's inquest is occasionally held. Heretofore, under the jurisdiction of the preceding coroner, who was a lawyer, the medical officers of the hospital were paid fees for giving evidence at inquests in the hospital. The present coroner, who is a member of the College of Surgeons, declines to pay such fees, on the ground of 6 and 7 William IV, cap. 89, section 5, which says that "the medical officer whose duty it may have been to attend the deceased person (upon whom the inquest is held) as a medical officer of such institution as aforesaid (viz., any public hospital or infirmary, or any county or other lunatic asylum, or any public infirmary or other medical institution, whether supported by endowments or by voluntary subscriptions), shall not be entitled to the fees or remuneration therein provided". I have, in making claim for fee, based my claim on this argument: that when the above quoted Act was passed, there were no such institutions as cottage hospitals and the smaller provincial hospitals which are now springing up in many small country towns; that in all the hospitals existing at the time of the passing of that Act, the medical officer who was called upon to give evidence at inquests in such hospitals was the house-surgeon, or resident medical officer, who lived in the hospital, was a paid officer of the hospital, and was required to devote his time to the work of the hospital, being restricted from private practice: whereas in these more recently established small county hospitals there are no resident medical officers, no paid medical officers: but the medical officers are men engaged in private practice, living away from the institution, and receiving no remuneration for services in the hospital.

The case is so different, that I cannot think the clause of the Act referred to can cover our little county hospitals. Can you suggest the best way of getting an authoritative opinion on the subject?—Yours faithfully,

WM. HENRY WILLIAMS, M.D.

* * * By referring the subject to the Lord Chancellor or the Home Secretary, the two official superiors of coroners, a further decision might be obtained on the point raised by our correspondent.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

With the Editor of the BRITISH MEDICAL JOURNAL, he had enough to inform the writer, through the medium of the JOURNAL, whether the widows and orphans of a civilian medical practitioner have any of the advantages that belong to army doctors? Also, whether he knows of any pensions or annuities given to widows of medical men who have been graduates of either Edinburgh or Glasgow Universities?—I am, etc., B. J. M.

Birkenhead, October 31st, 1877.

* To meet the wants of necessitous widows or orphans of medical men in civilian practice, the only charities known to us are the British Medical Benevolent Fund, the honorary secretary to which is Dr. G. Hett, 1, Ledbury Road, Bayswater, London, W.; the Medical Benevolent College; and local societies in some of the counties of England. The Society for the Relief of Widows and Orphans of Medical Men has large funds at its disposal, but they are only available for the relief of the widows and children of members of the Society: it is, in fact, a provident club for medical men, and we would strongly advise all young practitioners in the metropolis to join it. The secretary is Mr. J. B. Blackett, 28, Green Street, Park Lane, London, W. We know of no pensions or annuities granted by the Scotch Universities to necessitous widows of their graduates. The many sad cases of destitution among the widows of our medical brethren which are being continually brought to our notice, urge us to suggest most strongly on all our readers the advisability of life insurance with any of the many good insurance offices which are now established.

M.B., L.R.C.S.Ed.—The following would be useful text-books for the Indian examination on the subjects mentioned:—*Lectures on the Diseases of Women*, and *Lectures on the Diseases of Infancy and Childhood*, by Charles West, M.D.; *Atfield's Chemistry—General, Medical, and Pharmaceutical*; and Dr. H. A. Nicholson's *Advanced Text-Book of Zoology*.

ERRATUM.—In the JOURNAL for October 27th, page 605, column 1, line 4 from bottom, and column 2, lines 1, 3, and 31, and line 31 from bottom, for "Dr. McQueen" read "Dr. McQueen".

INITIAL DISEASES OF THE THROAT.

SIR,—In consequence of changing my residence, I have missed receiving two or three numbers of the JOURNAL, and the confusion incident to removal has caused me to postpone attention to those received; but the remarks of friends have induced me to look up the statements published respecting the Throat Hospital, from which it appears that certain individuals have met and held a so-called "inquiry" into the medical department of that charity. You speak of their "report" as in some degree adverse; but they do not seem to have published it, and they have not even forwarded it to the members of the staff.

Now, supposing these persons to be competent judges of hospital matters; supposing further, that they have duly inspected the hospital and carefully examined into its work; if they have honestly come to the conclusion that the medical department is faulty, they should at least have the courage of their convictions, so far as to specify the defects they have detected, and they might go so far as to add the remedies they recommend. To circulate statements that their "report" is unfavourable to the medical department, is only to "stab in the dark" each member of the staff. You have yourself shown in your leader of the 27th ultimo that the only serious charge against the medical superintendent was unfounded, and it is scarcely worth while to enter upon any that are frivolous.

The so-called "inquiry" was held without the assistance of the members of the staff, who received no communication from either of the individuals you mention as constituting the "committee", and who appear to have met to listen to allegations made by dissatisfied officials who had either resigned or been dismissed. To what respect can the report of such a proceeding be entitled, even if, as your remarks seem to imply, any "report" has been agreed upon?

For my own clinic I accept the fullest responsibility. It was always open to the inspection of any medical man. If laymen presume to pronounce it faulty, I can afford to smile at their opinion, which is about as valuable as that of the noblemen and gentlemen who, from their innate knowledge of therapeutics, are able to testify to the wondrous virtues of quack medicines. If, on the other hand, medical men disparage the work of their professional brethren, perhaps you, in your editorial capacity, will kindly characterise their conduct.

I have said enough to show that any attempt to implicate the entire medical department in a private dispute is quite unwarrantable; and I am entitled to speak more freely inasmuch as I have not been able to discuss the matter with the rest of my colleagues; and I am only just beginning to resume practice after a lengthened illness, during which the transactions in question took place.—I am, sir, your obedient servant.

3, Dean Street, Park Lane, November 6th, 1877.

PROSSER JAMES.

PERPLEXED.—Surely the difficulty is imaginary. The natural answer is this: "I have been attending you as *locum tenens* of A., for whom you sent in the first instance. A. has now returned, and it would be contrary to an obvious ethical principle that I should avail myself of my temporary position as A.'s representative while absent, to usurp his place now that he has returned."

SIR,—Do any of your readers or yourself know any good shops in London where medical books and instruments can be obtained second-hand? If there are any such shops, I should be glad to know where they are situated.—I am, etc., RUSTICUS.

Wellingborough, October 24th, 1877.

VACCINATION.

SIR,—In answer to your correspondent "Public Vaccinator", I may state that Dr. Husband's capillary tubes are to be obtained by writing to Robert Somerville, 10, Spring Gardens, Stockbridge, Edinburgh. I have used them for some time, and find that they are excellent in calibre and strength.—I am, sir, yours faithfully, ALFRED MATCHAM, Public Vaccinator, St. George's, Southwark.

THE notice of the meeting of the Birmingham Branch on November 8th appears to have been delayed in transmission, and only reached the office on Friday, November 2nd, after the JOURNAL was printed and issued from the press.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

DE LISE ALLEN FUND.

MRS. DE LISE ALLEN gratefully acknowledges the undermentioned donations, which she has received in answer to the appeal made in these columns.

£		s.		d.		
Mr. Erichsen	2	0	0	Mr. Carr Jackson	1	0
Mr. Thomas Smith	5	0	0	Dr. Wilson Fox	1	0
Dr. B. W. Richardson	2	0	0	Mr. Morant Baker	1	0
Sir James Paget, Bart.	2	0	0	Mr. Lennox Browne	1	0
Dr. Hughlings Jackson	3	0	0	Mr. J. T. Glover	1	0
Sir W. Jenner, Bart.	2	0	0	Mr. H. Stephens, Finchley	5	0
Mr. G. Critchett	1	0	0	Mr. O. H. Fowler, Cirencester	5	0
Dr. Andrew Clark	2	0	0	Dr. C. Coates, Bath	2	0
Mr. Caesar Hawkins	2	0	0	Mr. W. B. Page, Carlisle	2	0
The Rev. G. Henslow	3	0	0	Dr. W. Whitelaw, Kirkcubright	10	6
Dr. Russell Reynolds	3	0	0	Mr. G. W. F. Bury, Whetstone	1	0
Dr. Tilbury Fox	2	0	0	Dr. H. G. Bull, Hereford	2	0
Mr. A. E. Barker	1	0	0	L. J. C., Berkhamstead	1	0
Mr. Berkeley Hill	2	0	0	Mr. H. Stear, Saffron Walden	2	0
Dr. J. Ogle	1	0	0	Dr. W. M. Kelly, Taunton	1	0
Dr. H. Bateson	0	0	0			

Mr. Thomas Smith, F.R.C.S., 5, Stratford Place, W., has consented to receive any further donations to this fund.

FROM want of space, we are obliged to delay the insertion of the letters of Dr. Markham, Mr. H. Taylor (Guildford), Dr. Broadbent, Dr. Ashburton Thompson, Mr. E. J. Adams, and other gentlemen, until next week.

ENQUIRER (Clydach).—The advertisement from the *Kedditch Indicator* on p. 611 was, of course, reproduced as expressive of disapproval. Comment in such cases is unnecessary. It is commonly felt to be sufficient punishment that they should be reproduced in a professional paper, and pointed out by that fact for the professional reprobation which they are sure to meet.

REDCROSS.—1. Turkish Compassionate Fund (Baroness Burdett Coutts); 2. Stafford House Committee, Stafford House; 3. Lord Blantyre; 4. National Aid Society for Sick and Wounded in War.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; The Derby Mercury; The Preston Guardian; The Scarborough Express; The Jewish World; The Scotsman; The Cork Constitution; The Freeman's Journal; The Hampshire Post; The Somersetshire Herald; etc.

* We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Buchanan, London; Dr. Coats, Glasgow; Dr. Monaghan, Accrington; Dr. James Anderson, Lishvisham; Mr. James McQueen, Dalbeattie; Dr. Hugh Miller, Glasgow; Dr. Ashburton Thompson, London; Mr. Alexander Morison, Canonbury; Mr. T. F. Chavasse, Birmingham; Subscriber, Torquay; Mr. A. Metcalf, London; Mr. Watts, Frampton-on-Severn; Mr. Josiah Williams, Newport; Mr. Holmes, London; The Secretary of the Hunterian Society; Dr. Satchell, Groombridge; Dr. Simpson, Manchester; Mr. A. Matcham, London; Mr. R. N. Robson, Durham; Dr. Taylor, Annerley; Mr. Thurston, Ashford; Dr. A. H. Payne, Calcutta; Mr. Farrar, Morecambe; Mr. Balmanno Squire, London; Our Paris Correspondent; Dr. W. O. Markham, London; Dr. Whipham, London; Mr. James R. Lane, London; Our Birmingham Correspondent; Mr. Robt. Hughes, London; Mr. Berridge, Reigate; Mr. Henry May, Birmingham; Mr. J. Tivey, London; Nesciens; Mr. H. B. Vincent, East Dereham; Mr. Edmund Owen, London; Dr. Urban Pritchard, London; Mr. H. Robison, Darlington; Mr. E. Bellamy, London; Dr. Dyce Duckworth, London; Dr. Mitchell Banks, Liverpool; Dr. Burney Yeo, London; Dr. P. Atkinson, Kingston-on-Thames; Dr. F. J. Brown, Rochester; Dr. Glynn, Liverpool; Dr. Lush, Weymouth; Dr. Clark, Clifton; Dr. Clement Godson, London; Enquirer, Clydach; Mr. Fowler, Bath; Dr. Bond, Gloucester; Mr. R. W. Dunn, London; Dr. G. G. Bantock, London; Mr. C. Higgins, London; Dr. Moorhead, Weymouth; Dr. Tizard, Weymouth; Our Dublin Correspondent; Mr. Elliston, Ipswich; Dr. Fairlie Clarke, Southborough; Dr. Miller, Blackheath; Dr. Trollope, St. Leonards-on-Sea; Mr. E. R. Morgan, Swansea; Mr. E. J. Adams, London; Dr. Prosser James, London; Mr. J. A. Brown, Tredegar; Surgeon-Major Jessop, Clifton; Dr. A. Taylor, London; Our Edinburgh Correspondent; Dr. MacGregor, Airdrie; Mr. E. Crockett, Cheadle; Dr. W. G. Bacot, Blandford; Dr. Levinge, Stapleton; Mr. C. J. Owen, London; Dr. Spender, Bath; Mr. Ashenden, Hastings; Mr. E. L. Hussey, Oxford; Dr. Fletcher, Earlsham; Dr. Bright, Forest Hill; Mr. Samuel Lucas, Cambridge; Mr. J. E. Hayward, London; Dr. Milner Fothergill, London; Dr. Wickham Barnes, London; Mr. T. Spencer Wells, London; Dr. Broadbent, London; Mr. Hodgkin, Oxford; Dr. C. J. B. Williams, Cannes; Dr. Robt. Bell, Glasgow; Dr. Spenser, Clifton; Mr. Henry Taylor, Guildford; Mr. Wm. Owen, Liverpool; Mr. Stocks, Salford; The Secretary of the Salford Royal Hospital; Dr. Meymott Tidy, London; Dr. R. Sandby, Birmingham; Dr. Ogle, Derby; Dr. G. B. Bacon, Fulbourn; Mr. Eastes, London; etc.

A LECTURE

ON A

CASE OF PUERPERAL SEPTICÆMIA, WITH HYPER-
PYREXIA, TREATED BY THE CONTINUOUS
APPLICATION OF COLD.

By W. S. PLAYFAIR, M.D., F.R.C.P.,

Professor of Obstetric Medicine in King's College, and Examiner in Midwifery to the University of London.

GENTLEMEN,—Strictly speaking, a case occurring in private practice scarcely forms a fit text for a clinical lecture; but that on which I am tempted to make some observations to you to-day is one of a class which students have no opportunity of studying in the wards of a hospital, and yet of a kind which, unless they are exceptionally fortunate, they cannot fail to meet with now and again in the course of their private practice. Moreover, I am sure I am fully justified in saying that these cases of puerperal fever, or rather of puerperal septicæmia, or pyæmia, as modern obstetricians are more inclined to call them, will cause you more intense anxiety and more severely tax the resources of your art, than any others that are likely to come under your observation. Under these circumstances, the breach of the rule which limits clinical lectures to hospital cases is, no doubt, justifiable, the more so as it will enable me to direct your attention to the treatment of such cases by the continuous application of cold, a therapeutic resource regarding which we have, so far as I know, no published details as applied to puerperal cases, and which, in this case at least, rendered most valuable assistance, and, I cannot but think, saved the patient's life under conditions which almost precluded any hope. As time elapses, our knowledge of the effects of cold in the management of hyperpyrexia will, no doubt, be greatly extended, its limits defined, and the readiest way of applying it decided. In the meantime, I trust that this history may at least afford you some useful hints in the event of your being so unfortunate as to meet with such a case in your own practice.

On the 5th of August, at 5 P.M., I was summoned to attend Mrs. —, a young and healthy primipara. I found the head presenting, the pains frequent but slight, and the os undilated. The labour progressed perfectly naturally, the first stage being somewhat tedious and painful. At 7 A.M. on the morning of August 6th, the os had remained without further dilatation since 1 A.M., although the pains were frequent and of good character. The os was at this time of the size of a florin, the membranes not bulging at all through it. I suspected that the labour might be protracted by an excess of liquor amnii, and, therefore, ruptured the membranes with the best effect. The os now rapidly dilated, the head descended into the pelvis, and the child was born at 10 A.M.

I may observe, in passing, that the axiom of our text-books as to the paramount importance of keeping the membranes unruptured until the os is fully dilated, often leads to unnecessary delay. No doubt, some practical experience is necessary to decide upon the propriety of evacuating the liquor amnii; but, when the pains do not steadily increase, when the membranes do not bulge through the os with each pain, and when the os is soft and apparently readily dilatible, the puncture of the membranes often saves your patient many weary hours of suffering.

The uterus now contracted strongly, but one drachm of the fluid extract of ergot was administered after the placenta had been expressed, as has been my custom for several years, with the view of keeping up continuous contraction.

At 6 P.M. the same day, when I again visited the patient, I found that there had been a distinct rigor, her pulse being 120, and the temperature 102 deg. Nothing was done that evening, as, this having occurred so soon after labour, I was in hopes it might have been due to some transient cause. Next morning, I found that the patient had had another rigor, the pulse being 130, and the temperature 103 deg. There was no tenderness over the abdomen, and the lochia were natural. I now washed out the uterine cavity freely with Condy's fluid and water, with the view of disinfecting any decomposing coagulum that might be lying within it and setting up septic mischief, and prescribed twenty grains of quinine to be taken immediately, and to be repeated at 8 P.M.; and a minim of tincture of aconite was given every half hour, under careful

supervision, with the view of lessening the rapidity of the heart's action. Next morning, the pulse was 120, and the temperature 101.2 deg.; but the quinine had produced so much discomfort and throbbing in the head that I was obliged to discontinue its use.

The case now rapidly grew worse. Next morning, the fourth after her confinement, the temperature was 104 deg.; and in the evening 105.4 deg., the pulse 130, small, thready, and feeble. There was no tenderness over the abdomen, but flatulent distension was commencing. There were occasional well marked rigors; the complexion was of a dusky yellow tinge, with distinct patches of a livid purple eruption coming out over the forehead and cheeks, disappearing, and coming out again (a phenomenon that continued, more or less, during the whole illness); the tongue was coated, but moist; in fact, the case had now assumed a most formidable character, and was a well marked example of what I believe to be one of the worst types of puerperal fever, that in which there are no distinct local phenomena.

The treatment now adopted was the administration of abundant fluid nourishment in the form of milk and beef-tea; fifteen grains of salicylic acid every third hour, in the hope of lowering the temperature; six ounces of brandy in the twenty-four hours; and the washing out of the uterine cavity twice daily with antiseptic lotions. In the hope of lessening the persistent high temperature, Dr. Knowsley Thornton's ice-cap, which has been found so useful for this purpose after ovariotomy, was now applied. This gave great relief to the throbbing headache, which caused much suffering; but it produced no further diminution of the temperature than from 105.4 deg. to 104 deg. Next morning, August 10th, things were in no way improved. The temperature was 105 deg.; pulse 140; and the abdomen tympanitic. As the salicylic acid had not lessened the temperature, and as the pulse was very thready and feeble, it was discontinued.

Next day, August 11th, the patient was still worse. The temperature was 105.2 deg.; pulse 140. The intelligence was good, and she was able to take nourishment well; but, with the temperature at so high a mark, it was obvious that the chances of recovery were small indeed; and I now determined to try the effect of cold applied externally, with the view of lessening the excessive fever, on which the antipyretic remedies already tried had had no appreciable effect. Accordingly, at 4 P.M., the patient was enveloped from head to foot in a large sheet wrung out of iced water; this being rapidly changed every minute or so for another. The pack was applied for half-an-hour. The patient expressed herself as feeling no discomfort from it, but rather the reverse. The effect on the temperature, however, was slight, as it only fell from 105.2 deg. to 104 deg. At 11 P.M., the pack was again applied for half-an-hour; and, at the end of that time, the temperature had fallen to 103.2 deg. Next morning, August 12th, the temperature was 104 deg.; pulse 130. Her general condition was as before. At this time, I had the advantage of meeting my friend Dr. Wilson Fox in consultation. It is well known that that gentleman is one of the first who, in this country, drew the attention of the profession to the systematic use of cold applications in the treatment of hyperpyrexia, and I thankfully acknowledge the great assistance I derived from his experience in the management of this anxious case. With his concurrence, it was determined to use the cold applications continuously, but in a modified form, since the complete envelopment of the body in iced sheets was very difficult to manage, and had not the marked effect of reducing the temperature which was expected. Accordingly, the patient lying on her back, three towels soaked in iced water were placed on the front of the body, one over the shoulders and chest, one over the abdomen, and one over the thighs. These could be frequently changed, and were managed by one nurse, while it had taken three people to apply the sheets that had been formerly used.

It is not easy by description to convey to you any accurate idea of the effects on the temperature which, from this time and through the remainder of the illness was taken in the mouth every quarter of an hour, except when the patient was asleep, as you will see by the chart. During the whole of the day, the modified pack was kept constantly applied, with manifest comfort to the patient; the temperature varying from 103 deg. to 104 deg. At 5 P.M., it registered 103 deg., after which it gradually fell, until at midnight it was 101.4 deg., when the pack was removed. The patient now had a little sleep, but the temperature rapidly rose, until at 3 A.M. it was again at 103 deg., when the pack was reapplied. Next day, August 13th, the patient was much the same. The temperature ranged from 102 deg. to 103 deg. The pulse was 130; the general condition unaltered. The ice-cloths were kept on nearly continuously night and day, the patient being obviously more comfortable when they were applied; and, when they were removed, the temperature at once showed a decided tendency to rise. The patient now and again slept for half-an-hour or so, took her food well, and had no diarrhoea; the abdomen was still tympanitic.

The brandy was increased to ten ounces *per diem*; twenty minims of the tincture of perchloride of iron were given every four hours; and nourishment of some sort, milk, beef-tea, or yolk of egg every hour.

I cannot give you a detailed account of the progress of the case from this time; but it will suffice to say that it was obvious that there was a very marked tendency to hyperpyrexia, which was only kept within moderate bounds by a constant attention to the iced applications. If for half-an-hour or more, as occasionally happened when the patient was asleep, their use were intermitted, or when an endeavour was made to do without them, the temperature very shortly ran up to 104 deg., or even, on one or two occasions, to 105 deg.; but, by the assiduous use of the cold towels, it was again speedily reduced to 102 deg., or even less, having occasionally fallen as low as 101.4 deg., but for a short time only. By the means we had hitherto used, the cold was applied to the front of the body only. We now adopted a method of applying it to the back, with no moving of the patient, and with little fatigue to the nurses. I had two India-rubber tubes fixed to the opposite corners of a water-bed, on which the patient was laid without any clothing, and covered with the iced towels. From the lower of these tubes every hour or so several gallons of water were allowed to flow out, while an equivalent quantity of iced water was pumped in at the opposite end by a large garden-pump. This answered admirably, and gave little trouble. The cold applications were begun, as I have told you, on the 9th of August, and they were continued night and day, without any intermission, except for a short time now and again, when a rapid increase of temperature immediately necessitated their reapplication, until August 18th, that is eleven days. During the whole of this time, the patient's condition was critical in the extreme. The temperature was taken in the mouth every quarter of an hour, except during the intervals of sleep; and even under the constant refrigeration, it never fell below 101 deg., except for three hours on the morning of the 16th, when it was 99.5 deg., whilst at times it was 105 deg. The pulse all this time was excessively small and feeble, ranging from 130 to 150 per minute. The other symptoms were, on the whole, good. The tongue was moist; the abdomen only moderately tympanitic; there was slight diarrhoea for three or four days, but never in excess; the intellect was clear; and the urine possessed a slight cloud of albumen; there was no local complication. Until August 15th, the tenth day of the illness, the temperature-chart showed a nearly uniform line with occasional short rises. On that day, however, and on each subsequent day, there was a distinct remission in the morning, when the temperature reached its lowest point, and the pulse improved; the temperature beginning to rise again at 1 P.M., reaching 104 deg. or 105 deg. by 3 P.M., and the pulse becoming extremely rapid and feeble. On the afternoon of August 16th, 17th, and 18th, the patient was almost moribund; and I left her on each successive visit with little hope of finding her alive on my return. Indeed, on the 18th, I thought she could not possibly have lived many minutes. The pulse at the wrist could not be made out at all; and, on auscultation, only a feeble flutter, quite impossible to count, could be heard over the heart. At those times, the amount of stimulant was largely increased; as much as twenty-eight ounces of brandy having been given during the twenty-four hours on those three days. All this time, the cold applications were continued; and, although I am quite convinced that they kept the temperature within limits which were compatible with existence, and so gave the disease a chance of wearing itself out, they did not seem, either to Dr. Fox or myself, to do more than this, and had in no sense a curative effect.

You will remember that large doses of quinine and also of salicylic acid had been given, with no distinct antipyretic effect, and had been discontinued. Being struck with the marked remittent type the fever had now assumed, I determined to try the effect of a remedy of high repute in India in the worst class of malarious remittent fevers, and the almost marvellous effects of which in such cases I had myself witnessed many years ago when in India. This is the so-called Warburg's tincture, a drug which, as being a patent medicine, was for long in disfavour, but the remarkable properties of which had been testified to by many high authorities, among whom I may mention Dr. Maclean of Netley and Dr. Broadbent, and which Sir Alexander Armstrong, the Director-General of the Medical Department of the Navy, informs me is now supplied to all Her Majesty's ships in the tropics, because it is found to be of the utmost value in cases in which quinine has little or no effect. Recently the composition of the tincture has been made public by Dr. Maclean. Its basis is quinine, in combination with a large number of vegetable aromatics and bitters, and the recipe reads like a farrago of nonsense. Probably there is some ingredient in it which intensifies the action of the quinine. Be this as it may, the testimony in favour of the efficacy of the drug as an antipyretic is very strong, and I determined to try its influence on my patient, since her condition was so bad that nothing could make it worse, and all other remedies had

proved useless. The effect was very much more marked than I had ventured to hope. A full dose of the tincture was given at 3.30 P.M. on August 19th, the pulse being then 140; temperature 104 deg.; and was repeated at 6 P.M. A very profuse perspiration shortly broke out, until the patient was literally bathed in sweat (this being the almost invariable effect of the remedy), and she described herself as feeling immensely relieved. The cold applications were now removed; and the patient fell into a quiet sleep. At 9.30 P.M., the pulse was 110, but much fuller and stronger than it had been for many days. Temperature 102 deg. A single drachm of the tincture was given at 3 A.M., and ordered to be repeated every six hours. Next morning, at 8.30 A.M., I found her condition totally altered. The temperature was 99 deg.; pulse 96, full and strong; and from this moment the patient may be said to have been convalescent. The temperature never rose again, except between 3 and 7 P.M. on the afternoon of the 20th, when it suddenly ran up to 102 deg. A dose of the tincture, which had been discontinued, was now given, and repeated at 2 A.M.; and next morning the temperature was normal, and remained so.

The history of this terrible illness is now practically over. For many weeks the patient remained very weak and feeble, and there came on some indefinite swelling and pain about the joints; the skin of her hands, and here and there in other parts of the body, peeled, a fact on the significance of which I shall presently comment; but eventually she completely regained her usual health.

Let me now, as briefly as possible, point out to you some of the lessons we may gather from this history, already, I fear, too tedious and long, of the most remarkable recovery it has ever been my fortune to witness.

1. Can we say anything as to the *cause* of the illness? The first question the medical man is bound to ask himself, in the face of such a case, is: whether it is possible that the septic matter can have been conveyed to the patient? Unhappily, the evidence of the possibility of this is too strong to render it a matter of doubt that this may happen; and all who see much midwifery practice could, were they honestly to review their experience, record such cases. Fortunately, in this instance, nothing of the kind was in the least likely; since no one in contact with the patient had, so far as could be ascertained, recently been near a case from which the contagium could have been derived. There is, of course, the possibility that it might have been autogenetic; but I do not think it probable, since the symptoms began too soon after delivery to admit of the supposition that it arose from decomposing matter in the genital tract. There remains the possibility of the patient having herself been exposed to the contagium of some zymotic disease, such as scarlet fever, before labour. Now, I cannot enter here, as I have done elsewhere, into a discussion of the *questio vexata* as to whether a disease, indistinguishable from puerperal fever, may be derived from the poison of zymotic disease, which shows none of the characteristic phenomena of the disease which originated it. I am aware that many high authorities totally disbelieve that this can be the case, and contend that zymotic diseases in the puerperal woman always run their usual course, and show their characteristic phenomena. That they often do so is quite beyond doubt. I have repeatedly seen lying-in women, who have been attacked with distinct and well-marked scarlet fever or measles, within a few days after labour, in whom the disease has run its usual course, and has not apparently been in any way intensified by the puerperal state. On the other hand, I am equally certain that I have seen many cases of puerperal fever showing no traces whatever of the ordinary symptoms of zymotic diseases, the origin of which was undoubtedly traceable to the poison of scarlet fever, erysipelas, or diphtheria. I am quite unable to suggest to you any satisfactory explanation of this curious fact; but I believe it to be proved to demonstration, and no one can, I think, impartially study the literature of the subject—as, for example, the interesting paper of Dr. Braxton Hicks, in the twelfth volume of the *Obstetrical Transactions*—without being compelled to admit it. It is to be hoped, as our knowledge increases, that some light may be thrown on the subject. In the meantime, I firmly believe that the denial of the facts, because we cannot explain them, can have no other effect than that of rendering the practitioner careless in his dealings with zymotic disease in relation to puerperal patients, and thus leading to the most disastrous results. Now, the channels through which such a poison as that of scarlet fever may come into contact with a patient are numberless, especially in large towns, where the first cab the patient may enter, or some casual contact in the streets, may convey the contagion. There was in this case a well-marked eruption, very analogous to that of scarlet fever; but such rashes are common in septicæmia, quite independently of the origin of the disease. The fact, however, that, subsequently to recovery, there was distinct desquamation about the fingers, and, to a less extent,

in other parts of the body, make me think it likely that the scarlatinal poison was the origin of the illness.

2. As to the *treatment*. I believe that this may be summed up in the aphorism, that we have to use our utmost endeavours to keep the patient alive until the intensity of the disease has worn itself out; but, I fear, we must admit that we know of no reliable means of cutting short, or materially influencing, the progress of the septic disturbance, when once it has been fairly set in progress. Beyond any doubt, continuous elevation of temperature, such as existed in this case to so marked a degree, is one of the chief sources of danger, and much of our management of the case must lie in the direction of lessening pyrexia. In cases of moderate intensity, antipyretics—such as quinine in sufficiently large doses, of not less than twenty grains, salicylic acid, or the ice-cap—will probably be quite sufficient; and I certainly should not be disposed to recommend so troublesome and irksome a treatment as the external application of cold, unless there were marked hyperpyrexia. I cannot, however, doubt that in this case refrigeration saved the patient's life; for, without it, she certainly could not have lived over eleven days of fever with the temperature at 104 deg. and 105 deg., and tending to increase. My experience of this treatment is limited to two other cases. One was the wife of a medical man, whom I saw in consultation with Dr. Cleveland of St. John's Wood. In this we did not think of using the cold until the temperature was 107 deg., and the case was almost hopeless, and then only in the modified form of the ice-cap, and unhappily without any good results. In the other, which I saw in consultation with Dr. Protheroe Smith and Dr. Simpson of Highgate, we used the ice-pack night and morning for several days. Unfortunately, this patient was the subject of chronic albuminuria; and the case, which ended fatally, could hardly be considered a fair test of the remedy. My belief is, however, that where there are no well-marked local complications, and where the temperature is above 104 deg. or 105 deg., and tending to rise to a still higher level, the pack should certainly be tried; and in the modified form in which it was used here, it may be applied readily enough, while the lifting of a puerperal patient into a bath would be almost impossible.

You will have observed the marked beneficial results which followed the administration of Warburg's tincture. It would, of course, be absurd to draw too strong an inference from one case; but, at least, my experience of it would strongly incline me to try it again as an antipyretic of promising character.

By the careful feeding of your patient with milk, beef-tea, and eggs, administered at frequent intervals, you will materially husband her strength for the storm she has to pass through, and you cannot pay too much attention to this part of the management of this disease. With regard to stimulants, I am inclined to think that they are often given in such cases to an injudicious and needless extent. As long as the pulse is fairly strong, and no indication of excessive prostration exists, I believe it is better to administer them in strict moderation. But the time may come, as it did in this instance, when the prostration is so great, that the only chance of keeping the patient alive is in profuse stimulation. My advice with regard to stimulants would be not to order them indiscriminately, or in fixed quantities, but in strict accordance with the exigencies of the case, varying the amount from hour to hour, as the state of the patient may require.

One point of local treatment should never be omitted, especially in the early days of the illness, that is, the thorough washing out of the uterine cavity, night and morning, with antiseptic lotions, such as Condy's fluid and water, tincture of iodine and water, or a weak solution of carbolic acid. In many cases of autogenetic origin, in which decomposing matters exist *in utero*, this alone will suffice to remove the source of mischief, and cut short the progress of the disease. I must warn you, however, that such injections to be of value must be applied thoroughly, and into the uterine cavity itself; and it is quite useless to entrust them, as I have often seen done, to the nurse.

3. I can only briefly refer, in conclusion, to a subject which every conscientious practitioner must very anxiously consider, when he is so unfortunate as to have under his charge such a case, and that is: What are his duties to his other patients? The practical difficulty of giving up attendance on other midwifery cases is so great, that one cannot be astonished at practitioners inclining to underestimate the weight of the evidence which shows the possibility of the contagion being conveyed from patient to patient. Indeed, I believe that, in these days of antiseptics, the thorough disinfection of the hands can be so efficiently carried out, that danger from this source can be reduced to a minimum. The principal risk is in refusing to admit the danger, and neglecting the necessary precautions; and it is the man who wilfully shuts his eyes to the facts, and does not employ the means of disinfection at our disposal, who is most likely to be the unhappy medium of carrying infection. If, then, we see such a patient once in a way, carefully wash our

hands in some antiseptic lotion, and avoid touching her with the right hand or keep on a glove while in her room, there is no reason why we should not continue our obstetric practice, and to insist upon more would be practically to debar us from following our profession at all. But, if we are in constant and frequent attendance on such a case as that we have been considering, visiting our patient four or five times every day, and, above all, if we are compelled to use intra-uterine injections, I believe it to be quite impossible to attend other cases without such a degree of risk that no conscientious man can venture to subject his patients to it; and, be the sacrifice what it may, it will be our bounden duty to avoid, for the time, the actual attendance on lying-in women.

A CASE OF PECULIAR CROWING INSPIRATION IN A NEW-BORN CHILD.*

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BEFORE I relate the case which forms the more immediate object of this paper, allow me to give you a few particulars bearing upon it, which the family history reveals. The lady—the mother of the child—had not been in good health for years. While a young lady, her family physician ordered her to the Mediterranean, and during her stay there she married, and afterwards gave birth to the two eldest of her children. The firstborn was a female, who lived two years and died of dysentery. The second child, born soon after this first one's death, was a son, and he died in his third year from scarlet fever. After an interval of three years, she gave birth to her third child, a female. She was the first of her family born in this country, and she exhibited from birth a peculiar crowing while breathing. The mother describes it as a catching of the breath, and she believes it originated in consequence of the exhaustion she suffered from through nursing the second child during his last illness. This third child lived only a few hours. Again, after an interval of about three years, another female child was born. This one had the peculiar crowing during each inspiratory effort; she lived twenty-four hours, and during that time every attempt was made to establish an easier state of breathing, but without success. About ten months after the event, my patient had a miscarriage.

Towards the end of 1876, the lady herself, for the first time, came under my care. Her statement to me was that she had suffered from rheumatism, with occasional neuralgic attacks, and that she had habitual indigestion. I found her suffering from the gastric sympathetic irritation of pregnancy, and from abdominal pains over the region of the womb and bladder, which were due either to her rheumatic condition or to previous inflammatory adhesions existing around the uterus. It was rare for her to take any food without feeling acidity in her stomach. The urine was normal, but the bladder was irritable; and this condition became so aggravated while in the erect position, that she was obliged to remain in bed during the last five months of her gestation. Altogether, she felt and looked in very poor health. Various remedies were employed to meet the disordered conditions just described, with only partial benefit. When her pregnancy had advanced seven months, she suffered from the symptoms of a miscarriage, without any known exciting cause for inducing it. The spasmodic pains were arrested by morphia suppositories, and after two days they ceased to trouble her. Henceforth, the gastric disorder was kept in check by pepsin and bismuth, while the irritation of the bladder was somewhat relieved by her taking tartarated iron. At full term, her labour began; its onset was marked by the usual irregular and fitful pains, which in about two hours were succeeded by the regular bearing down ones, and the labour, which was natural, was completed within the usual period of a healthy multipara, and with no effort beyond that usually employed.

The child, a male, was fully matured; it appeared to be well nourished, and was of the average size. From the first, its respiration was defective. It did not cry, and the attempts at inspiration were irregular, short, and very feeble; they might be described rather as a gasp than as an inspiratory effort. Slapping the nates, and the alternate application of hot and cold water to the skin, increased the frequency of the child's efforts to breathe. A little blood was allowed to escape from the navel, with no beneficial result; then the use of hot and cold baths was resorted to. The child was plunged in one of them to the neck, kept for a few minutes in it, and then quickly transferred to the other. This treatment was found of most advantage; the skin began to show patches of a natural colour; after a time, the breathing was

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more regular, and at length evidence of life was given by crying. Then, through the application of a sponge squeezed out of hot water alternately with one from cold water, and applied to the throat, increased facilities for breathing were given. It was evident, however, that, under the most favourable circumstances, the crowing spasmodic inspiration would continue. The lividity of the skin also was still present to such an extent as to indicate very defective aëration of the blood. At the end of two hours, I ceased using the sponges. I then placed it in warm cotton-wool, and gave it a few drops of brandy, with warm water, which was swallowed readily. Dr. Foulis, surgeon to the Throat Dispensary, who was sent for, now came in, and the child remained under his constant observation until it died. His statement of the case is, that the baby suffered from a continual impediment to the inspiration, in the form of a crowing long-drawn effort, ending usually with an abruptness which seemed to point to some obstacle in the glottis. Occasionally, there occurred a sort of collapse, with cyanosis and cessation of the breathing, which lasted for a minute at most, and was rallied from slowly under the use of alternate applications of hot and cold sponges to the chest. The inhalation of minute quantities of ether was tried, but, though it seemed to relieve the spasm, yet it did so rather by producing a sort of stupor than by any real benefit to the breathing. The only treatment which seemed of real use was holding the lower jaw forward by means of the fingers placed behind the angles, and so pushing it forwards. This effectually relieved the breathing for the time, and restored the colour of the lips and face to the natural rosy tint; the crowing inspiration returning immediately on the relaxation of the forward pressure. Later on, however, the dyspnoic attacks became more frequent, and the child died nineteen hours after the birth. Milk and a very little brandy were administered every two hours or so, in small quantities, and the swallowing did not seem to be much impaired except during the last hours of life.

That same evening we examined the body. We found a degree of venous congestion in the skin and organs generally. The thymus gland was, if anything, undersized. One third part only of the lung was expanded; the other two-thirds of the lung-tissue were non-crepitant, purple in colour, and almost solid to the feel. The heart and other thoracic and abdominal organs were not diseased. The brain was not examined. The larynx and trachea seemed small. The epiglottis was folded closely together. The diameter of the trachea was $5\frac{1}{2}$ millimètres; the total length of the rima glottidis 5 millimètres, of which $3\frac{1}{2}$ millimètres was formed by the ligamentous part of the cord. The placenta, which was also examined, was found dotted over with a few minute fatty patches, which, however, did not extend deeply into the placental tissue, but were rather confined to the superficial layer; otherwise it was healthy, and of the average size.

On consulting all the works at command on the subject of the size of the larynx at birth, Dr. Foulis failed to obtain anywhere such measurements as would enable him to give a definite statement as to the possible deviation in this case; he therefore measured the larynx in other children of the same age as the one under notice, which had either been stillborn or had died just after birth. These gave the following results.

	Diam. trachea below isthmus.	Rima glottidis.	Ligamentous cords.
1. Subject of this paper (for comparison), full time	$5\frac{1}{2}$	5	$3\frac{1}{2}$
2. Female still-born child, full time	"	"	"
3. Male still-born child, full time	"	"	"
4. Male child, lived two days, full time	$4\frac{1}{4}$	$7\frac{1}{4}$	"
5. Male child, born three weeks before full time; lived one week, and then died	"	"	"

The trachea, therefore, in our case was not too small. The rima glottidis, on the other hand, was shorter than in any other of the cases, and this difference may have aggravated the difficulty in inspiration. My little patient, however, impressed Dr. Foulis rather with the idea of a spasm or closure of the cords, such as he had observed at the Throat Dispensary in several adult cases. In these the cords went apart a little way at the commencement of inspiration, and during the latter part of the inspiratory act they closed together again, instead of going further apart as in normal cases; and the peculiar breathing of the child under notice seemed to him to be produced in a like manner.

The peculiar features of this case do not end here. I mentioned that the first two children born on the shores of the Mediterranean lived at least two years, and, from the absence of any laryngeal peculiarity, would appear to have escaped the infirmity. I do not think, however, that the mere fact of being born in this country accounts for the presence of the defect; neither was I able to discover the slightest trace of a constitutional syphilitic taint affecting parent or child; and, after careful inquiry, I was satisfied that this was not the exciting cause of the defect. I have since learned that the offspring of several of the

members of the lady's family were similarly affected at birth, and that the children so affected lived only a few hours. Others of the children who escaped the crowing at birth displayed a disposition to throat-affections; and when attacked by disease in this region, although mild in type, they readily succumbed under it. With such a history before me, am I entitled to assume that the peculiarity is in any respect hereditary? In my opinion, the facts of the case distinctly point in that direction. This leads further to the consideration of the treatment proper to be adopted in future should a case of the same sort occur in the family. We gave a fair trial to the ordinary means of obviating spasm, the age of the child rendering this a matter of difficulty; and our efforts having failed, the question of tracheotomy presented itself as the only remedy, although a desperate one, which might give a prospect of complete relief from the crowing, and, by enabling complete expansion of the lungs to take place, give also a hope of healthy respiration. It affords me pleasure to add, that the parents have consented, should another child be born to them similarly affected, to the adoption of this procedure, rather than to leave the child, as in the present case, to die by the slow process of suffocation.

The determination of the size of the larynx at birth is a point of some interest, which may be considered as not hitherto settled by actual measurements. The number of cases which my friend Dr. Foulis has been able to examine is only sufficient to give an approximate estimate. Irrespective of the case under consideration, the measurements given are very suggestive, and a step towards exact knowledge of the size of this important organ at birth has been thus secured. The case itself is in many respects unique, and I have brought it before you to elicit information as to how similar cases, if any, which may have been observed by others, have been treated, and also to ascertain if any plan can be devised less formidable than tracheotomy for the relief of a newborn child having this defect in its inspiratory efforts.

THE ESSENTIALS OF CLINICAL TEACHING.

(Being Extracts from an Address delivered at the Annual Meeting of the South of Ireland Branch.)

By H. MACNAUGHTON JONES, M.D.,

Assistant-Surgeon to the Cork South Infirmary and County Hospital;
President of the Branch; etc.

.....THERE is no test which more unerringly proves the standard which the profession has attained to, and is maintaining, in any city, than the clinical teaching, its character and excellence, as manifested either through original research or through careful compilation of clinical records and therapeutical facts. I will ask you, in any remarks I make on this important subject, to dismiss all local consideration from your minds. Let us imagine that in some city in which no medical school had previously existed, and where no hospitals were working, a medical school was opened and clinical teaching established: let us further suppose that, having the future success of such school and hospitals at heart, we were anxious to secure the best and most efficient clinical instruction—What are the qualities in the teacher, the teaching, and those taught, which we would be most desirous all of them should possess? I do not ask you necessarily to agree with me in my ideas of what good clinical teaching is, or the attributes of mind and character essential in a cultivated teacher, or the mode in which that instruction should be received by the students. I give you candidly my views on the subject, as one connected with student life from the moment I entered the profession, and intimately mingling with students for the past eighteen years. You and I can agree to differ, if indeed I touch on any point on which a difference can arise.

Let us, in the first place, with advantage dwell briefly on a few of the essential ingredients which combine to form a good clinical teacher. In the words of Dr. Stokes, "a good teacher must be gifted with that strange power, partly physical, partly moral, which in itself gives to its possessor command over the minds of men. In the next place, the teacher must be thoroughly in earnest; for this gives to every word he utters a power of forcing its way that cannot be resisted." He must, as Dr. Stokes says, quoting Dr. Arnold, give them "living water". "Facts, views, and arguments" must have a vitality and freshness about them which ensures attention, and which "is only attainable when the teacher is himself an original investigator". To possess the power of imparting knowledge to minds variously endowed, and of different degrees of capacity, is a gift not of second importance to the art of acquiring it. How many of the ablest of men are sadly deficient teachers! In the clinical teacher this power is doubly difficult to acquire. A large proportion of his knowledge is acquired from his own experience and observation. But that experience and

observation should be supported on a firm basis of pathological and physiological knowledge, otherwise the routine observer rapidly degenerates into the empiricist and quack. The grand element of success in clinical teaching is truth. No clinical teaching can be sound which is not strictly truthful. There should be no exaltation of self at the expense of others; no ridiculing of the views and opinions of other teachers with the same object; no suppression of the unsuccessful or unforeseen results which have followed the application of either therapeutical or operative measures. A candid confession of instances of personal errors of judgment, and the causes which led to these, is more valuable and instructive to a student than the recapitulation and boasts of any questionable successes. There is no more inexcusable fault in a clinical teacher than the cultivation of the habit of exaggeration; young students fail to discriminate when a man is speaking the truth or palpably deceiving them. These early impressions are not readily effaced. Clinical teaching, to be perfect, must be thorough as well as accurate. In medicine, the closest habits of observation should be enforced, with such new aids in the elucidation of disease as we now possess in the ophthalmoscope, cardiograph, the sphygmograph, and the laryngoscope. No clinical education can be considered complete which is not based on a thorough acquaintance with the use of these adjuncts to a correct diagnosis. . . . If the medical clinique is to be worth attending, it must be enriched by constant, often hourly, thermometric observations on the part of the students, accompanying faithful records of the rapidity and character of the pulse; the force and frequency of respirations; the state of the secretions.

Hear what the late Dr. Graves, that type of a clinical teacher, had to say of the results in after-life which accrue from deficient clinical teaching.

"This charge of inexperience is not necessarily confined to the beginner; it applies equally to many an old practitioner, whose errors have grown and have increased in strength during a long succession of years, because, from a defect in his original education from the absence of a properly directed clinical instruction, he commenced practice without having previously acquired the power or the habit of accurate observation; because he had not in his youth been taught to reason justly upon the facts presented to his view; because not having learned in the beginning to think accurately, he contracted a loose and careless mode of examining the progress of disease and the effects of remedies; and, consequently, the lapse of time has had no other effect upon his errors than that of rendering them more inveterate. Such a man has generally an overweening confidence in his own judgment; he never detects or is conscious of his own mistakes; and, instead of improvement, years bring only an increased attachment to his opinions, a deeper blindness in examining the results of his practice; and do not such persons abound in every branch of the profession? Are there not general practitioners; are there not physicians; are there not surgeons; are there not apothecaries who answer to this description, and who, nevertheless, are cheerful in their demeanour, and enjoy a good repute among their clients? Believe me, the quacks who cover our walls with their advertisements vend not annually to the community more poison than is distributed according to the prescriptions of your routine and licensed practitioners."

If this be the case in medicine, what shall we say of surgery? What a host of qualities are required in combination before the surgical teacher is formed! How varied must be his knowledge, how wide his experience! If this be the age of "preventive medicine", it is our proud boast that it is also an age of "preventive surgery"; preventive in the sense that the great object of the modern surgeon is to conserve and preserve parts essential to life and happiness; to prevent disease from making such inroads as to necessitate operative interference; or if operative measures are called for, that such should be limited so far as they may be consistent with the safety of the sufferer, and undertaken under all the safeguards and securities with which modern surgical science has surrounded the operator's knife. Taking for granted, then, that our surgical instructor is a thoroughly "preventive surgeon", let us ask ourselves what are the other qualities which make him a thorough and truthful clinical teacher.

First, and most essential, he must be a good anatomist. By this I mean that he must possess a thoroughly sound knowledge of the relation and action of muscles, the course and distribution of arteries and nerves, and of regional anatomy. Without this knowledge, I defy any man to be a surgical teacher. He may bungle or rashly slash through operations, yet he is only after all a higher grade of the ordinary butcher, licensed, however, to carry out his manipulative feats on human beings instead of on the lower animals. The Vivisection Act, logically, should have embraced the *genus homo*. It is, however, rather in his capacity as a teacher that his anatomical knowledge is essential. If it be true that the really efficient surgeon and operator must be a

good anatomist, it is doubly true that the man who essays to instruct students in surgery must also be one. A correct anatomical exposition of every surgical case in his clinique should be the aim of every hospital surgeon. All that applies to the physician in regard to special organs, applies with even greater force to the surgeon. Not alone has he to pronounce a diagnosis and prognosis on some affection of the organs, of the senses, or other part, but on his manipulative dexterity by the aid of these diagnostic instruments, the recovery of a sense or the life of a patient may depend. If he cannot satisfactorily use and understand such means of diagnosis and treatment himself, it is difficult to comprehend how he is to enlighten students on the uses and advantages which accrue from their employment.

Not only must the clinical teaching in a hospital be truthful and thorough, but it must likewise be *earnest*. Clinical teaching which is not punctual and regular is, as a rule, incomplete and inefficient. To be an earnest teacher, a man must be a painstaking and punctual hard-worker. If he wish his students to learn detail, he must not scorn to practise details himself; he must cultivate in his classes a sense of the importance of "little things". "All successful surgery is made up of an aggregate of 'little things'." Time bestowed in the clinical theatre, time occupied in the hospital ward, time spent in applications of dressings, time taken up in the observation of experiments, is as requisite, whether in physician or surgeon, as a knowledge of either branch of our profession.

I now desire to say a few words on the assistance which hospital authorities are bound to give to hospital teachers to enable them to carry out the education of students who attend for instruction. It appears to be frequently forgotten that one main object of a hospital is to train those who are to have the control of life and limb, at some future time, given to them. A hospital should partake of the nature of a scientific school as much as of a charitable institution. It utterly fails in its mission if it be not both. It is the fact of a hospital containing in itself all the elements of a scientific establishment, with every aid which advanced medical art combines to bear on the treatment of disease, that makes the sufferer really better off in it than he could possibly be in his own house. The necessities of the clinical teacher and the accuracy of his observations, are the patient's safeguard. Every surrounding, whether hygienic or surgical, should have been previously arranged, so that the moment the patient is admitted inside the threshold of the institution, until he recovers or dies, he shall receive all the benefits which modern medical or surgical science can secure. But this perfection in the treatment of disease is principally attained in well organised hospitals, through the attention of students, and the possession of appliances which the necessities of clinical teaching demand. Therefore, in providing for the wants and the just claims of students who attend our hospitals, those who have the control of, and who administrate in them, really must consult both the interest of the institution and also the welfare of every patient who is admitted.

What, then, are the most vital points about which no doubt should exist in the minds of hospital authorities? I will merely allude to two; they are: sufficient clinical teaching and sufficient material in the hospital. If there be, in any great and arduous work, an advantage in a fair division of labour, and an avoidance of crowding too much responsibility and attention to detail on a very few heads, that work which, of all others, most benefits by a proportionate equalisation of both time and trouble is clinical teaching and supervision. It is an injustice, alike to patient, student, and medical man, to ask the latter to undertake more than he can thoroughly and conscientiously discharge. He cannot, especially if he be a man of large practice outside, give the time and thought to his hospital work which "thorough" and "earnest" clinical teaching demands, if that work be excessive. But, in several other respects, a fair division of clinical ward work in a hospital has its advantages. It necessitates a healthy competition amongst the staff in the treatment of, and attention to, disease. It has the same effect on the character and tone of the clinical teaching. The man whose habits are lazy or indolent, or whose position places him beyond the necessity for hard work, is stimulated to exertion by the efforts of a successful colleague. Patients and students benefit by the application of the stimulus. Again, and more important still for the public to consider, from a selfish point of view, if from no other, it secures a greater distribution of knowledge and experience.

As to the material of a hospital, it might appear here unnecessary to say anything on this subject; yet I cannot but feel that it is necessary to make one or two remarks on a matter which vitally affects the clinical teaching. It is impossible to teach without proper and sufficient material. It is equally impossible to give to patients the benefits which accrue from modern inventions and discoveries, if the quality as well as the quantity of the material be not good. Surgery now is not the surgery of twenty years ago; nor, for that matter, of ten or five

years since. The fact that we cannot keep an edition of any standard work on surgery for more than a few years proves this. Antiseptic surgery itself has a history of but a few years, ophthalmic surgery is completely revolutionised; the laryngoscope is of recent date; the most recent discovery in the treatment of spinal disease is hardly one year old; gynæcological surgery is, comparatively speaking, a new science. You may recollect my advocacy of the general substitution of ether for chloroform in this city hardly a year past: these and a thousand other "innovations" are easily recalled to mind when we are reflecting on the progress of a modern surgery.

[After a few remarks on the necessity of a proper supply of appliances in hospitals, and a reference to the assistance which good nurses afforded to the clinical teacher, Dr. Jones addressed the students present, giving them advice as to their conduct in the hospital ward and the operating theatre.]

CASE OF SUDDEN DEATH OCCURRING DURING THE INHALATION OF ETHER.

By GEORGE MAY LOWE, M.D., Lincoln.

THE patient was a healthy looking moderately stout lady aged 48, and standing about 5 ft. 4 in. in height. She was a thoroughly amiable and cheerful person; but subject occasionally to fits of depression, on account of the fact that she had a tumour affecting her left breast, which she had dreaded for many years would turn out to be cancerous. Her mother died from cancer in various parts of her body, ultimately affecting the scalp, and had been operated on by the late Sir B. Brodie. One of her sisters has undergone two operations for the removal of tumours in the breast at the hands of Professor Wood of King's College Hospital, and another sister died suddenly from "the bursting of a blood-vessel in the lungs" whilst running upstairs.

The tumour itself was hard, elongated in shape, extending across the upper part of the left breast from the left edge of the sternum to the outer margin of the pectoral muscle; it was movable, but somewhat firmly attached to the muscle below; the nipple was much retracted; there were no enlarged glands in the axilla, and the usual excruciating pain from the disease was only occasional, and not acute. An operation for the removal of the breast was arranged for three o'clock on Monday, November 5th. The patient was placed under the care of a trained nurse from our Lincoln institution, and was carefully attended to and dieted, with a view to the administration of the anæsthetic. She had been out the previous day attending the parish church and cathedral services; and, on the morning of the day of operation, she went about her ordinary duties by way of keeping her mind free from her natural dread of the approaching operation. She had always had the greatest horror of the event, and always expressed herself with regard to it in the gloomiest of terms, concealing the disease from professional eyes as long as possible; she only yielded to the necessity of its removal with passive reluctance.

Exactly at three o'clock, the patient came into the room in which the operation was to be performed. Dr. Mitchinson, senior physician to the Lincoln County Hospital, and Mr. Joseph Lowe, as well as myself and two trained nurses, were present; and an assistant was in an adjoining room with the necessary instruments, which were meanwhile kept from her sight. She was apparently calm and very cheerful. Dr. Mitchinson and Mr. Lowe both examined the chest with the stethoscope, and the former asked for, and administered to her, about half an ounce of brandy in a little water. She then lay down near a large bay-window on a camp-bed, with the head slightly raised, the body inclining to the right side, and dress open on the chest, the left arm being removed from the sleeve and simply covered with a light shawl. I knelt at her right side, taking her hand and keeping a finger on the pulse. She seemed quite composed and confident. Dr. Mitchinson then sprinkled about half an ounce of ether on the muslin of a crucial-shaped inhaler, and held it lightly over her nostrils. She clasped my hand tightly, and almost immediately called out my name in a half-unconscious manner, as though already partially under the influence of the anæsthetic. After two more inhalations, she turned turgid about the forehead and nose, the hands being pinched and white; there was no pulse at the wrist. I dragged forward the tongue, turned her on her side, and cold water was dashed on to her chest, having the immediate effect of obtaining several forcible inspirations. These were repeated with less and less power and at greater intervals as friction and stimuli were continued, and, at fifteen minutes past three, she was dead.

An examination of the body was made at nine o'clock on the morning of the 6th by Mr. T. Sympton and Mr. C. Brook, surgeons of the

Lincoln County Hospital, in the presence of Mr. T. M. Wilkinson and myself. The rigor mortis was well developed; the body was well nourished; there was a cancerous tumour affecting the left breast. There was some subarachnoid effusion, and the ventricles of the brain contained more fluid than usual; otherwise the brain presented no abnormal appearance. On opening the body, the section displayed a large deposit of fat beneath the skin, over one inch in thickness. There were about two diachms of clear fluid in the pericardium. The surface of the heart was covered with fat. The surface of the lungs was healthy, and they were slightly emphysematous. The valves of the heart were perfectly healthy; there were small patches of atheromatous deposit on the inner surface of the aorta. There was about an ounce of fluid blood in the right ventricle of the heart, but the left was firmly contracted and empty. The muscular coat of the right ventricle close to the valves was not more than one-twelfth of an inch in thickness, and covered with a layer of fat of twice that thickness. The base of the right lung contained a very considerable quantity of fluid blood; the base of the left lung was also in a similar state to a smaller extent. Studded throughout both lungs, but more particularly towards the base, were numerous small hard cancerous nodules. The whole of the upper surface of the liver was adherent to the diaphragm, and inseparable from it. There were a few small melanotic deposits on the upper surface, and at the lower surface there was evidence of old inflammatory mischief on its peritoneal covering. The kidneys were healthy; the stomach and bowels were healthy; the spleen was soft and pulpy; the ovaries were hard and cartilaginous, apparently studded with cancerous deposit. The trachea and œsophagus were carefully removed and examined, but nothing abnormal was discovered. There was nothing else noted.

The ether used was that known as the pure sulphuric ether, and was the same as had been used for a similar operation, though on an apparently much more delicate patient, the day before. The inhaler consisted of a bag of muslin covered with a leather case, having a valvular opening at the apex and another larger one at the lower edge.

THERAPEUTIC MEMORANDA.

USE OF SIALAGOGUES IN HYDROPHOBIA.

THE apparent increase in the prevalence of hydrophobia at the present time renders any suggestion as to even a possible remedy important. The following case will therefore, I think, be found not devoid of interest.

A lady, in defending her pet dog from the attack of a cat (rearing young ones), was bitten in the hand, through her glove, a portion of the glove being driven into the wound. This occurred on Saturday afternoon at four o'clock. At the time, except the immediate slight pain, nothing was thought of the occurrence. By evening, however, the pain increased, with throbbing, which extended up the arm to the shoulder. She had some sleep through the night, and even fancied it was better next morning, so that she set out, as usual, for morning service. On her way to church, she suddenly felt ill, and found herself forced to return home, calling on a medical friend on her way back, who, forming a very grave prognosis, and feeling surgical intervention now (twenty hours after receipt of injury) almost useless, applied lunar caustic to the wound and over the forearm, giving directions to take liberal diet, including alcohol. By evening, the pain and swelling had increased alarmingly, and at 8 P.M., twenty-eight hours after the bite, the first symptoms of trismus declared themselves, or, as the patient expressed it, she felt as if two iron cramps had seized her jaws. This lasted about an hour, when salivation set in, giving her immediate relief, so that she slept through the night. On waking, she found her bed literally soaked through with saliva. Shortly after, a return of the locked jaw took place, lasting now only about ten minutes, when, with a recurrence of the salivation, it relaxed. This alternating condition—short tetanic spasms with profuse salivation—lasted for three days, the flow of saliva being so great as to saturate a sheet in a few minutes, and necessitating the patient to sit up with her head over a basin. During all this time (of salivation) the appetite was ravenous, constituting almost an acute bulimia, six mutton-chops forming the flesh portion of a day's diet, with a bottle of claret and two bottles of ale; yet, withal, a sensation of starvation not to be appeased. On the fifth day all the symptoms gradually abated, and by the end of ten days the patient was out and felt as well as ever. Since this, although several years have elapsed, any scratch or wound, however slight, gives a "starchy feeling" in the jaws, which is instantaneously relieved by a glass of brandy and water, or any equivalent alcoholic stimulant. This

tendency is however, becoming less and less pronounced as time passes, and, indeed, on the last occasion of scratched hand, was not felt.

The *moral* of this case is evidently that sialagogues are indicated in traumatic tetanus generally, and probably in hydrophobia itself; and I should feel inclined in such cases to give jaborandi a trial, on the ground of its energetic and rapid action.

R. E. POWER, L.R.C.P.Lond., Dartmoor.

EXTREME DOSES OF CHLORAL-HYDRATE IN ALCOHOLISM.

In connection with the recent inquest at Weymouth, I find some speculation as to the amount of chloral-hydrate that can be taken with impunity, a case being mentioned where one hundred and sixty-five grains caused no ill effects.

I was called one evening to a gentleman of extremely intemperate habits, who had been in the habit of drinking as much as three pints of whiskey *per diem* for a month and even six weeks at a stretch. When I arrived at the house, I was informed that he had ordered a bottle of medicine from the druggist's, and had drunk the whole of it. On my seeing the patient, he exclaimed, "I say, Pitts, Pitts, Pitts, I had, had no five, five, five bobs, bobs left to buy, buy, whiskey, whiskey with" (every word being repeated three or four times over); "so I thought I would write a prescription that would have the same effect, if taken, as the spirit." The following was the prescription: R Chloral-hydrat. gr. 240; potassii bromidi ʒij; spir. chloroform. ʒiiss; aquæ camp. ad ʒx. Two tablespoonfuls every four hours. The whole of this he had taken at one dose some hours previously. I watched the case until I had the satisfaction of seeing the gentleman become more rational and the peculiarities of speech pass gradually away.

Not knowing any antidote for chloral, I procured him a bottle of whiskey, under the idea that syncope was the immediate cause of death in cases of fatal poisoning with that drug. This he consumed in the course of the night, and in the morning seemed to be all right.

The chloral did not cause deep sleep or insensibility, but only a stupid maudlin condition, in which he rambled incoherently about different past events, with occasional short naps, from which he was easily roused. His pupils were natural. The only other symptom I noticed was an apparent loss of muscular power; he seemed to have lost to some extent his power of grasping firmly any article.

HENRY Y. PITTS, L.R.C.P.Lond., Tue Brook.

OPIUM AND BELLADONNA.

THE following case may be of interest with respect to the supposed antagonism of opium and belladonna.

A lady suffering from cancer of the womb had had as much as two grains and two-fifths of morphia injected hypodermically at once, to relieve the paroxysms of pain. This dose did not produce sleep for an hour or more, and then only of a dozing character and easily interrupted. As the disease had not advanced far, I was anxious to husband the morphia as much as possible. Believing that belladonna or atropia increases the effect of opium, I gave one-sixtieth of a grain of atropia with the morphia with such good results that, after a few trials, I found that four-fifths of a grain of morphia, when combined with one-fortieth of a grain of atropia, was enough to relieve the pain as effectually as the two grains and two-fifths of morphia had done alone, and *produced sound sleep at once*.

On one occasion, a dose of one-thirtieth a grain of atropia and four-fifths of a grain of morphia had failed to relieve an unusually severe attack of pain. After four hours, the patient's son, who had previously given the injection under my direction, on his own responsibility repeated the dose, not unnaturally supposing that, as two grains and two-fifths of morphia had been given at once several times before, four-fifths of a grain might be repeated after an interval of four hours. On visiting her soon afterwards, I was cautioned not to disturb her, as she had gone off into a sweet sleep; but, being anxious to see the effects of the second dose, I examined her a little more attentively than usual, and found that the supposed sleep was really profound coma. The pupils, moderately dilated, were insensible to light. The respirations were shallow, and continually interrupted by an alarming pause. The eyelids, when opened, remained so. No shaking or pinching produced any effect. Although vomiting was a prominent symptom with her, neither a finger nor a feather tickling the fauces produced any movement. The sole reflex action that I could excite was a slight quiver of the right eyelid when cold water was thrown on the face and chest, but the respiration was not altered by it. Ammonia to the nostrils also

failed to cause movement. The pulse was soft, regular, and 116. Frequent cold affusion to the face and chest with mustard poultices to the calves of the legs and nape of the neck were applied at intervals for an hour before the patient could be roused. As far as this one case goes, nothing can be more conclusive, I think, than that atropia intensifies rather than counteracts the sedative effects of morphia.

J. N. MILLER, M.D.

SURGICAL MEMORANDA.

CONGENITAL HERNIA INTO THE UMBILICAL CORD.

THE history of this case was as follows. When the child was born on September 16th, he was well formed and well developed in all respects, except that he presented an enlargement of the funis at its junction with the navel. This thickening involved about three inches of the cord, and there terminated abruptly; from this point onwards, the cord was of normal thickness, and seemed, in relation to the swollen part, like a string attached to an elongated ball. On handling the swollen portion, a doughy sort of feeling was perceived. I detected no impulse when the child cried or strained himself in any way. I divided the cord at a distance of about an inch from the tumour, and directed the nurse to apply a compress with a pouch over the navel. A little meconium was passed during the first day or two; after that, according to the nurse, some mucous matter streaked with blood came away. The tumour began to swell and the outer coverings to crack; it also smelt badly. The child never once took a fair meal, only occasionally a little diluted milk. The child died on September 24th, when it was eight days old.

Before removing the the tumour from the body, which I did on September 25th, I noticed an ecchymosed area around the navel, indicating that the strain of the disease had been there. There was nothing else to observe on the little body, beyond that it had become considerably emaciated since birth. I was not permitted to carry my *post mortem* examination beyond the removal of the tumour; on this account, the specimen which I obtained was not as complete as one could have wished it to be.

The tumour, when fully distended, was as big as a large sized hen's egg. An incision showed it to be full of fecal matter tinged with a dark substance, possibly meconium, or exuded venous blood, or both. I detected in it but one opening, and that a narrow one communicating with the bowel. Had it been a loop of intestine, one would have expected to find in it two such openings.

I never met with another case of this kind, and was not able to find any description of such a condition until Mr. Lawson Tait kindly forwarded me a copy of his translation of Steiner's *Compendium of Children's Diseases*. There the condition is described as hernia funiculi umbilicalis. Steiner states that, when only a knuckle is included, a cure may be effected—by operation, it may be inferred; but nowhere is there mention of such a thing having even been attempted. Mr. Tait, in a note, mentions briefly the details of a case which he met with in consultation, and adds that, if in such cases the tumour were to be cut down upon and dissected, it might be beneficial, notwithstanding the existence of adhesions. I very much question, however, whether anything but harm would have followed interference of the kind in this case; and my decision to leave the case to nature from the beginning was fully concurred in by Dr. E. Liddon of Taunton, who saw the case with me a day or two after the child's birth.

JOHN MEREDITH, M.D., Wellington, Somerset.

CLINICAL MEMORANDA.

SUGAR FOUND IN CHYLOUS URINE.

IMPORTANT as have been the additions to our knowledge of the pathology of so-called chylous urine, since Prout first gave a name to that interesting form of urinary disorder, we are still far from having a comprehensive knowledge of the disease. Anomalous cases are occasionally met with which, because inexplicable to the prevalent medical intelligence, are looked upon with suspicion, and even characterised as possible cases of "imposition". It is thus that Dr. Roberts (*A Practical Treatise on Renal and Urinary Diseases, etc.*, 3rd edition, 1877) speaks of Bramwell's case, published in the *Edinburgh Medical Journal* for 1858, the most inexplicable circumstance in which was the want of coagulation of the urine, either spontaneously or with heat and nitric acid; but it was likewise exceptional in that "fat extracted by ether crystallised like margaric acid" (*loc. cit.*). Rather than regarding such a case

as an instance of "imposition", I should charitably consider it, in Dr. Roberts's words, as "belonging to a different series" from the ordinary run of cases; and it is not improbable that we may yet have to class cases of chylous urine in several series. I have at present under my care an Algerian Jewess, fifty-six years of age, whose urine coagulates spontaneously and under the influence of heat and nitric acid; in which, moreover, margaric crystallisation can be obtained by clearing the urine with ether and allowing it to evaporate; and lastly, in which, for, I believe, the first time on record, the presence of sugar has been satisfactorily determined, by specific gravity and chemical reaction, and by the detection under the microscope of crystals resembling those of grape-sugar (obtained by evaporation), and which further showed the characteristic dextral refraction of light under the polariscope. I may not add further particulars of this case at present, as it is my intention to communicate it elsewhere; but I send this brief synopsis to record what, so far as I know, is the first occasion on which sugar has been detected in chylous urine. The quantity of the urine is normal, and excessive thirst is absent; but there is reason to believe that diabetic symptoms, in a minor degree, were at one time present.

ALEXANDER MORISON, M.B. Edin., Canonbury.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

SAMARITAN HOSPITAL.

CHRONIC INVERSION OF UTERUS: AMPUTATION BY PAQUILLI'S CAUTERY: RECOVERY.

(Under the care of Mr. SPENCER WELLS.)

D. T., AGED 27, married, Brignall, Barnard Castle, had her first child twelve months ago. The labour was long, and was finished with instruments, the patient being under the influence of chloroform. The next day she was told the womb had come down, and it was replaced. In about a week, during delirium, the patient got out of bed, and it came down again. At Christmas 1876, hæmorrhage began, and for some time she was treated for this, and at last was told that the womb was inverted. Hæmorrhage continued more or less up to the time of her coming into the Samaritan Hospital, under the care of Mr. Spencer Wells, on June 6th, 1877.

A few days after admission, Mr. Wells made a prolonged attempt to reduce the inversion, the patient being under the influence of bichloride of methylene. The attempt was unsuccessful, and it was decided to amputate the uterus as soon as the patient had sufficiently recovered from the effects of the attempt at reduction. She was in such a state of anæmia from continual losses of blood, that Mr. Spencer Wells asked Dr. Roussel to be present and prepared to transfuse if much blood were lost during the operation.

June 27th, 2.30 P.M., the patient having been brought under the influence of bichloride of methylene and placed in the lithotomy position, Mr. Wells drew down the inverted uterus, passed two pins through the neck at right angles to one another, and above them several turns of Dittel's elastic ligature. The fundus uteri was then amputated with the thermo-cautery, and the stump with the pins and ligature returned into the vagina. Not a drachm of blood was lost. The patient suffered a good deal of pain for the first twenty-four hours, chiefly referred to the back.

On the second day, the temperature at 5 P.M. was 100.4; pulse 132; respirations 24. The patient complained much of headache. An ice-water cap was put on the head at 9 P.M., as the temperature had risen to 100.6. It fell rapidly till 1 A.M. on the third day, when the cap was removed, the temperature being at 99.4 and headache gone. After this, the temperature rose each day about 5 P.M. to 100.4, and the pulse remained from 128 to 116 till the sixth day. The bowels acted freely after an enema on the tenth day. On the twelfth day, Mr. Wells removed one of the pins, and on the sixteenth day the other pin and the ligature. This was followed by headache and rise of pulse and temperature for a day; the temperature next morning being 100.2, pulse 140.

She was up on the couch on the twenty-third day after operation, and walking about on the twenty-seventh day. The stump felt like a natural cervix with a patulous ragged os.

The patient left the hospital quite well on July 24th, and has been heard of since as having rapidly regained strength.

Examination of the inverted portion of uterus removed proved that any attempt at reduction, even if lateral incisions had been made, would have been useless, as the peritoneal surfaces of the inverted fundus and body adhered firmly to each other, requiring the knife for their separation. Mr. Wells said he should not have used the elastic ligature as well as the cautery if the anæmia had not been so extreme, as he thought the cautery alone would be trustworthy in most cases.

LEEDS GENERAL INFIRMARY.

MENINGITIS IN THE ADULT.

(Under the care of Dr. HEATON.—Communicated by ERNEST H. JACOB, M.B.)

THE following case may be of interest in connection with the notes on tubercular meningitis, opportunely reported by Dr. Southey.

M. R., aged 37, was admitted into the Leeds Infirmary on October 16th last, under the care of Dr. Heaton. She could give but little information about herself, other than that she had been ailing for fourteen months, losing flesh and appetite. Since the birth of her last child, which she had suckled for nine months, she had suffered from nothing but frequent headache. She spoke in a slow whining and drawling manner, moaning frequently, but not complaining of pain. The following information was given by her husband. She had been well up to a year ago; but since then had been frequently ailing, and had twice during that period attended a short time as out-patient at the Infirmary, complaining of hæmorrhoids and prolapsus ani. In July last, she was suddenly seized with dyspnoea, attended by no cough, for which she was under medical treatment, and she considerably improved. Two months before admission (the latter end of August), she became so weak that she took to her bed and remained under medical treatment till admission. During this period, she was always sensible, but would occasionally (about twice a-week) start up in bed, draw up her legs, wave her hands about, and then fall back in a sort of fainting fit, remaining insensible for some time. She complained only of headache. She ate very little food, though her husband took much trouble in getting her various kinds of nutriment.

On admission, October 16th, the patient was in a state of extreme emaciation; the skin was hard, cold, rough, and dirty; and the head swarming with pediculi. There were no bedsores; the pulse was regular; temperature 97 deg. There was no appearance of paralysis of any sort. She could move the arms and legs, but was too weak to stand. The bowels were open once-a-day. She took food well. The tongue was clean, but anæmic. There were no signs in the heart or lungs, but a few scattered râles.—October 17th. She seemed rather better; took her food readily, and was more cheerful. She slept well; and complained only of pain in the head. The temperature was still 97 deg.—October 24th. She was much the same.—October 26th. She seemed much weaker; took very little food, and moaned constantly. There was no strabismus or paralysis of any kind; the bowels were very loose. The motions were passed under her.—She gradually grew weaker, and died on the 28th. The temperature at no time rose above 97 deg. The pain in the head never appeared very severe. There was no convulsive attack of any kind. The bowels were regularly opened once-a-day till three days before death; they were then loose, and the motions passed involuntarily.

Necropsy, nineteen hours after death.—The body was extremely emaciated. There was no subcutaneous fat, but a little fat on the omentum and round the kidneys. The brain weighed forty-six ounces and a half. There was no injection of the pia mater. The upper part of the hemispheres was thickly covered with recent lymph, about an eighth of an inch thick. On the sides of the brain and on the upper part of the cerebellum, there were many thick patches of lymph. At the base of the brain were only two small patches of lymph, about three millimètres in diameter; one on the cerebellum to the right of the pons, and another in front of the optic commissure on the same side. There was no matting together of the lobes of the brain; and there were no tubercular points visible to the naked eye. The substance of the brain was firm, the grey matter extensive, and the convolutions well developed. No increase of vascularity could be detected. The ventricles contained a little clear serum. There was no softening of the walls. The lymph on the outside extended deeply into the convolutions. The peritoneal cavity contained about four ounces of turbid serum. The peritoneum appeared much thickened in parts, but there was no matting or adhesion of the intestinal coils; nor could any tubercular nodules be detected by the naked eye. The rectum was contracted and somewhat thickened; the rest of the colon of normal calibre. About two feet and a half from the cæcum in the small intestine was a point where the bowel was much thickened, for about two

inches the colour was perfectly black (the whole of the intestines were much discoloured), and there was an irregular patch of ulcerated mucous membrane about the size of a sixpence. About a foot higher up, were two projecting ulcers, with much thickened edges, but apparently in course of cicatrisation. Peyer's patches appeared to be healthy. There was nothing worthy of notice in the upper part of the intestine, except a few white hard patches in the intestinal wall, apparently fibrous tumours. The stomach was thickened. The whole intestines contained hardly any trace of food. The thoracic and other organs were healthy, and not markedly reduced in size.

Taking into consideration the convulsive attacks, with the frequent headache, the diagnosis, perhaps, was of not so great difficulty, in spite of the persistently low temperature; but the information as to those attacks was only obtained with great difficulty from her friends some days after her admission; and for some time the symptoms might very conceivably have been considered to arise from general neglect and want of food in the case of a feeble-minded person. The history of the case bears out the assertion that, when the lymph is mostly on the upper surface of the brain, the symptoms are not well marked, the contrary being the case when the deposit is at the base. I have no explanation to offer of the peculiar appearances of the intestines. In spite of the frequent inability to take food, the bowel was thickened rather than wasted in the way described by Dr. Donovan as prevalent in cases of starvation. Her mind was clear almost to the last.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 13TH, 1877.

CHARLES WEST, M.D., President, in the Chair.

AN ANEURISM OF THE AORTA, INNOMINATE, SUBCLAVIAN, AND CAROTID ARTERIES, TREATED SUCCESSFULLY BY LIGATURE OF THE TWO LAST VESSELS. BY RICHARD BARWELL, F.R.C.S.

R. W., AGED 45, was admitted into Charing Cross Hospital under the care of Dr. Pollock, on July 24th, 1877, with a large aneurism at the right root of the neck. The man had served both in India and the Crimea, and was now a labourer in a foundry (the work requiring strenuous efforts). He had not had syphilis. The family history was remarkably healthy. In November 1876, he had vomiting and purging after a drinking bout, followed by rheumatoid pains in the shoulders and limbs. These disappeared after a time, but not from the right arm. He first noticed a swelling in the neck during March 1877; his right arm became weaker and was occasionally numb. The tumour was oval, just above the right clavicle; it stretched from beneath the inner margin of the left nearly to the outer margin of the right sternomastoid muscle, and upward to the lower margin of the thyroid cartilage. Its projection was considerable, and its strong pulsation characteristically expansile. Dulness prevailed from the inner third of the clavicle over the first intercostal space and second rib, and mingled with the cardiac dulness. Over this space pulsation could be felt. The heart was displaced to the left, its apex beating fully half an inch outside the nipple-line. Strong epigastric pulsation would indicate some cardiac displacement downward. The veins of the right side of the neck and chest and of the arm were greatly distended. No *bruit* was heard at the heart or over the tumour, and there was no perceptible difference between the two pulses. Dr. Pollock treated the case with rest, low diet, digitalis, and ice-bags to the tumour, but the aneurism increased. Deligation was then proposed; but the patient, after consideration, declined and left the hospital. However, he returned under Mr. Barwell's care on August 13th, desiring to have the operation performed. In the meantime, the cervical tumour had much increased and was more prominent; it measured horizontally between the limits of pulsation, by compass $4\frac{1}{2}$ inches, by tape just over 6 inches; perpendicularly, it extended from the clavicle to above the middle of the thyroid cartilage, measuring by compass 3, by tape $3\frac{3}{8}$ inches. The thoracic dulness and pulsation reached as far as the middle of the clavicle. The displacement of the heart seemed rather greater. He had a cough, with very little laryngeal sound, and breathing and circulation were much embarrassed. On August 14th, the operation was performed, first on the carotid. A peculiarity of a greatly enlarged superior thyroid, simulating prolongation of the sac upward, necessitated great caution until the source of the abnormal pulsation was revealed, and only just room enough was found to pass a ligature round the common carotid, between the aneurism and the bifurcation. The subclavian artery was then reached, with remarkably little bleeding,

and a ligature passed round it—pressure on the hollow of the needle obliterating the radial pulse. In disengaging the catgut, a vein above the brachial plexus, either the posterior scapular or a smaller but distended vein, was ruptured; its deep position, and the filling of the cup-like wound with blood, rendered its ligature difficult and doubtful. Rather than attempt this, Mr. Barwell did not wait to verify the isolation of the artery, but knotted the catgut loosely, stuffed the wound firmly with antiseptic gauze, and let the patient be carried to bed, the radial pulse still beating. The next day, he removed the gauze and traced down the ligature, which included with the artery a nerve of the plexus. This loose ligature was left in place, and a fresh one was passed and tied. These operations—carotid and subclavian—were performed antiseptically. No immediate change in the tumour was perceptible. Low milk-diet was ordered. On the 16th, the breathing and circulation were greatly relieved. The temperature was normal. On the 23rd, the cervical tumour was harder. The transverse measurement by compass was $3\frac{1}{4}$ inches, by tape $4\frac{3}{4}$ inches. Thoracic pulsation was barely perceptible. On the 25th, a very dry diet was substituted. On the 26th, there was slight pulsation, probably collateral, in the radial artery. On the 28th, the patient suffered much from thirst. The heart's action was excited. Pulse 102; temperature irregular. The radial pulsation had disappeared. On the 28th, the tumour measured by compass $3\frac{3}{4}$, by tape $5\frac{1}{4}$ inches. On September 3rd, the hospital No. 3 diet (fairly nutritious) and one pint of beer daily was ordered. On the 5th, the temperature and pulse were still high and irregular. The tumour was harder; its measurement by compass $3\frac{7}{8}$, tape $4\frac{1}{2}$ inches. Subsequent measurements were: 8th, compass $2\frac{3}{4}$, tape $3\frac{1}{2}$ inches; 9th, compass $2\frac{1}{4}$, tape $2\frac{7}{8}$ inches; 10th, compass $2\frac{1}{2}$, tape $2\frac{1}{4}$ inches. On the 9th, there was some arteritis of the vessels on the arm. On the same day, the temperature went down to 96 deg., and since remained normal. A like attack recurred on September 23rd. On October 21st, it was observed that, since the rapid diminution in the size of the tumour commenced, the man had gone on uninterruptedly well. A firm solid tumour lay behind the sterno-clavicular joint, with pulsation communicated from the aorta, it felt about the size of a cob-nut. There was no thoracic pulsation. Dulness extended about half an inch outside the manubrium sterni. The whole aneurism was consolidated. Mr. Barwell remarked that the aneurism involved without doubt the aorta, innominate, subclavian, and carotid, and was not far from bursting. The operation relieved immediately the oppression of circulation and breathing, showing diminution of the thoracic portion, while the cervical part of the aneurism responded more slowly. Mr. Barwell considered that the system of diet produced a very coagulating tendency in the blood. The whole of the subclavian was obliterated, as there was still no radial pulse. The practical proof of the theory, that aneurism of the innominate might be treated by double distal ligature, had as yet been wanting. (Mr. Heath's well-known case proved to be aortic only.) Six such operations had been performed. Of these, two proved fatal on the sixth day; one on the fifty-fifth, one on the sixty-fifth day. Two, receiving no benefit, lived some weeks. This case furnished the practical proof that, not only innominate aneurism, but aneurism of that vessel end of aorta, subclavian and carotid, are amenable to the double distal ligature. It also might be deduced from it, what Mr. Heath's case has already proved, that aneurism of the first part of the aorta may be cured by this operation. (The patient was exhibited, and examined by the President and members. Photographs of the case were also shown.)

Mr. MACNAMARA asked whether the ligatures had been cut short, and whether anything had been seen of them after the operation.—Dr. SILVER had seen the patient when first admitted to hospital, and could testify to the accuracy of Mr. Barwell's description and of the photographs. There was no doubt that there was an aneurism of the innominate artery, the aorta also being implicated; but he was not certain that the carotid was affected. Some years ago, he had a patient with a projection above the manubrium sterni, reaching as high as the thyroid cartilage; it was supposed to be an aneurism of the innominate. The patient refused operation, and died some time afterwards. On examination, the projection was found to consist of a very tortuous innominate artery, reaching into the neck. He thought that in some of these cases in which the carotid and subclavian were supposed to be affected, the appearance was due to the rising of the innominate artery in the neck. As to the present condition of the patient, he thought that the aorta could not yet be said to be in a quite normal state. There were still tumour and vibration where they should not be, although they might disappear in time.—Mr. JOHN WOOD congratulated Mr. Barwell on the result of the operation, and corroborated his opinion as to the advantage of a carefully regulated diet in the treatment of aneurism. He had for a long time prescribed a diet in which the supply

of liquids was restricted. In a recent case of aneurism of the iliac, successfully treated by electricity, he had given milk and rich soup, with ice to suck, withholding all stimulants; and the patient was kept in the recumbent position. He believed that freedom from excitement of mind and body put the patient in the best condition for the natural cure of aneurism. It was not quite certain that the aneurism in Mr. Barwell's case was cured; the time was too short to enable one to decide. In Mr. Heath's case, after the retraction of the tumour, it again increased for a time. He was not certain how far the successful result in Mr. Barwell's case was due to the operation, or to rest and diet. As to the ligature, there was apparently no reason why an ordinary one should not have done well. The case, however, was a very satisfactory one, and well worthy of being brought before the Society.—Dr. BARCLAY had had a somewhat similar case under his care in St. George's Hospital some time ago. The main treatment adopted was rest and diet. The patient was fortunately able to lie in bed and enjoy himself; he only grumbled at the withholding of stimulants, but took his food and digested well. He was advised to drink as little and eat as much as he could. When he left the hospital, consolidation had taken place. He had had other cases of aneurism; but if any advantage arose from treatment, it was due to the adoption of complete rest, with a good diet containing as little fluid as possible. Few persons, however, could bear the confinement to bed without becoming anæmic and dyspeptic.—Dr. ALTHAUS asked whether there were any symptoms of disorder of the brain or of the brachial plexus.—Dr. DOUGLAS POWELL agreed with Dr. Barclay that the temperament of the individual must be taken into consideration. Some patients could be kept in bed, and, although there was apparently not much improvement at first, the benefit of the rest was obvious after they again got up. He asked Mr. Barwell if he had made any sphygmographic tracings in his case.—Mr. BARWELL said that the patient, when first put under his care, had been already treated by rest and medicinal means; but he did not think that any proceeding short of operation could have saved the man's life. After the operation, however, he still paid careful attention to diet as an adjuvant. As to the question whether the carotid artery was affected, he agreed much in the doubt expressed by Dr. Silver; but he believed that he could feel the bulging of the artery. As to the patient's present state, he admitted that there was a slight tumour which ought not to be there. But what else could be expected? If complete consolidation had taken place, there would be still a solidified mass lying on the aorta. The diagnosis of this might be difficult; but still the tumour could scarcely have become so much reduced, unless by perfect consolidation. There were no symptoms that could be referred to the nervous system, except tingling in the arm, with some loss of power of grasping. He had not had time for making sphygmographic observations. The ligature had been cut off close to the vessel. Cases of aneurism would, indeed, do well with the silken ligature, but the catgut ligature was preferable. He did not tie it in three knots as recommended by Mr. Lane, but used two, drawn tightly. When catgut was used, there was no necessity for removing the ligatures, and consequently no fear of secondary hæmorrhage. He had a few days ago used catgut ligature in tying the left carotid artery for aneurism of the transverse aorta, and the operation-wound had already healed.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 9TH, 1877.

GEORGE W. CALLENDER, F.R.C.S., F.R.S., President, in the Chair.

A Case of Urethral Calculi.—Mr. BELLAMY exhibited two calculi, removed from a sac communicating with the urethra in front of the scrotum. The patient, who was about forty years old, had, when he was aged eleven years, two other small calculi removed from the same part. The two calculi exhibited had been noticed and had steadily increased in size for the last eleven years, until they formed a tumour of the size of a pigeon's egg. This was simply inconvenient from its size, but gave rise to no obstruction to the passage of urine or to any other symptom. The man had passed no gravel; nor could a calculus be detected by the sound in either the bladder or urethra. The calculi were removed by a simple longitudinal incision into the sac, which was found to communicate with the urethra by a small opening, through which a small probe passed. The wound healed perfectly, and no urethral fistula remained. The calculi together weighed exactly an ounce; they were curiously faceted together, their opposed surfaces being highly polished; and, when placed together, they measured 1.7 inches in length, 1.2 inches in breadth, and 1.5 inches in depth. The external surfaces were irregularly mammillated, and exhibited, on section, successive layers of phosphatic deposit. No nucleus was visible at the time of section. Mr. Bellamy thought the calculi were originally in

contact, and that the fresh deposits of calcareous matter had only been added to their outer surfaces, whilst their opposing surfaces became polished from friction.

Urethral Calculus.—Mr. SYDNEY JONES showed a specimen of large urethral calculus, which he had removed by incision from a man aged 60. He had been sent into St. Thomas's Hospital for difficulty of micturition, and was supposed to have stricture; but, on passing an instrument, this impinged upon a calculus, lodged just behind the bulbous part of the urethra. It might be felt in the perineum; and the forefinger being placed on the rectum and the thumb on the perineum, the foreign body could be moved to and fro and made to grate on a metallic instrument in the urethra. A catheter might be passed over the calculus into the bladder. The calculus was about the size of a small chestnut. Each time a catheter was passed, there was a rigor, the temperature rising considerably, once to 106.3 deg., and falling again to normal on the subsequent day. On October 3rd, Mr. Sydney Jones cut down upon the calculus through the perineum, and easily removed it. The wound was closed by two deep and two superficial sutures, and a No. 8 catheter, with drainage-tube attached, was passed into the bladder. At 7 P.M., there was a rigor, and the temperature rose to 104 deg. On the next day, the temperature was normal, and remained so. Two sutures were removed three days after the operation, and the remaining two on the fifth day. One catheter was removed on October 9th, six days after the operation. On October 10th and 11th, he passed urine in a good stream without difficulty or pain; none escaped by the wound, which was not quite healed towards the front part. Except on one doubtful occasion referred to by the patient, viz., on October 15th, no urine passed by the wound after the operation. He was allowed to get up a fortnight after removal of his calculus, and left the hospital a few days afterwards quite well. Mr. C. Stewart, who examined the calculus, which weighed 153 grains, reported that its nucleus was oxalate of lime, around which was fusible calculus with mixed phosphates; the section showed dark lines, for the most part made up of oxalate of lime.

Mr. HEATH said he had exhibited such another specimen as that of Mr. Bellamy before the Pathological Society. This was lying in the urethra, and seemed connected with a former lithotomy. It was easily extracted. Mr. Bellamy's case was remarkable for the small size of the opening into the urethra. How had it grown? Could it have been a phlebolite?—Mr. TEEVAN thought the great value of Mr. Bellamy's case rested on the fact that no fistula was left after operating. A small stone, however, might easily be removed subcutaneously without leaving any fistula. If an attempt were made to push the stone back into the bladder, it was best to use a soft bougie, which would mould itself to the surface of the stone.—Mr. BARWELL remarked that such a calculus had already been removed from Mr. Bellamy's patient. This second stone had probably been formed in some adventitious cavity outside the urethra.—Mr. BELLAMY could give no idea as to the mode in which the stone was formed.—Mr. SYDNEY JONES thought that calculi might form in cysts of mucous membrane connected with the urethra. At all events, this might be so with the uric acid stones.

A Case of Unilateral (Gunshot) Injury to the Spinal Cord.—Dr. GOWERS brought forward this case. The patient, who had been in University College Hospital under the care of Mr. Heath, had fired a pistol into his mouth, and died sixty hours afterwards. The bullet had passed through the body of the second cervical vertebra, and had lodged between the arches of the atlas and axis on the right side. It had not penetrated the dura mater, but had driven a spiculum of bone through the membrane and had bruised the cord between the second and third cervical nerves, the bruise being confined to the antero-lateral column, the anterior and posterior cornua, and the central part of the grey matter on the right side. All these parts contained many extravasations. The left half of the cord, both grey and white matter, was intact; and the right posterior column was simply swollen, apparently from œdema, there being only a few very minute extravasations in it. The symptoms during life were: Paralysis of the right arm and leg, complete always in the arm, and at first in the leg; after the first twenty-four hours, there was slight power of moving the leg. There was hyperæsthesia or rather hyperalgesia on the paralysed side, below the part supplied by branches from the cervical plexus; in the latter, sensation was normal. On the opposite side, there was no motor weakness; but there was complete, or almost complete, loss of sensibility to pain, and very little change in tactile sensibility. The reflex action was diminished, almost abolished, in the paralysed leg; it was excessive in the opposite leg, in which sensibility to pain was diminished. Temperature on the side of motor paralysis was uniformly one or two degrees higher than on the other side; and on the paralysed side, there was a peculiar change in the irritability of the muscles and nerves, that of the muscles being a little less, that of the nerves

being a little greater than on the other side. The change was the same to each form of electricity. In commenting upon these symptoms, Dr. Gowers observed that the cross sensory and motor paralysis was in accord, although not completely, with the view now generally accepted. The slight recovery of power in the leg might be explained by supposing that some fibres of the antero-lateral column recovered functional power; but, considering how easily the motor impulse was arrested by a slight injury, he thought this explanation improbable, and that the recovery of power afforded support to Vulpian's opinion that the motor path, although crossing chiefly at the decussation of the pyramids, also crossed to a less extent lower down the cord, and that this subsidiary decussation for the leg had escaped, so that, when the shock of the injury was over, there was some return of power over the leg. He pointed out that the slight change in tactile sensibility in the analgesic limbs afforded support to the view that tactile and common sensation traversed different paths in the cord; and the undamaged state of the posterior columns was interesting in connection with the assertion of Schiff, that they conducted tactile impressions. The increased sensitiveness of the paralysed leg, so common in these cases, but associated as it was here with diminished reflex action, could not be ascribed, as it had been, to the withdrawal of an inhibitory influence on the grey matter of the lumbar enlargement. The contrast in this respect between the two legs, in both sensibility and reflex action, seemed significant. In health, reflex action in the legs was restrained by a higher centre, probably in man the optic thalamus. The lesion of the right half of the cord, which divided the sensory path from the left leg, interrupted also this inhibitory influence. Hence it would seem that these two paths corresponded. Might not the opposite condition of the right leg be due to the intensification of the influence of the left optic thalamus? This would account for both the diminished reflex action and the hyperæsthesia, since the thalamus was a sensory centre. Its overaction might be due to the accumulation of the obstructor nerve-force in its fellow, acting upon it by means of the commissural fibres. The difference in irritability of nerve and muscle must be interpreted as an abnormal state of the paralysed limbs, and was, although unusual in character, probably due to an irritative influence exerted by the lesion on the grey matter of the lumbar enlargement, and thence on the motor nerves. The persistence of sensibility in the branches of the cervical plexus showed how high up in the cord these fibres decussated.

Dr. ALTHAUS said the paper presented few openings for discussion, the case had been so excellently reported. He was sorry there was no reference made as to sense of temperature. Was there any priapism? It would be interesting to know with what portion of the spinal cord this phenomenon was connected. He agreed as to the electric phenomena.—Dr. BROADBENT also spoke of the excellence of the paper. He thought that the case rather tended to confirm Schiff's theory of the use of the posterior columns of the cord as conductors of tactile impressions. The phenomena of locomotor ataxy did not, however, confirm this. Wherever, indeed, the lesions might be, the patient could often localise the point of contact. The increase of reflex action on the injured side tended to corroborate his own speculations as to the structure and action of certain parts of the nervous system. He thought the same cells received both sensory and reflex impulses. If the upward course of the former were arrested, the latter would be more strongly marked than before. He thought the anaesthesia of hysteria due to diminished blood-supply from irritation of the vaso-motor system, yet tactile sensibility remained. Here there was vaso-motor paralysis, and, consequently, hyperæsthesia.—Dr. BUZZARD asked what was the condition of the muscular sense when power partially returned to the leg.—Dr. ALTHAUS thought the inhibitory centres were situated rather in the corpora quadrigemina than in the optic thalami.—Dr. GOWERS, in reply, said the case was admittedly imperfect. The difficulties were great; the patient could not speak English, and sank rapidly. He could hardly go into the evidence of the optic thalami being in the inhibitory centres, and he quite agreed as to the difficulties of Schiff's theory of the function of the posterior columns of the cord. There was no priapism.

A Case of Left Hemiplegia and Hemianæsthesia with General Diminution of Motor Power and of Sensation, associated with Loss of Speech, Peculiar Voice and Articulation and Ataxy of the Upper Extremities, due probably to Embolism of the Basilar Artery: Recovery.—Dr. BROADBENT communicated this case for Dr. J. BURNLEY WALKER. He said that the patient was a woman aged 26, who, four days after the birth of a child, was greatly excited by her husband coming home drunk. A severe rigor came on, and a few hours later, while she was sitting up to take food, she fell back in a swoon. When seen by Dr. Walker, she was perfectly unconscious, though she swallowed liquids; her pulse was 48, and scarcely perceptible; the pupils were equal; the face was

drawn a little to the right. After the free administration of brandy, she could be roused, and it was seen that the legs, limbs, face, and tongue on the left side were paralysed. Sensation was also greatly diminished on this side, and there was decided impairment of both motor power and of sensibility on the right half of the body as well. As the prostration was recovered from, she was found to be absolutely speechless, and the expression of her face, her laugh, and features were almost idiotic. She gradually gained power, but for a long time had no proper control over the movements of her limbs. She could not take hold of an object, or guide a spoon to her mouth. She spoke for the first time eleven weeks after the attack, and then in a peculiar loud voice and with uncouth articulation. When seen by Dr. Broadbent, about three months after the attack, she could answer simple questions, but in a peculiar loud whining voice. She said she could not walk, but did so with the aid of a single finger; the movements of her hands were vague. Her mental condition appeared to be childish, and she smiled idiotically. Further improvement took place, and now (October 1877) she could walk and carry her child, and attend to her house; but she still fumbled long over buttons and pins, and had only just become able to dress herself. She could not now control a knife so as to cut bread. She conversed fairly well, but not in a natural voice. Dr. Broadbent said the case was interesting as throwing light on reported examples of aphasia with left hemiplegia or with lesion in the posterior part of the brain. Had the patient died during the eleven weeks in which she was speechless, the case might have been considered one of this class; but the mental condition, the peculiar phonation and articulation, and the mode in which speech was recovered, showed that the derangement of the cerebral operations and the injury to the cerebral mechanism were altogether different from those which were seen in aphasia. The time and mode of the attack pointed to embolism of a cerebral artery as the cause of the symptoms, but these were not such as could be accounted for by blocking up of any one branch of the carotid, or of this vessel itself, or of the posterior cerebral or superior cerebellar, or both. The general impairment of motor power and of sensibility, in addition to the left hemiplegia and the motor ataxy, pointed to the conclusion that the basilar artery was the one plugged, the left branch getting more blood than the right, either by a larger posterior communicating artery or by a less perfect occlusion. This would account also for the effect on the heart.

Peculiar Phonation as well as Articulation associated with Paralysis.

—Dr. BROADBENT brought to the Society brief notes of four cases in which, as in that of Dr. Walker, these peculiarities had existed. Case 1 was that of a girl aged 20, who, seven months after the birth of an illegitimate child, was seized, after an emotional shock, with pain in the head, vomiting, and delirium: after which, she was completely paralysed on the left side, partially on the right, then speech was said to have been lost; it was probably rather unintelligible. As she recovered, the voice was altered and impaired, and the articulation was indistinct and almost monosyllabic. Case 2 was that of a woman aged 27, who, during an attack of small-pox, five weeks after the birth of a child, had a fit, after which she could not move a limb or speak a word for some weeks. When she had so far recovered as to be able to walk and feed herself, her intonation was loud and unnatural, and articulation imperfect, attended with effort, and monosyllabic. Case 3 was that of a schoolmaster, who, a year after contracting syphilis, became suddenly hemiplegic on the left side. Twelve months later, he gradually lost his speech, and for six months could not speak at all, deglutition, moreover, being affected. He regained speech, and some power in the left limbs, but the voice was squeaky and unnatural, and articulation peculiar and attended with great effort. In Case 4, there was cross paralysis of the left limbs and right face, attended with affection of the voice and articulation. The feature common to these cases and that of Dr. Walker was that, except in the last (which was reported as helping to identify the seat of the lesion and to locate it in the pons), there was for a time speechlessness, which might have been taken for aphasia, whereas the subsequent history showed that the damage to the mechanism of speech had occurred at a quite different point.

Dr. ALTHAUS thought the case well illustrated the localisation of function in the brain. There were now two camps, one for localisation, the other against; he rather sided with the former. Dr. Broadbent's case illustrated the fallacies of Brown-Séquard's school; had death occurred early, it would undoubtedly have been considered a case of complete aphasia, but it was now proved not to be so.—Dr. BROADBENT had encountered several of these cases, and was desirous of putting them on record. This had been briefly done.

THE *Times* reports under date November 8th: "Dr. Girsstout, editor of the *Giornale Sanitario*, and Professor at the Academy of Medicine, was murdered at Warsaw this morning."

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 17TH, 1877.

PRIMARY EDUCATION: ITS MEDICAL AND SANITARY ASPECTS.

We lately drew attention to some of the important physical problems connected with primary education, and urged upon school-managers and members of our profession the necessity of considering the best methods of developing and strengthening the mental and physical powers of children, especially as regards those of a naturally weak constitution.

Much attention has lately been given by the London School Board to the education of the bright and clever children, and arrangements have been suggested by which children showing an aptitude for learning may obtain a liberal education. We rejoice to see such progress; it is always pleasing to help those who help themselves. At the same time, it must be remembered that national education is intended, not only to raise those able and willing to help themselves, but also to raise those of a weak and degraded mental and physical constitution; and, if possible, to fit them for the struggle of life, and prevent them from sinking to the pauper and criminal classes, and thus becoming a dead-weight upon society.

Observations made by competent authorities, who have had the opportunity of examining the state of physical and mental development of convicts in our penal establishments, have shown that a large number of them are individuals of low intellectual capacity, of strong passions, and, in other respects, untrained and unaccustomed to self-control. Such conditions may often be detected in early life; hence the necessity for attention to the early training of these children. The physical condition of a certain child being weak, it depends in many instances upon the external influences acting upon the individual whether he grows up an useful and self-supporting man, or sinks to the dregs of society.

It is not surprising that prisons are found to contain many young criminals, and older convicts habituated to the practice of crime from early days, since we find children, who are excitable, highly imaginative, and of strong passions, untrained and uncontrolled in their early years by any authority competent to understand and deal with such dispositions. These statements are nothing new; but they have not as yet sufficiently attracted public and professional attention.

If it be admitted that children of a defective mental and nervous constitution are more liable than others to yield to the temptations and sink under the trials of life, it appears self-evident that the sooner educational influences, tending to control and check such defects, are brought to bear upon the child, the more likely is it that the weak points will be strengthened and tendencies to crime and vice be corrected. In the present state of our knowledge of the conditions of the nervous system in children, it is not difficult, in many cases under five years of age, to predict that, unless the training be carefully attended to, the child will probably develop into an adult with strong passions, insufficiently controlled by the intellectual and moral faculties, and liable, under the stress of excitement, habits of excess, or the pressure of circumstances, to commit acts against society which will bring him under the authority of the criminal law; or, at least, that it is probable that he will be unsuccessful in the struggle for self-support.

When we see a child excitable, at times very passionate and troublesome under control, and find, on inquiry and physical examination, that the nervous centres are easily disturbed, as indicated by excessive restlessness, irregular muscular twitchings, grinding of the teeth, disturbed and restless nights, etc.; and further, when we hear of convulsions in infancy and epilepsy or *petit mal* in childhood, and perhaps discover a family history of insanity or other form of neurosis, it behoves us to consider what is likely to be the future of such a child, how the forces of modern life, with its struggles and competition, are likely to affect him, and by what means the child may best be trained to fulfil its proper station in life.

If schoolmasters and school-managers would give some attention to the consideration of the physical and mental state of the dull children, the absent-minded, the passionate, the extremely fidgety, and look for a probable cause, or, when this is not apparent, seek medical advice upon the subject, we think the importance of the subject would soon be displayed in a strong light. We doubt not that, were these considerations more commonly thought of, it would be found that many a child, who learns nothing or is uncontrollable in a large and noisy school-room, would be good and industrious in a quiet room, under the more personal supervision of a teacher capable of perceiving and checking excitement, and appreciating when a child is distressed by headache or other disturbance. If experience were sought in this direction by the schoolmaster and the doctor conjointly, much valuable data would soon be accumulated and systematised.

In too many cases children are taken from school by their parents, with the sanction of the school authorities, on account of ill health, when education duly adapted to the individual would be the best means of overcoming a natural defect unremovable by purely medical treatment. We have often met with epileptic children, who have been dismissed from school on account of their fits, in whom the arrest of mental development appeared attributable as much to the want of culture as to the natural history of the disease. That epileptic children are greatly benefited by education, is abundantly proved by the experience of the Earlswood and Clapton Asylums.

Such points as frequent cough, manifest emaciation, signs of strumous disease, and defects of eyesight, should also attract attention when the children are under observation in school. Many a child complains he cannot see to read at night, and is found to be hypermetropic, or he is unable to see pictures across the room or figures on the black-board, as the result of myopia, which could be easily rectified by glasses.

The schoolmaster who is willing to try the experiments we suggest will find at the hospitals an opportunity of obtaining a medical opinion as to the suitability of a child to pass through the ordinary school course, and advice as to the best methods of training the child. When a child is absent from school on the ground of ill health, it is highly desirable that the nature of such illness be ascertained by the school authorities; many instances of the importation of infectious diseases into schools might thus be prevented.

Again we would urge the importance of attention to the physical and mental hygiene of children. National education is one of the great problems of the day, and large powers have been conferred upon the school boards. If their efforts are directed in the lines we have indicated, they are likely to be followed by a notable reduction in the number of criminals, paupers, and insane persons.

CHLOROFORM DELUSIONS.

THE result of the trial of the case *Regina v. Howard* is one upon which we may congratulate the public and the profession. Although we cannot insist too much upon the necessity for caution in the administration of anæsthetics, and though we are of opinion that the defendant, being an unqualified assistant, should have secured the presence of his master; and still more, as the case shows, we ought not to forget the importance of the presence of third persons in all cases of administering anæsthetics to females, a rule which, in dentistry we fear, is often disregarded; yet

the verdict of the jury will reassure practitioners that the public are not unwilling to give full weight to the opinions of medical witnesses upon points on which they alone are able to form an opinion. The evidence of Dr. B. W. Richardson, supported by that of four other competent medical witnesses, two of them chloroformists to large hospitals, convinced the court and the jury that the statements of patients as to what may have passed during the interval of narcosis induced by anæsthetics are not and cannot be relied upon. The story of the prosecutrix was clearly shown to be improbable, nay impossible, on any hypothesis, and will stand for the future as a well authenticated and adducible instance of chloroform delusion. Her story was uncorroborated by any single fact, and was as improbable from the standpoint of an ordinary observer as it was impossible from a medical point of view. That a man should commit the offence charged, upon a woman who had recently vomited over herself, in a room through which the servant answering the surgery bell would have to pass, and during the temporary absence of her companion, who might, for aught he knew, return at any moment; that the act could have been committed by the defendant kneeling on the floor while she was seated in an ordinary chair;—such a story is, to say the least of it, highly improbable. But when we add to this that the prosecutrix described herself as being in a state in which she knew everything that went on, and could see distinctly every movement of the defendant, although she was powerless to resist and speechless, no medical man who possesses ordinary familiarity with the phenomena of chloroform narcosis can fail to see the utter impossibility of her statement.

Unfortunately for Mr. Howard, the trial, although resulting entirely in his favour, so that not the least imputation rests upon his character, must have entailed very serious expense; and we cannot forbear remarking upon the conduct of the committing magistrate, the stipendiary for Birmingham, who, at the examination, adduced, in favour of the story of the prosecutrix, that a friend of his own had told him that, while under chloroform, he was fully conscious of all that occurred; upon which he, on the evidence of the prosecutrix, unsupported by any corroborative testimony, not only committed the defendant for trial, but refused bail, although any amount was forthcoming, and thereby condemned the unfortunate defendant to two months' imprisonment for an offence of which he has been declared entirely innocent. Justices' justice is almost a byword; from trained lawyers, we have a right to expect some acquaintance with, or respect for, medical knowledge. It was quite open to him to have remanded the case in order that further medical evidence might have been obtained on the points raised for the defence, and thus a very large amount of hardship and expense might have been spared.

CEREBRAL LOCALISATION.

THE diagnostic value of conjugate deviation of the eyes for the localisation of cerebral lesions has recently been the subject of a brisk controversy between M. Prévost of Geneva and Dr. M. Bernhardt of Berlin. Prévost, as is well known, in his inaugural thesis published in 1868, following out an observation of his teacher, Professor Vulpius, collected fifty-one cases of hemiplegia in which this symptom had been observed, and, finding but one exception, generalised the following conclusions. In the case of a lesion situated in one of the cerebral hemispheres, the deviation of the eyes follows a constant law; that is, towards the side *opposite* to the hemiplegia, *to the side of the diseased hemisphere*. This symptom may be observed in the case of superficial lesions of one hemisphere, or even in some cases of unilateral lesions of the meninges; the deviation *always is towards the side of the brain-lesion*. But, in lesions of the pons and medulla, he admits that exception must be made to this law, as in this case the deviation may be away from the side of the brain affected. He connected this last phenomenon with the movements of rotation which Magendie, Longuet, and others had observed to follow lesions of the middle cerebellar peduncle on the same side.

Bernhardt, writing in Virchow's *Archiv* for January of the present

year, argues that these conclusions of Prévost's are so far from being universally true, that the symptom has no diagnostic value. In support of his view, he quotes four cases of Eichhorst's, in the first of which there were embolism of the *left* middle cerebral artery and softening of the left corpus striatum, the eyes being deviated to the *right* side; in the second, there were a large softening of the *right* corpus striatum and destruction of the internal capsule, the eyes being turned to the left; in the third, a large hæmatoma of the dura mater extended over the entire *left* hemisphere, the eyes deviating to the *right*; in the fourth, a softening of the convexity of the *right* temporo-sphenoidal lobe, and deviation of the eyes to the *left*. In the September number, he adds two cases of Fürstner's of pachymeningitis hæmorrhagica. In the first, the hæmatoma was on the *left* side, and the eyes were turned to the *right*; in the second, the hæmatoma was on the *right* side, and the eyes were turned to the *left*. Referring next to those cases of lesions about the pons, medulla, and cerebellar peduncles, which Prévost admitted might show conjugate deviation towards the sound side of the brain, he quotes eight cases of deviation from and two towards the side of the brain affected. He remarks that neither Rosenthal nor Nothnagel in their works give any diagnostic importance to this sign, the latter and Eulenburg having seen it occur without any anatomical lesion being present. Bernhardt then refers to the labours of physiologists who have studied the localisation of these movements, and argues that, as they may be produced, according to Schiff, and more particularly Adamuk, by irritation of the anterior corpora quadrigemina, and also, according to Hitzig and Ferrier, by exciting parts of the cerebellum, the vermiform process especially, and as the results of lesions must vary in proportion to their irritative or destructive effects, there is every reason to expect these contradictions at the bedside which the cases he has related show.

Prévost's answer is, in the main, only a disclaimer of exclusiveness in his views, and an appeal to the very large number of cases on record which agree with his conclusions, and to the small number of exceptions brought forward by Bernhardt.

REMUNERATION OF CIVIL PRACTITIONERS FOR ARMY MEDICAL DUTIES.

THE remuneration of civil medical practitioners in charge of troops has always been not only ludicrously insufficient, but even degrading in its terms; and a crucial case came before the Committee of Council about a year ago, on which action was taken at the time. A militia surgeon in Aberdeen, of good professional standing, was formally placed in charge of that station by the principal medical officer, and, at the expiration of a month's exceptionally hard and varied work, received the full amount for which provision is made in the Queen's regulations. Now, it is quite possible that, during an exceptionally healthy season, the few weekly pence per head which a grateful country dolés out to the practitioner in attendance may pay him fairly well; but it is also equally evident that any prevalence of epidemic disease, or any unusual scattering or complication of military duty, must lead to disastrous pecuniary consequences. It being perfectly clear that, in Dr. McQuibban's case, the amount of service rendered was out of all proportion to the recompense received, the Committee of Council appointed a subcommittee, at his request, to investigate the whole matter and report accordingly. In consequence of the decision arrived at by the highly competent members of this court of inquiry, a brief but respectful remonstrance was forwarded to Mr. Hardy, setting forth the injustice of such treatment, and requesting that some alteration might be made in the official terms. The Secretary of State was unable at that time to give his full attention to the subject; but, as the Royal Warrant (see p. 717) will show, he has since evidenced his desire to remove this undoubted grievance by introducing that principle of elasticity which the justice of individual cases from time to time demands. It is a mere truism to say that insufficient remuneration for efficient services rendered exerts a lowering influence on the social status of our

profession; and, although clubs and such corporate bodies pay poorly on the whole, still it must be remembered that the large number of members on their lists may run to a very respectable annual percentage. There is no reason why Government should not deal liberally with the civil practitioners; and, whilst according all due praise to Mr. Hardy for his wise concession, we cannot help reading between the lines of this last Royal Warrant, and seeing the necessity which must soon arise of relieving the overworked and undermanned Army Medical Department by outside aid.

SOME of our readers may be interested to learn that Dr. Barnes will give a practical demonstration of the uses of Professor Tarnier's Forceps on the new French phantom of Tarnier and Budin, at St. George's Hospital, on Friday, the 23rd instant, at 2 P.M.

THE members of our Association will be glad to see once more the familiar signature of Dr. Markham at the foot of a letter in to-day's JOURNAL. The letter is in itself one of characteristic interest and vivacity; and we are happy to be able to add that Dr. Markham is steadily gaining in health and strength; and we may hope, perhaps, before very long to see him again amongst us.

ST. THOMAS'S HOSPITAL.

MR. ALDERMAN STONE has been elected Treasurer of St. Thomas's Hospital. Mr. John Simon has been elected a member of the Grand Court, with the view of being placed on the new House Committee which is forthwith to be appointed. Mr. Alderman Stone has pledged himself to go into residence. His friends have given him a high character, and he has warmly expressed his determination to follow a course of good administration. We do not doubt he will endeavour to fulfil these pledges, and we trust successfully. Mr. Stone must have, however, everything to learn in respect to his new duties, and we trust he will prove as apt as he professes himself a willing scholar.

MEDICAL MAYORS.

THE list of provincial mayors elected last week contains the names of the following members of the medical profession:—Dr. Aldridge, Dorchester; Mr. Barrow, Ryde, Isle of Wight (fourth time in succession); Dr. Paley, Peterborough; Mr. Prior, St. Albans; Dr. Thompson, Launceston; Dr. Tibbits, Warwick; Mr. Walmsley, Salford (re-elected); and Dr. Warrener, Hertford.

MISS KNOLLYS.

WE are pleased to report that Miss Knollys is making satisfactory progress. Her temperature has now been normal for seven days, and she is going on well in all respects. The nights are excellent, digestion is good, and the convalescence in all respects rapid. We understand that Mr. Oscar Clayton hopes to be able to return to London early in next week.

CASE OF HYDROPHOBIA TREATED BY FARADISATION.

AT the last meeting of the Academy of Sciences, M. H. Bouley related the following case of hydrophobia which had been communicated to him by M. Menesson. A young veterinary surgeon of La Capelle had fallen a victim to canine rabies in consequence of accidental inoculation at a *post mortem* examination. The unfortunate young man imprudently proceeded to the operation with excoriations on his hands, and to open the mouth of the dog and place his fingers in contact with the saliva. Thus he inoculated himself with the disease. After an incubation of three months, the symptoms manifested themselves with fearful intensity. As usual in this terrible disease, there was violent thirst, with an invincible horror of liquids. Faradisation gave remarkable results. The convulsive fits, to which was added a constant spitting of a white frothy foam, being incessant, M. Menesson first tried hypodermic injections, then inhalations of chloroform, but without result. They were not tolerated, and brought on still more violent crises. M. Menesson then employed faradisation, and applied one of

the poles of an induction coil to the nape of the neck, over the medulla oblongata, and the other pole to the sole of one of the feet. Under the influence of the electric current, the patient experienced immediate relief, and to the previous state of excitement there succeeded an evident calm, which allowed him to converse and to drink, without any appearance of spasms brought on by the sight or contact of the liquid. The continuous action of the current bringing on acute pain, it was discontinued by request of the patient, but the convulsions recurred immediately as severely as before, and were again stopped by a fresh application of electricity. Finally, however, after five days' struggle, with alternations of exacerbations and remissions, death occurred suddenly from an arrest of the heart's action. The sedative effects obtained in this case by faradisation were sufficiently marked to induce practitioners to insist, in similar circumstances, on the use of electricity, of which the action was followed by an undoubtedly improved condition. There is nothing astonishing in the sedative effects obtained by the electric pile, since the various movements necessary for respiration proceed from the medulla oblongata through the pneumogastric nerve.

VITAL STATISTICS OF IMPROVED DWELLINGS.

IT appears from an official return with which we have been favoured, that on September 30th the residents of the eleven groups of buildings vested in the trustees of the Peabody Fund numbered 8,647 persons, of whom 4,811 were children aged less than twenty years, 3,655 adults between twenty and sixty years, and only 181 were persons aged upwards of sixty years. These figures show very abnormal proportions. The proportion of children is enormously large, and that of persons aged upwards of sixty years does not exceed 2.1 per cent., whereas in the whole of London it is equal to 6.2 per cent. The proportion of children under five years of age is equal to but 13 per cent. in the whole of London, whereas it is 23 per cent. in the Peabody Buildings. The trustees of the Peabody Fund have recently purchased a group of buildings known as Rochester Buildings, situate in Old Pye Street, Westminster. These buildings have been tenanted during the last thirteen or fourteen years, and contained on September 30th a population of 724 persons, the age-distribution of which agreed much more nearly with that prevailing in the general population of London; it contained only 14.8 per cent. of children under five years of age, and no less than 7.7 per cent. of persons aged upwards of sixty years. The steady growth of the operations of the Peabody Fund, together with the accumulating of other associations having similar objects in view, is doubtless exercising an appreciable effect upon the health of the working classes in London: an effect which will be materially increased when the various metropolitan improvement schemes, based upon the provisions of the Artisans' Dwellings Act of 1875, are carried into effect.

RELAPSING FEVER AND SPIRILLA IN BOMBAY.

PROFESSOR BURDON SANDERSON, F.R.S., has communicated to us the substance of an interesting communication received by him from Surgeon-Major H. V. Carter of Bombay. It is probably known to our readers that, during the past summer, fever, represented in official reports to be for the most part of the remittent character, has prevailed epidemically at that place, over five thousand deaths having been recorded during the six months ending September 30th. About six hundred cases of fever have been under Dr. Carter's observation in his hospital practice, of which a large proportion have been found by him to present the characters, not of remittent, but of relapsing, fever. In short, he has no doubt that during the period in question a form of fever identical with the relapsing fever of Europe has prevailed epidemically in Bombay, and is of opinion, judging from his own observation, that the cases must have amounted to several thousands. It was, of course, matter of great interest to ascertain whether the *Spirilla*, which in recent European epidemics has been observed to be characteristic of the blood of persons affected with this disease,

was also to be found in the blood of Indian patients. With a view to this important question, Dr. Carter has examined the blood of no fewer than two hundred and fifty persons, and has found the spirilla in almost every instance. It must, however, be added, that the scrutiny of the blood showed that these organisms were present in some cases of fever of which the course was irregular; so that Dr. Carter is led to express himself with great caution as to the relation between the presence of the organisms and the specific development of the disease. In order to give additional certainty to Dr. Carter's conclusions as to the identity of the Indian with the European organisms, Dr. Sanderson has forwarded to Bombay a most successful microscopical photograph of the blood of a patient affected with relapsing fever, recently taken by Dr. Koch. Dr. Carter is at present engaged in the preparation of a paper in which the results of his inquiries and observations on this subject will be embodied. The appearance of the report will be awaited with great interest.

"GERMS" AT THE ROYAL SOCIETY.

ON Thursday next, no less than three papers will be read at the Royal Society on the subject of *bacteria*. One of them is by Dr. Tyndall, in which he will describe some interesting experiments which he has made in Alpine regions; another by Dr. Burdon Sanderson, in reply to a paper by Professor Tynall communicated at the end of last session, entitled "Note on Dr. Burdon Sanderson's Latest Views of Ferments and Germs". It appears that, in the course of last winter, Dr. Sanderson delivered a lecture in which he expressed doubts as to the pathological significance of atmospheric dust. Professor Tyndall, as is well known, attributes much importance to the inconceivably minute particles which subside from air when it is kept in a state of absolute quiescence. He regards them as organised germs, and is understood to believe that, when they find their way into the bodies of men or animals, they produce disease.

BICARBONATE OF SODA IN BURNS.

WE referred last week to the practical demonstration by an American physician on his person of the value of the bicarbonate of soda in the treatment of burns. In an editorial article of the *Philadelphia Medical Times* we read further, as follows: "In one of the University laboratories in this city, an assistant of the editor of this journal burnt the inside of the last phalanx of the thumb severely whilst bending glass tubing. The saturated solution of the bicarbonate of sodium, used in the cardiometer, was at once applied; in five minutes the pain was gone, and with it all soreness, so that the part, although blistered, was freely used and pressed on in bending tubing, screwing up and unscrewing apparatus, etc. In the last number of the *Louisville Medical News*, Dr. Coleman Rogers reports a case of a burn of the second degree, involving two-thirds of the face, both ears, and extending over the whole back of the neck to down between the shoulders, in which the pain was 'promptly and permanently' relieved by applications of the soda. Washing-soda is so easily obtained, and the relief we saw was so quick and complete, that we trust the profession will at once try the new asserted remedy."

HYDROPHOBIA IN FRANCE.

M. PROUST, at the meeting of the Paris Academy of Medicine on November 6th, read a paper on the results of the official inquiry into cases of hydrophobia observed in France from 1850 to 1876. Its conclusions were as follows. 1. Cauterisation being, up to the present time, the only means known as a prophylaxis against hydrophobia, it is important to obtain statistical information not only of the name of the caustic employed, but the manner in which the cauterisation was made, and the exact time which elapsed between the inoculation with rabies and the moment of cauterisation. 2. As the transmission of the contagium is often effected by little pet dogs, in which the disease at its outset inspires no mistrust, a memorandum with the object of popularising knowledge of the early symptoms of rabies would be of the greatest utility against this

kind of contagion. The dog is not dangerous only when it has lost its reason; it is more treacherous whilst the sentiment of affection is still active, its saliva being already virulent. The widely spread opinion that canine rabies is always characterised by horror of water is untrue. 3. The sanitary police regulations applicable to canine rabies should be rigorously put into force in the winter as well as in the summer against suspected dogs, as much as against dogs actually in a state of disease. 4. The measures prescribed in these cases should be, the obligatory wearing of a collar, according to police regulation; the seizure of all stray dogs not wearing a collar; destruction of all the dogs so seized, and of diseased dogs; destruction or shutting up of all suspected dogs; also, in case of serious accidents or death of a human being, the proprietor of the dog should be prosecuted by the authorities, without prejudice to any claim which may be made by the families of the injured persons.

BACTERIA AND VIBRIOS.

THE *Monthly Microscopic Journal* points out how desirable it is that some one who is familiar with microscopic research would undertake the naming and description of these bodies. There has been a recent effort made in this direction on the Continent, but it is not entirely satisfactory. And it is the more necessary because in some recent investigations into the relations of bacteria to the disease of cattle, termed *charbon* by the French, M. Pasteur has made some startling observations. He has asserted that bacteria may present themselves under two forms; first, as the rods which alcohol, compressed oxygen, desiccation, and a temperature lower than 100 deg. C. (212 Fahr.) can destroy; and, secondly, as highly refracting corpuscles which, on the other hand, resist a temperature of 120 deg. C. (248 Fahr.), and resist also the action of alcohol and of compressed oxygen. These he regards as a mode of generation of the bacteria. They do, of course, multiply by segmentation, but often, on one or several parts of the bacterium, globular, highly refracting corpuscles arise, the diameter of which is not greater than the thickness of the bacterium. After these appear, the rest of the rod quickly disappears. If an appropriate liquid be inoculated with these corpuscles, bacteria are developed in it just as if the liquid were inoculated with rod-like bacteria, and they constitute the resisting power of the liquids experimented on by some authors. However, it would be satisfactory to have the evidence of some experienced microscopist on this subject.

NEW YORK NURSES.

A NEW YORK correspondent gives the following characteristic and interesting report of the working of the system of training lady nurses which has lately extended from England to America.

"The first annual commencement of the Training School for Nurses at the Charity Hospital, Blackwell's Island, took place recently, and was a very pleasant affair. It was held in the large hall of the west wing of the hospital, which was tastefully decorated for the occasion with evergreens, flowers, and flags, and there was a large attendance of invited guests (among them Mayor Ely and Ex-Mayor Wickham), who came over to the island on the steamboat belonging to the Commissioners of Charities and Correction. The pupils of the school presented a very prepossessing appearance in their neat caps and aprons, and certainly would have offered a very marked contrast to any body of nurses that could have been gathered from any of our hospitals ten years ago. Ex-Mayor Wickham presided, and gave a short history of the organisation and subsequent career of the school. For several years, he said, the commissioners and himself had been awake to the abuses of untrained nurses in the hospital, and the desirability of founding such an institution as this; but it was not till August 1875, that they were able to perfect and carry out the project. At that time, twenty applications were received from young ladies, of whom nine were accepted; and it was with this number that operations had been commenced. Since then the school had gone on increasing, until it had now reached the number to which it is limited: forty pupils. The influence of these lady nurses had made a complete change in the régime of the hospital; severe punishments were no longer necessary, and there had been a marked decrease in the death-rate. A novel feature of the exercises was the reading of essays by several of the graduates, on such subjects as the following: 'The Nursing of Children'.

'The Nursing of the Eye,' and 'The Duties of a Nurse.' There was also read a very amusing composition on 'Blackwell's Island,' and a valedictory address by one of the young ladies selected by her companions. There were sixteen graduates, and three of them received prizes offered by Dr. Eastabrook, chief of staff, for passing the best examinations. There is only one objection that we can see to having such a class of nurses about a hospital, and that is that some of the young women being very attractive, the members of the house staff may be tempted to indulge in flirtations with them sometimes, and thus, perhaps, occasionally neglect their patients; but, even although this is the case, good may, no doubt, result therefrom to both the young men and the nurses. At least one match which was gotten up in this way has come to our knowledge; and it is certainly very nice for a youthful physician setting out in practice to have such a help-mate that, in case his magnificent anticipations of fortune and renown are not realised quite as soon as he expected, she may be able to turn to account her knowledge and experience in the care of the sick in such a manner as to assist in 'keeping the pot boiling' until the practice has sufficiently increased to enable him to dispense with her professional services."

OPHTHALMIA IN WORKHOUSE SCHOOLS.

THE continual outbreaks of ophthalmia in the various large metropolitan workhouse schools affords the strongest evidence of neglect, mismanagement, and unsatisfactory sanitary condition; for ophthalmia is a well defined filth-disease, and thus strictly preventable. At a recent meeting of the Holborn Board of Guardians, the School Committee reported that the medical officer of the schools at Mitcham, Dr. Marshall, had attended at the last meeting of the Committee, and had stated that the children suffering from ophthalmia were not properly attended to. It is quite certain that, with proper attention, the children would not have suffered from ophthalmia, as neglect of sanitary precautions is the most powerful element in the causation of the disease, and it becomes highly important that the responsibility for this neglect should be fixed in the proper quarter. The Holborn Guardians passed a resolution to instruct an eminent oculist to visit and to report upon the sanitary condition of the school. That an investigation of the unsatisfactory sanitary condition of many of the metropolitan workhouse schools, as evidenced by outbreaks of ophthalmia and high rates of mortality, there can be little doubt. The Holborn School at Mitcham contained 473 children on January 1st, 1876, and 479 on the first of January last. During last year, it appears that nine deaths were registered among the inmates of this school, which, assuming that the average number of children was 476, would be equal to a rate of 19 per 1,000. It is needless to say that this is nearly double the normal death-rate among children at the school ages in the London population. When it is considered what sanitary advantages as to housing, feeding, and clothing should be enjoyed by children in these and similar schools, compared with the average circumstances under which children of the working classes in London are reared, the excessive mortality in these Poor-law establishments may well afford ground for thoughtful astonishment. The medical officer of this school asserts that, even after the outbreak of ophthalmia, the children were not properly attended to, and he could probably also throw light upon the causation of the outbreak. The position of medical officer in these establishments must be eminently unsatisfactory if his instructions are so far disregarded that he has to complain to the guardians of the neglect of his patients.

THE DISCOVERERS OF ANÆSTHESIA.

DR. J. MARION SIMS has published an historical study of the discovery of anæsthesia, which is summarised by the *Virginia Medical Monthly* in the following conclusions:

1. That since 1800, the inhalation of nitrous oxide gas produced a peculiar intoxication, and even allayed headache and other minor pains.
2. That Sir Humphry Davy proposed it as an anæsthetic in surgical operations.
3. That for more than fifty years the inhalation of sulphuric ether has been practised by the students in our New England colleges as an excitant, and that its exhilarating properties are similar to those of nitrous oxide gas.
4. That the inhalation of sulphuric ether as an excitant was common in some parts of Georgia forty-five years ago,

though not practised in the colleges. 5. That Wilhite was the first man to produce profound anæsthesia, which was done accidentally with sulphuric ether in 1839. 6. That Long was the first man to intentionally produce anæsthesia for surgical operations, and that this was done with sulphuric ether in 1842. 7. That Long did not by accident hit upon it, but that he reasoned it out in a philosophic and logical manner. 8. That Wells, without any knowledge of Long's labours, demonstrated in the same philosophic way the great principle of anæsthesia by the use of nitrous oxide gas (1844). 9. That Morton intended to follow Wells in using the gas as an anæsthetic in dentistry, and for this purpose asked Wells to show him how to make the gas (1846). 10. That Wells referred Morton to Jackson for this purpose, as Jackson was known to be a scientific man and an able chemist. 11. That Morton called on Jackson for information on the subject, and that Jackson told Morton to use sulphuric ether instead of nitrous oxide gas, as it was known to possess the same properties, was as safe, and easier to get. 12. That Morton, acting upon Jackson's offhand suggestion, used the ether successfully in the extraction of teeth (1846). 13. That Warren and Hayward and Bigelow performed important surgical operations in the Massachusetts General Hospital (October 1846) on patients etherised by Morton, and that this introduced and popularised the practice throughout the world.

SEA-WATER FOR LONDON.

AT a recent meeting of the Metropolitan Board of Works, Mr. Leslie brought forward a motion in favour of obtaining a supply of sea-water for fire-brigade purposes, for baths, and for watering the roads and streets of the metropolis. The cost of the water now for watering the streets was estimated at £60 per mile by one gentleman, and at £40 by another, which represented £90,000 or £60,000 a year paid to the water companies for this purpose. For the purpose of extinguishing fires, he contended that a better fluid might be provided at high pressure in the pipes than anything London possessed at present. Sea-water was far more useful in extinguishing fires than river-water, as it prevented the materials on which it fell from being combustible. The sea-water could be got from Coal Haven in Sea Reach, which was within twenty-two miles from the Bow Station in the Mile End Road. Suppose Candy Island should be thought a proper place for the pumping-engine, and a reservoir were built there for impounding the water, it would be between four and five miles from the highest point in Essex. The supply would be unlimited, and no boring would be required. Judging from the experience of the East London Water Company, he had no hesitation in saying that the total cost would be less than half a million. General Sir William Codrington seconded the motion. One gentleman, in opposing it, stated that sea-water used for watering the streets would create noxious compounds which would be very injurious to health; and this opinion was confirmed, we read, by Mr. Fowler, who condemned the proposition as being every way Utopian. Ultimately it was rejected by a large majority. We have no means of looking at the financial part of the question; but we are far from thinking that the proposition was one which deserved to be so cavalierly treated. The statement that sea-water used on the roads would prove most injurious to health is one for which we do not perceive the grounds, and as to which it would be satisfactory to have further information. In many parishes, the use of chloride of calcium and sodium for the purpose of watering roads has been strongly advocated, being highly economical, and preventing the necessity for so frequent a use of the water-carts as when fresh water is used. Solutions of the chlorides of sodium and calcium have an unquestionable antiseptic property. We have never heard that the opinions of medical officers of health in seaside places, where sea-water is often used for watering the roads, have been adverse to the practice; and we are inclined to look forward with interest and hope to the day when sea-water shall be brought to London by pipes, and shall be available for the use of the inhabitants for baths and other purposes, and, if it could be done economically, for the purpose of extinguishing fires and watering roads. It is not apparent in what respect this proposition is to be characterised as absurd. We hope Mr. Leslie will not be easily daunted, but will have the subject again discussed, and lay before the

Board such data as will ensure respectful consideration of his proposition. The offhand statements of Mr. Fowler and Mr. Richardson could not, we are inclined to think, be supported by medical authority. Mr. Leslie has also brought forward at the Metropolitan Board of Works the subject of watering the metropolitan streets with sea-water, and moved that it be referred to the engineer and consulting chemist to report thereon. An amendment was moved to defer the matter for six months, and it was carried by sixteen to ten. We hope, however, that Mr. Leslie will not be deterred from prosecuting this question. We are very far from thinking that it is one on which the last word has been said.

THE BIRMINGHAM GENERAL HOSPITAL.

OUR Birmingham correspondent writes: With regard to paragraph about General Hospital elections last week, I believe I was mistaken about their being conducted by the new Election Committee of one hundred. It seems that the ordinary Committee of Management with the staff retain the power of appointing these new officers, because they receive an honorarium (£100). I do not think this distinction is observed anywhere else; not, *e.g.*, at our Children's Hospital, where the assistants get £60, or at the London Hospital.

MIDLAND MEDICAL SOCIETY.

THE annual inaugural meeting of this Society was held last week at Queen's College, Birmingham, under the presidency of Dr. Sawyer, and was signalled by a masterly address from Mr. Simon on the subject of cancer. He reviewed our present knowledge as to its pathology and treatment, and pressed for further earnest research in this direction. "He was not unaware, nor did he regard with indifference, the fact that such research involved a certain amount of suffering to animals used in experiments. But as cancer affected both man and brute, it might greatly concern the permanent interests of the brute as well as of man that even at some present cost to the brute these studies should be diligently followed. If they were students of nature and servants of mankind, acting in the best light of their individual conscience and of the collective conscience of their great profession; if they were ready for the sake of the human interest to impose that first cost of brute suffering, let them hope that the caprices of impulsive legislation, and the personal discretion of their magistrates and Secretary of State for the time being, might not render such studies virtually impossible to all but clandestine investigators." A cordial vote of thanks to Mr. Simon was proposed by the President and supported by Mr. Pemberton and Dr. Keyworth, and carried by acclamation. The distinguished surgeon was afterwards entertained at supper by the members of the Society.

EDINBURGH UNIVERSITY CLUB.

A VERY pleasant dinner of this club was held at St. James's Hall, Regent Street, on Wednesday, November 14th; Mr. Jardine Murray of Brighton in the chair. About sixty were present, among whom were Dr. Sieveking; Dr. D. B. Smith, Principal of the Medical College, Calcutta; Dr. Mackinnon, C.B.; Professor Lister; Dr. Matthews Duncan; Mr. Critchett; Dr. Barnes; Professor Playfair; Dr. Hope; Dr. Ord Mackenzie; Dr. Cobbold, F.R.S.; the Rev. Francis Gordon, Dean of Her Majesty's Chapel Royal; the Rev. Dr. Hamilton; the Rev. Cosmo Gordon; and many others. After the usual loyal toasts, the Chairman proposed "The University of Edinburgh, and Prosperity to the Club"; and, in calling on Professor Lister to respond, Mr. Murray remarked that it might seem strange to connect with the University of Edinburgh the name of one who, although lately an ornament of that University, was now no longer connected with it. Yet there seemed a certain fitness, for no one could so well appreciate the proportions of an institution as he who was removed from its sphere—who was, as it were, no longer within focal distance. Mr. Lister was known to all. The Chairman well remembered when Mr. Lister came to Edinburgh and accepted a subordinate position in the clinical wards in order that he might work. "Mr. Lister enjoyed a position

in Scotland which was almost all that a man could well desire. But the practice of surgery resembles too much the 'ever-revolving, never-advancing wheel'; and he has determined to do his part to further progress. Southey has said that no man was ever yet convinced of any momentous truth without feeling in himself the power as well as the desire of communicating it; and so it is with Professor Lister. He has come among us to occupy the honourable position of a metropolitan surgeon, and to demonstrate the practical bearing of truths which have become well known to him." Professor Lister, in responding, dwelt on what he believed to be the peculiar features and excellencies of the Edinburgh University, which he might, indeed, claim as virtually, though not literally, his *Alma Mater*. It was under Syme that he had first felt his enthusiasm in surgery burst into a flame. The highest honour that had ever been awarded him was, however, that of being *invited* to come to London as surgeon and teacher in an eminent medical school; and it was singular that a similar honour, of so unusual a kind, had been simultaneously paid to his friend Dr. Matthews Duncan. "The Sister Universities" was proposed by Mr. Rutherford, and responded to by Dr. Matthews Duncan; "The Visitors" by Dr. Ord Mackenzie, to which toast Mr. Critchett made a felicitous response. "The Chairman", by Dr. Cobbold, suitably acknowledged by Mr. Jardine Murray, brought a very happy gathering to a close.

THE PARKES MUSEUM OF HYGIENE.

WE are happy to learn, from the statement issued by the Executive Committee of the Parkes Memorial Fund, that the resolution adopted to institute a Parkes Museum of Hygiene at the University College, London, has been thus far satisfactorily carried into effect. The Council of University College have placed at the disposal of the Committee a suitable room for a museum, and another smaller room for the purposes of a library. The sum of £800 has been contributed in money, the greater part of which it is proposed to invest as the commencement of an endowment. Large contributions of interesting and valuable objects have been made, and further contributions are asked from the friends of hygienical science of objects—such as models, appliances, samples or specimens relating to food, dress, dwellings, etc., or books, pamphlets, reports, maps, charts of all kinds—either for loan or permanent exhibition. The following are the proposed classes: 1. Local Hygiene and Sanitary Engineering; 2. Hygienic Architecture; 3. Apparatus and Materials for Lighting and Warming, and appliances for kindred purposes; 4. Clothing; 5. Food; 6. Personal *Régime* and Comfort for Invalids; 6. Safety and Rescue; 8. Industrial and Professional Hygiene.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE report of the Council is this week issued. It states that the fifth year of collecting this Fund has proved one of gradual but highly satisfactory growth in the number of contributing congregations as compared with former years. From the Church of England alone there are no fewer than thirty new contributing congregations, and from the Congregationalists, who head the list of contributors from other religious bodies, an average increase of sixteen is found as compared with the three previous years. Nearly all other denominations have maintained steady averages. As a total, the Council are glad to be able to show an average increase of fifty new contributions. The actual amount collected this year has not exceeded £26,082 19s. 1d.; and this decrease, as compared with last year (£27,042 11s. 4d.), is evidently accounted for by the serious financial depression which has materially reduced the means of the charitable. The Committee of Distribution submitted for the approval of the Council awards, amounting to £24,970, to 119 institutions; £22,747 being awarded to 76 hospitals, and £2,223 to 43 dispensaries. In ten cases, the Committee issued invitations to the committees of hospitals to meet them by deputation, so as to afford opportunities of explaining or clearing up points which had influenced the Committee to reduce or withhold the award. In reply to this in-

vation, it is significant that only one hospital committee attended the conference, whilst the remainder elected to leave the matter in the hands of the Committee. The report of the Committee of Distribution was received, adopted, and ordered to be carried into effect; except in the case of the Hospital for Diseases of the Throat, in which case the award of the Committee, to the amount of £97 10s., was ordered by the Council to be withheld. The largest amount awarded by the Committee appears to be that to the London Hospital, which receives £2,491; the next largest to St. George's, which receives £1,841; Middlesex receives £1,280; King's College, £1,083; St. Mary's, £866; the Seamen's, £758. The largest amount awarded to a special hospital is £823, to the Hospital for Consumption.

THE MEDICAL USE OF ALCOHOL.

THE following letter has been forwarded to the medical practitioners of Ramsgate by the Good Templars of that town.

"Gentlemen,—Notwithstanding the high esteem in which we hold the honourable profession to which you belong, we are constrained, by painful observations and experience, to avow our conviction that our medical men are responsible for not a little of the intemperance that prevails around us, with all its miserable consequences. We refer to the unguarded, if not the reckless, manner in which intoxicating drinks are prescribed to the sick and convalescent. We should have expected you of the profession, above all men, to lead the public away from the use of such dangerous poisons, prescribing them, if at all, only under the most exceptional circumstances, and warning all, especially those formerly addicted to these drinks, against their continued use. But, gentlemen, we are disappointed, grieved, and indignant to find that, in many cases, an opposite course is pursued, and that with most lamentable results to all concerned. So keenly do we feel this matter, that we would hail with gratitude and joy the settlement among us of some thoughtful, reliable, abstaining medical men, and would give to such our hearty support, believing, as we do, that in this way we should not only protect ourselves and friends from the great danger referred to, but also effectually advance the cause of temperance.

"We address this frank, yet respectful, appeal to you, in the earnest hope that, with the utterances of such distinguished men as Sir Henry Thompson, Dr. Richardson, and others before you, confirmed as these are by your own daily observation of the terrible effects of strong drink upon all ranks and classes of the community, you will no longer yield to the perilous whims and perverted tastes of your patients; but will henceforth point out to them a more excellent way of preserving, recovering, and enjoying the health and strength they so anxiously seek. With much respect, we are, gentlemen, on behalf of the Temperance Society, etc."

THE MEDICAL PROFESSION IN AMERICA.

AT the opening of the University of Pennsylvania Medical School on October 1st, Professor W. Pepper, M.D., delivered an introductory address, which gives rather a discouraging view of medical prospects in America. He observed that barbers serve a three years' apprenticeship, carpenters are four years in learning their trade, and pilots seven. Now-a-days, it in reality only requires in America *ten months* (two terms of five months each) *to learn the practice of medicine!* Government cannot restrict the number of medical schools. Though protective in other matters, it has never attempted protection in medical education. In other countries, there is about one medical school to every 3,000,000 or 5,000,000 of inhabitants. In America, with 45,000,000 of people, there are sixty-five regular medical schools. The fees at American medical schools have been lowered, and the terms shortened, to avoid being underbid in this unlimited competition. The supply of not only medical schools, but also of medical men, has run ahead of the demand. One of the glaring evils of the present system is an enormous over-production of medical men. In the year 1875, 3,000 medical practitioners were qualified. In addition to this number, it has been calculated that 200 physicians emigrate annually to America. It requires from 1,500 to 2,000 persons to support a doctor. With a population of 45,000,000 in 1877, there are 62,383 medical practitioners. This makes a proportion of one doctor to every 618 of the population. Hence arises the immense difficulty of a living to the rank and file of the profession with this condition of affairs. It

would, however, be a great mistake to infer that there does not exist in America a very numerous body of highly cultivated and most capable men, many of whom are as profoundly versed in the science as well as the practice of their profession as the most eminent of their European colleagues.

ACCLIMATISATION OF THE CINCHONA TREE.

DR. W. R. GILFOIL, the director of the Melbourne Botanic Gardens, in his annual report just issued, states that his anticipations regarding the experiments for acclimatising the cinchona tree have proved correct. It is an unmitigated failure. He believed that a number of young and strong specimens of this valuable medicinal plant were at one time distributed through the Colony to people in suitable positions for giving every care and attention to them. Yet he had failed to ascertain one instance where the experiment had been attended with success out of doors. On Phillip and French islands, according to reports he had received from gentlemen residing in those localities, some highly tropical plants maintained life in sheltered positions. But, where a plant can only just manage to exist in certain favourable situations, the experiment of acclimatisation looks very like a failure. They have not even this consolation in the case of the cinchona; and however valuable a plant may be, it is useless to waste money and time in trying to conquer Nature in such an effort. He repeated his firm belief, that the cinchona will not grow in Victoria, except cared for in a bush house or shed.

EXPERT TESTIMONY.

PROFESSOR EMORY WASHBURN, in a recently published article on this subject, after defining the true scope and purpose of expert testimony, its limitations and requirements, shows how difficult and well-nigh impossible it is, under the present system of summoning expert witnesses, to divest the testimony of such witnesses of a partisan character, and to avoid the disagreeable and often demoralising concomitants of such a method. To improve the prevailing system, the author proposes once more the following: "To have the court before which the trial is to take place to select a proper number of experts of an established reputation, after a proper hearing of the parties, and to have these called; while the parties may still be at liberty to call others, if they see fit." Such a recommendation possesses, it is suggested, obvious advantages, and, if carried out, would banish many of the gross and scandalous evils of which medical experts with good reason complain. Under such improved conditions, the witness-stand would no longer be a place of torture for physicians.

SCOTLAND.

THE Senatus Academicus of the University of Edinburgh have elected A. Campbell Fraser, LL.D., Professor of Logic and Metaphysics, and Dean of the Faculty of Arts, their representative in the University Court, in the room of Sir Robert Christison, Bart.

PROFESSOR TURNER has been appointed Dean of the Faculty of Medicine in the University of Edinburgh, in place of Professor J. H. Balfour, resigned. The appointment is one which is sure to be highly popular with the students. Indeed, no better appointment could have been made to an office requiring the exercise of much energy, tact, and patience.

WE understand that a three months' course of Physiology will be delivered in connection with the Edinburgh Extramural School of Medicine, beginning in January. As the Royal Colleges of Physicians and Surgeons there only require a course of three months for their diploma, the students will be enabled to obtain a certificate from a qualifying course. This arrangement is the only one which it was practicable to make during the present session. Next year, without doubt, the full course will be given as usual. Dr. Alexander James is likely to be the lecturer.

THE late Mr. Bell of Balgray has left to the Senatus Academicus of the University of St. Andrew's the sum of £1,000, for the purpose of founding a scholarship either in arts or in medicine.

THE rainfall at Greenock during the past month reached the high figure of 10.41 inches, which fell in twenty-one days: this was the largest fall in any of the principal towns in Scotland; the least was at Aberdeen, where, however, it took the longest time to fall—namely, 2.14 inches in twenty-five days. More than twice the latter quantity of rainfall was noted in Glasgow in seventeen days.

HEALTH OF EDINBURGH.

THE medical officer's report on the health of the city for the month of September and for the quarter ending 30th of that month shows that the number of deaths registered during that month was 299, exactly the same as in the corresponding month of 1873, a very healthy year; but, owing to the increase of population during the last five years, the rate of mortality for the month is more favourable this year (being 16.74 per 1,000) than in 1873, when it was 17.69; 112 deaths, or 37.45 per cent., were of children under five years of age, and 49, or 16.3 per cent., of persons above sixty. The deaths from zymotic diseases were low, viz., 34, or 11.37 per cent.; at least ten of the fatal cases of fever were reported from the western part of the city, and were connected with the outbreak at Coltbridge. There was no death from typhus fever during the month. The number of deaths during the quarter amounted to 924, which gives a mortality of 17.24 per 1,000. This may be looked upon as very satisfactory. The usual summer mortality from diarrhoea for the quarter was much lower than it has been for several years past. The total deaths for the quarter from zymotic diseases were 86, or 8.53 per cent.—a very respectable average; last year, however, for the same quarter, they only reached 4.45 per cent. of the total deaths.

THE LORD-RECTORSHIP OF THE UNIVERSITY OF EDINBURGH.

THE minds of the students of the Scottish Universities have been for some time past agitated and their studies disturbed by the exercise of their franchise as electors to the office of Lord Rector of their respective universities. The Edinburgh students have only possessed this privilege for about twenty years, while in the case of some of the others it has been a custom dating from remote times. The election in Edinburgh took place on Saturday last, when, out of 2,101 matriculated students, 1,616 came to the poll: of these, 932 voted for the Marquis of Hartington, and 684 for Mr. Cross, the Home Secretary. It is stated that the Liberal victory was chiefly due to the Medical and Arts Faculties, while the strength of the other side lay in the Faculties of Law and Divinity. Not only is the majority by which Lord Hartington was returned the largest since 1868, but the number of votes recorded is larger than on any previous occasion. The process of going to the poll is not a very pleasant one, as the voter has to pass between two lines of his fellow-students, who find delight in pelting him with peas, and occasionally basting him with flour; in sublime disregard of his political principles, he is impartially attacked by Liberal and Tory alike. In the evening, fully 1,500 of the students made a torchlight procession, and perambulated the town. Everything passed off sufficiently quietly, and without any interference from the authorities or police.

THE SEWAGE QUESTION IN GLASGOW.

A DEPUTATION was appointed some time ago by the Town Council to inquire into the methods used in the various towns of England to dispose of their sewage, and to report as to the best method to be applied to Glasgow. They have just issued their report, and it contains matter of considerable value. The report distinctly formulates the conclusion that the attempt to utilise sewage for agricultural or other purposes has proved a failure, except under peculiarly favourable circumstances; and they recommend that no attempt of this kind be made in Glasgow. All that is to be considered is, how to get rid of the sewage at the least cost. They point out the fact that in more

than half the houses in Glasgow there are no water-closets; and, in order to limit their number, they would forbid their use in public works, factories, jails, workhouses, infirmaries, and railway stations; and discourage them in small houses. They would alter all privies and ashpits to the tub-and-pail system, to be cleansed daily, as in Manchester and other towns. They also recommend that very great care be taken to have all sewers, drains, soil-pipes, etc., thoroughly ventilated; and that all apparatus concerned in carrying the sewage, whether inside or outside the houses, should be executed under public supervision. The deputation also contemplate the purification of the river, although they seem to regard this as secondary to their other recommendations. In order to this, they recommend that the whole drainage of the city be taken into intercepting sewers and conducted to a suitable point, and, after being rendered clear by precipitation and filtration, passed into the river Clyde. The sludge obtained in the process should be got rid of in the cheapest possible way. A part might be used in making up waste land; but the most of it would need to be carried down the river in barges, to be deposited in deep water, just as is done at present with the dredgings of the river. This report has been long expected in Glasgow; and, as it is throughout characterised by moderation and practical good sense, it ought to have a very favourable reception by the community. There is no proposal of a vast and expensive scheme, but everything is thoroughly practicable. We trust that, in the matter of the purification of the river, there will be no unnecessary delay.

MORTALITY IN SCOTLAND.

OF 2,245 deaths recorded in Scotland during the month of October—which are 236 below the average—1,035, or 46 per cent., were of children under five years of age. In Leith, 30 per cent. of the persons who died were under five years of age; in Aberdeen and in Perth, 36; in Edinburgh, 40; in Paisley, 45; in Greenock, 49; in Glasgow, 50; and in Dundee, 52 per cent. During the same period, the zymotic diseases caused 16.8 per cent. of the mortality. Ten deaths were caused by intemperance, two were from delirium tremens, and three were suicides. Five males and four females had reached their ninetieth year; the oldest was a widow aged 96.

THE MEDICAL PROFESSION IN GLASGOW.

OUR Glasgow correspondent writes:—The appointment by the Crown of Dr. Andrew Fergus as a member of the General Medical Council, in room of Professor Lister, has given general satisfaction in Glasgow. This is another indication of the rapid advance in the position of the medical profession in Glasgow. The Medical School of the University is yearly increasing in numbers. It has been necessary to add benches to the class-rooms of several of the professors, so that matters look exceedingly promising for the future of the school.

REPORT ON UNHEALTHY HOUSES IN GLASGOW.

DR. RUSSELL, the medical officer of health, has just published a report which contains matter of very great importance, and ought to engage the attention of all interested in sanitary legislation. The report is based on carefully ascertained facts, and the conclusion indicated—namely, that some supervision should be exercised over the construction of houses—is thoroughly warranted. There is a block of houses in a moderately respectable district of Glasgow, which is bounded on one side by the broadest street in Glasgow and on the other side by one nearly as wide, yet the mortality in this block is not only much higher than the average mortality of the city as a whole, but even of its more densely populated parts. The block is built on the hollow-box system; and the inside of the box is filled with tenements, stables, etc. Although there is, therefore, a free circulation of air around the block of houses, yet the inside tenements are placed in the midst of a stagnant mass of air, and there is no possibility of thorough ventilation. Dr. Russell takes the mortality for the years 1873-4-5-6, and compares it with the mortality in the city as a whole and with that

of the densely populated areas which the City Improvement Committee have been dealing with, and he gives the following tabulated results.

	Average of City.	Average within Im- provement district.	Average within back areas.
General death-rate . . .	29	33	44
Death-rate under 5 years . . .	94	122	169
Pulmonary death-rate . . .	10	14	17
Zymotic death-rate . . .	6	8	12

The lesson from this is obvious. It is not enough to have free spaces around blocks of houses, but powers should be given to the various local authorities to insist that each house shall be so placed as to have a current of air around it. It is expected that a Bill will be introduced next session to enable the Court of the Dean of Guild to provide for this in the plans presented to them; and some such powers are urgently needed. It should be added that the statistics of this particular block concern a population of four hundred and sixty-seven persons, and extend over a period of four years, during which there were eighty-three deaths; so that the foundation of the report is not a very limited or narrow one.

IRELAND.

A DEATH from tetanus took place in Drogheda Infirmary last week.

THE inhabitants of Cloyne recently presented Mr. Litton with an address, in recognition of his services in presenting to the town a supply of pure water.

AT a meeting of the Belfast Board of Guardians held last week, Dr. Withers was appointed resident surgeon to the Fever Hospital. There were three candidates for the post.

AT a recent meeting of the Board of Guardians of the Rathdown Union, a retiring allowance of £100 *per annum* was granted to Dr. Thomas Darby, late Medical Officer of the Workhouse, being the full amount allowed by law.

AT the Limerick Quarter Sessions recently, Dr. Ryan of Castleconnell, who had been subpoenaed, sent an excuse stating he would rather be fined than give evidence. A penalty of £10 for non-attendance was inflicted.

MR. RICHARD RAINSFORD, Surgeon to St. Mark's Ophthalmic Hospital, Ophthalmic Surgeon to the Adelaide Hospital, and Lecturer on Ophthalmic and Aural Surgery in the Ledwich School of Medicine, has been appointed Oculist to the National Asylum and Molyneux Institution for the Blind of Ireland, in succession to the late Mr. Henry Wilson.

LORD NEWRY has offered a free site for a cottage hospital near Ros-trevor, the want of which has long been felt in that neighbourhood, provided that the necessary funds can be raised to build and endow the same. It has also been determined to establish a sanatorium for convalescent patients from the fever hospital at Newry, and a considerable amount of money has already been promised for this purpose.

PUBLIC BATHS.

AT a late meeting of the Belfast Town Council, a recommendation from the Sanitary Committee was adopted, to the effect that certain ground at a place called Peter's Hill should be transferred to the Committee for the purpose of erecting baths and washhouses, and that a sum of £3,000 should be obtained for carrying out the necessary works.

KILLINEY DISPENSARY DISTRICT.

DR. MAYNE having resigned, an election took place last Monday for the appointment of a medical officer for the district, when Dr. W.

Wright was unanimously elected. Dr. Wright obtained, we understand, a gold medal and a medical scholarship in the University of Dublin. The salary of the medical officer is £120 a year, and £20 as sanitary officer, besides registration and vaccination fees.

DOWNPATRICK WATER-SUPPLY.

A MEETING of the inhabitants of Downpatrick was recently convened to consider the report of Mr. Hassard, C.E., relating to the water-supply of this town. Mr. Hassard's estimate for the necessary works amounted to £13,000, which was considered as much beyond what the town could afford to expend; and it was resolved that the guardians be requested to procure a water-scheme for the town, the cost not to exceed the sum of £6,000.

THE ROTUNDA HOSPITAL.

THE Duchess of Marlborough paid a private visit, her second, to the Rotunda Hospital last Monday. She was accompanied round the wards by the Master and Assistant-Physician of the Hospital, and distributed fruit and flowers among the patients. The cleanliness and perfect order of both the Lying-in Institution and the attached Hospital for the treatment of the diseases peculiar to women—a portion of this great charity which has been especially developed by the present Master—elicited warm encomiums from her Grace.

DUBLIN HOSPITAL SUNDAY FUND.

THE collection in aid of this Fund was, as we have previously announced, made in two hundred and eighty-eight places of worship on Sunday last. Unfortunately, as on all preceding occasions, the weather was extremely wet and inclement. The official returns of the amounts collected will not be completed until next week; but from those which have been furnished to the honorary secretaries up to the present, it is satisfactory to find that there has been no marked falling-off as compared with the sums collected in the same churches last year.

HEALTH OF BELFAST.

IN the September quarter of the year, there were registered in Belfast 155 deaths from the seven principal zymotic diseases; of these, measles caused 30 deaths, scarlet fever 11, diarrhoea 55, and fever 47. During the quarter, several cases of small-pox occurred, but the cases were all of a modified type, and the first four arose from contagion imported by a convalescent from Glasgow, the infection being clearly traceable in these cases, but in the others any exposure to the disease could not be conclusively ascertained. All these had been vaccinated. On the whole, it is satisfactory to find that the mortality from the principal zymotic diseases during the past quarter has not been excessive, and that Belfast has been free from any disease in an epidemic form.

DEATH OF DR. DAVIS OF NEWRY.

THIS gentleman died on the 7th instant, in his eighty-first year. The deceased was the first medical officer appointed to the Newry Workhouse on its establishment, and had held the office until the past few months, when he resigned owing to a severe attack of paralysis, and was superannuated on a retiring allowance of £100 *per annum*. Dr. Davis was a graduate in medicine of the University of Glasgow, a member of the British Medical Association, Consulting Sanitary Officer of Newry Union, etc. His contributions include a paper on "Gangrene in a Case of Cholera", and "On Separation of the Cervix Uteri in Parturition". The funeral took place on last Saturday, the remains being followed to the place of interment by a large concourse of mourners.

OVARIOTOMY IN DUBLIN.

THE operation of ovariectomy was performed in the auxiliary portion of the Rotunda Lying-in Hospital by the Master, Dr. Atthill, on Tuesday last. The patient was a healthy-looking woman, about twenty-

seven years of age, who had had a miscarriage in the fourth month of her pregnancy, a month previous to the date of operation. There were some slight adhesions, and the cyst, which was unilocular, was rather more vascular than is usual. Mr. Ormsby, as usual, anaesthetised the patient with ether. We regret to learn that the patient upon whom Dr. Purefoy, the Obstetric Physician to the Adelaide Hospital, recently operated, died on the fourth day after the operation. Dr. Fitzgibbon, Surgeon to the City of Dublin Hospital, intends, we are informed, performing ovariectomy on a patient of his next week. The operation was performed by Mr. Stokes, in the Richmond Hospital, last Saturday; and, up to the present time, the case is progressing most favourably.

ADULTERATION IN BELFAST.

At the usual quarterly meeting of the Belfast Town Council held on the 1st instant, the report of Dr. Hodges, Borough Analyst, for the past quarter was submitted. It appears that of the one hundred and fourteen articles of food, drink, and drugs, analysed by him, fifty-three were found to be adulterated or impure. Sixteen samples of sweet milk and twenty-six of buttermilk were found to be adulterated by the addition of water. Of twenty samples of aerated water, nine contained lead or copper; whilst the lime-juice examined was mixed with sulphuric acid, and the pills sold as "castor-oil" pills contained no castor-oil. Dr. Hodges drew the attention of the Council to the practice which exists of dusting the covers of American hams with a yellow pigment, which on analysis was found to consist of a poisonous substance, viz., chromate of lead. He considers that the use of poisonous compounds, from the possible introduction of some of the colouring matter into the hams, was most objectionable, and should be condemned as dangerous to the public.

HABITUAL DRUNKARDS.

The Chairman of the County Antrim Sessions, in addressing the grand jury lately, referred to intemperance, its relation to crime, and the moral and social condition of the people. His attention, he said, had been recently called to the subject by some suggestions made by Dr. John Moore, as to dealing with habitual drunkards. Dr. Moore, who is medical officer of a gaol, has had considerable experience of this class; and as he regards habitual drunkenness as a source of disease, it was desirable to prevent its extension by further control and care of habitual drunkards, amongst whom he classified any person drunk four times in twelve months. The present system, he believed, failed in its object and was neither curative or preventative, short sentences of imprisonment not eliminating drink from the system so as to effect reformation. The Chairman thought Dr. Moore's suggestions as to the treatment of criminal drunkards well worthy of consideration. The subject had already been before Parliament; and although legislation on such subjects was generally very tedious, he hoped that before many years the habitual drunkard would be forced to submit to restraint.

HEALTH OF DUBLIN.

We are glad to notice that Mr. E. D. Gray, M.P., a most active and useful member of the corporation of Dublin, has been elected Chairman of the Public Health Committee of that body. His predecessor, a gentleman of advanced years, resigned the Chair, which he has occupied through a long series of years, in consequence of defective hearing. Attention has been frequently called in these columns to the excessive mortality of Dublin; and we have not hesitated to express our opinion as to the connection which, we believe, existed between the high death-rate and the defective sanitary administration of the city, for which the Public Health Committee is mainly answerable. Mr. Gray has shown on several occasions—notably in the case of the Artisans' Dwellings Act—an intelligent and practical interest in the amelioration of the sanitary condition of Dublin. We trust that, under his able guidance, this much abused committee will arouse themselves from their former "masterly inactivity".

THE CONJOINT SCHEME.

The several medical authorities are taking steps to appoint their members of the Committee of Reference, who will proceed with the duties assigned to them by the scheme. The requirements of the scheme as to examination will not be *compulsory* upon students for the first five years; but we have reason to believe that they will be so advantageous, by reducing the number of examinations to be passed, that they are likely to be very largely adopted by the students of to-day. The former committee held very many meetings, and went thoroughly into the details of the scheme; and consequently the work remaining to be done by the new committee will be correspondingly lessened. We understand that the new committee will consist very largely of the members who formed the outgoing committee. These gentlemen have had two hundred meetings or more at various times, and have received no pecuniary recompense. It is not to be expected that they should thus sacrifice their very valuable time for the sake of the public without receiving some recognition at the hands of the country; we would venture to suggest that for the future the members of the committee, who, in many instances, have to travel long distances in order to attend the meetings, should be paid for their services in some such way as are the members of the General Medical Council, whenever it is in session.

THE UNIVERSITY OF LONDON.

At the meeting of the Senate held on Wednesday last, a deputation, consisting of Tilbury Fox, M.D., as Chairman; C. Hilton Fagge, M.D., P. H. Pye-Smith, M.D., B.A., J. Curnow, M.D., A. McDowall, B.A., B.Sc., A. R. Abbott, B.A., and H. E. Allen, LL.B., B.A., the Clerk to Convocation, was received for the purpose of submitting the statement of the Annual Committee representing Convocation, of which we last week published an outline. It will be remembered that Convocation considered that a great breach had been made in the constitution of the University by the recent proceedings of the Senate in the proposed admission of women to medical degrees; that the privileges of Convocation had been thereby affected; and that no such fundamental change should be made in the constitution of the University, except by means of a new Charter, approved of by the Senate and Convocation conjointly. These views were briefly but clearly stated by Dr. Tilbury Fox, who emphatically impressed on the Senate the fact that Convocation was unanimously opposed to the granting of degrees to women in the Faculty of Medicine alone. The Chancellor (Lord Granville) read a written reply, in which he briefly summarised what he considered to be the views of Convocation and of the Senate on the subject of the admission of women to the degrees of the University. He said that the Senate would be prepared to seek for an amended Charter, enabling the University to confer degrees on women in all Faculties, and that the same would, of course, be submitted for the consideration of Convocation. The Chancellor's answer, however, made no allusion to the strongly expressed complaint of Convocation that its privileges had been interfered with by recent proceedings of the Senate, nor did it afford any assurance, as requested by the deputation, that the Senate intended to withdraw from action under the Russell Gurney Act.

It will thus be seen that the result is not satisfactory. It is true that for the present the Senate would seem to take Convocation into its counsels, as it is required to do by Charter; but there is no assurance given that some surprise motion may not again bring the Russell Gurney Act into operation, and thus undo all that has hitherto been done. There can be no doubt that the Senate is conscious of the mistake which has been made, and that it would have secured the confidence of Convocation by generously admitting this error and asking for cordial and friendly co-operation in the future. It is greatly to be feared, and at the same time lamented, that the proceedings of the Senate on Wednesday will have a tendency in an entirely opposite direction.

REMEDIES FOR HYDROPHOBIA.

We have received from Messrs. Gale and Co. two preparations. One is extractum jaborandi fluidum, of which one drachm represents one drachm of jaborandi leaves. This drug has been tested specially by Professor Gubler in France and Dr. Sydney Ringer and Mr. Langley in this country, with abundant demonstration of its powerful effects as a diaphoretic and sialagogue. It is recommended in the treatment of some forms of anasarca, of subacute articular rheumatism, and of

bronchitis with asthma. It is suggested that its properties might be made available in the treatment of hydrophobia; but this is a purely theoretical suggestion, although, probably, not unworthy of attention. For this last purpose, also, Messrs. Gale and Co. have forwarded to us a sample of *infectio curare* (three minims equal to one-third of a grain), which it is advised should be injected at intervals of a quarter of an hour or more as soon as indications of the physiological action begin to diminish. *Curare* has been employed more than once in this country in the treatment of hydrophobia, mainly at the suggestion of the late Dr. Francis Sibson, but ineffectually. Dr. Offenberg has recently drawn attention to a case of so-called hydrophobia successfully treated with *curare*. We have before us Dr. Offenberg's thesis, containing all the details of the case. It is, however, impossible to read it with care without seeing that it is extremely doubtful, or perhaps even more than doubtful, whether the case was one of hydrophobia. Judged by the description which the author himself gives, it might be pronounced as a case of hysteria, of which it has all the characteristic symptoms.

SCIENTIFIC GRANTS MADE BY THE BRITISH MEDICAL ASSOCIATION FOR THE YEAR 1877-8.

THE following grants in aid of researches have been made this year by the Committee of Council on the report of the Scientific Grants' Committee of the British Medical Association.

	£	s.	d.
Mr. GASKELL.—In aid of a Research on the Reflex Action of the Vascular System and Muscles and Reflex Vasomotor Action generally	30	0	0
Mr. LANGLEY.—In aid of a Research on the Changes produced in the Salivary Glands by Nerve-Influence	25	0	0
Dr. RUTHERFORD, F.R.S.—For a continued Research on the Action of Cholagogues	50	0	0
Drs. BRAIDWOOD and VACHER.—For engravings for illustrating the third report on the Life History of Contagium	40	0	0
Mr. PYE.—In aid of a continued Research for the Investigation of the relation that the Retinal Circulation bears to that of the Brain	8	15	0
Mr. BRUCE CLARKE.—In aid of a continued Research on Syncope and Shock	10	0	0
Mr. A. S. LEE, Heidelberg.—In aid of a Research on the Quantitative Determination of Digestive Products obtained by the Action of Pancreatic Ferment upon the various Albumens	25	0	0
Dr. MCKENDRICK, Glasgow.—In aid of a continued Research into the Antagonism of Drugs	30	0	0
Dr. MCKENDRICK, Glasgow.—In aid of an Investigation into the Dialysis of Blood—renewed	10	0	0
Dr. JOHN BARLOW, Demonstrator of Physiology, Glasgow.—In aid of an Experimental Investigation into the Changes produced in the Blood-Vessels by Alcohol	10	0	0
Dr. JOSEPH COATS, Dr. MCKENDRICK, and Mr. RAMSAY—THE COMMITTEE upon the Investigation of Anæsthetics	50	0	0
Dr. MCKENZIE.—A Research on Pyæmia	25	0	0
Mr. CALLENDER, F.R.S., Dr. J. BURDON SANDERSON, F.R.S., Dr. T. LAUDER BRUNTON, F.R.S., and Mr. ERNEST HART—THE COMMITTEE appointed for the Investigation of the Pathology and Treatment of Hydrophobia	100	0	0
	£413	15	0

MEDICO-LEGAL CASES.

CHARGE OF RAPE UNDER CHLOROFORM.

IN the Midland Circuit, at Northampton, before Mr. Justice Hawkins, on November 9th, George Howard, aged 32, surgeon's assistant, was indicted for having, on the 11th September, feloniously and violently assaulted and outraged Fanny Harriet Child. Mr. Stubbins and Mr. Daniel (instructed by Mr. Cheston) were for the prosecution; and Mr. Merewether, Q.C., and Mr. Graham were for the defence.

Mr. Stubbins, having stated the case as given in evidence by the prosecution, said he believed the defence would consist of a number of theories by medical men; but he asked the jury to base their verdict upon the facts which would be given in evidence.

Mrs. Child said that Mr. Badger was her family surgeon, and his surgery was in Bromsgrove Street, Birmingham. When the chloroform was administered, on the 10th September, she was perfectly conscious during the whole of the time. She called on the prisoner on the following Tuesday, and he then said he had some stronger chloroform. He was about an hour administering the drug, and during the whole of that time she was quite conscious. At the end of the hour, Miss Fellows left. As soon as she was gone, prisoner got down upon his knees, and afterwards committed the offence with which he was now charged. While all this was going on, she was quite conscious, though speechless and powerless. Miss Fellows returned in about a quarter of an hour, and remarked to prisoner that she had seen Mr. Child. Miss Fellows said she could take prosecutrix home, as she had a friend outside. Prisoner insisted on accompanying them. On Miss Fellows's return to the surgery and during the walk home, prosecutrix was quite conscious, but could not speak. She recovered her power of speech soon after prisoner left her on her arrival at home. When she recovered her speech, she made a complaint to her husband. She saw prisoner the following morning in the bedroom. He asked her what she had been saying to her mother about him. She replied, "The truth". He said it was nothing of the kind; she was mistaken. She saw him again in about an hour afterwards. Her husband was with him. She still charged him with the offence; but he denied it. Her teeth were not operated upon at all on the Tuesday night.

Cross-examined by Mr. Merewether: He put the instrument to her mouth, but she motioned it away. That was before Miss Fellows went away. When she saw prisoner in the presence of her husband, she said: "Whatever you say, you did it." He replied: "No; you are under a delusion." He gave her his name and address. In the course of further cross-examination, prosecutrix said she told the prisoner that, if he would admit it and leave the town, she would forgive him; but he still denied having committed the offence.

By the Judge: As soon as Miss Fellows left the surgery, prisoner committed the offence; and in about ten minutes after that Miss Fellows returned. She was absent about fifteen minutes.

Miss Mary Ann Fellows of Birmingham said that on September 11th she accompanied prosecutrix to Mr. Badger's surgery. She remained there about an hour, while prisoner administered a drug. When she left, the door was ajar. Returning in about fifteen minutes, the door was then latched. She rang the bell, and prisoner opened the door. Mrs. Child was sitting upon a chair in a speechless condition. She tried to speak, but was unable to do so. About half-past nine, witness and prisoner accompanied the prosecutrix home. She walked between them. About ten o'clock, witness went again to Mrs. Child's house, and saw Mrs. Child, her husband, and prisoner there. Mrs. Child was still unable to speak. Prisoner went away a few minutes afterwards. Just before he left, prosecutrix whispered something to her husband, calling the prisoner a scamp. Up to that time, witness was not aware that there had been anything wrong.

By the Judge: When witness returned to the surgery, Mrs. Child was sitting in precisely the same position in which she left her.

John Child, husband to the first witness, deposed to having been informed by his wife of the assault on her, and to having subsequently given the prisoner into custody.

Detective Sergeant Mountford deposed to taking the accused into custody.

Mr. Merewether addressed the jury for the defence, pointing out that, so subject were patients to delusions while under the influence of chloroform, that doctors of age and discretion would not place any woman under that influence except in the presence of a third party. Mr. Merewether commented upon the improbabilities of the prosecutrix's story; and, while absolving the woman from any desire to fabricate a story, put it to the jury that the whole account of the alleged outrage was a pure delusion.

Dr. Benjamin Richardson, F.R.S., of London, who was called for the defence, said that chloroform, laughing gas, etc., had been his special study. There were four stages or degrees in which chloroform operated. The first stage being one in which consciousness was not actually lost; there was a little resistance, and a desire for air. The second one was a stage in which consciousness was lost, but operation was impossible; the patient screamed often without provocation. The third stage was that of complete unconsciousness. There was no rigidity; if the eyeball were touched, the eye would not flinch, and in that stage the administrator would say to the surgeon: "You may go on." That was the stage for operation in a large number of cases. Judging by the description given by the prosecutrix of her own condition on the day of the alleged assault, he believed she was in the second stage. In his own experience, he had known persons in the second stage subject to delusions as to what had taken place while under the

influence of chloroform. Dr. Richardson gave a number of instances which had come under his observation; and stated that those delusions were the subject of some of the earliest objections to chloroform. He mentioned the case of a lady who, in the presence of himself, her father and her mother, and a dentist's assistant, while under the influence of chloroform, brought a charge against the dentist who was operating upon her precisely similar to the one in the present case, and continued firm in the belief that the charge was well founded long after the influence of the chloroform had passed off, and probably still continued in that belief.

Mr. Mills said that patients under chloroform were frequently subject to delusions; and, in the case of the fair sex, the delusions sometimes assumed quite a scandalous form.

Other medical witnesses were called, who expressed their concurrence in Dr. Richardson's evidence; viz., Dr. Hawksley (London), Dr. Saundby (Birmingham), and Mr. J. F. West (Birmingham). It was stated that all the medical witnesses for the defence had come forward to give their evidence entirely gratuitously.

After this evidence, his Lordship asked the jury whether it was necessary for him to sum up.—The Foreman replied that the jury had already agreed upon a verdict of acquittal.

His Lordship pointed out that such a verdict would not be the slightest imputation upon the absolute sincerity of the prosecutrix, who, no doubt, firmly believed every word of what she had said. He congratulated Mr. Howard upon having had an opportunity of fully vindicating himself from the charge; and said that the verdict of acquittal did not mean that there was insufficient evidence, but that the prisoner was entirely cleared of any imputation in respect to the charge, as no one could doubt, after the evidence of Dr. Richardson, that prosecutrix must have been under a delusion.

The prisoner was then discharged, Mr. Merewether commenting rather strongly on the fact that he had been kept in gaol since September 14th, bail being absolutely refused.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

Prostitution and Population.—Population versus Money.—Lady-Doctors.—Death from a Carious Tooth.—Large Hydrocephalic Head.—Large Brain.—Hymenietric Flower.—Hemeralopia.—Centenarians.—The School of Medicine.

ABOUT the beginning of the year, a deputation, composed of members of both sexes of the Reform Societies of England, Switzerland, Belgium, etc., came to Paris with the avowed intention of preaching a crusade against the legal organisation of prostitution in France; but I fear that these worthy moralists have undertaken, not only a most difficult, but a most ungrateful, task; for, in a country like this, where fornication is considered a venial sin, where open immorality is almost the normal state of society, and where consequently the greatest temptations abound, it would be no more possible to effect a reformation in that direction than to persuade the French people to give up drinking wine and become teetotalers. Dr. Desprès, who was invited to take a part in the meetings held for the purpose, recently brought the subject under the notice of the Anthropological Society of Paris, with the view of studying whether prostitution did or did not constitute an important factor in the depopulation of states. This, of course, excited a discussion, and Dr. Desprès pointed out that at Brussels, where for the last twenty years the legal organisation of prostitution has been more complete than perhaps in any other country, marriage is at a discount, and that consequently there is a diminution in the population; for it has been long ago proved that women married produce more children than those who live in concubinage, and this in spite of disadvantages under which some labour, such as disproportion of age and marriages contracted from pecuniary motives, etc.; that concubines have more children than intermittent prostitutes—that is to say, those who change their paramours every month or every year; and that these clandestine prostitutes have more children than regularly registered prostitutes. The fact of a woman, adds Dr. Desprès, giving herself up to several men on the same day is sufficient to bring on, not sterility, but abortion. Abortions take place also among concubines and intermittent prostitutes; but in these they are produced by external or artificial means, whereas amongst regular prostitutes, Dr. Desprès considers, they are the natural consequence of prostitution. The abortions generally occur about the second month of pregnancy; the prostitutes themselves are unaware of their condition, and the medical men who

examine them at the dispensaries are unable to detect it. From these considerations, Dr. Desprès formulates the consequences as follows:—Diminution of population resulting from diminution of marriages, as exists in Belgium; diminution of population resulting from abortive fecundity, as occurs in females who practise prostitution or illicit commerce with men. For the present, Dr. Desprès offers no remedy for the state of things above referred to, but promises to return to the subject whenever it may come before the Society for further discussion.

Here I may remark that it seems to me passing strange that, whilst in England there are certain would-be philanthropists or political economists who suggest every possible means for reducing population, our French neighbours, justly alarmed at the evidently progressive decrease in their numbers, are seeking every possible means to remedy the evil, and to place themselves on an equality with the other more prolific nations of Europe; but M. Bertillon, an ardent disciple of Malthus, in a paper on Natalità, which he submitted to the Anthropological Society at a subsequent meeting, offers his compatriots some consolation for their backwardness in the following terms. "The deficiency of 500,000 births annually in France, which are required to place the French nation on an equality with the Germans, permits them to economise each year more than a milliard of francs; therefore, if the problem be inverted, Germany requires each year an equal sum to increase its population. Thus it will be seen that France capitalises annually in francs a large portion of its posterity, while Germany transforms into men of twenty years old more than a milliard and a third of francs, which she might save were it not for her prodigious multiplication." This argument may well please the followers of Malthus; but how are francs to come without hands to make them?

In the JOURNAL of September 1st, I find a short notice of theses submitted by some of the ladies who have taken their degree as M.D. of Paris. I may add to the list there mentioned the thesis of Miss Emily Bovell, now Mrs. Sturge, of London, who has also taken her degree here, after having passed all her examinations in a most creditable manner, and has since been appointed physician to the new Women's Hospital in London. The subject of Mrs. Bovell-Sturge's thesis is certain lesions that are to be found in epilepsy and hystero-epilepsy; and it contains a number of observations taken by herself and others. Without entering into the pathology of the two affections which form the subject of the thesis under notice, the authoress endeavours to explain the mechanism of the different phenomena so frequently observed in connection with them: albuminuria, glycosuria, congestion of the retina and papilla, dilatation of the pupils, hyperæmia and other morbid phenomena of the skin, increase of temperature; all of which are fully discussed in the thesis. The theories of several authorities are given; but the principal dwelt upon are those of Vulpian and Claude Bernard. According to M. Vulpian, the tendency to congestion in epilepsy and hystero-epilepsy is due to paralysis of the vaso-constrictor nerves, while Claude Bernard maintains that it is due to irritation (excitation) of the vaso-dilators. The increase of temperature in epilepsy is explained after Vulpian's theory; viz., paralysis of the vaso-constrictor nerves, as is observed in hemiplegia, in which case an increase of temperature exists on the side affected.

A singular case of death lately took place at the Lariboisière Hospital under the following circumstances. The deceased, a boy aged 7, was admitted into the hospital complaining of pain in the head, accompanied with a tendency to stupor. His eyes were somewhat prominent, but nothing else remarkable was noticed in the patient. About a month after admission, coma set in, and this was accompanied with high temperature, which carried him off. A small hard body was felt over the right eye, which was supposed to have been the cause of death. At the *post mortem* examination, the real cause was traced to a carious tooth, one of the inferior molars, which caused an abscess in the jaw. The inflammatory process extended along the dental nerve, entered the skull through the orbit, involving the dura mater and the brain. The latter contained two or three abscesses, and the bones of the skull were necrosed to a considerable extent. An abscess was also found in the heart. This case would show how important it is to attend early to carious teeth, and to have them removed as soon as inflammatory symptoms become evident, and not to tamper with them by "stopping" or other useless means frequently resorted to by dentists, to the detriment of the patients' pockets, if not of their health or life.

In the Anatomical Museum of Paris is to be seen a cast in plaster of a hydrocephalic head of extraordinary dimensions. It is that of a young man, aged 27, who died of the disease. He was a native of Chambéry, and he was there kept in the hospital, with the view of studying the different phases of the malady. He spoke with great difficulty, and the medical report states that it was not before he was twelve that he was able to pronounce a few words only. The skull

measured ninety-seven *centimètres* (about thirty-eight inches) in circumference, and presented no deformity beyond a considerable depression of the posterior fontanelle.

On October 24th, a man named Albert, of Belgian origin, was guillotined in Paris for murder. His body, after death, was made over to the physiological laboratory of the School of Medicine, and the head to the laboratory of the Anthropological Institute. The brain of the deceased weighed 1,505 *grammes*, or about 53 ounces and 17½ grains, which, it may be remarked, is far above the average weight of the adult male brain. Indeed, Albert, who was a little more than twenty years of age, was far from being an unintelligent man, and, if his education had been properly directed, he might have been spared his untimely end and become a useful member of society.

That "there is nothing new under the sun" is as great a verity now as it was in the days of Solomon; for many of the so-called new inventions are only things reinvented or rediscovered; for, as naturalists recognise the principle termed atavism as applied to the recurrence of the original type of a species as regards its physical organisation, so, *cæteris paribus*, there must also be a recurrence of the spiritual, intellectual, or invisible properties of man and of the animal creation. This may be observed in every-day life, and even the new fashions are only a return of the old ones more or less modified to taste and other contingent circumstances. Those who have been to Paris lately might have noticed an artificial flower in almost every shop window, to which the high sounding name of "fleur hygrométrique" has been given. It is also called the workman's barometer, as it is sold for a penny, and is supposed to indicate beforehand the changes of the weather by certain alterations which take place in its tint. I learn by the *Encyclopédie Méthodique* that this hygrometric flower is by no means new; for, as far back as 1737, reference is made in the Memoirs of the Academy of Paris of the curious properties of cobalt; but it was not till the year 1792 that this substance was employed for colouring artificial flowers, fans, glass, enamels, metals, porcelain, etc. The hygrometric flowers now to be seen are tinted with the chloride of cobalt, which, from its inexpensiveness, might be usefully employed as a colouring material for a variety of medical and other purposes.

A young girl, aged 15, the subject of hemeralopia or day-blindness, lately died at the Batignolles of typhoid fever. In broad daylight she was as blind as a bat, and the sun so affected her eyes that she was obliged to keep indoors; but at night her sight was so good that she could go down to the cellars and fetch anything she wanted without the assistance of a light.

The School of Medicine opens this day (November 5th) for the winter session. I cannot send you the list of the professors who are to lecture, as that which has appeared will most probably have to be altered, owing to some disaffection which reigns among the professors of the Faculty. The cause of the discontent is the permission granted by the Minister of Public Instruction, without consulting the Faculty, to certain outsiders—that is to say, those who are not *agrégés* or professors—to deliver lectures on professional subjects. The professors of the Faculty have remonstrated, and the supplementary lectures are in abeyance until further orders. Dr. Ball, who was lately appointed Professor of Mental and Nervous Diseases, is just now placed in a most awkward predicament; for, although charged to give clinical lectures on the above class of affections, he has no patients or hospital for demonstration. The fact is, his appointment to the new Chair is looked upon with great disfavour (although he was recommended by the Faculty), on the grounds that, not having distinguished himself in any special manner on the above subjects, Dr. Ball can have no claim to the appointment.

ASSOCIATION INTELLIGENCE.

SOUTH-EASTERN BRANCH: EAST KENT DISTRICT MEETING.

THE next meeting will be held in the Library of the County Hospital, Canterbury, on Thursday, November 22nd, at Three o'clock. The President of the Canterbury Medical Society will preside.

Dinner at the Fleur-de-Lis Hotel at 5 o'clock precisely. Charge, 6s. 6d., exclusive of wine.

Notices have been received of the following communications to be made to the meeting.

1. To receive the resignation of the Honorary Secretary, and appoint a successor.
2. Mr. T. W. Reid: A Case of Poisoning by Yew-Leaves.
3. Mr. Tyson: A Case of Poisoning by Phosphorus.

4. Mr. Rigden: Two Hundred consecutive Obstetric Forceps Cases in Private Practice, their causes and results.

5. Mr. Clement Walter: Case of Hydrophobia. Gentlemen who intend to be present at the dinner are particularly requested to inform me on or before Tuesday, the 20th instant.

EDWARD WHITEFIELD THURSTON, *Honorary Secretary*.

Ashford, November 4th, 1877.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

THE next meeting is appointed to be held at the West Kent General Hospital, Maidstone, on Tuesday, November 20th, at 4.50 P.M.: ADOLPHUS HALLOWES, Esq., in the Chair.

Dinner will be ordered at the Star Hotel at 6.30.

A paper on Acute Chorea has been promised by Charles E. Hoar, Esq., M.B.

Mr. Sydney Jones of London is also expected to read a paper.

FREDERICK JAMES BROWN, M.D., *Honorary Secretary*.

Rochester, November 5th, 1877.

SOUTH EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A CONJOINT meeting of the above Districts will be held at the Dispensary, Queen's Road, Brighton, on Friday, November 30th, at 3.15 P.M.: F. A. HUMPHRY, Esq., Surgeon to the Sussex County Hospital, in the Chair.

All members of the South Eastern Branch are entitled to attend these meetings; and visitors from the metropolis or elsewhere are particularly invited.

Notice of intended communications is requested to be sent on or before Wednesday, the 14th instant, to either of the Secretaries, in order that they may be inserted in the regular circular.

Dinner will be provided at 5.30 P.M., at Markwell's Hotel.

W. J. HARRIS, *Honorary Secretary of the West Sussex District*, 13, Marine Parade, Worthing.

THOMAS TROLLOPE, M.D., *Honorary Secretary of the East Sussex District*, St. Leonard's-on-Sea.

November 6th, 1877.

THAMES VALLEY BRANCH.

THE next meeting of the above Branch will be held at the Spread Eagle Hotel, Wandsworth, on December 18th, at 5 o'clock.

Those members who may be willing to read papers are requested to communicate with the Honorary Secretary as soon as possible.

There will be a dinner at the above hotel at 7 o'clock. Charge, 7s. 6d., exclusive of wine.

F. P. ATKINSON, M.D., *Honorary Secretary*.

Kingston-on-Thames, November 1877.

GLOUCESTERSHIRE BRANCH.

THE annual meeting will be held, under the presidency of Dr. ROOKE, at 6.30 P.M. on Tuesday, November 20th, in the Board Room of the County Infirmary, Gloucester.

Business.—1. Election of Officers for 1878.

2. The Position of Rest, in Fatigue and in Pain; Is it Explained by the Relative Strength of the Muscles, as stated by Mr. Hilton?—Mr. T. S. ELLIS.

3. Dr. BOND will exhibit the Telephone, and also some new Sanitary Appliances.

The Supper will be held at the Bell Hotel at half-past eight.

RAYNER W. BATTEN, M.D., *Honorary Secretary*.

Gloucester, November 7th, 1877.

SOUTH OF IRELAND BRANCH: ANNUAL MEETING.

THE annual meeting of this Branch was held at the Royal Cork Institution on October 25th. The Chair was taken by the President, H. MACNAUGHTON JONES, M.D.; and there were twenty-five members present, together with a number of students.

Report of Council.—Dr. RINGROSE ATKINS (*Honorary Secretary*) read the report, which was as follows.

"The Council beg to report that during the past session, comprising the months from November 1876 to April 1877, in addition to the annual general meeting, six ordinary meetings were held, at which many

interesting pathological specimens were exhibited and papers read. Reports of these meetings have been published from time to time in the JOURNAL of the Association.

"The Council desire to draw attention to the following paragraphs, which appeared in last Saturday's issue of the JOURNAL, relating to the recent invitation from the profession in the South of Ireland to the Association to hold its annual meeting for 1879 at Cork. In doing so, they are glad to be able to state that, although the unforeseen circumstance of the prior invitation from Bath, now revived, has unavoidably prevented the Association from holding its next annual gathering in this city, not only has the invitation been renewed, with the addition of eighteen names of gentlemen who have since signified their desire to join in the movement, but also that a letter has been received from the Treasurer of the Association, in which he says that the meeting of the Association in Cork in 1879 may be considered as settled."

(The report then quoted the paragraphs relating to the annual meeting which appeared at page 575 of the JOURNAL for October 20th.)

"The Council refer with pleasure to the recent visit of Professor Lewis A. Sayre to Cork, and desire to record their thanks for his interesting and important demonstration on the treatment of spinal disease, which, by the kindness of the President, was given at the Queen's College.

"In conclusion, the Council trust that the session now commencing will prove an useful one, and venture to express a hope that the meeting of the Association in Cork in 1879 will be a brilliant success."

President's Address.—Dr. MACNAUGHTON JONES delivered an address, taking as his subject clinical teaching. He said that there was no test which more unerringly proved the standard which the profession had reached and was maintaining in any city than clinical teaching. He described the qualifications essential to the clinical teacher of medicine and of surgery, made some remarks on the assistance which hospital authorities should give to hospital teachers, and offered some advice to the students present as to their conduct in hospital. He then referred to the facilities afforded in Cork for the study of disease:—three general hospitals; a special hospital for Diseases of the Eye, Ear, and Larynx; a hospital for Women and Children; two hospitals for Incurables; a Fever Hospital; a Workhouse Hospital; and an Asylum. Speaking of the Queen's College, he referred to the President as one who recognised the fact that the Medical School of Cork had before it a bright future, if those opportunities were seized which were offered by the rich field of clinical research. The present occupant of the Chair of Anatomy (Dr. Charles) might be confidently looked to second clinical teaching. In conclusion, he said: "Gentlemen, I congratulate you on the year that is past, so far as the life and progress of this Branch are concerned. We have had some instructive and interesting meetings. We have advanced the interests of the parent Association. Recently, the eminent American surgeon Dr. L. A. Sayre gave to the Branch a most interesting demonstration on the novel method of treating spinal diseases introduced by him, a method which I have since put largely into practice in several cases with the greatest success. Above all, we have secured, with the cordial co-operation of the profession, the visit of the British Medical Association to Cork in 1879. The advantages which must accrue from this visit it is unnecessary for me to refer to. We will endeavour, when the Association does come, to worthily represent so important a city as Cork and the medical school of which we are proud to be members. But I cannot close this address without referring to the absence here to-day of one who was our first President, and whose loss this Branch deeply feels. Dr. Thomas Gregg left a blank amongst us which has never been filled. From the opening of the Branch to his death, he took the warmest interest in our welfare. The Branch lost in him a valued member, the profession an able representative, and the community at large a most respected and useful citizen."

(Extracts from the portion of the address relating to clinical teaching are published as a separate article at page 690.)

Dr. JONES then resigned the Chair to Dr. J. G. CURTIS, the President for the coming year, who thanked the members for his election. The Branch was a very great success, numbering close on one hundred members. An offspring with such a parent as the first society of medical men in the world must succeed; and the future lay with the members to support it, and, above all, to contribute to the advancement of our profession; and that would be best done by bringing pathological specimens and useful papers before the society for discussion.

Officers and Council.—On the proposal of Dr. CRONIN, seconded by Dr. HAYES, Dr. J. A. Eames, Medical Superintendent of the Cork District Lunatic Asylum, was unanimously chosen as President-elect for the ensuing year.—Dr. O'REILLY proposed, Dr. CURRY seconded, and it was carried, that Dr. O'Flynn (Glanmire) and Dr. Cronin

(Queenstown) be elected Vice-Presidents.—The following were elected members of Council, on the proposal of Dr. HARVEY, seconded by Dr. GOLDING: Surgeon-Major Collis, Cork; Dr. Cronin, Queenstown; Dr. Curry, Lismore; Dr. Golding, Cork; Dr. Harvey, Cork; Dr. Hayes, Tralee; Dr. Garde, Timoleague; Dr. McDonough, Killarney; Dr. O'Reilly, Lismore; Surgeon-Major Orton, Cork; Dr. Ronayne, Youghall; Dr. Scott, Queenstown; Dr. Townsend, Cork; Dr. Woods, Killarney.—Dr. Riagrose Atkins was unanimously re-elected Secretary.

Vote of Thanks to Dr. Jones.—Dr. CUMMINS proposed a vote of thanks to Dr. Jones. He said that, considering the great amount of benefit that Dr. Jones had conferred on the Branch since it was originally founded, it was quite superfluous to say one word in his praise. He had displayed great energy and great ability, which he was sure they all appreciated. With regard to one portion of Dr. Jones's address, he should make one or two remarks. Although they had in Cork quite a plethora of hospitals for the students of medicine, yet the number of clinical instructors was far too limited. When such was the case, clinical teaching became almost useless, unless details were fully entered into. When a clinical teacher had too many patients under his charge, his teaching became almost worthless.—Dr. EAMES seconded the proposition, which was carried unanimously.—Dr. JONES returned thanks, and the meeting adjourned.

Conversazione.—In the evening, a brilliant and numerous attended conversazione was held at the house of the ex-President, Dr. Macnaughton Jones. A large and valuable collection of surgical instruments, a variety of pharmaceutical preparations, and other objects of scientific and professional interest, were exhibited.

CORRESPONDENCE.

THE CASE OF MISS MARTINEAU.

SIR,—A recent perusal of the *Autobiography* of Miss Martineau has led me to refer to the communications in the JOURNAL which speak of the maladies and the death of that lady. I therein find it set down as an undoubted fact that the heart-disease, of which Miss Martineau for the last twenty-one years of her life constantly asserted she was the subject, was as great a delusion on her part as the cure of her ovarian tumour by mesmerism. Will you permit me to suggest, in justice to the memory of that lady, that the grounds on which this view is based—so far, at least, as they are here recorded—are, perhaps, not altogether so clear as Dr. Greenhow would have his readers believe? Dr. Greenhow says (BRITISH MEDICAL JOURNAL, April 14th, 1877): "In 1855, she (Miss Martineau) consulted two eminent physicians in London, Dr. Latham and Sir Thomas Watson, by whom she was assured that she was free from heart-disease; she, nevertheless, maintained and asserted her conviction that she should soon die from that cause.....She died on June 27th, 1876, at the age of 74, twenty-one years after Dr. Latham and Sir Thomas Watson had declared her free from heart-disease." This is also referred to by Mr. Spencer Wells in his exhaustive report on the ovarian cyst removed from the body of Miss Martineau (BRITISH MEDICAL JOURNAL, May 7th, 1877).

Now, the statement that Dr. Latham asserted Miss Martineau was free from heart-disease is entirely opposed to the passage in the *Autobiography*, which gives his opinion; and I am surprised that Dr. Greenhow has made no allusion to this. I suppose that the page on which Miss Martineau has recorded Dr. Latham's opinion will hardly be set down as the mere product of her imagination, even by those who most distrust her judgment. This much, at all events, is certain: that this opinion was accepted and acted upon by her during the rest of her life; and that her friends were aware of and believed that the opinion had been given. "All her affairs had been settled, her will made, her friends remembered, as soon as Dr. Latham's warning was given, etc." (*Autobiography*, vol. iii, p. 366).

Dr. Latham saw her frequently, and the following is, in brief, what Miss Martineau says he told her. "On first seeing me, he frankly told me his impression, observing that it could not yet be called an opinion. The impression soon became an opinion. It appears that the substance of the heart is deteriorated, so that it is 'too feeble for its work,' there is more or less dilatation, and the organ is very much enlarged."

She saw Sir Thomas Watson once, at the request of Dr. Latham, there being no consultation between them. Now, this opinion of Dr. Latham does not seem to disagree with the conclusions which may be drawn from Sir Thomas's note of the case, taken at the time (1855). The note speaks of short-breathing on exertion, intermission, and subsequent boundings of the heart, dyspnoea, fluttering and bump of the heart. "The heart is heard extensively over the chest—noisy—the first

sound approaching a thrum. No actual *bruit*." There are also noted down a marked *arcus senilis*, and a general fat condition of body. In his letter to the BRITISH MEDICAL JOURNAL, July 8th, 1876, Sir Thomas says that "there were no murmurs attending its action, nor any other evidence of organic disease" of the heart; so that he "affirmed to her that her life was in no immediate danger". Now, read by the light of the memorandum, may not this opinion mean that, though there was at the time "no obvious rift" of the organ, its condition was such that it might one day become a source of danger to life, and through increase of weakness depending upon an altered state of its walls? The words "no immediate danger" surely indicate that there were grounds to anticipate distant danger.

Mr. Spencer Wells, speaking of her subsequent condition of health, says: "During most of this time (twenty-one years), Miss Martineau's life was that of an invalid, sometimes suffering a great deal, and was a constant source of anxiety to her relatives, etc." And I suppose we may take it for granted that these sufferings were of the kind stated by Sir Thomas Watson, *viz.*, those resulting from defective action of the heart. In one of her letters, Miss Martineau speaks of "the sinking fits, which occur every few days", and in one of which "it is most probably I shall go off suddenly". Also, we read in vol. iii, page 366, of the *Autobiography*: "Her illness at this time subjected her to very severe suffering. The frequent recurring of suspension of the heart's action was very alarming. Her recovery from each attack seemed at the time as doubtful as resuscitation from drowning." "Really and truly," said her friend Lord Houghton, who was accidentally present at one of these sudden seizures, "one may use St. Paul's words, she dies daily".

That Miss Martineau actually died from failure of the heart's powers is recorded by Dr. Greenhow. He tells us that Mr. King, who attended Miss Martineau for the later years of her life, thus reports: "I conclude that the heart sympathised in the general fatty degeneration of muscular tissue, and during life I was convinced that fatty degeneration existed. As to the mode of death, this was unquestionably due to failure of the heart's action, which had for some time (about eighteen months) been gradually weakening, and during the last few weeks of Miss Martineau's life that organ had failed very markedly."*

Mr. Spencer Wells speaks of the heart's action being impeded by the ovarian cyst; but it would seem that neither Sir Thomas Watson nor Dr. Latham, who were both aware of the existence of the tumour, suggested that the symptoms they noted were in any degree attributable to its presence. Mr. Spencer Wells also says: "That it is almost certain that, after rising from the pelvis, the cyst was ten years before it reached the epigastrium and interfered with the action of the heart, and that it remained without any great increase during the subsequent twenty-one years." The tumour was, therefore, of very slow growth; and the heart, if healthy, would have had abundant time to exercise its natural power of adaptability to such external interference. Perhaps, also, I may venture to appeal to Mr. Spencer Wells's experience, and ask whether, in similar cases of ovarian cyst where the heart is sound, there is either usually or constantly produced by the tumour such symptoms as those under which Miss Martineau suffered.

Judging the case from the above point of view, I think it may, at all events, be surmised that Miss Martineau was not wholly without reason in constantly asserting that she had heart-disease; and that the organ was, in fact, weakened through degeneration of its structure. And, indeed, when we consider the oppressive symptoms under which she suffered through those many years—all manifestly connected with deranged action of the heart—need we express surprise that she could not be brought to a belief in their harmlessness?

Most persons who have suffered those minor and comparatively trivial symptoms, flutterings and intermissions of the heart's beat, alluded to by Sir Thomas Watson (BRITISH MEDICAL JOURNAL, July 8th, 1876), would readily admit the painful feeling, sometimes even that of a dire impending calamity, which they are apt to occasion. Even a physician and a philosopher, though he may have full conviction of the innocent nature of his distress, must be strong-minded indeed, if, when thus assailed, he can wholly free himself from dread. If, therefore, Miss Martineau, permanently suffering under distressing and serious symptoms of this nature, lived in constant anticipation of death and refused to be comforted, prognosticated her physicians never so wisely, surely we should rather condole with her lasting misery than upbraid her with want of faith.

Dr. Greenhow also speaks of the "little fact and much imagination" contained in sect. 3, vol. ii, of the *Autobiography*; and further on, as an illustration, says: "I may refer to her constantly expressed conviction, that her disease was of a fatal malignant nature, and could only

* No explanation is given of the unfortunate and strange fact, that the heart was not examined after death. I say strange, because it was understood that Miss Martineau had at one time bequeathed her body for anatomical, etc., purposes.

terminate in early death." (This disease relates to the ovarian cyst, when confined within the pelvis.) But, in the section to which he refers, this is not exactly the expression used. She there writes: "Sir Charles Clarke.....had visited me, and, after a careful inquiry into the case, had decided that the disease was incurable." Further on, she writes: "Though I might live on for years, the disease was incurable." Now, surely she was fully justified in saying, that the disease diagnosed by Sir C. Clarke was incurable; and that physician, if he told her anything on this head, would have told her as much; for at that time, I fancy, the question of removing fibroid tumours of the womb, or the womb itself, was not yet born. And I must add, that Dr. Greenhow's words, "little fact and much imagination", are in no sense correct as applied to this section of the *Autobiography*. A transposition of the words—many facts and little imagination—would, in my opinion, be a much truer expression of the nature of its contents. At this time of day, Miss Martineau, one would think, might be pardoned her offences against medicine, in having concerned herself with mesmerism; and especially since time, which judges all things well, has in this case left medicine master of the position, *victor juvenisque*. And, indeed, whoever will impartially read this condemned section 3 will, I am sure, admit that Miss Martineau, even in dabbling with mesmerism, was not without abundant excuse. She had been for many years absolutely prostrated by a painful disease, for which neither medicine nor surgery had any cure to offer; so that the prospect before her was blank enough. The experiment of mesmerism was urged on her by influential friends; and was now "proposed to me by my medical attendant himself"—her brother-in-law. That, under such circumstances, this lady, who was not an orthodox practitioner of medicine, should have snatched at any straw which offered relief, is comprehensible enough. That mesmerism should have been let loose upon her just at the moment when relief to her pains was coming (through the escape of the ovarian cyst from the pelvis), was, of course, a happy accident for mesmerism, and naturally well scored up to its merits. And need we reproach Miss Martineau if, on such a sudden resurrection to life and comfort, she should have confused the *post hoc* with the *propter hoc*?

Besides this, it does not appear in the papers referred to, though it may have been so, that her medical advisers at the time were aware of the cause of her relief from her miseries, or had explained the case to Miss Martineau. Indeed it is remarkable, as Mr. Spencer Wells says, that "the only definite account he has been able to find of an abdominal tumour during life is contained in Sir Thomas Watson's memorandum", where it is described as "a large pear-shaped indolent tumour, reaching as high as the lower part of the epigastrium". How came it, one cannot but ask, that there is no other medical note of such a prominent disease, which existed during upwards of twenty-five years of this lady's life; and that the question of its removal never appears to have been discussed during this long period, when ovariectomy had become a triumph of surgery? A kind of mystery, in truth, may be said to hang over this period of her medical history; and one cannot but wish that, for Miss Martineau's sake, some explanation of it should be given. Most medical men who have read her *Autobiography* would, on this point, naturally say: Can it be true that, during those twenty-five or thirty years, Miss Martineau never heard either from friend or foe the true history of the supposed mesmeric cure; that the ovarian cyst retained in the pelvis was the cause of her Tynemouth illness? One can hardly believe that Miss Martineau, an uncompromising servant of truth, bearing about her through all those years the proof of the mesmeric fiction, had been convinced of her error, and yet, through *amour propre*, had knowingly concealed the fact. As the matter stands, we may prefer to believe either that the case had never been fully explained to her, or that she refused to assent to the explanation, or it may have been that, Miss Martineau having fallen into the hands of other medical men when she left Tynemouth, the identity of the pelvic and the abdominal tumour may have been actually overlooked or forgotten.

I would add, that it is quite possible the discrepancies to which I have referred in the above are capable of satisfactory explanation by those who have a complete knowledge of the matter. But, as they now stand recorded in your JOURNAL, they seem to me to be unjust to the memory of Miss Martineau; and for this reason, I have ventured to allude to them.—Yours obediently, W. O. MARKHAM.

THE PENGE CASE.

SIR,—In a former letter I challenged certain statements in the published reports of Drs. Payne and Greenfield on the Penge case, as I then said in the interests of science and justice. Justice has now been satisfied by the sentence passed on the three principals in the murder; but the interests of science demand a fuller refutation than has yet been

given of the many fallacies involved in the theory of the defence. With your permission and the indulgence of your readers I will proceed to the task, noticing also some fresh arguments urged by Dr. Payne in his last communication to the JOURNAL. Profiting by the remarks in his letter of the 20th ult., I have read the reports of the trial in the *Times*, and the perusal has confirmed the impression made on me by the notes of the *post mortem* examination, and the comments on them by Drs. Payne and Greenfield. The history of the case elicited from the witnesses for the prosecution, fragmentary as it is, throws a strong light on the pathological conditions found in the body, and invests every detail with greater significance. One effect of the more extended view thereby afforded me is, that it reduces to quite secondary importance the contention about the tubercles, and the existence even of meningitis and chronic brain-disease, while it lends irresistible weight to the *post mortem* evidences of starvation.

In order to present a clearer view of the questions at issue, I propose to consider, first, the symptoms observed during the last days of Harriet Staunton's life, and, secondly, the appearances seen after death; and, under each head, to compare the conditions present in her case, on the one hand, with the signs and symptoms of acute tuberculosis, and, on the other, with those of death by chronic starvation.

First, as regards the evidence afforded by symptoms during life: so far as these can be gleaned from the scanty materials at hand, they may be summed up as follows:—Rapidly increasing weakness, impairment of mental faculties, stolid indifference, swelling of the feet, diarrhoea, inability to walk or sit up unsupported, sleepiness, rolling of the eyes and staring eyeballs, violent shaking, general prostration, with stupor deepening into apoplectic coma and death. In the agony, there was seen rigidity of the arms and inequality of the pupils.

The above train of symptoms may be contrasted with those which are characteristic of acute tubercular meningitis, as given in Huguenin's exact summary. In the first stage, headache, vomiting, constipation, retraction of the belly, beginning of pulsus cephalicus, excitement and delirious attacks; in children, convulsions. Second stage (pressure), pupil symptoms, states of sopor and coma, pulsus cephalicus, constipation, belly retracted, contractions of the back of the neck, facial paralysis, hemiplegia, contractions, convulsions. Third stage (paralysis), coma, quiet as a rule, decrease of cramp-symptoms, increase of paralysis, disappearance of contraction of the nape of the neck and retraction of the belly; rapid increase of the pulse, which grows irregular; variations of the temperature up and down; death.

In the analysis of the above conditions, as given by Dr. Payne, some general resemblance might be discerned; but this, when submitted to more rigorous tests, entirely disappears. For example, in Harriet Staunton's case, we hear nothing of the headache, vomiting, and delirium, which mark the onset of meningitis; instead of constipation, there was diarrhoea; the rolling of the eyes and violent shaking are not the correlatives of convulsions or contractions; the existence of hemiplegia assumed by Dr. Payne on the strength of a statement made by two of the prisoners, must be rejected, since no credence can be given to persons whose object was plainly to hoodwink Mr. Longrigg, and avert suspicion as to the real state of the patient. The inequality of the pupils, pronounced by Dr. Payne to be evidence of meningitis, is wholly different from the pupil-symptoms in meningitis: in this the pupil of one eye is more dilated than that of the other, in consequence of paralysis of the third nerve; in the case before us, as Mr. Longrigg stated, "the pupil of the right eye was slightly dilated; that of the left contracted to a pin's point". Again, the rigidity of the arms, which persisted to the last hours of Harriet Staunton's life, would have disappeared in the last stage of meningitis. But the parallel fails most signally when we compare the duration of her supposed attack with that of meningitis. The first stage, which lasts eight days, according to Traube, was altogether absent in her case, while the second and third stages, to which the same authority assigns less than eight days, were compressed into a period of only twenty-four hours; for sleepiness, the earliest sign of pressure, was not noticed till the day of her removal to Penze. It is not supposed for one instant that all cases of acute tuberculosis run an uniform course or exhibit the same features; but in pathology, as in the kingdoms of nature, there is a limit to variation; in this instance, that limit has been overstepped, and we are asked to recognise a disease without any specific characters by which it could be identified. And lastly, it has been too hastily assumed that Harriet Staunton was attacked with sudden illness in the last week, for the circumstantial evidence points only to a great increase of her mental and bodily prostration, the latter symptoms being evidently due to unaccustomed food and her removal to Penze: she was simply nearing her end. That she had been for several weeks confined to her bed, is proved by the cuticle on the soles of her feet having become dry and porous.

I will now turn to the symptoms observed in cases of chronic starvation, to which Dr. Payne has never directed attention, and I cannot do better than reproduce the graphic accounts left us by Dr. Donovan of the starving population of Skibbereen during the Irish famine. He describes one of them as "frightfully emaciated; the eyes acquire a most peculiar stare"; "the sufferer tottered in walking like a drunken man"; "as regards the mental faculties, their prostration kept pace with the general wreck; in many, a state of imbecility; in some, almost complete idiotism; in no instance, mania or delirium". He also writes: "As either diarrhoea, asphyxia, or syncope in many instances preceded death, the fatal issue may have been, in these cases, attributed by many to disease, but in reality was the consequence of imperfect alimentation." It is impossible, I think, to read this forcible sketch without being reminded of the prominent features in Harriet Staunton's case. The frightful emaciation, the peculiar stare, the loss of power in walking, the diarrhoea, the prostration of the mental faculties, were all represented here. And, if we picture to ourselves one of those starving wretches taken out of his dying bed, kept for half a day seated in a chair, and, after being fed with an unwonted meal, carried off on a journey of three hours by road and rail, we can easily conceive that the resemblance would be closer in the symptoms that preceded death. To render the parallel more complete, we have here also a misconception on the part of many as to the cause of death, which "was attributed by them to disease, but in reality was the consequence of imperfect alimentation".

I come now to the second part of my subject: the evidence from *post mortem* appearances. As the notes of the necropsy are in the hands of all your readers, it will be unnecessary for me to recapitulate them; it remains for me to compare the conditions found in Harriet Staunton's body with the morbid changes consequent on acute tubercular meningitis. In tubercular meningitis, the disease which the witnesses for the defence assign as the cause of death, the convexity is rarely affected, and, when it is so, any pathological changes are less distinctly seen; but all the best authorities agree in describing a notable quantity of tubercular deposit, and even when the pia mater shows but little inflammation, tubercles may be found in visible number on the surface, within the fissures, or along the course of the blood-vessels. In most cases, the membranes are thickened or opaque; serum, lymph, or pus is effused, and in parts the substance of the brain is more or less softened. On referring to the report of the *post mortem* examination or to the minutes of evidence, do we find any account of conditions at all corresponding to the above? Their testimony is that there were two patches of miliary tubercles, which together might be covered by a sixpence, on the upper surface of one hemisphere, and, except some old adhesions, absolutely no other structural change.

Two questions will now suggest themselves: Were the tubercles recent? Dr. Payne, fortified by the opinion of Dr. Bristowe and others, maintains that they were recent, and indicated acute disease; but I find that Huguenin, who is quoted by Dr. Payne as a great authority, speaking of tubercles in this situation, says it is impossible to determine their age with accuracy; and that "the pia mater tolerates the presence of tubercles for a period which varies in different cases". Again, Was there any meningitis? Dr. Payne affirms that there is direct evidence of an early stage of acute inflammation in the well marked congestion of the sinuses and blood-vessels within the head. On the other hand, Huguenin declares that, in this form of meningitis, a high degree of hyperæmia is the exception; and so large an amount of congestion as is here described corresponds better to other conditions and another mode of death. There is some warrant, then, for the belief that the tubercles on Harriet Staunton's brain were innocuous, and had no more to do with the fatal issue than the deposit in the apex of her left lung.*

From some passages in his last communication, I infer that Dr. Payne sees the difficulty of resting his case on an anomaly; and, in order to escape from it, he now openly avows his suspicion that other lesions may have existed, such as effusion into the ventricles, or at the base, of serum, lymph, or pus; a wider distribution of the tubercles; and softening of the fornix and septum lucidum; but that, owing to incompetence in the observers, these were overlooked. I will say no more of the character of this suggestion than to mark its inconsistency. Dr. Payne has distinctly proclaimed his belief that the tubercular deposit on the meninges, as deposited to by the medical witnesses for the prosecution, was sufficient to account for death, despite the paucity of tubercles and the absence of other lesions. But it is still more startling to find Dr. Payne coming forward with an alternative explanation. Dismissing all idea of tubercles, he now suggests that death may have

* Since the above was written, Professor Virchow has delivered an opinion on the case, expressed with scientific caution, but, on the whole, favourable to the views advanced in this letter.

been the result of "simple apoplexy" or "meningitis showing only increased vascularity". A little more *rapprochement*, and it is not unlikely that we may ultimately agree as to the cause of death.

It only remains now to consider the appearances after death in persons dying from chronic starvation, and any analogies these may bear to the conditions in Harriet Staunton's case; and here I will avail myself again of Dr. Donovan's valuable observations. He describes the *post mortem* appearances in the following summary. "Extreme emaciation; total absorption of fatty matter on the surface of the body; total disappearance of the omentum; and a peculiarly thin condition of the small intestines, which were so transparent that, if the deceased had taken any food immediately before death, the contents would be seen through the coats of the bowel. This condition of the intestines I look upon as the strongest proof of starvation. The gall-bladder is usually full, and the parts in its vicinity are strongly tinged from cadaveric exudation of bile; bladder contracted and empty; heart pale, soft, and flabby. No abnormal appearance in the brain or lungs, nor do I think that starvation *per se* would lead to structural changes in these organs." When describing the state of the skin in these subjects, Dr. Donovan mentions its being "covered with a brownish filthy-looking coating almost as indelible as varnish. This I was at first inclined to regard as encrusted filth, but further experience has convinced me that it is a secretion poured out from the exhalants on the surface of the body."

The points in this description which will certainly arrest attention are three. First, the disappearance of fat from the surface and from within the body could not well be more complete than in the case of Harriet Staunton, with the single exception of the omentum, which had not entirely disappeared. Secondly, the state of the intestines, which in her case were said to be empty of food and *fæces*, pale, and exsanguine; and Mr. Rodgers, who had the best opportunity of examining them thoroughly, now adds in his published report that the intestines were collapsed and wasted. It would seem that these and the stomach were consigned to the jar without due examination, the medical witnesses not being sufficiently aware of the diagnostic value of thinning of the coats of the small intestines. Lastly, the peculiar appearance of the skin, which must have borne some resemblance to the state of Harriet Staunton's body, the dirt on which attracted so much attention, and was described by the nurse in her evidence as "something like the bark of a tree". As Dr. Donovan mistook this appearance for "encrusted filth" in his earlier experience, no blame should be imputed to those who may have made a similar mistake.

I have now fulfilled the task I imposed on myself of presenting a comparative view of the signs and symptoms of tubercular meningitis and chronic starvation. The only conclusion I can draw from these premises is, that the symptoms of *post mortem* appearances in Harriet Staunton's case bear no resemblance to those observed in tubercular meningitis, while they coincide in a remarkable manner with the conditions seen in cases of chronic starvation.

I will conclude with a few remarks on Dr. Payne's criticisms on my former letter to the JOURNAL. He devotes a long paragraph to the exposure of alleged errors in the normal weights I gave of the liver and kidneys, which are too high, or higher than accords with his experience; but, as it does not appear that his averages were corrected for age and body-weight, it is doubtful whether they will supersede those given in Boyd's tables, which I consulted. On the other hand, the cause of emaciation—the cardinal fact in this case—is dismissed in three short lines of Dr. Payne's letter. As this is the point of all others that requires further elucidation at the hands of the witnesses for the defence, I confess to a feeling of disappointment. The explanation which Dr. Payne now offers is so greatly modified that it is worthy our attention. He thinks that part at least of the emaciation is to be attributed to tubercular disease. "With respect to the remainder, the decision must rest upon the circumstantial evidence." Now, as all the circumstantial evidence points to starvation, and to that only, as the cause of the emaciation, it seems that an important admission is made here; and if we couple this with Dr. Payne's readiness to abandon the tubercles on the brain, and a certain vagueness about their existence elsewhere, it follows that the point is now brought to a very narrow issue. Of two other theories that have been put forward in explanation—the one by the *Lancet*, the other by I know not whom—it is enough to say that both general paralysis and paralytic dementia demand incomparably longer periods for the production of extreme emaciation than can be allotted to them in the Penge case, in which three months are said to have sufficed; while the symptoms, course, and pathological anatomy of these formidable diseases are quite at variance with the medical and circumstantial evidence in the Penge case.

I am told that, in upholding the theory of the prosecution, I have

opposed to me "an almost universal *consensus* of our recognised authorities in pathological science". My retort is, that the true explanation of the agitation against the verdict is to be found in the ignorance of the natural history of chronic starvation that prevails even in the highest ranks of the profession. Chronic starvation, though not altogether unknown under the present system of administering the Poor-law, is become a rare disease in these islands; its morbid anatomy is not studied in the great metropolitan hospitals; and those pathologists who have made thousands of inspections of the dead can speak with no more authority on the subject than the plain country surgeon.—I am, sir, your obedient servant,

HENRY TAYLOR.

Guildford, November 7th, 1877.

THE MEDICAL INJUNCTION OF STIMULANTS.

SIR,—Being interested in the question of the administration of alcohol in health and disease, I naturally turned to the paper on this subject by Dr. Dyce Duckworth in your last issue. The form of the title is in itself a little puzzling. What is meant by the "medical injunction" of stimulants? A *legal* injunction I understand to mean a prohibition having the force of law; but it seems to me that Dr. Duckworth uses the term in the sense of recommendation. After reading the paper three times, I am yet unable to discover in which sense the author uses the word. This may be due to my ignorance, and I am only asking for information.

The paper deals successively with the use of alcohol in disease and in health. After referring to the differences of opinion which exist among medical men as to the use of stimulants, the author says that "no little harm is done to the legitimate influence of medical men by these differences". This introduction naturally leads us to expect that this paper will put an end to such differences. "I have never materially wavered in my opinion", says Dr. Duckworth, and "my opinion is fixed". These two statements seem, however, to be the sole means by which medical unanimity is to be effected, since besides this I cannot discover anything new in the paper; and, however important these facts may be to the author, it really seems doubtful whether they were worthy of being blazoned in such pretentious style and high sounding language in the JOURNAL. It is difficult for me to understand how an author can "embody what he has to say in a short paper, when he avoids arguments from general principles, and excludes deductions from particular instances". I should have thought that the only way to say *shortly* anything upon a great question was to state the principles which underlie it. And indeed, in a kind of way, the author seems to do this, although he starts by saying he will not do it; for, so far as I can see, what he has to say upon the administration of alcohol is that there is "no routine in the matter of employing stimulants" in disease. Every case, we are told, is to be judged upon its own merits. This is in its way a sort of general principle, and one which most readers of the JOURNAL, one would think, must have known before. Further, the author reaches it by that very enumeration of "particular instances" deductions from which he says he will exclude. We have the cases enumerated, for instance, of "young persons, of elderly persons, of pneumonia, of pleurisy, the exanthemata, Bright's disease, hepatic affections, gout, heart-disease, etc."; and in these, we are told, "the well trained clinical finger and ear" will discover whether alcohol is required or not. These are, on the whole, very harmless conclusions, and not unsafe in practice; but where was the necessity to precede them by such statements as that it is "discreditable for the medical profession to differ about facts", when just the difficulty is to know what are the facts? Neither does it seem necessary to have raised an incidental discussion as to whether disease does or does not change its type, or to have said that those who think so hold an "exploded theory". And I must plead to some astonishment at the mildness of his conclusions after reading a sentence about waves which "successively represented unstable struggles towards the truth; that one was a Nemesis (!) for its predecessor; and that assuredly all of them have now foamed out their own shame upon the everlasting shores of attained medical truth"!

In the discussion whether alcohol is good or not for the healthy, it seems to me the author is more unfortunate than he is concerning its use in disease, since he appears to contradict himself. Thus he says: "It comes to this, then, that the rational individual must honestly and conscientiously find out for himself what the special needs of his system are"; and, further down, he says "it were a better thing if the public would ask our advice and follow our injunctions". How they can both find out for themselves the special needs of their system, and also follow the injunctions of their medical advisers, I should like Dr. Duckworth to explain.

As I have already said, Dr. Duckworth's opinions, so far as he has already stated them, seem to be sound on the whole; and I wish to give him credit for earnestness in his desire to combat the drinking tendencies of the time. If these remarks, therefore, seem severe, I must plead as justification a growing repugnance to the bombastic and high flown expression of opinions which, if true, would have more weight if stated in calmer and more modest language.—I am, your, etc.,

A. C. RABAGLIATI, M.A., M.D.

Bradford, November 12th, 1877.

SIR,—As one of the staff of the London Temperance Hospital, may I be permitted to offer a word of explanation respecting the practice of that institution, and a few remarks on the paper of Dr. Dyce Duckworth published in your last number? As a total abstainer, I cannot but express my entire concurrence in many of the opinions therein expressed, such as that alcohol is not required by the healthy nor by children; that sudden abstinence is perfectly safe; that to give any stimulant in delirium tremens is bad practice, and so on; and if I dwell rather on the points in which we differ, it is because these only need discussion.

To refer again, however, to the treatment of delirium tremens, now spoken of as non-alcoholic as a matter of course, not so very long ago, perhaps in some quarters even yet, this statement would have been regarded as bold, not to say rash; why not now? Is it not because this non-alcoholic treatment has been thoroughly tried and proved a great success? Dr. Duckworth, on the other hand, tells us that alcohol is necessary in certain other cases; "must be had resort to" in others. How is the truth of these emphatic statements to be tested if not by a process of excluding alcohol and noting the results? Since, then, I can most decidedly attest that I have treated, and seen treated, some of all those cases for which he states that alcohol is necessary, without a drop of alcohol in any form, not only once, but again and again, and with perfect success, it follows that his statement is erroneous. All that remains is to discover, by careful comparison of cases, and, above all, by patient accumulation of results, which plan permits of most recoveries. My own experience of the last five years has convinced me that I was mistaken when I held much the same views as Dr. Duckworth. It is clear that there should be "no routine" in giving alcohol, a danger into which, I fear, many have fallen. I very much question, however, whether, until we know more of the *modus operandi* of alcohol as a stimulant, and more of the pathological and functional changes in many diseases, we shall be able to judge of the value of alcohol otherwise than by a true experience of its action tested both positively and negatively. If it be administered as a drug in a pure form, in proper doses of known strength, mixed without the patient's knowledge, as we give its congeners, it is clear that all its value will be obtained without detriment to the patient. The danger from alcohol, opium, chloral, etc., is when people take to dosing themselves and easily create a feeling of necessity for another and larger dose.

But the public ask us what they ought to drink habitually. It seems to me a duty to tell them that water is perfectly safe for people in health; that a very little alcohol may be harmless, but that no general line can be fixed where harm begins. No living man can guarantee that no harm shall result from a very small dose daily repeated; and, as to judging for oneself, the worst of it is that no outward sign will indicate when the mischief begins until it is done, and even then its effects will often be such that it will be impossible to speak positively in any one case. The general tendency of moderate drinking is such that life is shortened, as the tables of the United Kingdom General and Temperance Provident Institution amply show. All the profession need do is to say that total abstainers are safe, moderate drinkers are more or less unsafe; common sense will supply the conclusion.

If most people are not leading normal lives, the obvious course is to point out to them the abnormality, and, if they cannot or will not alter, it by no means follows that alcohol will counteract the mistake, though it may mask or remove some of the warning symptoms.

My extensive experience of total abstainers is decidedly opposed to the idea that they are larger eaters than others. The appetite of many greatly improves at first, because their digestive organs are relieved; often, too, they thereby overindulge, and are then told that total abstinence does not agree with them. But confirmed abstainers do not eat more; let the Turkish soldiers be witnesses.

I cannot but think that the recommendation to vary the amount of alcohol taken according to the felt necessity is fraught with extreme danger, as opening the way to real excess and drink-craving.

The recommendation of general teetotalism is urged because the advocacy of moderation has proved a failure: in Dr. Duckworth's words, "if the examples (of moderation) set by good people would of themselves avail to rescue the mass of drunkards, England would

be amongst the least drunken countries to-day". If the same good people would set the example of total abstinence, who can deny that we should be much nearer such a desirable goal? And, as the example of an abstaining medical man is far more potent as a guarantee of safety in the practice than that of any other person, I fail to see how we shall stultify ourselves by recommending such a beneficent practice. Many thousands have proved it to be perfectly safe. Let us deal with deviations from health as they arise.—I am, sir, yours obediently,

J. JAMES RIDGE, M.D.

Enfield, November 1877.

THE BRISTOL MEDICAL SCHOOL.

SIR,—In the JOURNAL of November 10th, there appears an editorial article on the Bristol Medical School; and, as the information upon which that article is based is incorrect in several important points, it becomes my duty, as Honorary Secretary of the School, to put you in possession of certain facts, the knowledge of which is essential to a just judgment on the present position of the School and on the conduct of its Faculty.

During the last five years, strenuous efforts have been made by the Faculty of the School to obtain improved accommodation and more complete appliances for teaching than were possible in their present abode. These efforts at first took the form of an appeal to the public for funds to erect new medical school buildings. Shortly afterwards, on the suggestion of one of their number, and with the co-operation of some leading citizens, this project grew into a proposal for a school of science, with a medical department; and gradually, as new persons and new interests appeared on the scene, the original idea developed into a combined and harmonious effort, on the part of the Faculty of the Medical School, with many others, to establish a general College of science and literature.

The mode in which the Medical School should be united to the College was the subject of long and anxious discussion; and, in the end, a scheme of union was devised, upon which the Faculty, if not absolutely unanimous, were so nearly unanimous that no opposition was offered to its adoption. This scheme of union was adopted with apparent unanimity by the Faculty, received most cordially and even gratefully by the large general committee representing the promoters of the College, and embodied in a formal agreement, to which the signature of every member of the Faculty and the seal of the College was attached. It is necessary that I should specify its leading features, because the information which has been supplied to you on this matter is incorrect.

1. By the agreement between the Medical School and the College, the appointment of the lecturers of the Medical School, formerly vested in the Faculty, is now vested in an electoral body, of which the Faculty constitute about one-half.

2. On vacancies occurring in the chairs of chemistry or botany, the right of appointment to such chairs shall thereafter pertain entirely to the College.

3. The College undertakes certain very definite obligations as to the providing of everything necessary for the Medical School, in the way of buildings and appliances.

4. While the general management of the Medical School remains in the hands of the Faculty, the students are, in matters of discipline, subject to the authorities of the College.

5. The finances of the Medical School are kept distinct from those of the College; the Faculty arranging the distribution of their own fees, and receiving no subsidy from the College.

There are many other provisions in the agreement; but those above enumerated will be enough to prove that the statements with which you have been furnished, to the effect that the negotiations between the Medical School and the College were "prolonged and barren", and that "in the end the Medical School was tacked on to the College by the slenderest of attenuated bonds", are statements entirely at variance with the facts of the case.

To prevent confusion, reference must here be made to two terms which have been employed, in a somewhat conventional sense, to indicate two possible modes of union between the Medical School and the College. The term "incorporation" has been used to denote an entire fusion of the School with the College; while the term "affiliation" has been applied to an intimate organic union, in which the School, nevertheless, retains its individuality and much of its autonomy. In choosing between these two modes of union, the Faculty of the Medical School, while deeply interested in the prosperity of the College, and willing to contribute largely both in money and time to promote this end, felt that their first duty was to their own School; and they were not prepared to bind the Medical School—an old and tried institution—hand and foot to the new-born College, to sink or swim as it might happen.

It is true that "incorporation" had at one time its advocates in the Faculty; but it is not true (as you have been led to believe) that the infirmary section of the Faculty were in favour of this method. On the contrary, the Infirmary lecturer, who has taken the most active part in recent events, was (when the matter was under discussion) one of the most strenuous advocates of "affiliation". This correction I hold to be important, because it proves the hollowness of the pretence by which it is now sought to cover a course of action, the real motives for which shall, as far as possible, be laid bare before the profession.

In order to do this, the history of the proceedings of the Faculty must be resumed.

About the same time that the agreement with the College was signed (July 1876), there arose a discussion in the Faculty upon a proposition for an alteration in the scale of fees. This, be it observed, was no question of Infirmary *versus* Hospital. It was a question in which the majority of the Hospital lecturers were of one mind with the Infirmary lecturers in favour of the alteration proposed. Nevertheless, in accordance with a rule of the School, which required a two-thirds majority, the proposition was ultimately rejected. This happened on May 11th, 1877. Some of the Infirmary lecturers were exceedingly nettled at this result, and one of them made no secret of his determination to carry the matter elsewhere.

In the meantime, another incident had occurred, in which another of the Infirmary lecturers was prominently concerned. This gentleman had been a co-lecturer with Dr. Martyn on medicine and pathological anatomy. On the lamented death of Dr. Martyn, it became a question who should be appointed to the two vacant half-chairs. Under the old *régime*, it had been a fundamental rule of the School that the chair of medicine (like other important chairs) should be divided between Infirmary and Hospital. This rule, which had worked well, was no longer in force, the election devolving (for the first time) upon the newly constituted electoral body. The gentleman who already held the two half-chairs was very anxious that the new lecturer to be appointed should be appointed to pathological anatomy alone, and that he himself should take the whole course of medicine. The electoral body, nevertheless, appointed a Hospital physician to the half-chair of medicine, as well as to the half-chair of pathological anatomy. This occurred on November 4th, 1876.

These two incidents I relate without comment, simply as they happened; and I shall leave it to the reader, when the narration is completed, to draw his own inferences as to the share they may have had in determining subsequent events.

In July 1876, the Faculty had their attention directed to the large number of Bristol students who had been rejected at the College of Surgeons; and a friendly discussion took place as to whether any means could be adopted for improving the teaching of anatomy. The discussion was adjourned, and, at the adjourned meeting, a resolution was passed, without a dissentient voice, providing for such a change in the anatomical department as might, it was hoped, remedy existing defects.

Again, on May 11th, 1877, the results of the College examinations having been again unfavourable, the question was re-opened; and a resolution was passed, without opposition: "That the result of the recent examinations at the College of Surgeons be considered at a special meeting to be held on Friday next, May 18th."

But it was at this same meeting that the incident occurred which gave such deep offence to some of the Infirmary lecturers; and, immediately after the meeting, rumours began to prevail that the Infirmary members of the Faculty would no longer co-operate with their colleagues, and that they would take steps to call the attention of the College of Surgeons to the inefficient condition of the School. These rumours proved to be true. At the special meeting on May 18th, not one of the Infirmary gentlemen appeared. At the next meeting, on June 1st, they were again absent; as they were also at all succeeding meetings but one, up to November 2nd. The single meeting at which they were present was a meeting summoned at their request, on June 15th, to consider a proposition for "incorporation". Such a course they must have known to be futile. The word had not been heard in our discussions since the basis of the existing agreement was finally settled in November 1874, and it was known that a large majority of the Faculty were well satisfied with that agreement and only anxious to see its provisions speedily carried out.

Deprived of the assistance of their Infirmary colleagues, the remainder of the Faculty had been quietly maturing plans for improving the efficiency of the School, when, on July 6th last, it came indirectly to the knowledge of the Faculty, that the staff of the Royal Infirmary had called upon the Council of the Royal College of Surgeons to institute an inquiry into the condition of the Bristol School of Medicine. From all practical efforts to improve that condition, the Infirmary section of the Faculty had, from the time of the rupture, held persistently aloof.

For the failures of our students, they were at least equally responsible with the other teachers. Yet, instead of heartily co-operating with their colleagues in an endeavour to ascertain and remove defects, they hasten to wash their hands of the business, and, by their appeal to the College of Surgeons, say, in effect, that the blame rests not with them.

In the preceding remarks, I claim to have shown that, in your own words (intended in another sense), "there have been other factors, intrinsic to the Faculty", over and above the desire for "incorporation", which have co-operated to bring about the present differences. But there is no need to impute motives. Let the desire for incorporation be as honest as in the opinion of most of us it is unwise; the policy of its advocates, when tried at the bar of professional or public opinion, will need, I believe, some very different defence from any that has yet been put forward; and if, in the meantime, these gentlemen find themselves credited (as they actually are) with a conspiracy to overthrow the existing school, in order that they may raise upon its ruins a new school, in which the Infirmary shall be everything and the Hospital nothing, they have only themselves to thank for the imputation of conduct and motives so unworthy of their position and of their profession.

Of the course which the Council of the College of Surgeons have taken we have no right to complain. They received a formal request to investigate the condition of the school from a body of gentlemen whom they would naturally consider above the suspicion of interested motives, and they could do no less than demand from us a clear statement of our position. I believe we shall have no difficulty in satisfying them that our school still contains the same elements of efficiency and success which have distinguished it in former years; and that, if we are not able as yet to show that our buildings and appliances are what they should be, the delay is mainly owing to the obstructive policy of those very gentlemen who have lodged their complaint against us.

Nevertheless, to those who have borne the burden and heat of the day in an effort sustained through five long years to raise the Bristol Medical School to a position worthy of itself and of our city, it is not a little disheartening to find at the last moment the powerful influence of the BRITISH MEDICAL JOURNAL thrown into the scale against us. You, sir, in your editorial remarks, based upon erroneous information, have done a grievous injustice to our school; and we cannot doubt that, in common fairness, you will accord to this our reply an early and prominent insertion.—I am, sir, your obedient servant,
 GEORGE F. BURDER, M.D., Hon. Sec.,
 Bristol, November 1877. Bristol Medical School.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

THE TEACHING OF SCIENCE.—In his retiring speech, at the conclusion of his year of office, the Vice-Chancellor of the University of Cambridge congratulated the members on the increased numbers of the students, which indicated a more widely extended opinion of the value of University training. He observed that the efficiency of the University as a school of natural science had been greatly promoted during the year by the erection of the new buildings for the department of Comparative Anatomy and Physiology, and that the Cavendish Laboratory of Experimental Physics had been completely equipped with all the apparatus and instruments necessary for a first-class institution of the kind by the munificence of the Chancellor, the Duke of Devonshire, to whose liberality the University is also indebted for the building of the laboratory.

UNIVERSITY OF DURHAM.

THE CONJOINT BOARD.—Dr. G. H. Philipson and Dr. G. Y. Heath have been appointed the representatives of the University of Durham, on the Committee of Reference, for the Conjoint Examining Board for England.

VACCINATION.—Mr. R. S. Francis of Boughton, medical officer of Third District of Faversham Union, and lately resigning the appointment, has been by the Local Government Board awarded the sum of £11 1s. for successful vaccination in that district.—The Local Government Board has granted the sum of £66 4s. for efficient vaccination to Mr. Wm. H. Arrowsmith of Darlington: this being the third grant to the same gentleman.—Mr. R. S. Hall of Ince, near Wigan, has received from the Local Government Board an award of £52 16s. for efficient vaccination in his district. This is the third award which he has received.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

GLASGOW.—The population was estimated at 546,921 in June 1877; the annual birth-rate at 49.3 and the death-rate 27.0 for the quarter ending June 30th. The birth-rate was higher and the death-rate lower than usual; the temperature having been nearly 1 deg. Fahr. below and the rainfall 0.29 of an inch above the mean of ten years. The birth- and death-rates per 1,000 population varied very considerably in the different (twenty-four) "statistical divisions" of the borough, so that, for purposes of comparison, the divisions have been brought together into four groups, which differ in wealth, number of persons to an acre, etc. The birth-rate in No. 1 group was 31.08; in No. 2, 44.74; in No. 3, 41.05; and in No. 4, 41.60, per 1,000. The annual death-rate in No. 1 group was 19.85; in No. 2 group, 24.55; in No. 3, 30.87; and in No. 4, 34.97; so that there is an enormous variation in the mortality of the different subdistricts. The death-rates per 1,000 living under one year varied between 138.1 and 197.5, and the percentage of certified deaths at this age-period between 84 and 49; so that more than half of the children who died during the first year of life in the worst group (No. 4) received no medical attendance. The instructions of the registrars must be very indefinite, to allow them to register such a large number of uncertified deaths. In Bridgegate "statistical division", having a population of above 10,000, the annual death-rate in the quarter ending March 31st was 53.3, and for June 30th, 52.5; whilst for the Exchange division it was only 20.0, the population of the latter being above 25,000 persons. The most fatal diseases in Bridgegate division were inflammatory diseases of the lungs and consumption, from which are returned more than half the total number of deaths, showing that hereditary predisposition, privation, and neglect, as well as bad lodging and sanitary arrangements, are responsible for an enormous number of unnecessary deaths, not only in this, but in many of the other statistical divisions.

POOR-LAW MEDICAL APPOINTMENTS.

CARRUTHERS, William Hodgson, M.D., appointed Medical Officer and Public Vaccinator for the Hulton District of the Runcorn Union, *vice* William Carruthers, M.R.C.S. Eng., resigned.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

VINCENT, Henry Bird, M.R.C.S. Eng., appointed Medical Officer of Health to the Sanitary Authority of East Dereham, Norfolk.

MILITARY AND NAVAL MEDICAL SERVICES.

PAYMENT OF CIVILIAN MEDICAL PRACTITIONERS IN CHARGE OF TROOPS.

THE following Royal Warrant has been issued:

"Whereas we deem it expedient to extend the regulations under which certain payments are authorised to be made to civilian medical practitioners engaged to take charge of troops; it is our will and pleasure that it shall be competent to our Secretary of State to vary from time to time the rates of payment to civilian medical practitioners in charge of troops, specified in article 360 of our Warrant of the 27th December, 1876."

MEDICAL NEWS.

UNIVERSITY OF LONDON.—The following is a list of the candidates who have passed the recent Second M.B. Examination.

First Division.

Barrow, Albert Boyce, King's College
Horrocks, Peter, Guy's Hospital
Joll, Boyd Burnett, University College
Smith, Herbert Urmsion, St. Thomas's Hospital
Symonds, Charters James, Guy's Hospital
Tirard, Nestor Isidore Charles, King's College

Second Division.

Bury, Judson Sykes, University College
Cattle, Charles Henry, Leeds School of Medicine
Chapman, Paul Morgan, University College
Collins, William Edward, St. George's Hospital
Cooke, Edward Marr ott, King's College
Giles, George Michael James, St. Mary's Hospital
Goodchild, Francis, St. George's Hospital

Gristock, William, University College
Keyworth, George Hawson, Guy's Hospital
Mortimer, John, University College
Plumbe, Samuel Thomson, St. Bartholomew's Hospital
Ryley, James, University College
Sankey, Herbert Richard Octavius, University College
Sedgefield, Arthur Robert Wyatt, King's College
Snell, Edward Arthur, King's College
Stevenson, Leader Henry, Guy's Hospital

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 8th, 1877.

Craddock, Frederick Hurst, St. Luke's Hospital
Hammond, Alexander Billing, Queen Street, Finsbury
Hepburn, Alfred, Upper Bedford Place
Johnson, Christopher John Byron, Whitwick, Leicestershire
Ling, Maurice Edward, Saxmundham
Murray, Charles Herbert, 122, Kensington Road

The following gentlemen also on the same day passed their primary professional examination.

Betts, Edward George, Mid-Hesex Hospital
Sutcliffe, Joseph, St. Thomas's Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

ALNWICK UNION—Medical Officer for the Embleton District.
BAKEWELL UNION—Medical Officer for the Matlock District.
BRADFORD UNION, Yorkshire—Medical Officer for the Horton West Division.
CHINA—Medical Missionary for the Church of Scotland Mission. Salary, £350 per annum, and residence. Applications to the Rev. Dr. Cumming, Sandyford Church, Glasgow.
GENERAL HOSPITAL and DISPENSARY FOR SICK CHILDREN, Manchester—Directing Physician. Salary, £500 per annum. Applications to be made on or before the 21st instant.
GENERAL HOSPITAL, Birmingham—Honorary Obstetric Officer and Honorary Ophthalmic Surgeon. Applications to be made on or before the 24th instant.—Resident Medical Officer and Resident Registrar and Pathologist. Salary, £130 per annum each, with board and residence. Applications to be made on or before the 30th instant.
QUEEN'S HOSPITAL, Birmingham—Resident Physician and Resident Surgeon. Salary, £50 per annum, with board and residence. Applications to be made on or before December 1st.
KIDDERMINSTER INFIRMARY—House-Surgeon.
LIVERPOOL ROYAL INFIRMARY—Resident Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications to be made on or before the 20th instant.
POOLE UNION—Medical Officer for the Workhouse.
PORTLAND TOWN FREE DISPENSARY—Resident Surgeon and Dispense. Salary, £100 per annum, apartments, fire, gas, and attendance.
ST. PETER'S HOSPITAL, Berners Street—House-Surgeon. Applications to be made on or before the 20th instant.
ST. SAVIOUR'S UNION, Surrey—Medical Officer for the Infirmary, Westmoreland Road, Walworth—Salary, £400 per annum, with unfurnished house, coals, gas, and water.—Assistant Medical Officer and Dispenser. Salary, £130 per annum, with furnished apartments, rations, washing, gas, coals, and water. Applications to be made on or before the 19th instant.
TAVISTOCK UNION—Medical Officer for the Tavistock District and the Workhouse.
WESTON-SUPER-MARE HOSPITAL and DISPENSARY—House-Surgeon. Salary, £70 per annum, with board, lodging, and washing. Applications to be made on or before the 19th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

COATES, Stanley Beresford, L.R.C.P. Ed., appointed Medical Officer to No. 4 Dispensary District, Belfast, *vice* J. Mark, M.D., resigned.
LUDWIG, Gustavus, M.D., of Darmstadt, appointed Resident Medical Officer to the German Hospital, Dalston, in place of Dr. Obermüller.
MANN, H. W., M.B., C.M., appointed Resident Assistant Physician to the Stirling District Lunatic Asylum, Larbert.
SEMPLE, C. E. Armand, M.B., appointed Fourth Physician to the North-Eastern Hospital for Children, Hackney Road.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for the publication of Births, Marriages, and Deaths, is 5s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

FRITH.—On November 14th, at 1, Fawcett Street, Portman Square, the wife of George P. Frith, M.R.C.S., has had a son.

PRESENTATION TO DR. A. B. HARRISON.—On October 17th, Dr. HARRISON'S friends presented to him, on his departure from Walsall for Clifton, a token of the esteem which they have had for him. The presentation consisted of a centre-piece, in representation of a fine oak tree, with a large crystal bowl, and the branches covering three smaller bowls for fruit or flowers. In the base of the centre-piece were two exquisitely modelled stags, the whole standing upon a *plateau*, being richly chased and finished in the highest style. The subscribers' names were entered in a book, which was handed to Dr. Harrison, who, in suitable terms and in a feeling manner, expressed his thanks.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—	Medical Society of London, 8.30 P.M. Mr. William Adams, "On Infantile Paralysis: Clinical History of Cases with Rigid, and those with Flaccid Muscles".
TUESDAY.—	Pathological Society of London, 2.30 P.M. The following specimens will be exhibited:—Dr. Dowse: Pathology of a Case of Paralysis Agitans. Dr. Curney Yeo: Cyst connected with the Liver. Dr. Irvine: Aneurysm in the Cavity of an Abscess in the Liver. Dr. Powell: Small Aneurysm in the Wall of an Ulcer of the Duodenum. Dr. Cayley: Specimen from a Case of Hyperostosis associated with Cancer. Mr. Nunn: Hyperostosis of the Tibia. Dr. Greenfield: 1. Microscopical Report on a Syphilitic Tumour on the Cerebral Artery (sequel to a former communication); 2. Hæmorrhagic Pachymeningitis. Dr. Ralfe: A Case of Chyluria. Mr. Butlin: Case of Multiple Sarcoma in a Boy (living specimen). And other specimens.—Statistical Society, 7.45 P.M. Mr. Geo. J. Shaw Lefevre, M.P., will deliver an Inaugural Address.
FRIDAY.—	Clinical Society of London, 8.30 P.M. Dr. Tilbury Fox, "A Case of Iodide of Potassium Eruption"; Mr. Christopher Heath, "A Case of Popliteal Aneurysm, for which the Femoral Artery was ligatured twice"; Mr. Thomas Smith, "A Case of Ligature of the Femoral Artery with Carbolised Gut, followed by the Formation of an Aneurysm at the Seat of Ligature"; Mr. Godlee, for Dr. Marriott, "A Case of Acute Suppurative Synovitis of the Knee: Evacuation of the Pus with Antiseptic Precautions: Recovery" (the patient will be exhibited).—Quekett Microscopical Club, 8 P.M. Mr. J. G. Waller, "On a New British Sponge".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

A RENEWED PLEA FOR BREVITY.

WITH the continued increase of the number of readers of the BRITISH MEDICAL JOURNAL (which has now a circulation of eight thousand copies weekly), the pressure on space by correspondents naturally grows apace, and we must once more remind our contributors of all classes of the necessity of cultivating brevity to the utmost degree. Of many communications of great interest which we publish from time to time, it is difficult to suppose that the same amount of information could not be conveyed in fewer words.

M.D. AND C.M. (Glasgow) is legally entitled to charge for medicine supplied in a medical case.

EYEAIR IN CHILDREN.

SIR,—I should be very glad of any hints from your numerous readers who may have been successful in treating the acute eczema of the ears of children. In the case that is at present exercising me not a little, the patient is a healthy looking lad, well developed, with good appetite, and no other appearance of strumous taint; but the eruption has spread to both ears, to the scalp, and to the eyes, producing ophthalmia tarsi.—Yours very truly,

A MEMBER.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

HOSPITAL FOR DISEASES OF THE THROAT, GOLDEN SQUARE.
SIR,—I have just read in your last issue the letter from my colleague Dr. Prosser James. I feel that he has put the matter respecting the late inquiry into the hospital management most clearly. Gentlemen have been induced to discuss matters entirely foreign to their daily habits, and are surprised at the want of satisfaction they have derived from their unaccustomed pursuit. In their dilemma they appeal to us, and profess to wonder at our silence. With reference to this, a medical journal of November 3rd says: "We would again remind the medical officers to the Throat Hospital, Golden Square, that a serious responsibility rests upon them." I fall to see what responsibility, beyond that which appertains to their work. It would be difficult to reconcile any other with the fact that the committee of inquiry excluded the medical staff from their discussion. This, certainly, was a novel means of arriving at facts concerning them, though it may account for any erroneous statements. For instance, the late secretary to the hospital, Mr. Evans, in a letter to your JOURNAL, dated October 31st, says that "the care of the patients was intrusted for two or three months, to a medical man who was not on the staff, to the exclusion of the regular officers". As one of the medical officers, I deny that I have ever been excluded from attending to my patients: and I am quite ready to accept all responsibility as regards the working of my own clinic and that of my friend Dr. Prosser James, whose duties have devolved upon me during his unavoidable absence on account of illness.—I am, sir, your obedient servant,

W. MACNEILL WHISTLER, Physician to the Hospital for Diseases of the Throat.

November 13, 1877.

SIR,—Will some of your readers kindly inform me whether the staining of the skin produced by chrysophanic acid is permanent or only temporary? After the continued application of Alcock's porous plasters, does a papular, and in some instances a vesicular rash, accompanied by distressing irritation, sometimes appear over the whole body? In parts it seems like imperfectly developed urticaria, but with all its itching. I have a case of the kind, which I believe to be due to the plaster.—Yours faithfully,

J. H. W.

ERRATA.—In the JOURNAL for November 10th, page 667, column i, line 3, for "one lung, which was", read "the lungs, which were".—In the same page, column ii, in paragraph on "Imperforate Rectum", for "Amussat's operation", read "Littré's operation".

CORONERS AND MEDICAL MEN.

SIR,—Will you kindly answer the following queries? 1. A sudden death occurs: the coroner is informed of the same by the police-constable and surgeon. The latter shortly receives a written request from the coroner (not, however, on a printed form) to make a *post mortem* examination and report to him the cause of death, which the surgeon does. Is not he, therefore, entitled to the usual fee from the coroner, who did not, after the said report, consider an inquest necessary?

2. Who should grant the certificate in the above case? On applying to the coroner after the *post mortem* examination, he told the friends of the deceased that the surgeon could give one; but this being contrary to general custom, the surgeon refused to grant it without a written order from the coroner, which eventually came, in the form of a telegram.

3. Is not the fee usually given by the coroner to the surgeon directly the report on the *post mortem* examination is handed to the former by the latter? In the present instance, no fee has yet been received (ten days) since the *post mortem* examination, though applied for.—Yours, etc.,

November 3rd, 1877.

A MEMBER.

* * 1. The Medical Witnesses' Act (6 and 7 William IV, c. 89) requires the coroner to issue his order according to a certain form described in Schedule A. If this have been done, it will not matter whether the order was written or printed. As the *post mortem* examination has saved the expense of an inquest, our correspondent ought to receive the usual fee of two guineas. If the coroner refuse to pay the lawful fee for an inquiry by which he has thus benefited, we advise our correspondent to appeal to the county court. The coroner can hardly take advantage of his own wrongful act by pleading that his "written request" was not a "legal summons". Medical men are not bound to make *post mortem* examinations or to attend inquests except by summons in strict conformity with the schedule of the Act.

2. As there was no inquest and no verdict, the coroner was not bound to give a certificate of the cause of death. In such a case, the medical man who makes the *post mortem* examination is the proper person to grant the certificate. As a rule, the *post mortem* examination is made after a jury has been summoned and an inquest appointed; but here the coroner has made use of a medical man to aid him in determining whether an inquest should be held or not! This is an office which medical men are not bound to undertake, but, having undertaken it, they cannot avoid giving a certificate of the cause of death.

3. By the 1 Victoria, chapter 68, section 2, a coroner is bound to pay the fee mentioned in the schedule to every medical witness summoned under the provisions of the Act immediately after the termination of the inquest.

From this our correspondent will see that he has allowed the coroner to place him in an abnormal position. The framers of the Act never contemplated that medical men would perform *post mortem* examinations or claim fees except when they acted as "witnesses" to a properly constituted inquest. Our correspondent is justly entitled to a fee; but it may be contended that, as no inquest was held and no evidence given by him as a witness, his claim does not fall under the Medical Witnesses' Act.

THE letters of Mr. Hardwicke and Messrs. Sala and Co. on hydrophobia have been referred to the Rabies and Hydrophobia Committee, recently appointed by the Scientific Grants Committee of the Association.

send him home. It appears, however, that no one even suspected the grave nature of the poor boy's malady, for he was allowed by the groom to attempt to walk home; but on meeting the air, the spasms were excited so frequently and so severely that he was compelled to desist in the attempt, and went into a cottage that was hard by to sit down. The chaise was then sent for, and in travelling he told his mother he suffered fearfully, every breath of air exciting the most intense suffering and feeling of strangulation. He lay on the sofa at home; and, at his mother's urgent persuasion, after a great struggle managed to get down a few drops of brandy, which, his mother said, seemed to revive him very much. He rushed up to bed on Tuesday night (he said he must do everything in a hurry), and obtained a little sleep in the early part of the night, but started violently up, trembling and agitated by the most fearful dreams. I gave him a small piece of buttered toast, which he willingly consented to try to eat, and, chewing it up rapidly, he made a desperate effort to swallow it, but was seized with the most violent spasm, dashing about in his efforts to rid himself of the morsel, spitting everything he could hawk up out of his mouth, and at length fell back exhausted, his whole body saturated with sweat. With water the convulsions were even, if possible, more dreadful. I injected a quarter of a grain of morphia at the back of the neck, and left him in the hope that he might sleep for awhile; but he lay in about the same state for about two hours, with convulsions upon the slightest movement, and then died, never having slept, though somewhat quieter, occasionally speaking to his father. His father stated that just before he died his face was pale, and that there were rattles in the throat, so that death was probably from syncope, and not from asphyxia, as there was no spasm just before death.

The peculiar points about the case are, that the symptoms should have remained so long before being recognised, and that the dog by which he was bitten has up to the present time shown no signs of rabies. The only fact about rabies that can be gathered bearing upon the case is, that during the summer (month not stated) a strange dog passed through the farm-yard, that was said to be rabid, and that the lad (G. D.) took a gun and went out to shoot this dog, and that his retriever was bitten. Since that occurrence, the retriever and shepherd's dog have frequently fought and bitten each other, but neither of these dogs at present shows symptoms of rabies. The strange dog is said to have been shot at a village some distance off.—I am, etc.,

SAMUEL PRALL.

SIR,—Among the many remedies—or, rather, means used in the hope of their being remedies—tried in the cases of hydrophobia lately reported, I see no mention made of nitrite of amyl. It seems to me that such a powerful relaxer of spasm is worthy of trial, and, with your permission, I venture, through the columns of our JOURNAL, to suggest its use to any of my medical brethren who may be called upon to treat this horrible malady.—Your obedient servant,

BENJAMIN COCKS.

Buntingford, Herts, November 14th, 1877.

THE chaplain of Horseonger Lane Gaol, in a report to the Surrey magistrates, calls attention to the burial of murderers from a sanitary point of view. He states that in that gaol thirteen bodies lie buried side by side in a double row within a few feet of the well which, until recently, supplied the whole establishment with drinking-water. A few feet further off, three other bodies have been recently deposited.

THE PENGEE CASE.

SIR,—The position in which Drs. Bright, Longrigg, and Wilkinson have been placed by the action of those gentlemen who took upon themselves to memorialise the Home Secretary and impugn the evidence in the Penge case given by the above-named gentlemen, calls, I venture to think, for a strong expression of opinion from those who are engaged in general practice. Sir William Jenner and Dr. Wilks (as representing the memorialists) have denied that these gentlemen are competent to form an opinion in the case in point, and that certain "*post mortem* specialists" alone could have done so. Now, sir, what is the object of this but to exalt the specialist at the expense of the general practitioner? And again I would ask, is the man who gives his undivided attention to pathological changes the best medical practitioner? I ask this question, because the public inference is that Drs. Bright, Wilkinson, and Longrigg were incompetent pathologists, and consequently inefficient practitioners: and in this same position may any one engaged in general practice be placed at any time. I would therefore beg to suggest that a meeting of general practitioners be called, that an expression of opinion may be elicited, showing sympathy with Drs. Bright, Longrigg, and Wilkinson, and, if advisable, some action be taken to prevent a repetition of similar professional mishaps.—I am, sir, yours faithfully,

JOSEPH ALFRED TAPSON.

Clapham, November 12th, 1877.

MR. R. N. ROBSON (Durham).—The following is Mr. Henry Greenway's formula for carbolic mixture in the treatment of pneumonia and bronchitis for an adult. R. Glycerini acidi carbolicis ʒij; extracti opii liquidi ℥xxx; aquæ camphoræ ʒvi. Misce. A tablespoonful every fourth or sixth hour in three of water. Care should be taken to use only the best medicinal carbolic acid. For elderly patients, if there be much exhaustion, Mr. Greenway adds six drachms of compound tincture of cinchona to the above prescription, and does not neglect the employment of counter-irritants externally.

A DISCREDITABLE STORY.

THE celebration of Guy Fawkes Day at Charing Cross Hospital seems to have been an unusually lively affair, the display of fireworks taking place soon after sunset. Mr. Bedford, the coroner, when opening an inquest at St. Martin's Hall, mentioned to the jury that while proceeding to view the body of a child who had died suddenly, he found many of the medical gentlemen at the institution letting off fireworks in the passage, and he had the greatest difficulty in viewing the body. He was evidently unprepared for a pyrotechnic exhibition while engaged in the performance of a solemn duty, and made some rather severe comments on the conduct of those who took part in it. "He never," he said, "saw such a rough and ungentlemanlike mob in a public institution." It was, however, explained by some one connected with the hospital that the "medical gentlemen" were not fully developed doctors and surgeons, but merely students—first-year members, who had only joined on the 1st of October, and were having, in accordance with their usual custom, "a lark" on Guy Fawkes Day. The coroner accepted the apology, stating that "any ordinary mirth he would not complain of, but the outrageous conduct of yesterday passed all bounds. He was sorry," he added, "to notice a prominent member of the institution present." There cannot be a question that the letting-off of squibs and crackers in hospitals is a mistake. It is therefore to be hoped that before the next Fifth of November some other arrangements will be adopted for the amusement of the students of a less objectionable nature than those complained of by Mr. Bedford. *Full Mill Gazette.*

NESCIENS will probably find, on consulting an eminent medical man, that his fears are altogether groundless, and would have no difficulty in shaking off what are obviously merely morbid fancies, which he has too long cultivated and allowed to grow upon him, by attaching undue importance to them, and allowing them to occupy too large a place in his thoughts.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

VOLUNTEER SICK-BEARERS' ASSOCIATION.

THIS association has been started with the object of procuring for the reserve forces a medical or ambulance department within themselves (without interfering with the combatant strength of the various regiments), by instructing the medical officers and two or more men per company in the most important duties of attending to sick and wounded men in the field. It is intended to instruct those who come forward in the primary dressing of wounds, the methods of stopping profuse bleeding and removal of wounded men from the field to ambulances in the rear, thus saving valuable lives, which, without such aid, must necessarily be sacrificed. The first of a series of lectures and drills will be given at the rooms of the Society of Arts, John Street, Adelphi, on Friday, November 23rd, at seven o'clock, and will be followed by three similar lectures on the evenings of November 30th, and December 7th and 14th, after which it is expected they will be continued at the Albany Street Barracks Riding School, Regent's Park. None but members of the volunteer force are eligible; but no special uniform will be required, as each member will wear the uniform of his own regiment. All communications must be addressed to the honorary secretary, Mr. A. Maclure, jun., 97, Queen Victoria Street, E.C.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; The Derby Mercury; The Preston Guardian; The Scarborough Express; The Jewish World; The Scotsman; The Cork Constitution; The Freeman's Journal; The Hampshire Post; The Somersetshire Herald; The Isle of Man Times; The Sussex Advertiser; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. A. T. H. Waters, Liverpool; Mr. T. Spencer Wells, London; Dr. W. Fairlie Clarke, Southborough; Dr. Broadbent, London; Dr. Bradbury, Cambridge; Dr. J. Milner Fothergill, London; Mr. S. E. Coates, Belfast; Mr. Henry Taylor, Guildford; Mr. T. Craister, Dewsbury; Mr. R. E. Power, Dartmoor; Dr. Joseph Bell, Edinburgh; Dr. Mackenzie Bacon, Fulbourn; Dr. Rhodes, Withington, Manchester; Dr. Warner, London; Mr. W. J. Marsh, Shrewsbury; Dr. B. Foster, Birmingham; Messrs. Corbyn and Co., London; Messrs. Putnam's Sons, New York; Mr. J. A. Tapson, Clapham; Mr. Nimmo, Edinburgh; The Secretary of Apothecaries' Hall; Mr. Peacock, Melton; Mr. Ingle, Cambridge; Dr. G. M. Lowe, Lincoln; Dr. Burder, Bristol; Mr. Hargrave Graham, London; Mr. R. S. Francis, Boughton; W.; The House Committee of the Royal Infirmary, Glasgow; Dr. Swayne, Bristol; Dr. W. O. Sankey, Cheltenham; An Associate; Mr. George Brown, London; Mr. William Stamford, Tunbridge Wells; Mr. Tomkins, Manchester; The Registrar-General of England; Dr. J. W. Moore, Dublin; Mr. F. Adman, London; Dr. G. H. Philipson, Newcastle-upon-Tyne; Dr. E. Reynolds, Dublin; Mr. Renton, London; The Registrar-General of Ireland; Mr. B. Barrow, Ryde; A Member, Liverpool; Dr. Robert Barnes, London; Dr. H. Macnaughton Jones, Cork; Dr. Saundby, Birmingham; Dr. Northcote Vinen, London; Mr. W. H. Arrowsmith, Darlington; M.D.Ed.; Dr. Rickards, Birmingham; Mr. Lowndes, Liverpool; The Yorkshire Association of Medical Officers of Health; Mr. Row, Market Overton; The Secretary of the Society of Arts; Mr. Kennedy, Tipperary; Mr. H. Y. Pitts, Tue Brook; Surgeon-Major John Ogilvie, Simla; Dr. Reginald Southey, London; Dr. Tripe London; Mr. Edward Hardwicke, Cuckfield; Messrs. Zimmerman, London; Dr. J. J. Ridge, Enfield; Mr. Eastes, London; Mr. Jardine Murray, Brighton; Mr. Benjamin Cocks, Buntingford; Mr. Vincent Jackson, Wolverhampton; Dr. Farquharson, London; Our Birmingham Correspondent; Inquirer; Dr. Livesay, Sudbury; Dr. Crisp, London; Dr. Cayley, London; Dr. Diplock, London; Mr. Hitchcock, Lewisham; Mr. Clover, London; Dr. Joseph Rogers, London; Mr. Wickham Barnes, London; Dr. Leslie Jones, Blackpool; Dr. E. J. Bermingham, New York; Dr. Whistler, London; Dr. Coats, Glasgow; Dr. Cassell, Glasgow; Dr. Burdon Sanderson, London; Our Edinburgh Correspondent; Mr. Charles Barker, London; Dr. Stirling, Aberdeen; Our Dublin Correspondent; Our Manchester Correspondent; Dr. Talfourd Jones, Brecon; Mr. Inghen, London; Dr. Theodore Williams, London; Messrs. Gale and Co., London; Mr. T. H. Davis, Stoke Trent; etc.

BOOKS, ETC., RECEIVED.

Nurse and Patient, and Camp Cure. By S. Weir Mitchell, M.D. Philadelphia: J. B. Lippincott and Co. 1877.
Ophthalmic and Otic Memoranda. By B. St. John Roosa, M.D., and Ed. T. Ely, M.D. New York: W. Wood and Co. 1877.
Proteus, or Unity in Nature. By Charles Bland Radcliffe, M.D. Second Edition. London: Macmillan and Co. 1877.
A Guide to the Examinations at the Royal College of Surgeons of England. By Frederick James Gant, F.R.C.S. London: Baillière, Tindall, and Co. 1877.
Diseases of the Nervous System: their Prevalence and Pathology. By Julius Althaus, M.D., M.R.C.P. London; Smith, Elder, and Co. 1877.

CLINICAL LECTURE

TWO CASES OF PERIHEPATIC ABSCESS
BURSTING THROUGH THE
RIGHT LUNG.

By A. T. H. WATERS, M.D., F.R.C.P.,
Physician to the Liverpool Royal Infirmary.*

GENTLEMEN,—I wish this morning to call your attention to the case of Charles O., who was in No. 10 ward, and who suffered from a very unusual form of disease. There is another case of a similar kind, which occurred in my practice at the Northern Hospital, to which I will also allude.

The man, C. O., was the subject of a perihepatic abscess; not an abscess forming in the substance of the liver, but behind it, and which had found its way through the diaphragm into the right lung; the matter from it becoming expectorated. I need not tell you that cases of this kind are very rare. Abscess of the substance of the liver is more common. In this country, however, it is scarcely ever seen, except in those who have been in tropical climates and have there contracted the disease. What are called pyæmic abscesses are more frequently met with. A man has pyæmia, and abscesses may form in any part of the body—in the lungs, in the liver, or elsewhere. But the abscess which results from hepatitis or perihepatitis is generally of tropical origin. The man of whose case I wish first to speak was twenty-nine years of age. He had followed the occupation of a carter, but had previously been in the army, and had served in tropical climates. He had suffered twice from dysentery—and I wish you to bear this fact in mind—once in 1858 and again in 1870; on the latter occasion, the disease lasted only a month. He was admitted into the Infirmary, under my care, on December 18th, 1875. He told us that his illness began six months before admission, with pain in the right side and cough. He was confined to his bed for five weeks, and then he remained fairly well for six weeks, when, his symptoms returning, he was admitted into the Infirmary, under one of my colleagues. He remained here till November 6th, and during his stay, he spat up some blood. He was re-admitted under my care, as I have already said, on December 18th. The family history of the man was good, and I could find no indication of constitutional taint, tuberculous or syphilitic. He was much emaciated, very weak, pale, and somewhat sallow; but there was no jaundice. The day before his admission, he spat up, he said, a large quantity of blood.

On examination, we found the tongue red and somewhat furred; the bowels were loose; the temperature was 100 deg., and the pulse 120. There were no night perspirations; and the urine was normal. He complained of severe pain in the right side over the liver, increased on inspiration, and of a constant pain in the right shoulder. There was also pain on percussion in the infraaxillary and lower dorsal regions. The area of hepatic dulness was slightly increased upwards behind. There was dulness, not very marked, over the back of the right lung, beginning at the lower angle of the scapula. Towards the extreme base, the dulness was more decided. Puerile breathing was heard over the whole of the left lung and the front of the right, with bronchial breathing, coarse crepitation, and bronchophony over the lower part of the latter below the inferior angle of the scapula. Over a large portion of the right lung bronchial vibration was felt, indicating the presence of a good deal of fluid in the bronchial tubes. The expectoration was of a peculiar character; it was copious, somewhat frothy, bloody, purulent, and rather tenacious. It had somewhat the appearance of the sputa met with in some cases of pneumonia with gangrene, but it was not foetid. There was a peculiarity about the mode of expectoration. The sputa were not ejected as they usually are in pneumonia, but in large mouthfuls, and, at times, in large quantities, with long intervals between the ejections.

Now, what was the disease from which this man was suffering? Was

it pneumonia of a low form terminating in abscess; or phthisis, with a cavity into which blood and pus were being poured? Or was it an abscess connected with the liver, which had burst into the lung? There was a history of dysentery, and the man had been in a tropical climate, circumstances which might induce some disease of the liver. Having already seen two cases where the symptoms had been very similar to those I have detailed—one of which terminated fatally—to which cases I will refer shortly, I did not hesitate to express an opinion that the man was suffering either from an abscess of the liver, or one that had formed between the liver and the diaphragm, and had burst into the lung. I inclined most to the latter view.

As regards the treatment of the case, I may say that the man was put on quinine and sulphuric acid, with a moderate amount of stimulants.

I have alluded to the way in which the patient expectorated, and I find a note to the effect that the sputa were brought up at intervals, and in large quantities. The man would cease to expectorate for many hours—twelve, and in one instance twenty-four—and then, all at once, he would cough up a large quantity of bloody purulent matter. Evidently there was a cavity, the communication between which and the main bronchial tubes became occasionally closed; the cavity then filled, and copious expectoration followed. The temperature of the patient never rose very high. On December 19th, the pulse was 120, and the temperature 100.7 deg., and, I believe, it never rose above 101 deg.

I need not dwell on the progress of the case. The man became gradually worse; he continued to expectorate the same kind of matter almost up to the time of his death, except that on some days it was free from discoloration. The sputa were examined to see if any lung-tissue were present; but I said that, the abscess having burst into the lung, the latter would be disorganised, and yellow elastic tissue might be discovered in the expectoration. This was found to be so, but it did not at all alter my opinion of the case. We gave the man opium to relieve the pain, and continued the quinine and acid, and stimulants, with as much food as he could take. My object was to carry the man on so that the abscess might discharge itself and close; and I hoped that by supporting him well, this result might possibly be accomplished; but the disorganisation of the lung, as revealed at the *post mortem* examination, was too great to admit of recovery. The patient died on January 7th, 1876, and the necropsy was made on the same day; and before I read the notes of it, let me again remind you that the man had suffered from dysentery on two occasions.

Necropsy.—The left lung was very large and emphysematous, filled with frothy mucus, and non-adherent. The right lung was adherent by its lower lobe; and between it and the liver there was a collection of muco-purulent sanious matter; the cavity containing this indented the right lobe of the liver, forming a depression three inches in circumference, and one inch deep. It was lined with a membrane nearly one-eighth of an inch thick. The substance of the liver was not involved. The abscess thus situated, was continuous through the diaphragm, with a large cavity in the lower lobe of the lung filled with muco-pus, and communicating with the bronchi. Portions of lung at the surface were oedematous. The kidneys and spleen were healthy. The colon was contracted; its muscular coat was thickened, and its mucous membrane puckered, congested, and thickened. The mesenteric glands were enlarged. The small intestines were slightly dilated.

In this case, an abscess had formed at the back of the liver, not involving its substance, and had found its way through the diaphragm into the right lung. Now let me refer you to another case of a similar character.

Louis St. L., a ship's cook, was admitted into the Northern Hospital, under my care, on October 27th, 1870. He had come from the Coast of Africa, and had suffered from pain in the right side for three or four months. He had been spitting blood, he said, for about a month, but previously there had been no cough. No doubt at the time the cough and hæmoptysis occurred, the abscess which the necropsy revealed burst into the lung. The man was much emaciated and very weak when admitted; and he was bringing up a large quantity of sputum, similar to that which I have described in connection with the last case; it was reddish, muco-purulent, and somewhat frothy, but free from fætor; it was expectorated in large mouthfuls, and easily. On examination, we found a fulness at the lower part of the right side of the chest, and there was some crepitation over the middle of the right lung behind; but at its base, the respiratory sounds were inaudible. The pulse, on admission, was quick; the temperature was not taken. There was no jaundice.

I must confess I was in doubt as to the nature of the case. Was it a low form of pneumonia, which had terminated in abscess? Or was there an abscess commencing elsewhere, which had found its way into the lung? Had the case commenced as hæmoptysis which had been

* From short-hand notes, by Mr. James Wiglesworth.

succeeded by pneumonia? Brandy and milk, with gallic acid and tincture of opium, were ordered.

On October 28th, the pulse was 110, and the temperature 98.5 deg.; and on the following day the pulse was 120. There was great pain in the right side; the physical signs were unchanged; the sputa were very copious. There was no material change in the patient's condition till November 1st, when he began to pass blood by the bowels. He died on November 3rd.

Necropsy.—The body was much emaciated; the right lung was adherent in front and strongly so behind; it was pneumonic at the extreme base. The bronchial tubes were filled with sanguineo-purulent matter. There was an aperture at the lower part of the lung communicating with an abscess. The left lung was adherent.—*Liver:* The greater part of the tissue appeared tolerably healthy; behind, the capsule was greatly thickened; between it and the abdominal wall, beside the ribs, there was an abscess communicating with the right lung through an opening in the diaphragm.—*Intestines:* The colon was greatly thickened, especially towards the sigmoid flexure; numerous ulcers were present. No communication existed between the abscess and the bowels.

These two cases very closely resemble each other in their history, their course, and their *post mortem* appearances. I have seen two other cases where the symptoms were very similar to those which I have described, and in which, I believe, an abscess connected with the posterior part of the liver had burst into the lung. One case terminated fatally, but no necropsy was obtained; in the other, the patient recovered; so that in neither instance was it possible to verify the diagnosis which was made.

I was summoned in 1873 to see, in consultation, a gentleman who had had some symptoms supposed to be due to pleurisy. A friction-sound was heard in the lower part of the right chest. He did not, however, improve under the treatment recommended; and at the time I saw him, he had begun to expectorate a good deal. He had been in India, and had been told that he had disease of the liver. He had suffered from pain in the right side for many months, nay, even some years, he said. On examination, I found some dulness with crepitation at the base of the right lung, but no signs of lung-disease elsewhere. There was a good deal of sputum, which resembled that of the two patients whose cases I have detailed. Looking at the history of the patient and the peculiar character of the expectoration, my diagnosis was that he was suffering from hepatic or perihaptic abscess which had opened into the lung. I saw the gentleman two or three times. The expectoration continued of the same character, and the general symptoms remained for some time severe. He ultimately recovered.

Again, I saw in consultation, in the spring of 1875, a lady, living in the north of Lancashire, who had symptoms very similar to those of the last case. She had been ill for four or five months. She had had symptoms of disordered liver. There had been a slight attack of a dysenteric nature. She had never been in a tropical climate. She had suffered from cough; and had, on more than one occasion, brought up a large quantity of sputa. A pleuritic rub had been heard in the right pleura; and there had been dulness over the lower part of the right back. The case had been looked upon as one of lung disease. When I saw the patient, she was pale, sallow, but not emaciated. There was a severe barking cough, with expectoration which was reddish and free from fœtor. It was very similar to that of the other cases I have referred to. The pulse was 92. There was no evidence of disease at the apex of the lung; nor were there any general symptoms of phthisis. The point for consideration was whether the case was one of abscess of the lung, or of abscess connected with the liver which had burst into the lung. My opinion was in favour of the latter view. The patient died about a fortnight after I saw her; but no *post mortem* examination was made.

These four cases presented, during life, symptoms and physical signs of a very similar character. Three of them, when seen in their earlier stages, were considered to be cases of chest disease; nor would it have been possible, perhaps, before the abscesses had burst, to say that the pleuritic rub or the dulness at the base of the lung, was not due to primary disease within the chest.

In cases of this kind, what is the proper treatment to adopt? It is most important that a correct diagnosis should be made, so that you should not be treating as a primary disease of the lungs one which is only secondary. Your object must be to support your patient well, in the hope that the abscess may ultimately close. The bursting of an abscess, connected with the liver, into the lung, and the discharge of the matter through the bronchial tubes, is not the most satisfactory mode by which such an abscess may make its exit, because the lung may become so disorganised during the process that death may result. If an abscess burst into the colon, for example, and the discharge take place through

the bowels, the latter may not become at all disorganised, and the chances of the patient's recovery are greater than if the abscess make its way into the chest.

Can anything be done, in such cases as I have referred to, as regards opening the abscess or drawing off its contents? It is quite clear that, when an abscess forms in the situation of those which we discovered on *post mortem* examination, it cannot be reached. Indeed, you could not accurately diagnose its seat, even if you surmised its existence before it had burst. All, therefore, that you can do is to rely on general measures.

REMARKS

ON

THE MORTALITY OF PLEURISY CONSIDERED IN RELATION TO THE OPERATION OF PARACENTESIS THORACIS.*

BY WILSON FON, M.D., F.R.S.,

Physician Extraordinary to Her Majesty the Queen; Holme Professor of Clinical Medicine in University College, and Physician to University College Hospital; etc.

THE treatment of pleural effusions by means of paracentesis has of late become very widely extended, and mainly through two causes: firstly, through the greater sense of security afforded by the use of small trocars, together with the more effectual means used for avoiding the entrance of air into the cavity of the pleura; and, secondly, owing to the vigorous and enthusiastic support which it has received from some of its partisans. It is now taught in many quarters that it is a perfectly safe and innocuous operation; that it ought to be practised in all cases when absorption is delayed beyond two or three or four weeks, or even as soon as any fluid is discovered in the pleural cavity; that no dangers attend it when carefully performed; and, further, that it presents the advantages of shortening the duration of the disease and of promoting fuller expansion of the compressed lung.

These forcible statements have exercised a considerable influence on the profession in general, as well as on myself, though in my own practice I have hesitated to perform the operation in very early stages of the disease, or without distinct indications for its necessity. My personal experience, though limited, may be said to have been so far favourable that, out of sixteen cases which have either been under my care or which I have had opportunities of observing, only four have died; two of these being tubercular, another being a case of pyopneumothorax, and another dying of lardaceous degeneration after long-continued suppuration. A perusal of the cases published by others has, however, led me to believe that the experience of no single observer can be deemed adequate to represent all the aspects of this question. I therefore resolved to review the statistics of the operation as given by those who have largely practised it; and the results of this inquiry, as shown in the accompanying table (No. III) would appear to indicate that, even at the present day and with the most approved methods of operation, thoracentesis cannot be altogether regarded as such a life-saving operation, nor yet, I believe, as so completely innocuous as is asserted by some of its advocates.

I am anxious to state *in limine*, that I by no means hold the opinion that it is an operation to be discouraged when indications exist for its performance. These indications are, grave dyspnoea; threatened failure of cardiac action; prolonged hectic, indicating the presence of pus; signs of septic infection, or other constitutional disturbance endangering life; and lastly, in some cases, absence of, or undue delay in, the natural process of absorption. Unless, however, one or more of these be present, I think that the results of recent experience would call for greater caution than is at present inculcated in its performance by not a few recent writers on this subject.

In the tables which I have constructed, I have endeavoured to contrast the mortality of all pleurisies collectively with that observed in cases of paracentesis. I am aware of the fallacies which attend this plan; for, in the first place, hospital statistics include many cases of mild forms of the disease; and, secondly, in the earlier cases of paracentesis, those may have been selected for publication which showed favourable results (though this is probably unimportant); or,

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

on the other hand, they may have been specially severe in their character. During recent periods, also, all hospital statistics probably include some cases of thoracentesis, though, as far as I can judge of those of Vienna and Prague, and even of the London hospitals, these have been comparatively few in number. To those of Paris I shall have again to allude.

With regard to the cases collected by different authors, many are repetitions. They are mostly included in Dr. Evans's paper. Those by Anderl are, however, principally from foreign sources. I have not given collections of cases (of which many exist among French authors) which appear to have been selected to show the advantages of the operation; but I have given all those coming under my cognisance, without exception, which represent individual experience, where the observers have published all the cases operated upon by them, and where the data are sufficiently precise to enable them to be stated in a tabular form.

It will be admitted that, before active medicinal or surgical interference is introduced into the treatment of any disease, it is desirable to know the results of other systems of treatment; and still more, when such is possible, what is the natural tendency of such a disease, either to recovery or to death, or to the production of subsequent impaired health. Great difficulties beset the acquisition of this knowledge, and I have found them considerable in the case of pleurisy. The results of this inquiry in relation to the mortality of this disease are embodied in the accompanying table (No. I).

TABLE I.—Showing the Mortality per cent. of all Cases of Pleurisy in different Hospitals.

Hospitals.	No. of Cases.	Percentage of Deaths.
Allgemeine Krankenhaus, Vienna, 29 years, 1847 to 1875 (a)	8225	17
Ditto, maximum mortality, 1857 (c)	222	23
Ditto, minimum mortality, 1850	332	9
Rudolf Stiftung, Vienna, 7 years, 1868 to 1875	869	17
Allgemeine Krankenhaus, Prague, about 8 years (c)	153	13
Paris Collective Hospitals (d), 1841-50	534	10
Ditto ditto	()	7
Ditto ditto	()	11.5
Ditto ditto	()	11
Ditto ditto	()	12
Ditto ditto	()	13
Ditto ditto	()	15.5
St. Thomas's Hospital, 13 (?) years, 1861 to 1874 (e)	213	20
Guy's Hospital, 3 years, 1871-74 (f)	99	7
Lond Hospital, 3 years, 1864 to 1866 (g)	42	9
St. Bartholomew's Hos., 7 years, 1860 to 1865; and 1874 (h)	207	15
St. George's Hospital, 7 years	221	15
Franz Joseph Kinderspital, Vienna, 27 years, 1850 to 1876 (i)	633	1.6
Children's Hospital, Manchester, 3 years (?)	39	11
Ewald, Berlin, Serous Effusion without Paracentesis	172	2.2
Ditto, of more than three weeks' standing	143	2.7

(a.) In different years in the Vienna returns there are occasionally slight discrepancies between the numbers "treated" and the numbers "admitted", sometimes the former and sometimes the latter being in excess. The aggregate of all these discrepancies balanced against one another amount only to an excess of 198 "treated" over the admittances for the 29 years. This aggregate, whether added to or deducted from the total number, modifies the proportionate mortality in either direction by less than one per cent. Subdivision of the whole period into decades shows but little variation. Thus 1847-56, mortality 18 per cent.; 1857-66, mortality 20 per cent.; 1867-75, mortality 18 per cent. The mean mortality of the whole period in the males, 5,915, was 18 per cent.; in 2910 females, 14 per cent.

(b.) This was nearly equalled by another year, 1857: 317 cases, 70 deaths = 22 per cent.

(c.) Different reports in the *Prager Vierteljahrsschrift*, vols. xi, xix, xxii, 1, and 11.

(d.) The returns for 1860-61 are official. Those for the later years are given by *Boissier, Union Médicale*, &c.

(e.) "Pleurisy + Empyema."

(f.) Ditto.

(g.) Ditto.

(h.) Include hydrothorax and empyema.

(i.) These give the remarkable return of only 11 deaths in 623 cases. They are, however, authenticated by the well known names of Loeschner and Lambi.

These hospital statistics certainly show a higher mortality than I had expected to find; and I take it that, in all such returns, the cases were admitted with pleurisy as the predominant symptom; and that it was not, at least in the majority, a mere complication arising in the course of other diseases during the patients' stay in hospital. It may fairly, also, be considered that, in the large majority of instances, patients are only admitted as in-patients when the disease has attained a more or less considerable severity. The mean total mortality may, however, be fairly estimated as from 10 to 17 per cent., though in some years and in some institutions this is considerably lower, falling to 6 or 7 per cent. The remarkably small mortality from the

disease in the Franz Joseph Kinder-Spital requires, however, especial notice.

Contrasted with this are the statements of such observers as Louis, Walshe, and Gairdner, that uncomplicated pleurisy only proves fatal under the most rare and exceptional conditions. Louis' statement* was based on 150 cases; and it has received a remarkable confirmation by M. Cozin,† who, in 224 instances of effusion in young male adults, comprising a large proportion of cases of great severity and treated without paracentesis, only met with one fatal case, due to pericarditis. Similar statements with respect to the prognosis of acute primary pleurisy in childhood have been made by Barthez and Rilliet, by Verliac, and by Roger.‡ Louis' statement has been impugned of late by M. Lebert; but an analysis of Lebert's cases shows that, out of 201 cases, only 10, or 5 per cent., were free from grave complications. Very similar evidence is afforded by Table II, which shows that in uncomplicated pleurisy the mortality varies from 3 to 9 per cent.

TABLE II.—Showing the Relative Mortality of Complicated and Uncomplicated Pleurisy.

Hospital or Author.	Number of Cases.	Mortality per cent.	Complicated Cases, Mortality per cent. of all Cases.	Uncomplicated Cases, Mortality per cent. of all Cases.	Complicated with Pleurisy, Mortality per cent. of all Deaths.
Allgemeine Krankenhaus, Vienna, 7 years, 1847 to 1874 inclusive (a)	1584	17	3	9	53
Rudolf-Stiftung, Vienna, 5 years, 1869 to 1873 (b)	488	15	12	7	7
Prague, 5 years (?) 1845-49, 1850-51, 1857-59	110	14	11	3	()
St. George's Hospital, 5 years, 1867 to 1871	200	14	7	7	()
Lebert, Klinik der Brustkrankheiten (c)	201	13	5	5	32

a, b. These are the only years in the returns in which this classification is possible. M. Lebert gives as a total return 250 cases with 51 deaths, or 20.5 per cent. He, however, only analyses 201 cases with 27 or 28 (2) deaths, and these I have taken as the basis for this table. The proportion of complicated cases I have taken from the abstracts given of those fatal. Lebert himself states the mortality as 14 per cent. (*Loc. cit.*, vol. ii, p. 774.)

Post mortem records also confirm this very strongly. Wray, in 216 *post mortem* examinations of pleurisy, only found 17 uncomplicated, or 7 per cent.: a proportion very closely corresponding to that found in the clinical returns §

If we turn from these data to the mortality of pleurisy after paracentesis (Table III), no one can help being struck with the high mortality which has attended the cases operated upon, reaching, as a mean of recent observations, to 27 per cent., and only falling to or below 10 per cent. in the hands of observers the large proportion of whose operations have been confined to serous effusions in the early stage; while in others it has ranged as high as 52 to 45 per cent.

This high mortality, taken both collectively and also in the experience of individual observers, is undoubtedly due in many instances to the nature and to the severity of the cases and of their complications.

Nevertheless, I think that very careful attention should be devoted to the mortality of serous effusions; for it is to the propriety of early operation in such cases that my remarks are principally directed. The mortality of these in the collected cases, as shown in the first series of Table III, is equal to that of many of the major operations of surgery; and no small proportion even of these operations were performed with instruments adapted to exclude air. That, however, of recent operators, who have all used comparatively perfect instruments, amounts collectively to 17 per cent.: a mortality for serous effusions alone nearly equaling the average mortality of all cases, whether empyemata or complicated cases, taken collectively in the hospital returns, and greatly exceeding that of the majority.

If, on the other hand, we inquire what number of cases of serous effusions produce fatal results apart from paracentesis, we shall, I think, find it very small. My own experience has not, as far as I can remember, nor has my analysis of the case-books of my own hospital,

* *Bull. Acad. Méd.*, 1836, p. 123.

† *Ann. Chir. G.*, 1857, p. 100. See also *Ann. Chir. G.*, 1858, p. 100. See also *Ann. Chir. G.*, 1859, p. 100. See also *Ann. Chir. G.*, 1860, p. 100. See also *Ann. Chir. G.*, 1861, p. 100. See also *Ann. Chir. G.*, 1862, p. 100. See also *Ann. Chir. G.*, 1863, p. 100. See also *Ann. Chir. G.*, 1864, p. 100. See also *Ann. Chir. G.*, 1865, p. 100. See also *Ann. Chir. G.*, 1866, p. 100. See also *Ann. Chir. G.*, 1867, p. 100. See also *Ann. Chir. G.*, 1868, p. 100. See also *Ann. Chir. G.*, 1869, p. 100. See also *Ann. Chir. G.*, 1870, p. 100. See also *Ann. Chir. G.*, 1871, p. 100. See also *Ann. Chir. G.*, 1872, p. 100. See also *Ann. Chir. G.*, 1873, p. 100. See also *Ann. Chir. G.*, 1874, p. 100. See also *Ann. Chir. G.*, 1875, p. 100. See also *Ann. Chir. G.*, 1876, p. 100. See also *Ann. Chir. G.*, 1877, p. 100.

§ *Prager Vierteljahrsschrift*, vols. xciv, xcvi, xcix. This number of cases of pleurisy is not a very large one. They constitute 3 succeeding two returns. In the first, 92 cases of pleurisy were all complicated; in the second, 123 cases had 67 complicated (or 54 per cent.) and 56 uncomplicated (or 45 per cent.)

den death may be caused by effusions of this nature is, however, a fact to which I shall have again to allude.

It behoves us, therefore, to inquire very carefully what is the cause of this high mortality after the operation of paracentesis in serous effusions. A large number of the recorded cases give no reliable data on this point; but a sufficient number, I think, exist to allow a fair conclusion to be formed; and the results of an analysis of these are shown in Table IV.

TABLE IV.—Showing the Causes of Mortality in Paracentesis of Serous Effusions in Pleurisy.

Cases.	Total Operations.		Purulent Transformation.		Tubercle of Lung or elsewhere.		Acute Disease of Lung or opposite Pleura.		Malig- nant Disease.		Grave General Complica- tions and Miscell.	
	Per- formed.	Total Deaths.	Deaths.	Per cent.	Deaths.	Per cent.*	Deaths.	Per cent.	Deaths.	Per cent.	Deaths.	Per cent.
Dr. Evans .. (collected)	10	10	9	90	0	0	1	10	0	0	0	0
Anderl** .. (collected)	20	20	7	35	4	20	1	5	0	0	6	30
Dr. Bawditch ..	20	20	6	30	0	0	0	0	0	0	14	70
Ewald†† ..	7	7	7	100	0	0	0	0	0	0	0	0
Tutschek ..	21	21	5	24	0	0	0	0	0	0	2	10
Zeroni ..	24	24	0	0	4	17	0	0	0	0	2	8
Fraentzel ..	10	10	0	0	0	0	0	0	0	0	0	0
Verlaac ..	1	1	0	0	1	100	0	0	0	0	0	0
Martineau ..	22	22	1	5	0	0	0	0	0	0	1	5
Oeri ..	1	1	2	200	1	100	0	0	0	0	0	0
Hillier ..	1	1	0	0	0	0	0	0	0	0	0	0
Lebert††† ..	8	8	0	0	0	0	0	0	0	0	0	0
Bonilly ..	21	21	0	0	0	0	0	0	0	0	2	10
Totals	353	377	71	20	45	12	3	7	3	4	11	3
			19	5	23	32	42	5	7	3	4	14

* The percentage is calculated on the number of deaths accounted for. In Evans's tables 11 deaths, and in Anderl's statistics 5 deaths, or a total of 16, are not accounted for.
 ** Dr. Evans's and Anderl's cases do not appear to be identical.
 † See note to Table III.
 †† One of Lebert's cases died five months later, probably of tubercle. He does not include one case (p. 759), where a serous effusion proved fatal after purulent transformation.
 a. 1 tubercle, 1 abscess liver. b. 1 double hydrothorax, 2 bronchitis, 1 pneumonia opposite lung. c. Cirrhosis of liver = 1, erysipelas + cancer = 1.
 d. Tubercle = 3, fractured ribs = 1. e. Sudden death = 2, reaccumulation = 1, hæmorrhage pleura = 1.
 f. 10 underwent purulent transformation. 7 died of these 7, pneumonia and abscess lung = 1, phthisis = 3.
 g. 1 tubercle.
 h. Patient a drinker; much exhausted.
 i. Both phthisical.
 l. Both from intercurrent complications.
 m. Obtained by deducting all cases of phthisis and of grave complications.
 n. Obtained by adding all cases where phthisis was present in purulent transformation.
 o. Obtained by adding a, d, h.

Here, in 353 cases, we have 87 deaths, or a mortality of 24 per cent.; but in 71 only of these fatal cases is any account given of the events subsequent to the operation.

Out of these 71 cases, no fewer than 32, or 45 per cent., underwent a purulent transformation of the effusion subsequently to paracentesis; and, of these 32 cases, only 14 were complicated by phthisis or by other grave maladies. Suppuration of the pleura was, therefore, the probable sole cause of the fatal issue in 25 per cent. of the whole number of deaths accounted for; and it proved fatal in at least 9 per cent., or, excluding complications, in at least 5 per cent., of all the cases operated upon, or, more properly, in 10 and 5 per cent. respectively, if we make due allowance for the number of deaths not accounted for.*

Phthisis also accounts for a large share of the remainder of the deaths; but, in 6 out of 27 cases where this was present, purulent transformation had also occurred. I shall presently allude to some facts which appear to show that phthisis *per se* has not a strong influence in the production of the latter event.

Now, the tendency of the operation to be followed by the purulent transformation of a previously serous effusion has been warmly con-

* These 16 deaths not accounted for exist in 138 cases, with 53 deaths among Dr. Evans' and Anderl's cases. The proportion to be deducted from the number operated upon is the ratio 45 to 175. Deducting these 45 cases from the whole number of operations, we get 268 operations with 100 cases of purulent transformation, of which 10 were uncomplicated, representing respectively a mortality of 10 and 5 per cent.

tested, and notably by the late M. Trousseau; but the fact is, I think, placed beyond dispute by the results shown in Tables IV and V.

TABLE V.—Showing the Frequency of Purulent Transformation of Serous Effusion after Paracentesis.

Authors.	Cases of Serous Effusion.	Purulent Transformation.			Remarks.
		No.	Per cent.	Deaths.	
Bowditch	20	0	0	6	Aspiration
Ewald	7	1	14	7	1. Pneumonia with abscess of lung; 2. Phthisical
Tutschek	21	0	0	14	Aspiration
Bourdon	24	1	4	2	Aspiration. <i>Bull. J. Chir.</i> , 1855. <i>Med. et Hyg.</i> , 1857.
Bonilly	21	0	0	0	<i>Ann. Chir. et Hyg.</i> , 1857.
Bouilly (a) ..	1	1	100	0	<i>Bull. Soc. Med. et Hyg.</i> , 1857.
Martineau ..	22	3	14	1	<i>Ann. Chir. et Hyg.</i> , 1857.
Oeri	1	1	100	0	Both cases phthisis
Evans (b)	10	0	0	0	One case phthisis
Anderl	20	7	35	7	Three cases tubercle; one fractured ribs

a. Twenty-four cases punctured, but fluid obtained in only two. Both the cases of purulent transformation were complicated.
 b. In four cases, pus was found in a second paracentesis; in four more, pus was found in the pleural cavity where death ensued after a single operation. *Sy. Chir.*, 1857, p. 11.

Both tables also evidence the fatality of the change; for, out of 43 cases in Table V in which it took place, and in which the result is stated, death occurred in 34, or in 79 per cent. This tendency is also admitted by many observers, and different explanations are given of its occurrence. M. Moutard-Martin has stated that it pre-existed in these cases, and that it is shown by cloudiness of the serum emitted on the first puncture. I think it open to the gravest doubt whether, as a natural event, a slight cloudiness of the serum does necessarily and without paracentesis lead to empyema; and, as a matter of fact, in 14 of the cases where this transformation occurred, and where data are given respecting the character of the fluid first evacuated, it is only stated to have been cloudy or lactescent in 3. Such lactescence of the serum is also not certainly thus followed by pus. In five of Zeroni's cases where it was observed, neither purulent transformation nor reaccumulation occurred in any.

Moreover, in a considerable number, purulent transformation has only occurred after repeated punctures, performed at a late date of the disease, and when the fluid evacuated at the first or second operation was clear, and only became lactescent, or eventually purulent, after further repetitions of tapping.

By some, it has been ascribed to the admission of air, but in the majority of cases this appears to have been carefully guarded against; and further, there is a considerable body of evidence to show that the admission of air to the cavity of the thorax, when serous effusion exists, does not necessarily induce purulence. I may, however, remark that such an accident should be regarded as dangerous; but it is a danger not always easy to avoid, and it should be taken seriously into account among the risks of the operation.

By others, and particularly by Ewald,* it has been ascribed to the existence of pyrexia at the time of the operation; but any distinct influence of this nature is disproved by experience. Oeri had only one case of purulent transformation out of twenty-four operated on during pyrexia, and one other when the patient was non-febrile at the time of the operation. In ten febrile cases, operated on by Zeroni, none underwent this change. Pyrexia may possibly be a contraindication to the operation, and it is certainly desirable to wait until it has subsided, when no grave indications exist for immediate interference. This would, however, I believe, in the large proportion of cases of serous effusion, demonstrate the non-necessity of the operation, inasmuch as such subsidence of the fever is commonly followed by spontaneous absorption (though this may occur even while fever persists); but, in some of the cases where the operation is most imperatively called for, the presence or absence of pyrexia is only a minor element for consideration. The presence of pyrexia is, however, a sign of a certain intensity of the inflammatory process, and this appears likely in some cases to be augmented by the operation. The effects of the operation are, however, on the other hand, occasionally though not constantly marked by the reduction of pyrexia when this is present.

[To be continued.]

* Ewald explains that in 10 of his cases the fluid was of the empyemal character, the operation was either performed before the end of the fourth week, and in 4 patients.

ON THE TREATMENT OF PLEURITIC EFFUSION.*

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IN the paper I am to read before this Section, I can scarcely hope to say much that is new, but I may hope to put the old before you strengthened by the results of a maturer experience. My own views of the treatment of pleuritic effusion have been laid repeatedly before the profession, and have contributed to the formation of a bolder habit of procedure in the matter. It is, therefore, neither needful nor possible in the time before me to enter into any full or minute discussion of the whole of our subject, but rather to set forth as pointedly as possible my views on the more difficult or disputed points. Under such circumstances, I must ask your forgiveness for any apparent abruptness or dogmatism.

It appears to me that our first duty is so to divide pleurisies into classes as to enable us to know more clearly what we have to deal with, and thus to avoid much of that controversy which gathers about ill-defined propositions as parasites gather about ill-nourished tissues. Although no hard lines can be drawn around them, yet the following divisions are fairly recognisable if we disregard transitional cases.

1. Dry pleurisies, in which the tubercular may be included.
2. Acute effusive pleurisies, in which the rheumatic are included.
3. Quiet effusive pleurisies in the serous stage.
4. Empyemata.
5. Pleuritic dropsy.

Of Class I, I have now nothing to say. The tubercular pleurisies are at times effusive, but the exigencies of individual cases are too various to be here considered.

Class II. Acute effusive pleurisies are those of an actively inflammatory kind, which make themselves sharply felt from the beginning by pyrexia and pain. The treatment of such cases seems to me to be clear. It is this. At the outset, that is, within twenty-four or forty-eight hours at farthest, leeches should be liberally applied to the parts, according to the forces of the patient, and a poultice applied to receive the bleeding. As soon as the bleeding has ceased, the affected side should be bound down by strapping after the manner best described by Dr. Roberts. Of medicines, I advise a mild saline purgative at the beginning, followed by the use of mercury and chalk combined with Dover's powder in fractional doses, or in weakly patients by the use of Dover's powder alone. Between these powders, I give a mixture containing acetate of potash and large doses of liquor ammoniæ acetatis. By this method, I obtain far better results than were wont to follow my expectant treatment of former years. The fibrinous effusion which issues in these cases almost always subsides when it has reached its height; and, if this height be the height of the spine of the scapula and the fourth rib, I am for this reason never in haste to interfere by operation so long as the patient breathes in tolerable comfort and the other lung is well at work. On the other hand, if the patient be uneasy, or if the entry of blood to the right heart be hindered, I do not hesitate to tap at once. The favourable aspect of operation in such cases is that suppurative conversion rarely occurs in these highly organised effusions, even if air enter the pleura. Once, in a case of impending death from double rheumatic pleurisy and pericarditis, all with effusion, we, being in haste, did not hesitate to plunge a bistoury into the fuller pleural cavity, and to allow the effusion to escape as it might, relying on the highly fibrinous quality of it which did not tend to suppuration. The wound soon closed, and the patient did well. Such effusions, being full of clots, are often difficult to remove by small cannulæ, or even to exhaust by aspiration; if opportunity permit, however, the proper plan is to use the aspirator with fine cannulæ, and to puncture the pleura repeatedly, drawing off what is to be had at each point. It is better to do this than to fumble in the first puncture, and the patient and his friends must be prepared beforehand for the probability of repeated punctures; I repeat, however, that operation is rarely needed in acute fibrinous pleurisy, and that its exudations, even if profuse, tend for the most to steady reabsorption. If, when all fever is past, such an effusion linger at its height or linger after a partial ebb, the use of a blister or repeated blisters certainly favours its removal. It is better to repeat the blisters than to allow the first or any one of them to proceed to full vesication. Sometimes, indeed, these measures may fail, and abiding dulness, silence, and immobility in the affected side will continue. Such a condition is often treated with indifference, and no doubt some

time may elapse before such a side is completely restored to its normal state; nay, more, it is rare that the marks of such a pleurisy vanish as they came. More often they remain for years, or even for a lifetime. But, on the other hand, if the dulness and other signs be considerable, I am very unwilling to treat them with neglect, for such conditions may end in serious impairment of the lung, and even to chronic interstitial fibrosis of the lung. It is my practice, therefore, and I speak from some experience, as pleurisy is very common in Yorkshire, to put the patient under a course of mercury rather than allow this morbid state to remain. A combination of the bichloride of mercury with iodide of potassium and bark or iron may be given fearlessly for weeks, and will rarely fail to promote the removal of the remaining products of the inflammation and to restore health and activity to the affected organs. Such a course must needs be given most carefully, and the patient, on the conclusion of it, advised to take sea-air and tonic medicines. Routine drugging, pursued in ignorance of the natural course of disease, very rightly was displaced by expectant treatment; yet I fear that expectant treatment, having now helped us to learn more clearly the ways of disease, has in its turn sins of omission to answer for as great as or greater than the sins of commission laid at the door of the apothecary.

I will now pass on to Class III, quiet effusive pleurisy in the serous stage. Although the acuter pleurisies may run to large effusions and to effusions poor in fibrin, yet we more commonly see the larger and poorer effusions in cases where the pain has been trifling and the pyrexia moderate if more continuous. A daily evening rise of two degrees is easily overlooked by the physician and easily regarded by the patient as mere malaise. Such patients, with one moiety of the chest full or nearly full of water, are treated with tonics to relieve debility and anæmia, or are sent to watering-places to recruit their strength, until, perhaps, their actual state is revealed by accident. If such effusions come on slowly, as no doubt they often do, the sufferer may complain of but little more dyspnoea than is common to most weakly persons, and one patient who consulted me was able to lie on either side and to sleep on either side, although his left pleura was crammed with effusion. On the other hand, such effusions may come on with great rapidity and destroy life by the sudden dislocation of parts. Such cases, however, are not likely to be misapprehended; as, although fever and pain may be slight or absent, the dyspnoea compels a minute examination of the chest. But, let me earnestly impress upon my brethren a warning which, sounded again and again, has not yet aroused the profession to a full sense of the perilous state of those whose chests contain large effusions. Where the water floods the chest in a few days or hours, the alarm may be taken, it can scarcely be neglected; but those whose effusions have gathered more stealthily are in as great a danger if time pass and no precautions be taken. One terrible warning in my earlier life taught me this lesson, while it turned my heart to the search for help to these sufferers. When yet upon the threshold of my medical studies, I was standing on the terrace in front of Addenbrooke's Hospital waiting for a young girl who had descended from a market-cart and was walking, slowly it may be but firmly, towards the house. She had crossed the green, when suddenly a cry escaped her and she fell dead at my feet. The porter and myself raised her, and gave restoratives in vain. She was gone, and the cause of her premature and sudden end was the effusion of fluid into the left pleural cavity. Now, shocking as this was to one who saw it, it is by no means an uncommon accident. At least thrice in my experience at the Leeds Infirmary have patients thus fallen dead from the same cause, and some instances of the like have come before me in my private practice. Let him, then, who hesitates to tap the pleura remember that, before his next visit, his patient, seemingly so tranquil, may have passed into the deeper stillness of death. Whether the effusion, then, be rapid or be slow in its flood, if the cavity be full, operate without delay. This is, I believe, one of those golden rules to which there is no exception. If the effusion be below the capacity of the pleura, immediate action is less imperative. Speaking of myself alone, I have never seen death by syncope except from a full pleura, though I presume such a death is possible. It depends, no doubt, on a dislocation of the heart and great veins, such as to form clot, or directly to impede the filling of the auricle or auricles; and I believe such pressure is rarely exerted to any degree until the compression of the lung has reached its limit. Still, I shrink, even before a patient at his ease, from allowing the breadth of three fingers to stand between him and death. A sudden swelling of the tide might occur even in the night, and help be absent. Moreover, the continued pressure of such exudation by soddening injures the lung, or by extending adhesions favours the permanent imprisonment of this organ, or by its own deterioration drifts towards an empyema. Nevertheless, with a patient of good promise, with fairly full arteries and respirations under 30, and whose exudation reaches no higher than

*Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

the scapular ridge behind and the third rib in front, I counsel delay, warning the patient against rising up suddenly, and instructing his attendant to call the doctor in case of more numerous breathing or a change of complexion. If the patient be able to take solids, I advise a dry diet, gentle saline purgatives such as Hunyadi water, and syrup of iodide of iron with digitalis. Mercury I withhold, save as an occasional alternative. I do not strap the chest, as I prefer to be able to apply repeated blisters, stopping short of vesication. These quiet effusions are, however, hard to move, and so often increase that one is not sorry to have to operate and thus to shorten the duration of the case. In my inmost heart, I believe it will be found better in the end to tap all cases where more than two pints of fluid are present, as the results of medicine alone in quiet effusions are very tedious and unsatisfactory. An operation upon the chest is, however, as yet too unfamiliar and too dreadful to the public to permit us to turn to it hastily, and in these cases there is the not inconsiderable risk of so setting up an empyema, a risk nearly absent in mere fibrinous effusions on the one hand, and in mere dropsies on the other. It can scarcely be doubted, however, that tapping of the pleura, as it becomes better known and the procedure more perfect, will be applied to those smaller effusions which persist in spite of a short course of nursing and medicine.

In now confining myself to the larger effusions, let me again repeat, formally and unmistakably, that physicians must admit that the medicinal treatment of the larger quiet effusions is, on the whole, a failure, and where it succeeds runs the risk of injury to the lung, of empyema, and even of sudden death. Not only so, but pleuritic effusions in the right cavity, by pressing upon the vena cava and twisting it upon the heart, are not uncommonly attended by dropsy in the legs and elsewhere. On the other hand, my own experience of operation in large serous effusion is very favourable; and, if I confine myself to simple cases and early operation, my results have been excellent, and have converted a serious malady into a moderate indisposition. Over and over again, by this procedure is fluid removed in bulk from the chest by one operation needing no repetition, and rapid recovery is obtained.

In opposition to some writers, I find that the chances against reaccumulation are in cases of early operation very moderate and even small; and, unless pus be formed, a third operation is in my experience quite rare. Add to this, that an illness of three months is reduced to an illness of three weeks, and the merits of early operation are even more convincing. The longer, however, operation is deferred, the less confidently can the best results be hoped for, the more danger of formation of clots and of empyema, and the more the danger of injury to lung and constitution.

The aspirator, which is valuable in highly fibrinous effusion, is even undesirable in serous effusion. It is better to allow the lung to expand at its own pace, and not to draw off more fluid than the lung can at that time replace. Even a partial relief of this kind generally leads to absorption of the remnant, and does not lead to severe cough and albuminous expectoration. Nor do I like instruments with angles in them, which are liable to become clogged. A fine trocar and cannula, the latter attached to a long flexible tube, through the wall of which the trocar should be passed on the distal side of the shoulder, is the best instrument. The tube closes upon the trocar as it is withdrawn, and no air can pass beside or after it, if carefully managed and the trocar be two-edged. A bayonet-pointed trocar wounds the tube too much. The instrument should be well carbolised before insertion, the tube filled with carbolised water, and the end immersed in a basin of carbolised water. By raising or lowering the basin, the syphon action may be increased or diminished at will. It is as well to keep a syringe in motion about the puncture until all be over and the orifice closed with antiseptic dressing.

Now, of this simple operation our Yorkshire experience is so large that I may permit myself to marvel at the fear or hesitation which it excites, even in the medical breast, and, moreover, to doubt the reality of those untoward consequences which are said at times to follow it. That, if the operation be long deferred, its success is less sure, needs no reiteration; that a person in whom syncope is imminent may not always avert that syncope by operation, especially if the fluid be aspirated rapidly, is possible; that a tendency to clot, or the establishment of clot, in the central blood-vessels, is always to be feared in long standing cases; that a patient honeycombed by disease may die coincidentally with or even consequently upon the smallest operation is certain, but who is to be deterred by these events from taking the course of operation in a promising case? In a paper like the present, we cannot discuss rare exceptions; we can only lay down general rules.

I will now pass on to Class IV—empyema. With empyema, operation of some kind is inevitable, and, as encysted empyema apart, a pus containing pleura means a full pleura, and as again we have decided that all full pleurae are to be tapped promptly, there can be no

difficulty in the matter of diagnosis. The presence of œdema in the wall of the thorax, however, will generally tell when the contents are purulent. That an encysted empyema may dry up is possible; but, if it do, it leaves caseous matter behind which may become a source of general poisoning—tuberculous or other—or it may remain latent for years and finally cause death, as in the case of a patient who died lately under my observation. In his case, the necropsy showed that an encysted empyema of ten years' standing was the cause of death by perforation of lung, etc., although apparent complete recovery had taken place at the time of the original illness. If I have one conviction in medicine more urgent than another, it is this: if pus or other septic material be present in the body, we must not rest until it is removed. I, therefore, dislike and reprobate all temporising with an empyema. Out with it, and provide against the chance of reaccumulation. We are advised by some persons to draw off an empyema by repeated aspirations.* I have seen two successful cases, so-called, of this practice. One spat pus within a month of his recovery, and the other died of hectic. Twice I have seen pus spat up while the systematic aspirations were carried out. I would not trust any reputed recovery under this plan till the patient had been watched for years. My two objections, and these complete ones, to repeated aspiration are: 1. Aspiration does not prevent the formation of a pulmonary fistula; 2. It does not prevent absorption, but rather favours it. By the pressure of a full cavity, absorption is often prevented and fever absent; draw off some of the pus, you relieve pressure, and absorption begins. I put before you charts illustrative of this; from them, you will see that by complete drainage alone fever is averted, and by the presence of fever after operation for empyema I detect at once a defect in the operation or a defect in the nursing. By a free opening at the lowest point of the cavity and as far back as possible, the pus must be run out, and complete drainage secured. The whole must be done under the antiseptic method, and antiseptic dressing continued. I have rarely found injections of any value, and should only resort to them in case of very fetid retained material, and should then use them of the mildest and simplest kind. But this plan, it is said, means a three months' illness, and perhaps death by exhaustion. Be it so, and be it remembered that empyema taking its own course is a three years' illness, and death probably at the end of that. Nor can any sleight of hand make a huge internal abscess anything but a terrible infliction. I can only say that the miserable broken down creatures who seek shelter in a hospital are generally cured completely in twelve or fifteen weeks; and that in private practice I have never yet lost a reasonably favourable case. As the cavity contracts to small dimensions, the drainage-tube must be shortened. If a pulmonary fistula have formed before the patient comes under treatment, a counter-opening must be made and the chest drained, as in other cases.

Class v. Pleural dropsies will not detain us long. These being often dependent upon disease elsewhere, and, therefore, often double, puncture should be used only in case of urgency. Fortunately, in these cases operation is of the simplest kind. There is no fear whatever of pus-formation, and the water may be allowed to run through an unguarded trocar, as in the case of ascites. At the same time, if circumstances permit, it is well to form an antiseptic atmosphere around the opening.

ON PLEURISY OF THE APEX.

By I. BURNEY YEO, M.D., F.R.C.P.,

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I WISH to call attention to the clinical aspects and to the treatment of a class of cases which, if they have not been altogether overlooked, have at any rate received but scant attention at the hands of physicians, and find no place, that I am aware of, in our medical literature. I allude to cases of pleuritis attacking the apex of one or other lung, and attended with characteristic symptomatic phenomena. I need not say that I am making no reference whatever to the exceedingly common, nay almost constant, circumstance of the coexistence of affections of the pleura with physical consolidation of the upper part of the lung. It is by no means an unusual circumstance to find, in autopsies of persons dying of other than lung-disease, firm adhesions between the layers of pleura covering the apices of the lung, without the existence of any consolidation of those parts. Such persons must

* I have seen punctures at the chest reefs. On the other hand, there is no need to proceed to any rate, even rather daily, at very short intervals, in any case, or in well-inspiring, at a careful trial.

† Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

have had, during life, attacks of adhesive pleuritis, affecting the apex of one or other lung. I believe that the real nature of such attacks has frequently, during life, been overlooked, and the symptoms attending them set down to other than their true cause. I shall avoid repetition if, in the first place, I briefly relate the particulars of four illustrative cases, and then add such general observations as the subject may seem to me to call for.

CASE I.—A. W., a fresh healthy-looking girl, aged 17, came as an out-patient to the Brompton Hospital, complaining of cough, which she had suffered from for four months, and pain in the left side. She also stated that she had been losing flesh, and that she had not menstruated for four months. The cough was harsh, dry, and "hacking"; a cough which I should describe as shallow, incomplete, and objectless; not ending in expectoration, and seeming to come from the throat, almost, as the patient said herself, like a bark. There was no complaint of dyspnoea, or of nocturnal perspirations. Tongue clean; pulse 80; temperature normal. On the first examination, no physical signs whatever connected with the chest could be discovered. The breath-sounds and the percussion-resonance were good under both clavicles, and elsewhere over both lungs. It was just the kind of cough, occurring at this patient's age and accompanied with amenorrhoea, which we are apt to term "hysterical". Under the influence of an iron tonic, the catamenia returned at the next period. The cough, however, did not disappear; it continued to be very troublesome, and, from its disagreeable harsh character, it was very annoying to her friends. I examined her chest very carefully a second time with the same results as on the first occasion, except that at one spot, viz., over the left supraspinous fossa, there was a loud creaking friction-sound. This was recognised by one of my colleagues, and by two other medical men who were present. There was good resonance on percussion over this spot, and the breathing was perfectly natural, equal and clear under both collar-bones, where also the resonance was normal. The temperature, again taken, was normal, and the pulse normal. The tongue was clean. She was ordered counter-irritation, in the shape of a small blister over the left supraspinous fossa, to be moved from one spot to another over the posterior apex, and morphia and ipecacuanha lozenges for the cough. A week afterwards, the friction-sound had disappeared, but she was still suffering from cough. On examination after another fortnight, the creaking friction-sound in the left supraspinous fossa had returned, and the cough was again very troublesome. I again ordered counter-irritation in the same form, and a fortnight afterwards the friction-sound and the cough had disappeared, and the patient said she felt quite well.

CASE II.—E. L., female, aged 19, came to the Brompton Hospital, complaining of cough and pain in the centre of the chest, from which she had been suffering for eight weeks. Her cough, she said, was dry, harsh, and "hacking", and used to "hurt her chest". She occasionally expectorated a little mucus, which was sometimes streaked with blood. She had always been a little short of breath. She had no emaciation, no night-sweats, and her appetite was good. Her aspect was that of a fairly healthy well-nourished young woman. Pulse and temperature normal; tongue clean. On examination, her chest was found to be slightly bulged generally, with diminished respiratory movement; somewhat hyperresonant; expiration a little prolonged; the signs, in short, of slight emphysema. No mucous or crepitant rales could anywhere be discovered, or any local diminution of resonance. Over the supraspinous fossa, however, on the right side, a distinct creaking leathery friction-sound could be heard at the end of inspiration. We also noticed reduplication of the first and accentuation of the second cardiac sound. Here again the peculiar harsh, dry, shallow, and incomplete jarring cough attracted my attention. She was ordered an alkaline mixture, containing iodide of potassium, and counter-irritation in the form of strong iodine paint on the right supraspinous fossa. She continued under treatment for about two months, at the end of which time she described herself as "quite well". The friction-sound had disappeared for some weeks. This patient also was at that age and of that healthy appearance in which the occurrence of a cough of the kind I have described, without the discovery of any physical signs, is apt to be looked upon as "hysterical". I have selected these two from several others as fairly typical cases, and I need not occupy your time by multiplying examples.

CASE III.—The next case is one of a somewhat different type. A. B., a young married lady, of highly nervous and hysterical organisation, came first under my observation complaining of great depression of spirits, loss of memory, and sleeplessness; bowels alternately constipated and relaxed; vomiting; entire loss of appetite; and all the phenomena of nervous dyspepsia. She was much devoted to literary pursuits, especially to medical studies. She had suffered much from asthma, so much so that she could not live at her home in the country,

but in London she enjoyed freedom from these attacks. While she was recovering, as she did rapidly, from her dyspepsia and nervousness, she was somewhat suddenly attacked with cough and slight feverishness, and some sweating at night; but she did not complain much of dyspnoea, nor had the attack any resemblance to her ordinary attacks of spasmodic asthma. The pulse was a little quickened, but the temperature was normal. A very careful examination of the chest detected no signs of consolidation, or engorgement, or catarrhal inflammation anywhere. In both subclavicular regions, the percussion note and the respiratory sounds were perfectly normal; but over the left supraspinous fossa there was a loud, distinct, leathery creaking friction-sound, loudest at the end of inspiration. I ordered counter-irritation in the form of a blister over the left supraspinous fossa, and a sixth of a grain of acetate of morphia, with extract of henbane, at night for the cough, which was very troublesome at that time. At the end of a week, the cough was gone, and the friction-sound had quite disappeared. This patient informed me that she had suffered from a somewhat similar attack in Paris, for which her physician had some difficulty in accounting, and which had been suspected to indicate the onset of phthisis. I would especially call attention to the strongly nervous and hysterical history of this patient, as exceedingly calculated to mislead, and to induce one to overlook the real nature of the affection, and to set her cough down to "hysteria".

CASE IV.—The next case differs from either of the preceding. It is one of chronic cough, with a tendency to frequent attacks of spasmodic asthma, which are usually attended with a more or less severe bronchial catarrh; and frequently at the onset of these attacks, and lingering after the spasmodic paroxysms have passed away, or at other times only detected after the loud wheezing rales have disappeared, we find the signs of a pleuritic affection of the right apex. X. Y., a lady, whom I first saw in the winter of 1874, had suffered much from uterine disease. She was the victim also of atonic dyspepsia. She had had a cough for seven years, and had been subject to asthmatic attacks for twelve months. It was on account of severe distressing cough and dyspnoea that she first consulted me. There was then a loud wheezing rale to be heard all over the chest, with laborious inspiration and prolonged expiration. These sounds, however, were much louder on the right than on the left side. There was no circumscribed dulness about either apex, and the resonance was good generally over both lungs. After the symptoms of asthma and bronchial catarrh had almost disappeared under treatment, there was still left a harsh, dry, shallow cough, which was very distressing, and disturbed this patient's rest at night very greatly; and now, on careful examination of the chest, a faint pleuritic creak was heard in the upper third of the dorso-scapular region, i. e., between the spine and the inner boundary of the supraspinous fossa. Counter-irritation in the form of small flying blisters, applied over the apex of the lung, both anteriorly and posteriorly, gave much relief. This patient, however, continues subject as formerly to attacks of bronchial catarrh and asthma, always more pronounced on the right than on the left side, and induced frequently by exposure to cold winds. When these attacks are unusually severe and protracted, one generally finds evidence of a co-existing pleurisy of the right apex, and the only treatment which gives relief is continued counter-irritation. There is now some diminution of inspiratory movement about the upper part of the right side of the chest, due no doubt to adhesions of the pleura to this part of the chest-wall. I have seen other cases of asthma, complicated with pleuritic affections of one or other apex, in which it has seemed to me most probable that the pleuritis was the exciting cause of the asthmatic paroxysms.

In the preceding, and in several other cases of which I have taken notes, there undoubtedly existed a pleuritis of one or other apex, without any consolidation of the lung. I do not wish it to be understood that I think this a common affection. On the contrary, I believe it to be a somewhat rare one; but I am persuaded it is a condition which would be more frequently recognised than it is, were it not for the prevalence of a very faulty manner of examining the chest. I allude to the custom of examining only the upper and anterior part of the chest. Many appear to think that they have sufficiently explored the lungs when they have carefully examined the subclavicular regions, and listened, through the clothes, to both bases. You will certainly not discover a pleuritis of the apex by such a mode of examination, since the friction-sounds, in such cases, are almost invariably limited to the posterior aspect, viz., to the supraspinous fossa or to the upper third of the dorso-scapular region. It is in these situations that you must seek for the physical signs of this affection, and it is usually unilateral. The characteristic symptom in these cases is the cough: in a person in apparently good health (generally a young woman), with no marked fever, with no or with slight emaciation, with no dyspnoea, with no mucous or crepitant rales anywhere to be heard, with no

expectation, you have a persistent, harsh, dry, shallow, incomplete cough; generally jarring and shaking the patient a good deal, so as to produce often painful fatigue of the expiratory muscles and much injection of the face. What is especially not worthy about the cough is its shallow, incomplete character. It is suddenly cut short without effecting its object, if, as is generally the case, the object of a cough be expectation. I have never seen a case of this kind in a male, a circumstance which may possibly be accounted for by the fact that the male sex never wear low dresses. It occasionally accompanies or is the cause of asthmatic paroxysms, and, when this is the case, the treatment of the asthma must be combined with the special treatment necessary for the pleurisy; and that special treatment is continued and repeated counter-irritation, either in the form of a flying blister—a small blister, about the size of half-a-crown, moved about from one spot to another over the supraspinous fossa and the upper third of the dorso-scapular region—or in the form of the strong linimentum iodi. I think I have also seen benefit derived, in some of these cases, from small doses of iodide of potassium. But the ordinary remedies for the relief of cough are not of much avail, but they should not be withheld, as they may moderate the violence of the paroxysms, and so relieve the jarring of the chest somewhat. It is a disease which is very prone to recur.

I have noted cases of this kind now for some years, and, as I have never seen attention called to them, I have thought it might be useful to direct the attention of this Association to the subject; believing that, as they become better known, we shall hear less of "hysterical" and "stomach" coughs, and that "pleurisy of the apex" will be recognised as a distinct form of pleuritis, with a characteristic clinical aspect.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

NATIONAL HOSPITAL FOR THE PARALYSED AND THE EPILEPTIC.

DR. BUZZARD'S WARDS.

Hemiplegia with Hemiæsthesia.—A woman, aged 45 and of very nervous temperament, was admitted with left hemiplegia, which had set in suddenly two years previously, with loss of consciousness and complete paralysis, which lasted six months. The hemiplegia is not now complete; she can walk and, to some extent, use her left hand. At the time of the onset, she is said to have been blind; she is now affected with hemiopia towards the left side, *i.e.*, the side paralysed. When examined, the left arm was found æsthetic to warmth, but, curiously enough, it appeared to be hyperæsthetic to cold. Thus, when cold air was blown upon the two arms, it was felt by the patient as very cold on the left, while warmth was less readily felt on the left than on the right arm. The muscular sense was tested by the use of small balls similar in every respect except their weight; these were successively placed in the hand of the patient; but she was quite unable to appreciate the differences with the left hand, although there was strength enough to hold the ball. The woman was also unable to distinguish a shilling from a half-crown, and in the dark was unable to tell where her arm lay. Three sovereigns were fastened in line to a strip of plaster, and thus held in place around the left wrist without the patient knowing what was being applied; they were left there in position for a quarter of an hour. The use of metallo-therapeutics appeared to produce no change whatever in the condition of sensation. Application of the continuous current with seventy cells produced no change in the power of sensation, but with seventy-five cells the patient suddenly became acutely sensitive to the current. On another occasion, the use of a strong faradic current soon produced an increased sensibility in the arm for a short time. Leclanché's battery is in constant use in this hospital, and gives great satisfaction.

Spinal Myelitis sequent to Typhoid Fever.—A man complained of great difficulty in walking, and a heavy feeling about his legs; but there were no dyæsthetic phenomena beyond a feeling of girdling around the abdomen; this was evidence against the idea of locomotor ataxy. Both legs were weak and somewhat wasted. He complained much of difficulty in holding his urine. A year ago, the man was attacked with typhoid fever, and, a fortnight from the onset of the illness, he felt his legs grow cold and stiff; but there were none of the "darting

pains" so commonly associated with the onset of ataxia. This appeared to be a case of spinal myelitis sequent to an acute specific disease. Dr. Buzzard considered it probable that such a condition was due to a primary vascular change rather than to a parenchymatous lesion. The condition is a grave one, but it seems not improbable that improvement may occur.

Phenomena accompanying Epilepsy.—While seeing several epileptic patients, Dr. Buzzard offered some clinical remarks on phenomena accompanying epilepsy. Epileptics often complain of "startings" at night, especially just at the time of falling asleep; they start up and feel as if they must shrug or shiver. A large number of cases of epilepsy appear to arise from fright and falls or blows upon the head. A boy thirteen years of age was frightened a year ago by a snake; a month after the fright, he had a strong epileptic fit. He is now a confirmed epileptic; his manner is sullen and dogged; he refuses to take his medicine "because he does not like it"; he has on several occasions threatened his sister's life by brandishing a knife; he presents a physiognomy indicative of mental aberration, and will have to be removed to an asylum. There is no family history of neurosis, and the mental disease appears to have been produced by fright. Among other physical signs of epilepsy may be observed a condition of the tongue covered more or less with foam-like saliva, due to the constant nervous movement of the tongue in the mouth whipping up the saliva. Dr. Buzzard urges the importance of educating neurotic and epileptic children to the full extent of their intellectual capacity, at the same time giving plenty of nutritious food and attending to general hygiene. In some cases, where epilepsy is associated with uterine disturbance, the empirical administration of extract of ergot with bromide of potassium appears to have been beneficial. A lady, the subject of epilepsy, now under Dr. Buzzard's care, is liable to an extreme degree of "reduction" after the fits. After one attack, she walked across the room, unlocked a drawer, took out a watch, set it a quarter of an hour forward, and then locked it up again, all the time being in a completely automatic condition, and afterwards entirely ignorant as to what she had done. On another occasion, she was seized with a fit while pasting photographs into an album, and tore out several pictures she had just pasted in. Another poor woman has on several occasions after her fits, of which she has no warning, attempted to throw herself and her children from the window. The importance of recognising such a condition of reduction to an automatic condition is self-evident.

DR. GOWERS'S WARDS.

Facial Spasm, with Inhibition of the Sixth Nerve.—A portion of the facial nerve arises, it is well known, from the same nucleus as gives origin to the fibres of the sixth nerve, a nucleus situated beneath the most prominent part of the eminentia teres. This anatomical fact is difficult to collate with physiological action; it is not easy to trace any association in the normal functions of the facial and sixth nerves. It is rare also for any morbid phenomena to indicate this connection. A patient now attending the hospital for facial spasm exhibits an interesting illustration of this anatomical connection between the two nerves. The spasm is intermittent, clonic, and affects all the muscles of one side of the face very much as though the nerve were being stimulated by an interrupted voltaic current. In the intervals of the spasm, the eyes are moved equally and well. During the spasm, if the eyes are directed towards the side of the face affected, the eye on that side loses its parallelism with the other and moves a little inwards. When the patient is looking towards the unaffected side, a similar loss of parallelism is not noticed. During the spasm, the eye on the affected side cannot be moved further outwards; but, as soon as the twitching is over, the eye is moved freely and without any irregularity. The defect is evidently due to a deficiency in the action of the external rectus; that is, to an inhibition of the sixth nerve during the over-action of the facial nerve.

Transient Hemiopia in Cerebral Disease.—A patient came under observation with left hemiplegia of some weeks' duration, and was found to be affected with left-sided hemiopia. Such a condition as a permanent change in the field of vision, with hemiplegia, is comparatively rare; but Dr. Gowers believes that a transient hemiopia is exceedingly common with acute cerebral lesions. He has found that, in the early period of hemiplegia, during the stage of conjugate deviation of the head and eyes, the existence of hemiopia may generally be demonstrated; there is a partial loss of sight in the half of each field of vision which corresponds to the paralysed side, *i.e.*, diminished sensitiveness of the half of each retina corresponding to the cerebral lesion. This defect passes off with or soon after the disappearance of the conjugate deviation of the eyes. During this stage, the patients are not usually in a state in which the hemiopia can be ascertained in the usual manner; but it may be demonstrated thus:—If one eye be closed and

the finger be brought in front of the other eye, first from one side and then from the other, it will be found that, when it is brought in front of the eye from the non-paralysed side, there is winking of the eyelid as soon as the finger comes in front of the edge of the cornea. If, however, the finger be brought in front of the eye from the paralysed side, no winking occurs until the tip of the finger is opposite or beyond the middle of the cornea. Care must be taken to avoid casting any shadow upon the eye by the finger or hand. The difference in the field of vision may thus be noticed in each eye. Since first making this observation, Dr. Gowers has never failed to find this condition of hemipia in any case in which it has been looked for during the early stage of hemiplegia. It is an interesting sensory analogue of the motor deviation.

Atrophy of the Optic Nerve.—A patient presented himself with paralysis of some ocular muscles and atrophy of the optic nerve on the same side. The symptoms were probably due to pressure on the nerves at the back of the orbit. The nutritive phenomena of the optic nerve are very interesting, but somewhat difficult to explain. Lesions of the optic nerve usually cause atrophy of the disc; it may indeed be doubted whether they do so necessarily. Dr. Gowers believes that lesions further back in the central hemispheres may cause loss of sight, with or without atrophy of the optic disc. Patients are occasionally seen who have lost the sight of one eye for years without any apparent change in the appearance of the fundus, but a destructive lesion of the retina usually causes rapid atrophy of the disc. There is some reason, therefore, to regard the nerve-elements of the retina as governing the nutrition of the fibres of the nerve. At any rate, this view explains some phenomena otherwise very difficult to understand. For instance, an embolism may ultimately plug one branch of the retinal artery, but on its way temporarily occlude the whole. The initial total loss of sight may clear, leaving only a segment blind. In some cases, it does not clear; all branches of the central artery but one are seen to be pervious, but there is persistent loss of sight and rapid general atrophy of the optic disc. In such a case, it would seem that the temporary vascular obstruction produces an irrecoverable injury in the nerve-elements of the retina, and entails this secondary atrophy of the nerve. Again, amaurosis, with atrophy of the disc after a great loss of blood, may be explained in the same manner as due to the shock to the delicate retinal elements produced by the rapid anæmia, a shock from which they do not recover, and their loss of function causes a rapid atrophy of the nerve-fibres.

Nocturnal Starts in Epilepsy.—Occasional starts on going to sleep are common enough in most persons when a little out of health; in persons of neurotic tendency, they are very common and very troublesome. They are sometimes, however, distinctly related to epilepsy. Epileptics often have similar starts in the daytime, while awake, sometimes so as almost to throw them from a chair. A patient who formerly had epileptic fits at night now only has these startings, repeated many times on going to sleep. Another patient under treatment lost his fits four years ago. During the subsequent period of freedom from fits, his wife has noticed frequent starts almost every night. This patient remembers that his father, who never had fits, suffered from similar starts. The father's mother was insane. Similar starts may sometimes be observed as part of the phenomena of uræmic poisoning.

Heart Disease and Epilepsy.—Cardiac disturbance is so frequently associated with epilepsy, that Dr. Gowers is convinced that there is in many cases a causal relationship between the two. The common forms of cardiac disturbance are: 1. Irregular action; 2. Simple dilatation; 3. Valvular disease, with secondary changes in the walls. In some cases, the cardiac disturbance may be secondary to the strain put upon the heart by the epileptic paroxysms; but, in other cases, it seems more probable that the fits are in part the consequence of the cardiac disease, or that both are related to a common cause. In one remarkable case lately under treatment, it seemed clear that the seat of the epileptic "discharge" was connected with the nucleus of the pneumogastric nerve.

IPSWICH.—Mr. Elliston states in his report for the September quarter that the annual death-rate was 19.2 per 1,000 living; that 44 deaths out of a total of 223 were caused by the seven chief zymotic diseases, 27 of which were from diarrhoea and 3 from typhoid. The number of deaths from these diseases was much below the average, which he attributes to the better system on which the excremental and other refuse is now removed from the town. Scarlet fever had been very prevalent in some parts, chiefly in the badly drained courts and back streets; but it was of a mild type. The removal of nuisances and inspection of houses had been properly attended to by the inspector of nuisances.

INTRODUCTORY ADDRESSES AT THE DUBLIN HOSPITALS AND MEDICAL SCHOOLS.

RICHMOND AND WHITWORTH HOSPITALS.

THE Inaugural Address was delivered by Dr. LYONS on November 1st. He proceeded to say that it was his duty to address the students on the opening of the one hundred and fourth medical session of the institution, and regretted that the task of doing so had not fallen into abler hands than his. He proceeded to give a most interesting history of the hospitals since their establishment in 1773, and commented on the services rendered to the institution by the eminent medical men who practised in them. He principally alluded to Chane, Crampton, Percival, Orpin, Peile, Todd, Adams, and Smith; to whose learning, skill, and professional zeal he paid an eloquent and just tribute. The lecturer remarked on the continuous intellectual labour of the students of medicine and surgery in the institution, and drew their attention to the facilities offered to them for the study of their profession by the large number of medical and surgical cases which had to be treated in the institution. He urged upon them the necessity which existed for close personal observation of disease, with a view of their acquiring the unwritten and uncommunicable faculty which constitutes medical skill in diagnosis, and on which they were to depend when called on in after life to form independent judgments in cases submitted to their care. From the ranks of the students of that institution men had gone forth into the public service. In the army, navy, and in the colonies, a large body of highly trained men had carried the names of the Richmond and Whitworth Hospitals to all parts of the globe with honour and credit. He alluded to the fact that several men practising their profession in the present war in the East had occupied places on the benches on which the students who now listened to him sat. In corroboration of this statement, he read several interesting extracts from a letter written to him by I. r. Featherstonhaugh from Erzeroum. The lecturer drew attention to the Irish School of Medicine. It was essentially a school of practical observation and correct record. He commented on the views advocated by Tyndall, and cautioned his hearers not to assume too hastily that these theories furnished a final explanation of the action of disease. With regard to the relations of the medical profession to public life, he said that it was to be regretted that much to be desired was lost or made neutral by the want of concentration and proper public representation. In referring to the sanitary laws, he said that it was much to be regretted that medical officers were charged with duties which they had not adequate powers to enforce, and he hoped, in the coming session of Parliament, that the Public Health Bill would pass, and increased powers be given for its proper administration. With regard to the rank and file of the profession, he wished to allude to the important body constituting the dispensary medical officers of Ireland. He trusted that, under the auspices of the present able Medical Commissioner of Poor-laws, their position would be improved, and means found for doing away with the system of *red tickets*, so fruitful a source of petty persecution in too many instances. While he could congratulate his hearers on the fact that the public recognition of the profession was growing steadily, there yet remained much to be accomplished, and many positions to be won, before medicine could be considered to have taken its proper place in the social organisation of the State.

MATER MISERICORDIÆ HOSPITAL.

THE Introductory Address was given by Mr. HAYES on November 6th. The lecturer, after advising the students as to the course they were to pursue in connection with the profession they were seeking to embrace, proceeded to speak of the agitation at present going on in reference to the much vexed question of vivisection. He felt compelled to raise his humble voice against the manner in which that subject had been treated. He trusted his meaning would not be misunderstood when he expressed his condemnation of the legislation of the Government, who, at the instance of a puerile and hysterical sentimentality, would attempt to hamper investigations striking at questions of the utmost importance to humanity and science. He yielded to no man in detestation of cruelty, and he would not abuse the works of the Creator in the humblest of His creatures. He had read with feelings of unspeakable horror and indignation details of some revolting and sickening practices in some of the Continental schools of veterinary surgery; but he must say that British medicine did not deserve the slight lately put upon it—an indignity as uncalled for as it was harm-

ful. He wished to express his belief in the clap-trap nature of the charge. "I am," said the lecturer, "no advocate for, but rather am I opposed to, the repetition of like experiments time after time, nor do I argue that warm-blooded, and consequently sensitive, animals should be subjected to fear or pain merely (to quote the words of Professor Huxley) for the purpose of impressing some scientific truth upon the minds of students; but let me ask how, in the absence of vivisection, could Wolfe of Glasgow have discovered that the conjunctiva will bear transplantation from the eye of the rabbit to the human eye, and so enable the surgeon to operate with wonderful success in cases of otherwise incurable symblepharon? Were it not for the experiments performed by Ollier of Lyons upon the lower animals, I doubt whether we would now resect diseased bones by the subperiosteal method, a practice through which many a patient has been preserved from mutilation and restored to health with well-formed and useful limbs. Richardson tested the valuable anæsthetic, bichloride of methylene, by submitting various animals to its influence before he placed it in the hands of surgeons. We all know how it is employed and esteemed as a substitute for chloroform. The late Professor Bennett of Edinburgh, having subjected rabbits to poisonous doses of strychnine, found he could arrest spasms and overcome the effects of the drug by means of the administration of hydrate of chloral, and thus he proved its antidotal power. The peculiar influence which curare exerts upon the nervous system of any animal, when inserted beneath the skin, induced a Prussian physician recently to employ this poison in case of presumed hydrophobia, the result being that the patient made a most satisfactory recovery. Additional evidence of a favourable nature, it is to be hoped, may soon be forthcoming, so that at last a reliable remedy may have been found for at least one terrible and hitherto incurable disease. Need I recall to the memory of my hearers the amount of light shed over the modern pathology of tuberculosis through the inoculation of inflammatory products practised upon the lower animals by Villemin, Beneden, Fox, and others?" The remainder of the lecture was devoted to inculcating on the students the necessity of earnest application to the study of the laws of health and disease, and their self-training in the habits of accurate observation, essential to the physician.

MEATH HOSPITAL.

THE Introductory Lecture was delivered on November 5th by Dr. FOOT, who, after speaking some words of encouragement to the students on their reassembling once more for the winter session, spoke of the great necessity and vital importance of hospital attendance. This was due to the fact that in such a place alone every form of illness and injury was collected, and where alone a familiarity could be gained with the ways of the sick and with the management of diseases. What they read and heard would make the same impression on them as what they saw. How best to utilise the vast magazines of instruction in a hospital had always been a matter of profound reflection to all interested in the training of medical youth. The genius of Graves had established in that hospital the principle of teaching by action. The essential feature of this system was the allowing any pupil so inclined and sufficiently advanced to undertake the care of patients in the hospital under the direction of the attending physician. The system of Graves aimed at interesting the pupils in their studies and teaching them to work by example. The enthusiastic inception of any enterprise was a great stride towards its accomplishment. But the enthusiasm generated that day among those entering the medical profession should be sustained throughout their whole hospital course. As to their prospects, he might say that the general verdict of experience was against the chance of their acquiring a large fortune. There were two reasons why this was so: firstly, because a great deal of the time of medical men was lavished on those who were unable to pay for medical attendance; and secondly, because of the almost romantic generosity which is so characteristic a quality of the medical mind. However, there were numerous spheres of action for a medical life, all of which, whether humble or lofty, duty faithfully done could illuminate with a divine light, the reflections, however dim, of an eternal sun. The light radiating from the faithful life of the humblest practitioner would contribute to the lustre of the medical firmament.

ST. VINCENT'S HOSPITAL.

THE Introductory Address was delivered on October 29th by Dr. MAPOTHER, who chose for the subject of his lecture the Lives and Writings of O'Ferrall and Bellingham. O'Ferrall, it appears, was born in Dublin in 1790; but, owing to his poverty, did not turn his attention to medicine until he was about twenty-five years of age.

Passing the College of Surgeons in 1821, he was within two years elected by ballot as a member; and, so long did he hold his wish for honorary titles, that in 1860—when over seventy—he was examined for the licence of the College of Physicians. Early in 1834, he was appointed sole attendant to St. Vincent's Hospital, which was then first opened, and within a year Bellingham was added to the staff. O'Ferrall's special forte was diagnosis, which in later years he usually established by the sense of touch, and many a limb and organ were saved by his discovery of deep-seated pus or tumours easily removed. At the Pathological Society, in June 1860, Dr. Stokes termed him a "master of diagnosis; and, indeed, he might be said to fulfil the Johnsonian definition of a genius, 'a mind of large powers, accidentally determined in some particular direction'". Two years after his death, the considerable fortune he had acquired was willed to St. Vincent's Hospital by Miss O'Ferrall, thereby fulfilling his often expressed desire. O'Bryen Bellingham was the son of the late Sir Allan Bellingham, and was born in 1805. Having been apprenticed to James Duggan, he was educated at Jervis Street Hospital; and, in 1833, he was elected a member of the College of Surgeons. When the Chair of Botany was established, he was unanimously chosen for the appointment, but resigned it in 1850, and was elected a surgical examiner; and in 1856, on the death of Rumley, became the Chairman of the Court. His contributions to medical literature were numerous; most of the reviews in the *Medical Press* came from his busy pen; and for many years he most carefully edited the Reports of the Surgical Society. He died in 1857, being occupied up to the very day of his death in revising the last pages of his great work on *Diseases of the Heart*. The important medical and surgical works of Bellingham were discussed at length, and the address terminated as follows. "I will now conclude with much satisfaction to myself if my humble efforts have caused you to form a high estimate of these good men. They had regard in the pleasure which work for the spread of science and the relief of fellow-beings always carries with it; and it is generally allowed that they would have been further recompensed by supereminence in professional position and public favour, had it not pleased Providence to darken the mind's great inlet in the one, and to ordain the other to an early grave. I will still further rejoice if I have filled every young hearer with the conviction that, whether like Sir A. Carlisle, Carmichael, or Bellingham, his father was of high lineage, or was as lowly as those of Dupuytren, Velpeau, Jobert, or O'Ferrall, the path to excellence in our noble profession lies alone through honest unflinching industry."

ROYAL COLLEGE OF SURGEONS OF IRELAND.

DR. CAMERON delivered the Inaugural Address on October 29th. Having referred to the lamented deaths of Dr. Henry Wilson and Dr. Cronyn, Professors to the College, the lecturer proceeded to treat of the lower forms of life and their connection with disease. He discussed the question of spontaneous generation at considerable length. More than two hundred years ago, Van Helmont asserted that living things sprang out of dead and decomposing matter, though a quarter of a century earlier Redi had shown that the maggots in meat were not generated spontaneously from the decomposing flesh, but were the larvæ of the common blow-fly. The first attempts to prove experimentally that animals came spontaneously into existence were made by Needham; but though his views were adopted by the great naturalist Buffon, they were opposed by Spallanzani, who repeated Needham's experiments with negative results. He showed that if organic matter were heated to the boiling temperature and maintained thereat for some time it would not putrefy, provided air were excluded. The truth of Spallanzani's assertions was put to practical test by Appert, who preserved perishable provisions in a manner which only differed in details from that now successfully adopted in the preservation of tinned vegetables, soups, meats, and other perishable articles. Forty years ago, Schwann and Schultz made numerous experiments, which went far to prove that it is not the ordinary ingredients of air, such as oxygen, which cause organic matter to become putrescent, but a something which heat destroys—presumably, therefore, living things or their germs. In 1862, Pasteur published his celebrated memoir on fermentation, and proved beyond a doubt that the fermentation of sugar, and its conversion into alcohol and acetic acid, is solely caused by a lowly vegetable form—the torula, or yeast-plant. If a solution of sugar containing this plant be sufficiently heated, the torula will be destroyed; and if air deprived of organisms be admitted to the solution, no change will take place. Pouchet, about twenty years ago, endeavoured to prove that animalcules were spontaneously developed out of putrescent matters; and, quite recently, Dr. Bastian of London had, with great pertinacity, sought to demonstrate experimentally not only that living things spring into existence out of

putrid matter, but that they are actually formed out of certain mineral substances containing nitrogen; as, for example, mixtures of tartrate of ammonia and phosphate of soda. Dr. Cameron criticised the details of Dr. Bastian's experiments, and pointed out not only possible, but highly probable, sources of fallacy. The controversy with respect to spontaneous generation had, by inducing experimental researches, led to the discovery of many of those forms of life which existed upon the borders of the invisible world. It was found that the atmosphere teemed with them, and that they existed in all solid surfaces and in most liquids, and even in the interior of animals and plants. Some of these tiny objects were termed bacteria, and were by many believed to be the cause of putrefaction, and also that they or similar minute organisms are the contagia of such diseases as scarlatina and typhoid fever. Some pathologists—especially Drs. Beale and Ross—whilst holding to the doctrine of contagion, believe that the contagium of each disease is merely degraded or putrescent matter thrown off from a higher organism, and not microzymes, bacteria, or fungi, which are undoubtedly organisms similar to the higher animals, being descended from ancestors which they resemble. Bioplasm, or germinal matter, is the simplest but most important portion of the living animal. Beale believes that healthy bioplasm becomes diseased bioplasm, and, having become so, continues to grow in its altered or abnormal form, just as healthy bioplasm grows and builds up the various tissues of the body. In practice, it matters but little whether we adopt Lionel Beale's theory of disease-grafts, or the more generally accepted opinion, that each contagious disease is caused by a *contagium vivum*, or a living thing capable of generating other living things in its own image. The destruction of these infecting particles, bioplasm or microzymes, whichever they may be, would be the end of the existing contagious diseases; for the pathology of contagion certainly justifies us, even with our present limited knowledge of it, in believing that the contagious diseases do not originate spontaneously, but are propagated from person to person. He next described the diseases which are propagated directly from the sick to the healthy, and those which are indirectly propagated. Amongst the former are scarlatina, measles, small-pox, typhus fever, and whooping cough; amongst the latter, typhoid fever, cholera, dysentery, and yellow fever. No one need have fear of catching typhoid fever or Asiatic cholera by tending at the bedside of the patient; but these diseases are propagated by means of foul water and sewer-gases. It is highly improbable that water containing ordinary animal or vegetable matter, or even the sewage-gases of the ordinary kinds, produce typhoid fever. The germs or microzymes that have already been thrown from the body of affected persons must be in the polluted water, or must be wafted up mechanically by the sewer-gases. The modes by which the more commonly occurring contagious diseases are propagated were explained; and the lecturer concluded by expressing his opinion that, broadly, contagious diseases were all filth-diseases, and could only be destroyed by the most rigid national and private cleanliness.

CATHOLIC UNIVERSITY MEDICAL SCHOOL.

THE Introductory Address was given by Dr. BYRNE on November 5th. The lecturer, after adverting to the high rank occupied by Dublin as a school of obstetric medicine, a position which it owed to the labours of their predecessors, and to the existence of the two noble maternity institutions, the Rotunda and the Coombe Hospitals, proceeded to discuss the relative advantages of special *versus* general hospitals, giving his unqualified preference, in the present advanced state of medical knowledge, to the former, adducing as an example the department of ophthalmology. Could any student, he remarked, expect to learn the course of disease, of alteration of structure, or morbid or sympathetic changes in so essential an organ as the eye, unless he had been trained by watching the changes disease produces in other important organs or parts? No; he could not; but, when he had profited by his experience of general hospital practice, and by the observation of the course and progress of general and local disease and its treatment, then he could take himself and the knowledge which he had gained to the investigation and study of special diseases. He next alluded to the vast importance of a thorough knowledge of obstetrics and gynaecology, declaring that, no matter in what position of life a medical man may be placed, unless he be a pure surgeon or physician, the knowledge of these subjects is of vital importance for himself and those entrusted to his care. Dr. Byrne concluded his address by advising the young man who had finished his studies, had passed the test of the final examination, and secured the object of the desires of his student years, not to let the ambitious promptings of his heart, or the suggestions of injudicious friends, hurry him into practice, or stimulate him to seek employment. That would come soon enough. Now, a golden op-

portunity for completing his store of knowledge was placed in his hands. His mind was free from the worries inseparable from the tyro condition of the student; he was no longer harassed by the spectral anxiety of possible failure at his examination; he was relieved from the sense of obligation of being bound to go hither and thither at stated times to attend regularly lectures and hospitals. He was no longer merely a student; he was now a surgeon or physician, and should go of his own accord to those institutions where he might study at leisure the symptoms and course of disease, and watch its treatment by skilled and long experienced hands. Six months or a year of careful hospital attendance now, when his faculties had been enlarged, his mind stored with systematic information, his judgment matured, would be of vastly greater value than years before. Thus they would familiarise themselves with the types of morbid affections of every kind, as the practitioner had to look upon them; they would, because of their professional rank, be permitted to watch them. Thus indeed they would be much better equipped for their after-career and the struggle with human suffering in which their life would be passed, and in which they would have most frequently to rely on their own quick appreciation and unaided skill.

SELECTIONS FROM JOURNALS.

THERAPEUTICS.

ANTAGONISM OF MEDICINES.—At the meeting of the Paris Academy of Medicine on October 19th, M. Gubler read a paper by Dr. Ore of Bordeaux, in which the author sought to prove, by details of experiments on animals, that there exists between chloral and the poison of the *Amanita bullbosa* the same antagonism which has been demonstrated between chloral and strychnine.

TREATMENT OF EPILEPSY BY BROMIDE OF ZINC.—Experiments have been going on for some time in M. Charcot's wards at the Salpêtrière Hospital with bromide of zinc as a remedy for epilepsy. It can be administered either in the form of pills or as a syrup. The pills contain each three-quarters of a grain of bromide of zinc. Commencing with one pill daily, the dose may be increased to twenty-five grains, increasing the quantity of bromide contained in each pill. The drug can be given in syrup according to the following formula: Bromide of zinc, 15 *grammes*; syrup of bitter orange-peel, 150 *grammes*; four, five, or six teaspoonfuls to be taken in the course of the day. The results obtained from the administration of the pills have been satisfactory.

SUPPLEMENT OF ATROPINE IN PATHOLOGICAL SWEATS.—At the meeting of the Paris Academy of Medicine on November 6th, M. Vulpian called attention to the want of efficacy in all the means hitherto employed to combat pathological sweats, more especially those from which phthisical patients suffer. He has found that sulphate of zinc, given in pills containing half a *milligramme* (three-four-hundredths of a grain), is a sure preventive of these nocturnal sweats. It generally suffices to administer one or two of the pills, but in certain cases the dose must be increased to four pills. The cases on which M. Vulpian founded his thesis all occurred in his own wards, and he believes that he is first to have introduced this plan into France.

INFLUENCE OF IRON MIXED WITH FOOD ON THE BLOOD.—Nesse (*Münchener Sitzungsbericht*, No. 3, 1877) fed a dog weighing about 17½ pounds, during eighty-seven days, with bread and potatoes; giving at the same time, for twenty-five days, 15½ grains of lactate of iron daily, and for the remaining sixty-two days 18½ grains of oxide of iron each day; the dose in each case being mixed with about six-sevenths of an ounce of fat. The weight of the animal increased by more than two pounds. The specific gravity of the blood rose from 1052 to 1060; that of the serum remained nearly unchanged. The amount of iron in the blood increased from 0.477 *per centum* to 0.755. In seven other dogs, one of eight subjected to experiment, feeding with various proportions of iron was followed by a corresponding rise of the solid constituents and of the specific gravity of the blood; the latter being 3.02 higher than before, notwithstanding an addition of 7.6 *per mille* to the former. The increase of the solid constituents depended wholly on that of the haemoglobin. The amount of iron in the blood rose regularly. In conclusion, the author expresses his belief that the administration of iron mixed with fat is productive of the most fruitful results; and he recommends the use of fat food containing iron for anæmic patients.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, NOVEMBER 24TH, 1877.

THE MEDICAL ASPECT OF SCHOOL-ATTENDANCE.

THE question of school-attendance has now become a matter of national importance. The State recognises the fact that human brains are a highly elaborated product, and that to leave them uncultivated is a waste of a very valuable form of raw material. Consequently, the institution of school-boards and the compulsory education of all children are steps forward in the right direction. No matter in what position of life a child is placed, it is the better for a little education and information, no matter how minute. The necessity for a little schooling is now universally admitted; and, as such is the case, the subject requires to be looked at from the standpoint of its medical aspects.

There is a great deal to be said on the subject of school-attendance in relation to the health of children. It is not now a question of the sufficient ventilation of school-rooms, in order that the little folks may be able to attend to their lessons without being crippled by partial carbonic-acid poisoning, as was the case of yore. It is within the memory of most adults that school-rooms were so close and insufficiently ventilated, that even the liveliness of youth could not contend successfully against the drowsiness induced by the vitiated condition of the air of the room. Many is the caning that has been administered on the hypothesis of indolence and lack of attention, when in reality it was the state of the atmosphere that was to blame. At the present time, the rooms are lofty, and are so built that efficient cross ventilation—the most perfect form of all—is attainable. Then, again, the rooms are well lighted—a most important matter. The stimulant effects of light are now generally understood, and the advantages of thoroughly lighted schoolrooms appreciated. The dim light of old-fashioned rooms had a decidedly sedative and even narcotic influence. The present form of building is, then, well adapted to furnish a sufficiency of light, as well as of fresh, if not always pure, air.

Another matter is the hours of school-attendance. It is not long ago since children were kept indoors from eight till twelve in village schools, without the ten minutes' play at ten o'clock, whose introduction only unduly conservative minds regarded as an undesirable innovation. Then it was usual to commence the afternoon attendance at half-past one and keep it up till five, when the days were long enough to admit of it. These hours were far too long, and it was impossible for children to keep up a sustained attention to their studies, though prompted by rivalry, led on by rewards, and stimulated by the rod. The dividing of the time into sections devoted to diverse subjects only led to greater exhaustion in those children upon whom the long hours pressed heavily. At present, the hours of attendance are more cut up, and the intervals of relaxation are longer and more systematic. At one time, it was held that long school-hours and the persistent application of the birch were the best means of getting information into children. Now, however, it is thought desirable that the teacher should actively aid in the instruction, and possess a certain amount of training power, together with the inclination to exercise it. This is the much more reasonable view. For the majority of children, it is but necessary to provide them a teacher with the requisite capacity, and they will learn. With others, doubtless, the rod is necessary;

and there are men to be found who openly express their gratitude for the corporeal suffering they underwent at the hands of their school-masters, in their earnest endeavour to do their duty by them.

At the present time, there is a certain amount of danger that the chastisement of children by school-teachers is falling into abeyance. It is very destructive to a teacher's moral influence to be had up before a magistrate and fined for the correction of a pupil. Consequently, it is eminently desirable that some check be put upon those ebullitions of passion on the master's part which obtained of old. The discipline of a school must be maintained, however, and it is very questionable if the rod can be entirely dispensed with in safety; but it should be applied circumspectly, with due regard to the requirements of the child, and not in accordance with the subjective sensations of the instructor, though the wrath may have been the product of much provocation. The other methods of punishment, such as confining the child in a dark room, are very objectionable in most cases. It may be true that, in the case of some resolute and vigorous children, the calmative effects of darkness may be necessary enough in addition to a certain amount of actual pain; but with sensitive and timorous children such punishment is cruel and savage. The plan of impositions is, perhaps, less objectionable than retaining the child in school during play-hours to the detriment of its health. Some means of compelling the attention of careless children must be adopted, and it is impossible to point to any which do not possess some drawback. Probably the infliction of a little pain is the most salutary of all, if carefully and judiciously administered.

The greatest difficulty in all schemes of education is the inequality of the pupils in application and capacity, and the variations of each pupil from time to time. Children are not like pen-stamping machines, which will execute a given and equal amount of work if a fixed quantity of force be applied to them. Children vary extremely in their capacities, and consequently cause perturbations in the classes into which, for educational convenience, they are divided. Methodical class-teaching and periodical examinations are doubtless essential, and the teacher very naturally keeps the advantages of passing a certain percentage of pupils well in view. The consequence of such arrangements, however, is that children must be kept in their places, like soldiers in their ranks, if the teaching machinery is to work smoothly. To carry on class-teaching with fair prospects of a good percentage passing the tests to which they are subjected, entails regular attendance upon the part of the pupils; and, as a consequence, teachers insist upon such attendance.

This part of the question is the subject which comes most frequently before the profession. It is quite a common thing for parents to bring their children before a medical man, in order that he may examine them and certify to their fitness or unfitness to attend school. Nor is it by any means an easy matter always to determine how far a child is physically fit to attend school and to learn lessons. There may be no very obvious disturbance of the general health, and yet the child is easily fatigued, and its little head readily aches after brief study, so that it is really unfit to pursue its miniature labours. Under such circumstances, a little rest will soon restore the wonted tone to the brain and enable the child to go on with its lessons. If, on the other hand, the child be compelled to attend school and to attempt its lessons, its inability becomes more and more apparent, until the necessity for its staying at home becomes obvious. But, if the child can be kept quiet and at rest at the early part of this state, it will much sooner be again well enough to work than if it be forced on till its weakness is patent and unmistakable. It is under these circumstances, then, that the opinion of the medical man should be carefully weighed and deliberately acted upon. In order that a child may be able to bear one or two points in mind, which will be briefly considered here.

In the first place, the tests to which the children of the school are subjected are not very severe. The standard is purposely placed low, so that it may not press particularly on the weaker constitutions. But, inasmuch

this is the case, the children are often incapable of passing the ordeal. In the case of the little waifs of squalid neighbourhoods, there is nothing systematic in their experience; they are born and brought up amidst a thriftless and short-sighted community. If the tests are simple, their untutored minds are quite sufficiently taxed by them. In the case of children placed under more favourable circumstances, there are passing periods of partial incapacity which call for recognition. It must ever be borne in mind that the school-education of children is carried on during the period of growth, when the organism has a prolonged demand upon it. This, however, is unavoidable, as the education cannot be delayed until the growth is well-nigh completed. But the question comes out pretty clearly in the consideration that growth consists rather in a series of bounds or leaps, with intervals of static quiescence, than in a regular progression up an inclined plane. During these stationary periods, the child is capable of a fair amount of toil—indeed, not rarely of great mental activity. The demands of growth being for the time in abeyance, the system has a surplus of energy for the acquisition of knowledge. At these times, the child will quickly make up its deficiencies and regain its lost ground. That children have such periods of mental activity, is well known to teachers. On the other hand, when the child is growing, its capacities to learn are much limited. The organism is unequal to growth and the manifestation of force in the shape of attention to study, at one and the same time. One or other must give way, and usually the growth has the upper hand. Consequently the child, if compelled to attend school at these periods of growth, is stupid, careless, and inattentive. To the teacher, this appears to be due to wilfulness; and the child is chastised and punished for carelessness, when really its tissues are at fault. Its bones are growing, and the soft tissues must keep pace with them. Very frequently the child becomes thin during rapid growth, and increased length of its muscles is purchased by diminished thickness. But teachers are not, as a rule, capable of noticing properly these indications, and the child is induced to make more strenuous efforts by encouraging words and the hope of reward, or is stimulated to exertion by some form of punishment. One of two things happens: the child either breaks down entirely and is distinctly ill, or it contrives to get through the time of trial somehow, usually at some expense to its *physique* and impairment of its health for some time. This, too, is more true of town-children than of those brought up in the country. The stolid little peasant grows with a steadier and more regular progress than the more volatile town-child, and therefore it is less subject to these perturbations. According to Quetelet, the growth is more rapid and more readily terminated in cities than in the country; and, if we bear in mind how much less favourable the conditions are in cities, especially as regards the humbler classes, there can be no difficulty in estimating the effect of rapid growth upon the intellectual faculties. Again, girls by comparison grow faster than boys. According to Quetelet, girls attain their full stature a couple of years before boys do. From the age of five to fifteen, the line of growth of boys and girls is very nearly alike; but at fourteen or fifteen the line of males rises permanently above that of females. It is during the last years of their compulsory school-attendance that growth is most rapid in girls, and it is during these years that most of the children are brought to the medical man for him to examine them, and certify their capacity or unfitness to attend school.

There exists no wish on the part of the profession to check or thwart any attempts at improved education which may be set on foot; still at times the medical man feels compelled to certify that a child is unfit for school-attendance, however conscious he may be that the opportunity for recovering the lost time may never again offer itself. If the child do not gain a certain amount of information before it passes the time of compulsory attendance, it is very unlikely that it will ever make it up afterwards. Still, to compel a child to pursue its studies when physically unfit is inhuman and cruel. Probably a certain amount of suffering has been already undergone before each child is presented to a

medical man for his examination. The best means of meeting the difficulties attendant upon rapid growth would be to institute periodical measurements of all children, so that intervals of quiescence and periods of growth may be readily recognised and registered. This would entail little trouble, and would be readily undergone by children, who are very interested in the subject of their growth. If such a plan were adopted, the teacher could readily have a child measured when inattentive or stupid; and, if it were found to be growing rapidly, allowance could be made for it, and redoubled attention demanded from it when the growing fit was over. Such would form a practicable and ready test of a rough description for the teacher's guidance. If the child were not growing, then it might be submitted to medical examination; and, if this did not furnish a reason against its school attendance, the teacher would be justified in applying some of those incentives to youthful application which experience has furnished. But it is not desirable that the teacher assume the responsibility of deciding the question without some given data to go upon. The acquaintance of those engaged upon educational work with the physical needs of humanity is not always very extensive; and the physiological side of mental manifestations is a subject with which they are little familiar, and for a proper consideration of which their own training has too often rather unfitted than fitted them. It is within our own experience that a boy, who used to be severely beaten and held up to ridicule before the whole school by a coarse-minded and unfeeling master, found his proper place at last in the wards of the county asylum as an idiot liable to epileptic seizures. How much of what that boy had endured was unmerited suffering?

Nor does it so happen that periods of growth in children are collectively synchronous or rhythmical. In a large class, one or more will always be found to be unfitted for much labour, and so the regular work of that class will be disturbed and interfered with. This naturally must form a species of trial to the teacher in several ways. In the first place, the more uniform the merits of the class, the easier it is for its instructor to carry it on. In the next place, the teacher's advance in position and pecuniary emolument depends upon a certain percentage of passes, and therefore interest is on the side of keeping the class in its best form about the times of examination. There is much to be said for this natural attitude of the teacher; but the exigencies of the taught must not be lost sight of in an attempt to do justice by both sides.

Much also depends upon temperature. Some adults can work best when the temperature is low and the blood-pressure on the brain high; while others, again, lose so much body-heat in cold weather that their energies are partially paralysed thereby. The activity of the brain is closely allied to the temperature of the blood passing through it, and the delirium of febrile temperatures contrasts with the coma of cold. Children lose heat more readily than adults, and consequently low temperatures affect them powerfully. Some children are very stupid in cold weather, and brighten up like lizards in warmth and sunshine. Others, again, are unfavourably affected by high temperatures, which deprive them more or less of their wonted energy. Especially is the effect of high temperatures seen during periods of rapid growth.

All these are points for consideration on the question of school-attendance, both by teachers, the parents, the taught, and by the profession. A wider knowledge on the subject is desirable for all. While it is very necessary that a child should be instructed, it is also essential that it be not subjected to torture by being compelled to work when physically incapacitated. If a child be forced to continue its studies when unfit, its little brain becomes more and more incapable of coping with even the easiest tasks. The more the effort, the less the result. It differs not from the adult in this respect. If, however, a period of quiet be maintained, then a recuperative process is inaugurated, the brain soon recovers its wonted capacity, and the child makes up for lost time. It is very desirable that, when a child is kept from school for passing periods of temporary incapacity, it be

confined to bed the greater portion of the twenty-four hours for the first ten days at least. If allowed to play perpetually, or if employed in household drudgery, the time so spent will not restore the tone of its brain so readily as might be. If a more serious deterioration of the health have gone on, and the child need a long interval of rest at the seaside, then the necessities of each case must be determined by the medical attendant, and by him alone.

THE PATHOLOGY OF GRANULAR KIDNEY.

In the September and October numbers of *Virchow's Archiv*, Dr. Richard Thoma of Heidelberg has communicated a series of observations upon the changes in the circulatory apparatus of granular or contracted kidneys, which are very welcome in the present state of the question. His first experiments were directed to ascertain the relative permeability, under constant pressure, of the renal vessels in this disease, as estimated from the outflow from the renal vein, comparing this with the same as observed in healthy organs, the comparison being made under equal conditions of age. The result is to show that not only is the actual quantity which can be passed through the organ in a given time reduced very largely, as the smaller size of the organ might make us expect, but the proportion of the amount passing out by the renal vein to that introduced by the renal artery is much less than in healthy organs. He asks, is this due to the compression on the vessels by the new growth, or is it to be explained by a greater outflow through the walls of the vessels into the tubules? His next observations were to make very careful estimations of the weight of the kidneys at each period of life, and to measure with great accuracy the sectional area of the renal artery; and, having established the mean weight of the kidney to be 150 grammes, he calculated out a table of its variations for the different periods of life, corresponding to the variations in weight at those periods. He also carefully measured the sectional areas of the interlobular arteries midway between the cones and the capsule, and again near the capsule, of the vasa afferentia, and of the glomerulus itself; and he gives a table of these at different ages, from birth to forty-three years. He also estimated the areas of the interlobular vessels, and constructed a table showing their relation to the size of the individual lobules and the total weight of the organ; and from these data, taking the mean weight of a lobule to be ten cubic millimetres, he calculated the mean sectional area of the interlobular arteries for the first four decennial periods of life. He also calculated the volume of fluid which can pass through the kidney in a given time at different ages from three to twenty-seven years, showing that it increases with growth of the organ. He then examined granular kidneys and determined all these points, still taking account of differences in age, with the following results. The sectional area of the renal artery in granular kidney is very slightly smaller than in healthy subjects of the same age, but relatively to the weight of the organ it is from a fifth larger to twice as large. The interlobular arteries in both places, the vasa afferentia, and the glomeruli, are all absolutely larger. By another series of experiments, he found that the rapidity of the flow of fluid in the renal artery of granular kidneys was not half, often not a fourth, of what it is in the renal artery of a healthy kidney. He also shows, by a very large number of observations, that the transverse section of the renal artery grows wider as the organ undergoes development, and proportionately to the weight of the kidney; and, further, that the peripheral resistance to the entering fluid grows relatively less, so that a greater quantity of blood passes in a given time through the organ.

By careful comparison of the effects of coloured injections on sound and on granular kidneys, he found that the latter permitted fluid to pass through the walls of the blood-vessels with much greater ease; and not fluid only, but gelatine, Prussian blue, chloride of sodium, and even solid grains of cinnabar, and this without rupture of the coats of the

vessels; this happened, not on those parts which showed most connective-tissue growth, but in the vessels still otherwise apparently healthy. Careful injections proved, too, that the capillary network in granular kidneys was very scanty, and that, in many cases, the vasa afferentia anastomosed directly with the efferent vessels, being cut off from the glomerulus by the growth of fibrous tissue. On the changes in the walls of the vessels, he remarks that as a rule, in spite of the fibroid growth of the intima, the lumina of the vessels are not smaller than normal; only exceptionally, when the endarteritis has reached a high grade, does this take place. He regards these changes as connected with those endarterial processes—described by Köster, Friedländer, Trompeter, and others—as taking place in almost all new formations of connective tissue, as they bear a distinct relation to the amount of interstitial growth. These facts are especially opposed to Gull and Sutton's theory that the narrowing of the lumina of the vessels by the new growth causes the obstruction to the circulation; they agree with independent observations that, as a rule, the vessels in granular kidneys are certainly not of less calibre than normal; they prove that the anatomical condition of the organ itself, independent of any vital changes, such as arterial contraction, causes a great increase in the resistance to the circulation through it; they explain the clinical phenomena of polyuria and albuminuria by the increased permeability of the vascular walls. We should very much like to see similar investigations on the state of the vessels in other organs, and especially the skin, in this disease, to determine whether a similar diminution of the capillary area is present. General capillary anæmia is undoubtedly a marked feature of even the early stages of this disease, and it is at least possible that the same cause, acting generally, may produce, although to a less extent, an universal reduction of the capillary network.

ENGLISH LUNATICS IN FRENCH ASYLUMS.

THE judgment of Vice-Chancellor Malins in *Davis v. Nathan*, reported in the *Times* of Thursday last, affords us some fresh information of the unsatisfactory safeguards against the detention of sane persons in French asylums. It appears that Madame Mègret, the English wife of a Frenchman domiciled in England, had an attack of puerperal mania in 1870, for which she was placed in the asylum of Dr. Jules Luys at Ivry. His Lordship is reported to have stated in his judgment that, "within a year from the time of her going to him (Dr. Luys), she recovered, and should then have been discharged." "It was most earnestly to be hoped that what had occurred in this case could not possibly happen in England. She actually remained in confinement in France from 1870 to the end of 1875." After rejoining her husband in 1876, "he took her to an asylum at Charenton. She was then perfectly sane. She was no more fit", said his Lordship, "to be then placed in a lunatic asylum, than was any one now hearing his Lordship's voice." Madame Mègret was speedily released from Charenton through the intervention of her solicitor; and she was shortly afterwards examined by Dr. Harrington Tuke, who found her to be perfectly sane. More recently, Madame Mègret has been examined by Dr. Bucknill; and both of these physicians gave *viva voce* evidence in court to the effect that in their opinion the alleged lunatic was of perfectly sound mind. "She herself was also called and examined, and showed no symptoms whatever of a mind diseased." The judgment of the Vice-Chancellor was in favour of the alleged lunatic on all the issues. He is, however, mistaken in supposing that "there are no inspectors of lunatic asylums in France, as there are in our country". The French system of inspection is extremely loose, compared with our own, and that of certification still more so; but both of them do actually exist.

A PRINTED dissertation will in future be required of candidates for all degrees in the University of Giessen.

A NEW university was opened at Amsterdam on October 15th.

THE Harveian Lectures of the Harveian Society will be delivered in the evenings of December 6th, 12th, and 20th, by Dr. Graily Hewitt, On the Mechanical System of Uterine Pathology. The date of the second lecture is unavoidably altered from the 13th (as first announced) to the 12th December.

At a recent meeting of the Silesian Medical Society, Professor Gscheidlen showed blood-crystals one and a half *centimètres* (more than half an inch) long, which he had obtained by keeping defibrinated blood for several days, at the heat of the animal body, in vessels well closed against the access of air, and afterwards exposing it for a short time on a watch-glass.

DR. WENZEL VON LINHART, Professor of Surgery and Clinical Surgery in the University of Würzburg, died on October 22nd, being fifty-six years of age. He had held the professorship since 1856; previously to which he was a private teacher in the University of Vienna.

ACCORDING to a Constantinople telegram of Tuesday's date, Chakir Pasha had sent a *parlementaire* to ask for the restoration of the English doctors recently taken prisoners by the Russians. The reply reported to have been received was that Dr. Douglas and Dr. Vachell refused to return to the Turkish camp, and intended to go to England; that Dr. Nicholls preferred to stay with the regiment with which he was captured; and that Messrs. Coope and Lorando, not being provided with the necessary papers, were detained as prisoners.

THE Exeter Town Council have for several years been endeavouring to obtain control of the Water Company's works. The last offer was to purchase on a basis of a perpetual 7 per cent. on the share capital, but the Company have refused this; and it was determined to proceed for parliamentary powers to compel the Company to sell. The terms the Council offered would have involved the expenditure of £120,000, and it was apprehended that a further outlay of £8,000 would be necessary before a constant supply could be given.

THE biennial adjudication of the gold medals founded by the late Sir Gilbert Blane, Bart., has recently been made, in accordance with the terms of his bequest, by the Presidents of the Royal Colleges of Physicians and Surgeons and the Director-General of the Medical Department of the Navy. They have been awarded to Fleet-Surgeon Adam Brunton Messer, M.D., for his Journal as Staff-Surgeon of Her Majesty's ship *Pearl* for the year 1875, when on the Australian station; and to Fleet-Surgeon F. W. Davis, for his Journal of Her Majesty's ship *Audacious*, the flagship on the China station, for the year 1875.

THE annual general meeting of the Berlin Medical Society was held last month. From the report, which was presented by the President, Professor von Langenbeck, it appears that twenty-two meetings were held during the year, at which thirty papers were read and discussed. The number of members had increased from three hundred and ninety-three to four hundred and fourteen. Professor von Langenbeck was elected President; Professors Barleleben and Hensch, Vice-Presidents; Drs. Fränkel, Küster, Riess, and Senator, Secretaries; Dr. Klein, Treasurer; and Dr. Falk, Librarian.

M. CHARCOT has resumed his annual clinical demonstrations at the Salpêtrière Hospital, on the diseases of the nervous system. The subject of his first lecture, delivered to a numerous audience, was the Study of the Different Forms of Rhythmic Hysterical Chorea, and its Diagnosis with the other Forms of Chorea. The lecture was illustrated by three patients suffering from varieties of this affection.—M. Trélat opened his course on the 12th instant, in the amphitheatre of the Faculté de Médecine, with a lecture on the general etiology of hernia. His lectures this year will be on Diseases of the Abdomen, with special reference to Hernia.

RATHER an important decision as to gas nuisances was given this week, when proceedings were taken in Chancery against the Gaslight and Coke Company for creating a nuisance at West Ham, by emitting fumes of sulphuretted hydrogen. The defence was that the Act of Parliament, which required a certain standard of purity in the gas to be attained, compelled them to occasion this nuisance. Mr. Justice Fry would not entertain such an argument, and granted the injunction sought by the Local Board of Health.

FIRE AT THE HÔPITAL ST. ANTOINE.

OUR Paris correspondent writes: A fire took place at the Hôpital St. Antoine on Thursday, the 15th instant, but fortunately it was confined to the wooden huts which were annexed to the hospital during the late war for the accommodation of one hundred and fifty patients. It was intended that these huts should disappear to make room for a building of brick and mortar, but from want of funds and other circumstances this could not be accomplished. The wooden huts are completely reduced to ashes, the fire, which commenced about ten o'clock on Thursday night, having continued its destructive work for two days. It originated in the iron pipes destined to convey the heat through the wards from a large stove situated outside the building. These became overheated, and the excessive heat, radiating in all directions, set the huts in a flame. The fire was providentially detected in time to enable the inmates of the huts to escape. Two female patients, however, fell victims, and were completely charred before any assistance could be rendered them. This disaster will doubtless induce the authorities to annex to the hospital one or two wards of a more permanent and un-inflammable character, as the present building, which contains four hundred and eighty beds, and is situated in one of the most populous parts of the town, is far from adequate to meet the wants of the class of patients for whom the hospital is intended.

MISS KNOLLYS.

MISS KNOLLYS has continued to make satisfactory progress during the past week. Her temperature has been normal; the nights have been excellent; and appetite good. It was arranged that the Princess of Wales should come to London to-day (Thursday), accompanied by Miss Knollys; and that Mr. Oscar Clayton should travel to town at the same time in charge of his patient.

FRAMLINGHAM ALBERT MEMORIAL COLLEGE.

THE cases of fever at this school are progressing favourably. There has been an unusual number of the boys with severe renal symptoms. Last Monday week, another died with renal convulsions. This was the second death. Dr. Fletcher remains in charge of the sick, and is residing at the College. Dr. Bartlett and Dr. Elliston both visited the College last week, and made a further report to the Governors. We are glad to hear the fever is now well under control, and no fresh case has occurred since Tuesday of last week.

HOSPITAL FOR DISEASES OF THE THROAT.

WE publish this week some further correspondence concerning the management of the Throat Hospital, which seems to indicate that the necessity for further inquiry and sweeping reform has not yet been met. The sentiments of the letters of the staff will certainly find but little echo in the profession; and on the other hand, the letter of Mr. Evans points out that, if Dr. Mackenzie and his friends objected to a lay tribunal assisted by Sir James Paget or Sir William Gull, there is the more reason that they should seek an open professional decision on the questions which have been raised. A resolution such as that Dr. Whistler sends us, arrived at without any statement of the facts alleged by those who bring the charges, and without any consideration of the principles of management involved, can hardly be considered as any solution of the difficulty. Meantime, the decision of the Hospital Sunday Committee, the withdrawal of many distinguished and eminent friends of the institution, and other indications of public dissatisfaction,

should satisfy the staff of the Throat Hospital that the passing and publication of such a resolution will not avail to satisfy public sentiment, to restore the confidence of the profession, or leave the Hospital in the position of confidence and esteem in which a public institution should stand, and which its managers are morally bound to endeavour to maintain for it.

PRIZES AT APOTHECARIES' HALL.

THE following students have obtained the prizes given by the Apothecaries' Society during the present year: viz., for Botany—1. A. H. S. Lucas, London Hospital, Gold Medal; 2. S. H. Henty, University College, Silver Medal and Books; 3. C. P. Lukis, St. Bartholomew's Hospital, Bronze Medal and Book: for Materia Medica and Pharmaceutical Chemistry—1. A. K. Morgan, Guy's Hospital; 2. James Balls, King's College.

THE POPULATION OF FRANCE.

THE results of the census of the population of France, taken in 1876 and published in the *Journal Officiel*, are as follows. The number of the population in 1872 was 36,102,021: it is at the present time 36,905,788, classified as follows. Males: Unmarried, 9,805,761; Married, 7,587,259; Widowers, 950,619; Total, 18,373,639. Females: Unmarried, 8,944,836; Married, 7,567,080; Widows, 2,020,683; Total, 18,532,149. These figures show that since 1872 the French population has increased by 802,867 individuals, or at the rate of 2.17 per cent. This rate of increase is very much lower than that of the United Kingdom, which, during the ten years 1861-1871, was 8.96 per cent.; that of England and Wales being 13 per cent.

MASSACRE OF THE INNOCENTS.

WE see with great pleasure that the Committee of the Municipal Council of Paris proposes to bring under the notice of the Assistance Publique of that city the necessity of introducing isolation-wards in those hospitals of Paris which admit children. The present state of things is incredibly disgraceful to the administration, and indeed is an outrage on humanity. English physicians will hardly believe that, owing to the defective arrangements of this centralised administration, it is still the practice, notwithstanding the remonstrances of physicians, to admit indiscriminately into the children's wards children with contagious and with non-contagious diseases. We saw ourselves lately, in visiting the wards of the accomplished physician M. Dejean-Baametz, children suffering from cerebral typhoid fever occupying the same ward with other quite healthy children; and, if cases of measles and scarlet fever had been admitted at the moment, they would all have been placed in the same room. It is needless to say that, under such circumstances, realisation in a hospital is fraught with terrible danger. Indeed, we can conceive no worse punishment for any child at present than to be admitted into one of these wards of a French hospital. The eminent physicians of Paris, who are fully alive to the monstrous enormity of such a practice, have repeatedly remonstrated; but it is one of the many evils which afflict institutions controlled under a centralised administration, that such remonstrances go for little, and are repeatedly slighted by the central authorities.

WEST LONDON HOSPITAL.

ON Monday, the corner-stone of an out-patients' department and west wing to this hospital was laid by the Rev. R. G. Baker, M.A., prebendary of St. Paul's. A considerable number of the friends of the institution, together with the members of the staff, were present. The Rev. Prebendary Baker briefly sketched the history of the institution from its origin. It was now ripe for a new development. Since last October, they had admitted no fewer than one hundred and twenty-one in-patients, all the cases being severe accidents, chiefly fractured limbs. To this department, the Committee had now determined to add one for out-patients. The new wing will consist of an extensive suite of offices, quarters and rooms, devoted to their work. In the basement will be the laundry, workshops, drug store, etc.; while

on the ground floor will be the dispensary and a spacious waiting-hall. In other parts of the building, there will be consulting-rooms and separate medical wards for men, women, and children. For the building fund, the Rev. Prebendary said, they were not drawing upon the ordinary resources of the hospital, and he hoped the public would liberally patronise the extension.

TRICHINOSIS.

AN epidemic of trichinosis—due, it is said, to the use of pork-sausages—which has lately broken out in Leipzig, has attained unusual dimensions. It has spread to the higher classes of society, and has attacked the families of several of the University professors, including—but happily to a slight degree—a young professor of medicine and clinical teacher.—Last week, there were forty one cases of trichinosis at Stettin.

INFANT MORTALITY OF BIRMINGHAM.

THE excessive infant mortality of Birmingham has attracted once more the serious attention of the Corporation, and a meeting has been summoned by the Chairman of the Corporation Health Committee and the President of the Ladies' Association for Useful Work, in order to consider what steps can be taken to secure extended co-operation in the work of spreading knowledge of the laws of health among the people, and to consult as to other measures for lessening the number of deaths from preventable causes.

THE PATHOLOGICAL SOCIETY OF LONDON.

AT the last meeting of this Society on November 20th, the President announced that during the session a discussion will take place on the Diseases of the Lymphatic System. Leukæmia and lymphadenoma will be specially considered. The first discussion will take place on the evening of the second meeting in March.

FOREIGN UNIVERSITIES.

Nature states that the lectures at the St. Petersburg Ladies' High Medical School reopened this year on October 13th. One hundred and eighteen students were admitted, though a far larger number of applicants passed the examination. The number of the students admitted, however, was limited as above because of want of room. A fifth class has now been added; and the students receive, after having finished the studies, the degree of surgeon. According to the same journal, the imperial authorities of Strasburg have finally decided upon extensive appropriations for the new buildings of the University. They will embrace edifices for lecture-rooms, chemical and physical laboratories, and surgical and psychiatric clinics. The new observatory will be completed next year, and the botanical gardens are rapidly being laid out. In 1882, the University expects to occupy its new buildings.

UNCERTIFIED DEATHS IN YORKSHIRE.

NOTWITHSTANDING the facilities which the present unsatisfactory state of the law affords for the registration of deaths of which no scientific or satisfactory evidence of the causes is forthcoming, the proportion of what are called "uncertified" deaths has steadily declined in England and Wales in recent years. In some parts of the country, however, the laxity of the system still maintains dangerous proportions. In the registration district of Skipton, situated on the western boundaries of Yorkshire, 139 deaths were registered during the three months ending September last. In 83 cases, or 59.8 per cent., the causes were certified by registered medical practitioners; two inquests were held; and in the remaining 54 cases, or 38.8 per cent. of the total deaths, the causes were uncertified, and were in the majority of cases returned in the vaguest and most unsatisfactory manner, such as "fits" or "sudden supposed heart-disease". It may be assumed, therefore, that in this Yorkshire district nearly 39 per cent. of the persons who died during last quarter had no attendance from a registered medical practitioner during their last illness. It is locally reported that much of the medi-

cal practice of the district is in the hands of unregistered and probably unqualified practitioners; but it is certain that a large proportion of these fifty-four uncertified deaths were of persons who had had no kind of medical attendance during their last illness. Much of the district, which has an area of 249 square miles, is sparsely populated, and medical assistance is probably not very accessible; but this scarcely accounts for the apparently complete absence of registered medical attendance in some parts of the district. In the registration sub-district of Addingham, for instance, fourteen deaths were registered during the quarter; one inquest was held, and the cause of each of the thirteen other deaths was uncertified. On more grounds than one, such an unsatisfactory condition of the death-register calls for investigation, whether it be due to unregistered medical practice or to the fact that all these thirteen persons died without any medical attendance. It is hard to believe that none of them were in receipt of outdoor medical relief during their last illness.

ACCIDENTS IN ALL COUNTRIES.

FRENCH official statistics show that, in the time of the Messageries, there was one traveller killed for every 335,000, and one wounded in 30,000; whilst of 1,781,403,687 travellers carried by the French railways, from the 7th of September 1835, to the 31st of December 1875, there was only one traveller killed in 5,178,490 travellers carried, and one wounded in 580,450. If the accidents be divided into two groups, corresponding to the two periods from the 7th of September 1835 to the 31st December 1854, or from January 1855 to 31st December 1875, the figures are the following. In the first period, from September 7th, 1835, to 31st December 1854, one traveller was killed in 1,955,555 carried, and one wounded in 496,555. In the second period, from 1st January 1855 to 31st December 1875, one traveller was killed in 6,171,117 travellers carried, and one wounded in 599,185. Thus it is seen that, in the second period, the number of accidents was considerably diminished. In later years, the proportion is still less; and the results, in countries such as France, England, and Belgium, are particularly significant. In France, during the years 1872 to 1875, there was one traveller killed in 45,258,270 travellers carried, and one traveller wounded in 1,024,360. In England, from 1872 to 1875, one traveller was killed in about 12,000,000 travellers carried, and one wounded in about 20,000,000 travellers carried, and one wounded in 3,500,000. Thus we are far from having attained in England the same security for life on railroads, and for travelling, as is secured in France and Belgium.

YELLOW FEVER IN JAMAICA.

WE regret to hear of the recurrence of some fatal cases of yellow fever at Jamaica, Captain H. A. Mackey, R.A., Brigade-Major, and a daughter of Major Locock, Commanding Royal Engineer, having both died of this disease on October 21st. The *Army and Navy Gazette* hears, although there have again been a few cases of death from yellow fever in Jamaica, that the ships on that part of the West Indies station, and the residents at the naval establishments at Port Royal, continue free from this disease.

ANTI-VIVISECTION MEETINGS.

CARLYLE'S dictum as to the proportion of fools in the British population upon whom any public lecturer or agitator may count, seems to be very cynically realised by the various agents of the Anti-Vivisection Societies. We observe that, at an anti-vivisection meeting at Shrewsbury, the agents acting as the London deputation in the space of an hour "completely established the fact that vivisection experiments had hitherto been, and must from their nature ever be, scientifically useless, misleading, and consequently dangerous. Mr. Cooke concluded an address of nearly an hour's duration, which was listened to throughout with the greatest attention, by moving that a petition to Parliament be signed by the Chairman on behalf of the total abolition of vivisection. The resolution was seconded by the Rev. G. Collins." These demonstrations are largely achieved by quotations from evidence

given before the Royal Commission, which included Lord Cardwell, Lord Winmarleigh, Mr. R. H. Hutton, and the Right Hon. W. Forster. It is, of course, well known that, having heard the whole of the evidence, these gentlemen, than whom no one could nominate a committee of more fervent friends of the animals or more acute judges of evidence, arrived at a precisely opposite conclusion to that which at this meeting the agents of this society palmed off on their audience as fair conclusions from the evidence. The conclusion of the Royal Commission from this evidence was "that the greatest mitigations of human suffering have been in part derived from such experiments"; and that prohibition of experiments on living animals, "even if it were possible, would not be reasonable." This may fairly be contrasted with the conclusions of Mr. Ribton Cooke; and we may reasonably ask what claim the latter has to be considered the mouthpiece of truth or the friend of humanity. We advise those medical men who propose, as Dr. Andrew did in this case, to make any sort of reply to these paid agitators, to attend the meeting armed with the blue-book itself, having previously perused the evidence of Dr. Sharpey, Professor Turner of Edinburgh, Dr. McKendrick of Glasgow, and Sir William Gull, and out of their own mouths to convict these orators of perverting the conclusions and distorting the facts which they pretend to lay before the uninformed audiences whom they address.

THE SOCIETY FOR THE SUPPRESSION OF VICE.

REPORTING on the prosecutions of the last year, the Committee remark that society had been scandalised by the indiscriminate distribution of so-called medical pamphlets by what are termed "quack doctors", treating of the most disgusting subjects, offering almost miraculous cures. One prosecution was conducted to a most successful issue. It will be remembered that the law was fully established on a prosecution formerly undertaken by the Committee against a publisher of a similar work, which was declared to be obscene and illegal, and the plea that such pamphlets could be sanctioned as medical works was wholly rejected. The decision in that case governed the ruling of the magistrates in the present case as to the illegality of the work.

SMALL-POX AND FEVER IN THE METROPOLIS.

AT a meeting of the Metropolitan District Asylums Board on Saturday last, Dr. Brewer in the chair, the usual fortnightly statement as to the number of small-pox and fortnightly statement as to the number of small-pox and fever cases in hospitals under control of the Board was presented. It showed that, during the past fortnight, one hundred and thirteen small-pox patients have been admitted, twenty have died, eighty-three have been discharged, leaving one hundred and ninety-four under treatment, or ten more than were in the hospitals at the end of the previous fortnight. Eighty-two fever patients have been admitted during the fortnight just closed, thirteen have died, thirty-seven have been discharged, leaving two hundred and seventy under treatment, or an increase of thirty-two.

OPENING OF THE NEW WEST HERTS INFIRMARY.

ON Saturday, the Duchess of Teck opened the new Infirmary at Hemel Hempstead. This valuable institution was founded in 1826 by the late Sir John S. Sebright, Bart., who expended £13,000 in its building and endowment. Although enlarged from time to time, it has become inadequate to the requirements of the sick poor in West Herts; and four years since it was condemned by the sanitary authority, whereon it was decided to erect a new building. Among the principal subscribers to the fund were: Mr. A. H. Longman, £1,000; Mr. W. Jones Loyd, £500; Earl Brownlow, £300; the Hon. G. D. Ryder, £300; Earl of Essex, £120; Earl Verulam, £100; Lord Ebury, £100; Lord Rokeby, £100; Mr. D. Carnegie, £100; Mr. R. Pryor, £100, etc. The new building will accommodate fifty in-patients; and, including £900 for the three acres of land, is estimated to cost £13,000, towards which subscriptions have been received amounting to £8,018. The

opening ceremony was witnessed by a large number of visitors. The Duchess of Teck arrived from Asludge, the seat of Earl Brownlow, and along the route the windows and house-fronts were decorated with flags and banners, inscribed with appropriate devices. Her Royal Highness was met at the principal entrance by Earl Verulam (Lord-Lieutenant of the County), the Bishop of St. Alban's, Mr. T. F. Halsey, M.P., Mr. G. Evillteriff (High Bailiff), Rev. W. O. Thompson (Vicar), the principal nobility and gentry of West Herts, and the governors and medical officers of the Infirmary. At the conclusion of a short religious service, at which the Bishop of St. Alban's officiated, Her Royal Highness was conducted through the building, when an address was presented, and the Duchess declared the new Infirmary open for the reception of the sick poor of West Hertfordshire. The Earl of Verulam presided at the *déjeuner* which followed.

ATTACK BY A LUNATIC ON A PHYSICIAN.

WE learn from a German contemporary that Dr. Abarbanell, sanitary councillor in Berlin, had a narrow escape from being assassinated about a fortnight ago. By the desire of a patient who had an insane idea that he was being persecuted, he accompanied him, for the purpose of a consultation, to Dr. Levinstein's asylum at Schöneberg. After entering the building, the patient suddenly drew out a revolver and shot at Dr. Abarbanell, but missed him; he then, without attempting to discharge the remaining five barrel, which were all loaded, fell on Dr. Abarbanell's neck, begged his forgiveness, and lamented that he had been able to do no otherwise than he had done. He then readily allowed the revolver to be taken from him, and was placed in safety. No motive for the attack on Dr. Abarbanell can be assigned.

GALE'S LONG WALK.

ON Saturday evening last, Gale completed his long walk of 4,000 quarters of a mile in 4,000 consecutive ten minutes, accomplishing 36 miles every 24 hours for 28 days. Mr. Gant, his professional attendant, has already, in these columns, detailed Gale's condition from week to week; it now merely remains for us to say that, at the end of his severe task, he was in excellent health in every respect.

DEATHS IN PUBLIC INSTITUTIONS.

IN workhouse establishments, hospitals, and public lunatic asylums, there occurred, during the months of July, August, and September, 10,313, or 9.4 per cent., of the deaths registered during the quarter; this proportion considerably exceeded that which prevailed in any of the seven preceding corresponding quarters. In the twenty largest towns, 5,244, or 14.5 per cent., of the deaths were recorded in public institutions; the percentage ranged from 4.1 and 5.8 in Plymouth and Oldham, to 16.7 and 18.2 in Brighton and London. Excluding the twenty large towns, the proportion of institution deaths in England and Wales during last quarter averaged 6.9 per cent. During the seven years ending 1875, the proportion of deaths recorded in workhouse establishments averaged 5.6 per cent. of the total deaths.

BRITISH AID TO THE SICK AND WOUNDED.

SOME misapprehension having existed as to the circumstances under which the Stafford House surgeons returned from Plevna, the Duke of Sutherland has published the following explanation derived from the medical reports received from Mr. V. Barrington Kennett. "On arriving at Plevna, Dr. Bond Moore tendered the services of his staff to Osman Pacha, who thanked him, and said he was quite welcome to remain if he wished, but that he could render much more efficient service by accompanying the wounded to Orkanie. Dr. Ryan, who has been seven months in Plevna, and remains there, informed Mr. Moore that not more than two hundred would be left behind. Upwards of three thousand were to be sent away to Orkanie and Sofia. Dr. Bond Moore, with his staff, accordingly decided to attend to them *en route*, leaving a large supply of their stores in Plevna, which were greatly needed."

INQUESTS.

DURING the three months ending September last, 5,940 deaths were registered from the certificates of coroners, equal to 5.4 per cent. of the total deaths; this proportion differed but slightly from that which prevailed in recent corresponding quarters. In the twenty large towns, the percentage averaged 5.8; and while it was but 2.4 and 3.2 in Sheffield and Brighton, it was equal to 7.1 in Birmingham and in Newcastle-upon-Tyne, and to 8.4 per cent. in Manchester. In Manchester, the inquest cases were nearly three times as numerous as the deaths referred to violence, while in Sheffield only thirty inquests were held although twenty-four deaths resulted from violence.

VIOLENT DEATHS.

THE deaths referred to different forms of violence during last quarter were 4,806, and were considerably fewer than in any preceding three months since June 1873; they were equal to an annual rate of 0.66 per 1,000 persons living, and to 3.7 per cent. of the deaths from all causes. In the mainly agricultural population of the Eastern counties, the death-rate from violence did not exceed 0.51 per 1,000, whereas it was equal to 0.84 in the Northern Counties, where a large proportion of the population is engaged in mining. In the twenty large towns, the death-rate from violence averaged 0.72 per 1,000; and while it was but 0.34 and 0.35 in Sheffield and Brighton, it ranged upwards to 1.24 and 1.26 respectively in Newcastle-upon-Tyne and Liverpool.

SCOTLAND.

THERE were only three deaths from zymotic disease in Edinburgh last week. One of these was from whooping-cough, and the other two from fever.

MR. GLADSTONE has been elected Lord Rector of Glasgow University by an overwhelming majority—the largest, in fact, in the history of the elections.

MR. D. J. HAMILTON, Assistant to Professor Sanders, has been appointed Pathologist to the Royal Infirmary, Edinburgh, in place of Dr. Wyllie, who, by the rules of the institution, vacates the appointment on becoming Senior Assistant Physician.

THE Edinburgh Royal Maternity Hospital had, from October 31st, 1876, to October 1st, 1877, 190 in-patients, of whom 34 were married women and 156 single. Three hundred and eleven cases were treated during the same period outside the hospital.

THE telephone was last week thoroughly tested between Aberdeen and Banff, a distance of fifty-two miles, when songs were transmitted with remarkable clearness and distinctness, and conversation was correctly carried on.

THE EDINBURGH MEDICAL SCHOOL.

IN spite of the severe losses which the Edinburgh Medical School has recently suffered in the removal to London of Mr. Lister and Dr. Matthews Duncan, and the resignation of Sir Robert Christison, the number of the students, which has been steadily on the increase for some years back, shows a further advance this session. We are told that about nine hundred and twenty medical students have matriculated at the University, a very considerable rise even over the large numbers of last year. The increase, as was to be expected, is among the first-year men, of whom there are nearly, if not quite, a hundred more than at the corresponding date of last year.

A DAY-NURSERY IN EDINBURGH.

ANY effort tending to lessen the mortality of young children should be received with satisfaction. A "day-nursery" was started in Stockbridge, Edinburgh, in April last, intended for the care of children whose mothers are employed away from home. Children between the ages of two months and five years are received; those of widows

paying twopence, and others fourpence a day, for which sum they get three plain meals. In the rules, provision is made for restricting the nursery to children whose mothers are employed away from home, or who are unable from sickness to look after them; and it is also arranged that all children over three years of age shall go to school for half the day. From the date of its opening in April until September 24th, there have been 1,870 children received, the summer months showing the largest numbers. In the report, testimony is borne by a medical man to the value of the institution as a place of safe keeping for children whose parents are working away from home.

IRELAND.

A WOMAN named Small died last week in Newry, at the advanced age of one hundred years.

THE drainage of Kilpeddar, co. Wicklow, has been completed, and a water-supply to the workhouse and the town of Rathdrum is nearly finished.

DR. MAPOTHER, Surgeon to St. Vincent's Hospital, and Professor of Anatomy and Physiology in the Royal College of Surgeons in Ireland, has announced himself a candidate for the post of Vice-President of his College. The election does not take place until June next.

QUEEN'S COLLEGE, GALWAY.

THE Government have conferred the Professorship of Anatomy and Physiology in this College, vacant by the resignation of Professor Cleland, on Dr. Pye. There were several candidates for the appointment, the emoluments of which are worth from £500 to £600 *per annum*.

BELFAST BRANCH OF THE ROYAL MEDICAL BENEVOLENT FUND SOCIETY OF IRELAND.

THE quarterly meeting of the Committee of this Branch was held last week in Belfast. Dr. Browne, honorary treasurer, submitted the financial statement; and a conference took place as to the best means of extending the Society's benevolent operations. Personal application was suggested for the purpose of obtaining additional subscribers, and it was resolved that Dr. Browne be requested to deliver an address to the medical students in attendance upon the Royal Hospital, and bring before them the claims of the Society. It was arranged that the annual meeting should take place on the first Wednesday in February next year.

ULSTER HOSPITAL FOR SICK CHILDREN, BELFAST.

AT the monthly meeting of the Committee held at the Hospital last week, the lady-superintendent having brought before the Committee at their last meeting the urgent necessity of additional accommodation for the reception of patients, as many had been refused admittance during the past month, it was resolved to open all the available beds in the hospital, amounting to twenty-two. This increased accommodation not being sufficient for the requirements of the charity, the committee have under consideration the propriety of opening up a large ward, which will give twenty additional beds. During the month, five hundred and six new cases and four hundred and two old cases were under treatment at the institution.

DUBLIN OBSTETRICAL SOCIETY.

THE inaugural meeting of the fortieth annual session of this Society was held last Saturday evening in the hall of the King and Queen's College of Physicians. There were a large number of visitors present, including the President of the Royal College of Surgeons in Ireland and several Fellows of the College of Physicians. The President, Mr. Darby of Bray, delivered an address, the main subject of which was a statement of the reasons of his dissent from the prevalent views as to the nature of zymotic disease and of septicæmia. The following

officers were elected for the year. *President*: Mr. Darby (re elected); *Vice-Presidents*: Dr. MacSwiney, Dr. Kirkpatrick; *Committee*: Dr. Atthill, Dr. Denham, Dr. Johnston, Dr. Kidd, and Dr. McClintock; *Treasurer*: Dr. Cranny; *Secretary*: Dr. Roe. A cordial vote of thanks was passed to the retiring honorary secretary and treasurer, now appointed, respectively, vice-president and honorary secretary, for their past onerous services in connection with the Society.

OVARIOTOMY.

THE patient upon whom this operation was performed in the Rotunda Hospital, as we announced last week, died on the morning of the seventh day. Vomiting set in shortly after the operation, and could only be temporarily checked by the hypodermic administration of morphia. A *post mortem* examination showed that death was due to acute general peritonitis, which in some places had run on to suppuration.

ILLNESS OF PROFESSOR STOKES.

WE regret to learn that Dr. Stokes, the distinguished Regius Professor of Physic in the University of Dublin, had an attack of apoplexy last Saturday. He is hemiplegic, and his condition such as to give rise to the gravest apprehensions.

THE LATE DR. HANSEL GRIFFITHS.

WE regret to announce the death, on the 16th instant, from enteric fever, at his residence in Dublin, of this much-respected gentleman. Dr. Griffiths was a native of Waterford, and received the first part of his medical education in the Queen's College, Cork. He subsequently studied in Dublin, London, and Edinburgh, and became a Licentiate of the Colleges of Physicians and of Surgeons of the latter city in 1871. He was also a Doctor of Philosophy of the University of Göttingen. Dr. Griffiths chiefly devoted himself to the subjects of materia medica and therapeutics, and published some excellent and useful little volumes thereon. He had a clear and demonstrative manner of imparting and arranging information; thus rendering himself a favourite teacher and an agreeable author. For some time past, he furnished monthly reports on the Progress of Therapeutics to the *Edinburgh Medical Journal*; which are most valuable and painstaking records, and especially useful to those, in these busy days, who must run while they read. As Assistant-Librarian of the Royal College of Surgeons in Ireland, the great majority of the profession in Dublin have had, at some time or other, occasion to feel grateful for his bibliographical knowledge and unvarying courtesy. He had in preparation, we believe, an admirably planned catalogue of the extensive library of the College; on the systematic arrangement of the books in which, in its enlarged buildings, he had expended much thought. Dr. Griffiths held also the lectureship in chemistry in the Ledwich School of Medicine, and was a most hard-working private teacher. In fact, we fear he worked too hard for his strength, as he rapidly succumbed, when attacked by his insidious disease, at the early age of thirty-two years.

CORONERS' MEDICAL WITNESSES IN DUBLIN.

IT may be remembered that, in April last, the Court of Queen's Bench, on the application of the Irish Medical Association, granted a conditional order for a *certiorari* for the purpose of obtaining the opinion of the Court with respect to a decision made by the Public Auditor, allowing a fixed sum yearly out of the Corporation funds to one individual medical man for his evidence at inquests. The Association, acting through their then Chairman of Council, Dr. Jacob, in the interest of the profession and the public generally, represented that, instead of there being—as under the existing arrangements between the city coroners and the Corporation—a permanent medical witness employed to attend almost every inquest, medical witnesses should be taken, as the occasion might require, from the legally qualified members of the profession generally, and be paid the legal fee of one guinea for their attendance at each inquest. At present, each of the two city coroners has a stand-

ing medical witness, who is almost invariably summoned when medical evidence is considered necessary. By an arrangement with the Corporation, these gentlemen are paid at the rate of £75 *per annum* each, provided the number of inquests attended by them respectively during the year does not fall short of seventy-five, in which case the medical witness is only to be paid the statutable fees for the number of inquests he has attended. At the audit of the city accounts, the Public Auditor declined to disallow this payment, when objected to as being contrary to the provisions of the Coroners' Act. His reasons for doing so were that, as might naturally be supposed in a large city like Dublin, the ratepayers gained by the arrangement; having only to pay for medical evidence at the rate of one hundred and fifty inquests *per annum*, although nearly double that number, we believe, are held in the city yearly. The case came on for trial before the full Court last Saturday, and the arguments in it occupied two days. We suppose the Irish Medical Association may be congratulated on the result. They have obtained the unanimous opinion of the Court of Queen's Bench that the system objected to is one which, in point of law, could not be approved of or sanctioned. Exercising, however, their discretionary power, the Court did not think that the *certiorari* granted in the case ought to be made absolute; the arrangement, objectionable though it was, having been made with proper intention on the part of the Corporation and of the Coroner, and with the object of saving expense. The anomalous *status in quo* accordingly continues; and all of the parties concerned, viz., the Association, the Corporation, the Coroners' witnesses, and the Public Auditor, have, with the exception of the latter official, whose costs are to be allowed out of the rates, to pay their own costs. One of the most important bearings of this case—viz.: the procural of reliable medico-legal evidence at inquests—seems to have been altogether lost sight of. The sole question on both sides resolved itself into a pecuniary one. The Dublin system, however, might be possibly made the means of introducing a much sounder one in these cases than generally exists. It must be patent to all, that a person familiar with normal and pathological anatomy is, when procurable, the proper individual to give evidence derivable from a *post mortem* examination; while the previous medical attendant, if any, should naturally give whatever *ante mortem* evidence he is possessed of, in every inquiry as to the cause of death. For this reason, we approve of a permanent medical witness to be present at all medico-legal necropsies, and to give evidence thereon. Such an official should, however, be a highly qualified and well-paid expert, and should conduct his proceedings in accordance with definite regulations, such as those laid down by law in Germany. We are of opinion that every coroner should have at his disposal the services of a pathological expert, who should of necessity be also a competent microscopist and chemist. Until some such official is appointed by Government, or by the corporations, medical evidence, in the majority of inquests in Great Britain and Ireland, will continue to be, in critical instances, incomplete and open to cavil.

PNEUMONOMYCOSIS SARCINICA.—Under this name, M. Heimer describes in the *Deutsches Archiv für Klin. Med.*, vol. xix, a case of which the following is an abstract. A servant-man, aged 57, admitted into hospital with symptoms of an advanced stage of pulmonary phthisis, was seized on the eighth day with pneumonia of the right lung. The sputa contained fibrinous coagula, pus-cells, granular cells, epithelium, fat, numerous molecules, and a large number of sarcinae. At the necropsy, there were found thickening, excavation, and caseation of both upper lobes; and the two lower lobes of the right lung were hepatized. In the anterior part of the middle lobe of the right lung was a cyst filled with gas and a little fluid. The gas had no bad smell, and the fluid had an acid reaction. The cavity was about four inches and three quarters in circumference, and was bounded by the broken-down lung-tissue, which contained a large proportion of sarcinae. The sarcinae were colourless, and were found also in the pus-corpuscles. Two similar cases have been described by Virchow, and one by Cohnheim; all occurred in phthisical patients. Heimer believes that his patient took in the sarcinae by inspiration while in hospital; that, through their very rapid development, they caused localised softening in the lung; and that this gave rise to the fatal pneumonia.

THE ANNUAL MEETING AT BATH IN 1878.

BRISTOL BRANCH.

A MEETING of the Bristol Branch was held at the Museum and Library, Bristol, on November 20th; Dr. Marshall in the Chair.

The President, in his introductory remarks, referred to the claim that Bath had upon Bristol to assist in the agreeable burden of entertaining the Association at the next Annual Meeting, both on account of the close geographical proximity of the two cities, and the additional professional bond of being united in one Branch. He further stated that he had ascertained that such co-operation on the part of Bristol would be agreeable to the President-elect, and to the Bath members of the Branch generally.

The following resolutions were then unanimously carried by acclamation:

Proposed by Dr. Davey, and seconded by Dr. Beddoe—"That the members of the British Medical Association attending the Annual Meeting in Bath next year be invited to a *conversazione* in Bristol on the evening of Friday, August 9th, 1878."

Proposed by Dr. E. L. Fox, and seconded by Dr. Fyffe—"That the members of the Association residing in the Bristol district of the Bath and Bristol Branch be invited to contribute to defray the expenses of the proposed entertainment; and that Mr. Board be requested to act as Treasurer."

Proposed by Dr. Swayne, and seconded by Mr. W. M. Clarke—"That the President, Dr. Davey, Dr. Fyffe, Mr. S. H. Swayne, Mr. Steele, and Mr. Dobson (with power to add to their number) be requested to act as a committee to make the preliminary arrangements, and that Mr. Board be requested to act as Secretary."

UNIVERSITY OF LONDON.

As will be remembered from the report in last week's BRITISH MEDICAL JOURNAL, a deputation from the Annual Committee waited on the Senate on Wednesday, the 14th instant, and was courteously received. The Chancellor, in reply to the spokesman of the deputation, Dr. Tilbury Fox, stated that the Senate would advise that a new charter be obtained, admitting women to all the degrees of the University. At a meeting of the Annual Committee representing Convocation, held this week, the deputation laid before the Committee the results of its interview with the Senate; and a letter was read from Dr. Carpenter, stating that the Senate had no intention of now acting on Russell Gurney's Act. Under these circumstances, the Annual Committee resolved to thank the Senate for having abandoned their intended proceedings under the Act, and they notified the fact that they would be prepared to receive and consider any suggestion which the Senate had to offer on the subject of an amended Charter.

Dr. Storrar, the Chairman of Convocation, has declined to comply with the requisition recently sent to him, signed by seventy-two members of Convocation, and asking him to convene an extraordinary meeting of Convocation. In his opinion, such a meeting is not necessary. The objects for which the meeting was desired were fully given in the BRITISH MEDICAL JOURNAL for November 3rd, 1877, at page 653.

THE SICK AND WOUNDED IN THE RUSSO-TURKISH WAR.

SEVERAL long reports, furnished to the Stafford House (S. H.) Committee, have been kindly forwarded for publication in the BRITISH MEDICAL JOURNAL; we regret that various demands upon our space compel us to reduce these reports to the following slender proportions.

Mr. Kennett (Constantinople, October 5th) reports that, as winter approaches, transport becomes more difficult. Country arabas (ox-wagons) have to be substituted for the light country carts.

2. Dr. McIvor (Adrianople, September 28th) says that blankets are required for the patients. A military hospital inspector visited the hospital, examined the wards and patients very carefully, thanked Dr. McIvor in fair English, and reported favourably upon the state of the hospital. There were 200 patients.

3. Dr. Barker (Philippopolis, September 23rd), on his third journey with the railway ambulance, had charge of 337 wounded. He was accompanied by Drs. Stephenson and Wood, who assisted in dressing the wounded *en route*.

4. Dr. Barker (Philippopolis, September 29th), in his fourth train of fifty carriages, conveyed 850 wounded, many of them bad cases.

^m. Mr. Stoney (October 3rd) says: The Turkish Hospital at Adrianople is capable of holding about 1,500 men. The wing of 210 beds, under the charge of S. H. surgeons, contained 180 patients, about half of whom were severe cases. No serious operations were allowed without the consent of the patient and the Turkish chief medical officer. The English surgeons were three (Messrs. McIvor, Kirker, and Stewart), with a druggist who acted as dresser, and three other dressers (Ward, Cowan, and Antonio), whilst nine Turkish soldiers acted as nurses and ward-servants. The Turkish authorities spoke in warm terms of the English surgeons, who, nevertheless, were working under the greatest difficulties.

ⁿ. Mr. Stoney (October 5th), writing from Philippopolis, says that there was not there a large single hospital as at Adrianople, but that the sick were distributed all over the town in large houses. Dr. Neylan, Senior S. H. Surgeon, collected the worst cases into three houses, under the S. H. surgeons, and himself visited all the other houses. The three S. H. houses contained from 150 to 180 beds, nearly all of them full. Many of the cases were serious.

^o. Mr. Stoney (October 4th) reports that the S. H. Roumelian railway ambulance consisted of five wagons, one fitted as a pharmacy and medical store, in charge of Dr. Barker, and four carrying each four suspended beds and one bed on the floor for severe cases. Lighter cases were conveyed in luggage-vans. The carriages were attached to the trains conveying wounded soldiers to Constantinople, and the wounded were dressed whilst they were *en route*. Soup-kitchens, at intermediate stations and at the termini, furnished the wounded with soup, bread, tobacco, and coffee.

^p. Dr. Bond Moore (Orchanie, October 2nd) reports the great satisfaction evinced by Kiazim Pacha, commanding the Sultan's Body Guard, when informed that S. H. surgeons were about to accompany the expedition to Plevna. The band played "God save the Queen", the officers and men all standing.

Mr. Kennett (Pera, October 24th) reports that Dr. Neylan had been appointed Surgeon at the Hospital in the Military School, Stamboul, with Turkish medical students under him. His place at Philippopolis had been filled by Dr. Eccles. Drs. Pinkerton and Denniston had left for Trebizonde, to strengthen Casson's section in Armenia. A large supply of medical stores, winter clothing, etc., had been sent to Erzeroum, and forwarded thence to Kars before the roads were blocked. Dr. Weller was convalescent; Dr. Woods and Dr. Sketchley were temporarily invalidated. Quininum and brandy had been forwarded to Silistria, where there were 1,800 sick with malarial maladies. Other stores had been sent to Batoum and Erzingan, south-west of Erzeroum.

². Mr. Pratt (Schumla, October 13th) had been distributing stores in the eastern district of Bulgaria around Schumla and Rustchuk. There were many men sick with dysentery, fever, and camp-sores treated by the Stafford House surgeons. The hospitals and ambulances had been placed where, in case of an action, they were likely to be of the greatest service, and were well provided with necessaries. One hundred and fifty sick at Tchernavoda were without a doctor, until Mr. Pratt obtained a Stafford House surgeon for them from Rustchuk.

³. Dr. Stiven (Rustchuk, October 1st), after an action on September 4th, received one hundred and seven wounded men. The governor of Rustchuk, Ahmed Kaiserli Pacha, and Osman Pacha, the commander of the Egyptian troops, visited the hospital, and thanked the Stafford House surgeons for their attention to the wounded. The Turkish authorities desired them to extend their hospital, which then held only one hundred beds, so that it might accommodate two hundred patients, and to bring up two other English doctors. Arrangements were further made in anticipation of the coming cold weather. Of the 107 men treated during the month of September, 14 died, 27 were discharged cured, and 66 were remaining in hospital. They were all profuse in their thanks for the kindness shown them. Excepting the 14 fatal cases, many of whom died shortly after their admission from the battle-field, the wounds did exceedingly well.

⁴. Dr. McQueen (October 20th) had, at Nedjib Pacha's special request, joined his division near Kadikieui. At Kazelovo, there were about two hundred sick (cases of diarrhoea, dysentery, intermittent fever, and rheumatism) daily under treatment.

⁵. Dr. Busby (October 20th), with Assaf Pacha's division at Kazelovo and Kadikieui, had treated large numbers, sometimes three hundred in one day, of sick troops, but few wounded men. Rheumatism was very prevalent; also camp-sores, dysentery, diarrhoea, ague, bronchitis, and œdema of the legs. Scurvy had decreased. The men were insufficiently clothed and badly housed, and little attention was paid to sanitary matters by the Turkish authorities.

⁶. Dr. S. Eccles (Philippopolis, October 20th). Two other large buildings, capable of receiving one hundred and fifty-two patients, with three dressers and a staff of hospital attendants, had been handed over

to the control of S. H. surgeons. A central kitchen and washhouse for all the houses used as hospitals was being constructed, as many of the wounded had died from unsuitable food and exposure to a low temperature. Over three hundred patients, whose wounds or diseases were of a slight nature, were sent to Adrianople in Dr. Barker's S. H. railway ambulance, to make room for about five hundred more serious cases, coming from Kezanlik in bullock-wagons, who were distributed among the hospitals in Philippopolis. The sick and wounded from the army of the Balkans were first treated in the field hospitals; thence conveyed to Kezanlik; thence, when fit, to Philippopolis; and finally to Adrianople and to Constantinople. The transit necessarily entailed a great amount of suffering; but this was mitigated below Philippopolis to the greatest extent possible by the S. H. ambulance train and soup-kitchens. Some system for providing soup, etc., between Kezanlik and Philippopolis also was to be established. The wounded arrived at the latter place in the greatest misery, starving with cold and hunger, whilst parasites had attacked their ears, nostrils, and eyelids. There was great need of bed-linen, night-clothes, and mattresses stuffed with a material softer than hay; as it was impossible to avoid bed-sores, and any attempt to keep patients at rest for the union of fractures was frustrated by the unendurable pain occasioned by lying in one position on bags stuffed with hay. Mr. Layard was consequently going to provide a large quantity of linen. A kitchen and washhouse were to be established in each hospital. Dr. Woods was temporarily invalidated.

SPECIAL CORRESPONDENCE.

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

The Medico-Ethical Society on Homœopathy.—Students' Annual Dinner.—Clarity Organisation Society.

THE Medico-Ethical Society of Manchester, which is a fairly representative body, lately held a debate, which lasted for two evenings, upon the present attitude of the profession towards homœopaths. No decision was finally come to, nor, indeed, was any vote taken; but the prevailing opinion appeared to be that the rules of the Society in reference to this question required revision and might, in some respects, be conveniently made less stringent. It was urged by the advocates of this policy that we had no right to taboo men on simple matters of opinion, and that the adoption of homœopathy came under this category; that, while it was true we had no sound scientific basis for our therapeutics, we had dogmatists amongst us as extreme and truly unscientific as the homœopaths; and that it was, therefore, illogical to have one sauce for the goose and another for the gander. They, therefore, advocated the admission of homœopaths to our societies, and that the question of meeting them in consultation should be left to individual discretion and feeling. It was also stated by several German members of the Society, that the free professional intercourse which existed between the two schools in many parts of the Continent led to no practical difficulty. There were, of course, members who took a different view, and who said, "Touch not the unclean thing, nor have anything to do with him who does touch it"; but, judging from the speeches, this party was in the minority. It is certainly felt that at present we are in an anomalous position; for while there is an expressed prohibition against any meeting a homœopath in consultation, it is perfectly well known that homœopathic practitioners are being met every day by certain of the consulting physicians in Manchester. There is a strong feeling either to break down the barriers completely or make them so secure that there is no escaping them.

The medical students' annual dinner was held at the Queen's Hotel, on November 9th, under the presidency of Mr. Heath, Senior Surgeon to the Infirmary. There were about a hundred gentlemen present; and the affair was altogether most pleasant and satisfactory. Now that the introductory lecture is abandoned, it is proposed to hold the dinner at the commencement of the session for the future, and this proposition meets with very general approval. Professor Greenwood, in replying to the toast of Owens College, stated that the only serious opposition to its conversion into an university came from Leeds and Liverpool; and Mr. Bradley, replying to the toast of the Medical School, advocated the admission of women to the College and the School, stating that were this policy adopted, two things, in his opinion, would follow: only a few, and those very able and earnest women, would avail themselves of the opportunity; and, secondly, the example set by Manchester would speedily be followed by the rest of England.

Much discussion has recently taken place in the papers on the question how to deal with the poor; how best to help them to help

themselves. A great deal of eloquent writing has been produced, but as yet no scheme has been decided upon or any concerted plan of action taken. It is felt, however, by several influential and philanthropic people that Miss Octavia Hill has shown how to deal with the matter better than any one else; and these persons are anxious to collect a sum of money sufficient to buy up some of the poorest and worst property of the town to see what can be done when they are the landlords by way of relieving the terrible distress which, in spite of heavy poor-rates, is so common a condition in our rich city. A leader is wanted to set the thing going, for no one can doubt that there is plenty of charity in a town which has just subscribed £40,000 to the Indian Famine Fund.

ASSOCIATION INTELLIGENCE.

STAFFORDSHIRE BRANCH.

THE first ordinary meeting of this Session will be held at the Railway Hotel, Stoke-upon-Trent, on Thursday, November 29th, at 4.30 P.M.

VINCENT JACKSON, } *Honorary Secretaries.*
J. G. U. WEST, }

Wolverhampton, November 19th, 1877.

SOUTH EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A CONJOINT meeting of the above Districts will be held at the Dispensary, Queen's Road, Brighton, on Friday, November 30th, at 3.15 P.M.: F. A. HUMPHRY, Esq., Surgeon to the Sussex County Hospital, in the Chair.

All members of the South Eastern Branch are entitled to attend these meetings; and visitors from the metropolis or elsewhere are particularly invited.

Notice of intended communications is requested to be sent on or before Wednesday, the 14th instant, to either of the Secretaries, in order that they may be inserted in the regular circular.

Dinner will be provided at 5.30 P.M., at Markwell's Hotel.

W. J. HARRIS, Honorary Secretary of the West Sussex District, 13, Marine Parade, Worthing.

THOMAS TROLLOPE, M.D., Honorary Secretary of the East Sussex District, St. Leonard's-on-Sea.

November 6th, 1877.

BATH AND BRISTOL BRANCH.

THE second ordinary meeting of the Session will be held at the Royal Hotel, College Green, Bristol, on Wednesday evening, December 12th, at half-past Seven o'clock: H. MARSHALL, M.D., President.

EDMUND C. BOARD, *Honorary Secretary.*

7, Caledonian Place, Clifton, November 21st, 1877.

THAMES VALLEY BRANCH.

THE next meeting of the above Branch will be held at the Spread Eagle Hotel, Wandsworth, on December 18th, at 5 o'clock.

Those members who may be willing to read papers are requested to communicate with the Honorary Secretary as soon as possible.

There will be a dinner at the above hotel at 7 o'clock. Charge, 7s. 6d., exclusive of wine.

F. P. ATKINSON, M.D., *Honorary Secretary.*

Kingston-on-Thames, November 1877.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

AT a meeting of the Committee of Council, held at the Freemasons' Tavern, Great Queen Street, London, on Wednesday, the 10th day of October, 1877: Present, Dr. R. W. FALCONER (President of Council), in the Chair, Dr. E. Wilkinson (President), Mr. W. D. Husband (Treasurer), Dr. Clifford Allbutt, Mr. Alfred Baker, Mr. J. Wright Baker, Dr. M. M. De Bartolomé, Mr. E. C. Board, Dr. L. Borchardt, Mr. Callender, F.R.S., Dr. Alfred Carpenter, Dr. Charles Chadwick, Dr. Ward Cousins, Dr. Balthazar Foster, Mr. R. S. Fowler, Dr. Edward Long Fox, Dr. C. Holman, Mr. J. R. Humphreys, Mr. Fredk. E. Manby, Mr. Frederick Mason, Dr. Edwin Morris, Mr. R. H. B. Nicholson, Dr. Charles Parsons, Dr. W. Procter, Dr. Edward H. Sieveking, Dr. A. P. Stewart, Dr. R. Shettle, Dr. W. F. Wade, Dr. Edward Waters, and Mr. C. G. Wheelhouse:

The minutes of the last meeting were read and found correct.

Read letters of apology for non-attendance from Dr. Copeman, Dr. Andrew Davies, Dr. Eastwood, Dr. Leech, and Dr. Eyton Jones.

Resolved: That the candidates whose names appear on the circular convening the meeting be hereby elected members of the Association.

Resolved: That the communication forwarded by Dr. Eastwood respecting contagious and infectious diseases be referred to the Registration of Disease Committee.

Resolved: That the minutes of the Journal and Finance Committee of this date be received and approved, and the recommendations carried into effect.

Resolved: That Messrs. Price, Waterhouse, and Co. be appointed public auditors.

Resolved: That a Subcommittee be appointed to consider the arrangements of future Annual Meetings and the Regulations for the Association Medal, to consist of the following gentlemen: Dr. Falconer, Mr. Husband, Dr. Chadwick, Dr. Stewart, Mr. Alfred Baker, Dr. Wade, Mr. Wheelhouse, Dr. Wilkinson, Dr. Sieveking, and Dr. B. Foster, and to report to a future meeting of the Committee of Council.

Resolved: That the date of the Annual Meeting be the 6th, 7th, 8th, and 9th days of August next.

Resolved: That the appointment of the Arrangement Committee and Readers of Addresses be postponed until after the report of the Subcommittee upon the arrangements of Annual Meetings has been received.

Read resolution of the Registration of Disease Committee, of which the following is a copy:

"That it be a recommendation to the Committee of Council to forward copies of this report, together with an extract from the report of last year to all the Boards of Guardians and the Urban and Rural Sanitary Authorities throughout England and Wales."

Resolved: That copies of the reports of the Registration of Disease Committee, together with an extract from the report of last year, be forwarded to all the Boards of Guardians and the Urban and Rural Sanitary Authorities throughout England and Wales.

Read minutes of the Scientific Grants Committee of August 9th and October 9th.

Resolved: That the minutes of the Scientific Grants Committee of August 9th and October 9th be received and approved, and the recommendations carried into effect.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH: PATHOLOGICAL AND CLINICAL SECTION.

A NUMEROUSLY attended meeting of the above Section was held on Friday, October 26th. The chair was taken by the President, Dr. THOMPSON of Leamington.

1. Dr. SANGER showed a case of Valvular Disease of the Heart (Mitral Stenosis).

2. Dr. SAUNDBY presented two tables containing an analysis of thirty-seven cases of Granular Kidney, collected from the *post mortem* records of the General Hospital during the last seventeen months. He remarked on the great frequency of the affection among his subjects, and referred to the comparative rarity of the other forms. Amyloid disease is very rare in Birmingham, only seven cases having been met with in the same time; subjects of chronic suppuration do not, as a rule, get amyloid disease in Birmingham; their organs are generally fatty. Of the thirty-seven cases, twenty-nine were males, and thirty four were over forty years of age, the youngest being twenty-one; they were the subjects of various diseases, a large proportion coming from the surgical wards; two were insane, one of these having committed suicide. The changes in the various organs were detailed; simple hypertrophy of the heart occurred in seventeen cases, with valvular disease in five. Dr. Saundby quoted one case in particular to disprove Bartels' assertion (Ziemssen's *Cyclopaedia*), that the heart is always hypertrophied; in this case, a female aged 50, the kidneys weighed seven ounces, and the heart nine ounces. The liver was found structurally altered in twenty-one cases. Dr. Saundby promised to report on the microscopical appearances at a future meeting.

3. Mr. PRIESTLEY SMITH showed mounted specimens of Eyes lost by Mechanical Injury.

4. Mr. FURNEAUX JORDAN exhibited a specimen of peculiar and circumscribed Necrotic Caries of the Os Calcis.

5. Mr. LLOYD OWEN showed a specimen of Cholesterine Crystals on the Iris, with a modified method of mounting.

6. Dr. RICKARDS showed a Heart wholly enveloped in an Adherent and Calcified Pericardium.

7. Mr. EALES showed two patients, one with Xanthelasma, the other with Microphthalmia.

CORRESPONDENCE.

THE BRISTOL MEDICAL SCHOOL.

SIR,—The Faculty of the Bristol Royal Infirmary would have anxiously avoided calling attention to the affairs of the Bristol Medical School in its present position, and would gladly have left the matter at rest until the Council of the College of Surgeons have decided upon their course of action, but that Dr. Burder, as "honorary secretary to the school", in his letter published in your JOURNAL last week, charges us, if not directly, by implication, with duplicity. He refers to "the hollowness of the pretence by which it is now sought to cover a course of action", with a "policy which, when tried at the bar of professional and public opinion, needs defence", and has led to our being "credited with a conspiracy to overthrow the existing school, in order to raise upon its ruins a new school in which the Infirmary shall be everything, the Hospital nothing"; and with "the imputation of conduct and motives unworthy of our position and our profession".

The charges against us as a Faculty, it will be seen, resolve themselves into two: 1. Our policy and conduct in appealing to the College of Surgeons; 2. Our motive in so doing, and in desiring incorporation with the University College of Bristol.

Before proceeding to the immediate consideration of these, it is, however, necessary to make clear the position and relations of the different parties.

The Bristol Medical School is, as you state in your article of November 10th, "a private institution owned and governed by its staff of lecturers". These lecturers are practically, but not necessarily (two at the present moment are not members of the profession), largely chosen from the Infirmary and Hospital staffs. Neither the Faculty of the Infirmary nor that of the Hospital, therefore, have any voice or control whatever in the affairs or arrangements of the school, though certain members of each staff, in virtue of being lecturers, have.

In the year 1863, when the enlargement of the Hospital entitled it to recognition by the examining bodies, the School Faculty, the majority of whom belonged to the Infirmary staff, passed a resolution, the effect of which was to insure an equal distribution of lectureships and votes between the two institutions. This rule, as Dr. Burder remarks, worked well; but, in 1869, the Hospital members having, through fortuitous circumstances, obtained a working majority, so far rescinded the rule that they have ever since retained a large majority. In other words, the school, comprising at present thirteen lecturers, reckons only four of these from the Infirmary, while seven are from the General Hospital.

Of the pupils educated in Bristol, more than three-fourths become pupils at the Infirmary for medical and surgical practice.

Now, as to the charges against us. The best mode of affording an opportunity for judgment on our policy and conduct in appealing to the College of Surgeons, will be to narrate the events that led to our so doing.

In July 1876, as Dr. Burder states, attention was attracted to the condition of the school by the fact that a very unusually large proportion of our students were rejected at the College examinations: a fact which corresponded with our observations generally, that the pupils attending the Infirmary for medical and surgical practice had of late been very deficient in elementary professional knowledge. At this time, the superintendence and attention in the dissecting-room rested entirely in the hands of volunteer demonstrators, and was known to be so irregular and deficient as to be entirely inadequate. Accordingly, at the school meeting in July 1876, as Dr. Burder states, a discussion arose as to an alteration in the scale of fees, one essential in which alteration of fees was the provision of a stipend for a paid demonstrator or superintendent of the dissecting-room, "a question in which the majority of the Hospital lecturers were of one mind with the Infirmary lecturers in favour of the alteration". Nevertheless, "the proposition was ultimately rejected, a result at which", Dr. Burder naively adds, "some of the Infirmary lecturers were exceedingly nettled". We should state that the paid demonstrator was eventually appointed, but not until June 1877.

In May 1877, it was found that, again, a very extraordinary proportion of rejections had taken place; and the Faculty of the Infirmary, anxious for the credit of Bristol as a school, a credit, we think, highly maintained, and conscious that, though they had no voice in the management of the school, they were nearly affected by the repute or discredit of its pupils, for the first time on record felt it their duty to meet and consider the circumstances in connection with the state of the school. Their inquiries satisfied them that the arrangements of the school were, in many respects, unsatisfactory; that there was a want of regularity in the delivery of the lectures, no efficient means of enforcing

regular attendance on them, and occasionally such an absence of decorum at the lectures as to prevent those who so desired from being able to profit by them. They were informed by their colleagues on the school staff that, as in the question of the paid demonstrator, they found that, in any proposal for alteration or reform, they were met by such persistent opposition that they had determined to absent themselves from rather than share in the responsibility of the meetings in which they practically had no voice.

The Faculty then found themselves in this position:—1. More than three-fourths of the students were Infirmary pupils; 2. As they attended the Infirmary, they were lamentably deficient in elementary professional knowledge; 3. Correspondingly, a previously unheard of number were rejected at the College examinations; 4. The school being in all its other appliances exactly what it had been when its repute was so high, it appeared to us that the only inference, especially with the corroborations above referred to, must be that some deficiency existed in the teaching arrangements and discipline of the school to which so melancholy a result was due.

Deeply impressed with a sense of their own responsibility under the circumstances, and believing that the faults in the school arrangements were largely to be ascribed to the want of responsibility and absence of any central control, the members of the Infirmary Faculty on the school staff were requested to ascertain whether the school staff were willing to submit the present unsatisfactory condition of the school to the Council of the University College, with a view to "incorporation" with that institution; accordingly, at a meeting of the medical school convened especially for the purpose on June 15th, 1877, a distinct proposition that effect was put to the vote, when it was negatived by eight votes against four.

It was only when no other course was open to them that the Faculty of the Infirmary, to avoid all further responsibility, resolved to memorialise the College of Surgeons to institute an inquiry, at the same time inviting the Hospital Faculty to join them in so doing; but the invitation was declined.

As to our motive and our reason for desiring incorporation with University College, at present, under "affiliation" or "intimate organic union", as Dr. Burder explains it, each lecturer is responsible to himself alone for the regularity of delivery of his lectures, for the regularity of attendance by the pupils, and for their decent behaviour and attention, just as the whole school is responsible to itself alone, except in so far as recognition by the examining bodies is concerned.

Without "any hollow pretence", we do believe incorporation, if it did no more than remedy this condition, would be a very great improvement. We believe, moreover, that incorporation offers many other advantages, not the least amongst which would be, especially under its present circumstances, the transformation of the school from a private enterprise into a public institution, with all the credit, responsibility, and security attaching to University College as the school of science of the West.

With regard to the charge of "conspiracy to overthrow the existing school, in order to raise a new school in which the Infirmary shall be everything and the Hospital nothing", it is so utterly inconsistent with the statement and fact that we entirely approve amalgamation with the University College as to scarcely need comment; for surely it would be absurd to attempt to gain the object imputed by placing the school elections, management and all, in the hands of a third public body, whose only interest would be the best interest and advancement of the school as an integral and essential portion of itself.

Confidently leaving our conduct and motives to the judgment of the profession as to the past, we feel reluctantly compelled to admit the present position of the school, in the hope that its Faculty may do something while yet there may be time.

It is evident, from the resolution of the Council of the College of Surgeons, that they misunderstood the communication from the school; and that they imagined the transitional state, which the school alleged in extenuation of its position, to be one of transition to amalgamation with the University College; and accordingly the first requirement in the resolution of the College is that the Faculty of the school "report upon the steps which have been taken by them to carry out the amalgamation"; yet it is evident, from Dr. Burder's letter, that no alteration whatever in the present relations of the school and University College is contemplated by the School Faculty. The "transitional state", then, to which the School Faculty ascribe their deplorable falling off consists simply in a change from the old school buildings, where for forty years so good results were achieved, to the new buildings to be erected by the University College. If no reform is to be expected until this event, considering that as yet not a stone has been laid, there may be some who would agree with us, that amalgamation and incorporation would be largely to the advantage of the "old and tried

institution" rather than that of the "new-born College".—Signed on behalf of the Infirmary Faculty, **ARTHUR W. PRICHARD,** Honorary Secretary to the Infirmary Faculty. Bristol Royal Infirmary, November 20th, 1877.

STIMULANTS BEFORE ANÆSTHESIA.

SIR,—The case of death under ether reported last week by Dr. Lowe seems to me to call for some notice from anæsthetists, of their opinion of giving stimulants by the mouth just before the inhalation.

I have for some time past abandoned the practice, which experience has taught me is liable to become dangerous. I have never lost a patient from ether or from gas and ether, but I have seen cases of suspended animation induced by fluid getting into the air-passages, in which artificial respiration seemed almost useless for several minutes. One case particularly struck me, on account of the condition of alcoholism in which the patient was left after the natural breathing was restored. A few drops of ether on a handkerchief given to the patient in the ante-room would, I think, often answer the purpose of the brandy and water, and be much safer.—I am, yours faithfully, **J. T. CLOVER.** 3, Cavendish Place, Cavendish Square, W., Nov. 21st, 1877.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE Nantwich Guardians have passed a resolution to combine with the Rural Sanitary Authorities of Altrincham and Congleton; and the Urban Sanitary Authorities of Lymm, Middlewich, Sandbach, and Winsford, in appointing a Medical Officer of Health, at £800 per annum, for three years.

POST MORTEM EXAMINATIONS IN WORKHOUSES.

THE following letter has been sent to the Local Government Board by the Council of the Poor-law Medical Officers' Association.

"Poor-law Medical Officers' Association,
3, Bolt Court, Fleet Street, November 14th, 1877.

"The public mind having been recently awakened to the necessity of a correct knowledge of morbid anatomy in relation to the careful performance of *post mortem* examinations, we are directed by the Council of the Poor-law Medical Officers' Association to forward you the following statement.

"The value of *post mortem* examinations as a means not only of obtaining pathological information in a special case, but also of advancing our knowledge of disease in general, can hardly be over-estimated. In ordinary general practice, however, the opportunities that exist for this purpose are few and far between. It is all the more important, therefore, that every other available source of knowledge on this subject should be freely open. Such a source, we submit, is to be found in the practice of the medical officers of workhouses. Unfortunately, however, this source has hitherto been almost closed in consequence of the restrictions imposed on medical officers of workhouses by the ruling of the Commissioners at the time of the introduction of the new poor-law in 1834. At that time, due no doubt to some extent to the conduct of the resurrectionists, there existed a wide-spread feeling of antagonism to *post mortem* examinations among the community generally, but especially among those of the poorer classes, who, under its provisions, were liable to become the inmates of workhouse sick wards. Since that date, mainly owing to the spread of education, much of that opposition has ceased, and although it may still be desirable to obtain the consent of friends, where that is practicable and convenient, we think that owing to the delay which very often occurs ere the friends can be communicated with, the rigid enforcement of such a rule practically amounts to a prohibition of these examinations.

"We would remind your Board that there are under your control an immense number of workhouses, schools, and workhouse hospitals which, collectively, form an immense field for the prosecution of pathological research.

"We wish to point out, moreover, that in the county lunatic asylums the Medical Superintendent is permitted, at his discretion, to make a *post mortem* examination on any lunatic pauper who dies under his care; and in the voluntary hospitals, the surgeons and physicians enjoy the same liberty of action. The Council, therefore, submit that, seeing your Board very properly requires that the same educational status as

the medical superintendent of an asylum or the physician or surgeon of a voluntary hospital, their powers in this respect should also be the same.

"The Council does not presume to lay down any rule which should guide your Board in issuing a minute on the subject, but they would submit that if you will take the opinion of the Medical Department of your Board, or of the General Medical Council, some regulation might be framed which, whilst providing against any abuse, would confer on Workhouse Medical Officers the power of making such examinations, and thereby place them on the same professional footing as their brethren the superintendents of asylums and the medical staff of the various voluntary hospitals, and thus enable them to acquire such information as would tend to add to their efficiency, and ultimately to benefit the whole community.—We are, etc.,

(Signed) "JOSEPH ROGERS, M.D.

"J. WICKHAM BARNES, F.R.C.S."

The following reply has been received.

"Local Government Board, Whitehall, S.W.,

"November 19th, 1877.

"Sir,—I am directed by the Local Government Board to acknowledge the receipt of your letter of the 14th instant, and to state that the subject to which it relates will receive the attention of the Board.

"I am, sir, your obedient servant,

"JOHN LAMBERT, Secretary.

"To Joseph Rogers, Esq., M.D., Chairman of the Poor-law
"Medical Officers' Association, Bolt Court, Fleet Street."

PROCEEDINGS OF THE NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

THE report contains much interesting matter, as the papers are printed in full. The first is on a subject which has excited a good deal of attention of late, viz., alleged defects in the Registrar-General's classification of diseases; but, as it is not confined to criticisms on the classification, but extends to the certificates themselves, the title scarcely covers the whole subject. Dr. Vernon points out what is well known to most who have classified the certificates, that they are in many cases "tickets of admission to the grave", rather than a true record of the disease from which the deaths occurred. He also objects, as was done at the International Statistical Congress in 1860, and since then, that many of the diseases grouped together as "zymotic" have no relation with one another. Another paper is from the pen of Dr. Hinckes Bird, on the tenure of office by medical officers of health, in which the subject is discussed under the heads of secession from a combined district, arbitrary reduction of salary, and abrupt dismissal. Mr. Vacher read at another meeting an interesting report, which was compiled from returns sent in, on the effects on human life and health of the vapours and gases emitted from chemical and allied works. As might have been expected, it was found difficult to estimate the relative importance of the answers, as, whilst some medical officers of health were strongly of opinion that vapours from chemical factories are injurious, others consider that the evils arising from poverty, overcrowding, and vice obscure the action of all other agencies. There were also papers read by Dr. J. Mitchell Wilson, on the medical inspection of schools; by Mr. Estcourt, on the pollution of rivers; and by Mr. Vacher, on sanitary by-laws, which contain some useful remarks on this subject. The whole report, as may be supposed from the above summary, is creditable to the Association.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

OBITUARY.

JOHN MORTON BEAUMONT, M.R.C.S.Eng.,
FOOCHOW, CHINA.

MANY an old Guy's man and many an old China resident will hear with great regret of the death of John Morton Beaumont at Foochow, in 1865. A member of a highly talented family, the son of an eminent physician, he entered Guy's Hospital as a student in 1854. An able and brilliant debater at the Paris' Physiological Society, and an enthusiastically devoted to music, he will be long remembered by his contemporaries. In 1858, he went out to China as surgeon in the Peninsular and Oriental Company's service; and while there, settled at Foochow in practice in 1859. Here he remained till 1865, when he

returned to England for two years, applying himself during his stay to the study of his profession, especially at the Eye Clinique at Guy's Hospital. He returned to Foochow in 1867, and in addition to ordinary professional work, established and vigorously carried on a large native hospital till his death on October 3rd, 1877. Fitted by intellectual power to fill the very highest position in his profession, well skilled in all professional work, socially warm-hearted and cordial, hospitable to the core, a most accomplished musician, he will be an irreparable loss to the society which he led and adorned. Direct in expression, and scorning untruth or concealment, a faithful and careful adviser in his profession, his life has carried its lesson well. Though he remained a simple M.R.C.S., he carried the highest powers of one of the highest class of minds into his daily work, and the lives of such men stand out as "beacons" or "beckoners" for all to attempt to follow.

"Ita vita est hominum quasi cum ludas tesseris ;
Si illud quod est maxime opus justum non cauit
Illud quod cecidit forte, id arte ut corrigas."

WILLIAM WRIGHT, M.R.C.S.Eng., PONTEFRACT.

MR. WILLIAM WRIGHT, Resident Medical Officer to the Pontefract General Dispensary, died suddenly on November 9th. At the *post mortem* examination, the cause of death was found to be fatty degeneration of the heart; and at the inquest, a verdict of death from natural causes was returned. Mr. Wright had held the joint position of Resident and Visiting Surgeon to the Dispensary for upwards of twenty years, having previously filled the post of House-Surgeon at Bradford General Infirmary. Mr. Wright, whose kindness of heart and ready sympathy for suffering had endeared him to his Dispensary patients, who averaged nearly two thousand *per annum*, will be greatly missed by those with whom the daily round of duty brought him into contact.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 15th, 1877.

Evans, Henry, Barmouth
Garman, Vincent Cornelius, Kent House, Bow Road
Harrison, Edmund Meredith, Brackley
Pemberton, Robert, Richmond Terrace, Clapham Road

The following gentlemen also on the same day passed their primary professional examination.

Baldwin, Frederick Benjamin Judge, Guy's Hospital
Jones, George Henry West, Guy's Hospital
Maybury, Lysander, St. Thomas's Hospital
Rhys, Joshua, St. Bartholomew's Hospital

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, November 13th, 14th, and 15th, 1877, the following candidates were successful.—Licence to practise Medicine.

Asbury, Alfred	MacNeece, James Gaussen
Brereton, John Thomas	O'Hara, Henry Michael (<i>m</i>)
Corbett, Joseph Edward (<i>m</i>)	Perceval, Montague W. C. (<i>m</i>)
Faulkner, Alexander Samuel (<i>m</i>)	

Licence to practice Midwifery.

Bland, Archibald Robert Hamilton

and the candidates marked *m* in the list above.

UNIVERSITY OF DUBLIN.—At a meeting of the Senate, held on Saturday, October 20th, the following degrees in Medicine and Surgery were conferred.

Bachelor of Medicine.—Duckworth, Richard H. D.O.

Master of Surgery.—Warren, Samuel

Doctors in Medicine.—Goode, George, and Murray, Charles F.

MEDICAL VACANCIES.

THE following vacancies are announced:—

ADDENBROOKE'S HOSPITAL, Cambridge.—House-Surgeon. Salary, £65 per annum, with board and residence. Applications to be made on or before December 1st.

ALNWICK UNION.—Medical Officer for the Embleton District.

BAKEWELL UNION.—Medical Officer for the Matlock District.

BIRKENHEAD BOROUGH HOSPITAL.—Junior House-Surgeon. Salary, £60 per annum, with commons and apartments. Applications to be made on or before the 26th instant.

BRISTOL HOSPITAL FOR SICK CHILDREN AND FOR THE OUT-DOOR TREATMENT OF WOMEN.—Resident Medical Officer. Salary, £100 per annum, with furnished rooms, coal, gas, and attendance. Applications to be made on or before the 30th instant.

BRADFORD UNION, Yorkshire.—Medical Officer for the Horton West District.
CHINA.—Medical Missionary for the Church of Scotland Mission. Salary, £45 per annum, and residence. Applications to the Rev. Dr. Cumming, Sandyford Church, Glasgow.

GENERAL HOSPITAL, Birmingham.—Honorary Obstetric Officer and Honorary Ophthalmic Surgeon. Applications to be made on or before the 24th instant.—Resident Medical Officer and Resident Registrar and Pathologist. Salary, £130 per annum each, with board and residence. Applications to be made on or before the 30th instant.

QUEEN'S HOSPITAL, Birmingham.—Resident Physician and Resident Surgeon. Salary, £50 per annum, with board and residence. Applications to be made on or before December 1st.

KIDDERMINSTER INFIRMARY.—House-Surgeon.

LIVERPOOL ROYAL INFIRMARY.—Resident Medical Officer. Salary, £100 per annum, with board, lodging, and washing. Applications to be made on or before the 20th instant.

LONDON FEVER HOSPITAL.—Assistant to Resident Medical Officer. Salary, £120 per annum. Applications to be made on or before the 30th instant.

POOLE UNION.—Medical Officer for the Workhouse.

PORTLAND TOWN FREE DISPENSARY.—Resident Surgeon and Dispenser. Salary, £100 per annum, apartments, fire, gas, and attendance.

REDDITCH and DISTRICT MEDICAL AID ASSOCIATION.—Medical Officer. Salary, £160 per annum and fees, with unfurnished house. Applications to be made on or before the 30th instant.

ST. GEORGE'S and ST. JAMES'S DISPENSARY.—Physician. Applications to be made on or before December 6th.

TAVISTOCK UNION.—Medical Officer for the Tavistock District and the Workhouse.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTHS.

DOLMAN.—On November 17th, at 48, Friar-gate, Derby, the wife of *A. H. Dolman, Surgeon, of a son.

PARSONS.—On November 16th, at Sunnyside, Wimbledon, the wife of *T. E. Parsons, M.R.C.S.Eng., of a son.

DEATH.

HUDSON.—On the 18th instant, Jane Antoinette, wife of *A. Hudson, M.D., of Merrion Square, Dublin.

BEQUESTS.—Mrs. Eliza Punnetta Smyth has bequeathed £200 to the Adelaide Hospital, Dublin; £100 to the Convalescent Home, Stillorgan; and £100 to the Hospital for Incurables, Donnybrook Road, Dublin.

A CENTENARIAN.—Dr. Grainger, the Medical Officer of Health for the Cardiff Rural Sanitary District, at the last meeting of the Authority, reported the death of a woman in the parish of Llanarvan at the age of 105.

LONGEVITY IN FRANCE.—Our Paris correspondent writes:—Whether centenarians are more abundant now than they used to be, I have no means of testing; but one thing is certain—that the average term of human longevity in civilised countries has been considerably increased within the last fifty years. A great many centenarians have lately been brought to notice in the newspapers both here and elsewhere; but I shall quote a few of the most remarkable cases, as they are also authentic. In the month of May last year, a woman named Virginie Deviessy, who resided at No. 16, Rue de Longchamps, Paris, died at the age of 108, she having been born in 1769. For the last ten years of her life, she was in a state of infancy, and, during the last two, she had not uttered a single word. In July also of last year, a man named Pierre Turpin, who resided at 97, Avenue d'Eylau, died at the age of 104. For the last six years of his life, he was in a state of childhood, and spent his time in cutting up corks and putting them up in a sack. I could relate a great many more cases of centenarians, but the list would be too long for an ordinary letter. If centenarians are rare, octogenarians are much less so, and the latter are met with almost daily in the common walks of life; but what has never been seen or heard of before (excepting perhaps the case of Thomas Parr) is the marriage of two centenarians. Only three or four months ago, a gentleman named De Brogues, residing at 29, Rue d'Orléans, Paris, married a Madame Massat, widow. The bridegroom was aged 101 and the bride 99, thus making up just two centuries between them. Here is another remarkable case of human longevity. On October 21st last, a gentleman named Duroy, a retired officer, aged 104, attended the wedding of two of his great-granddaughters. He led them both to the altar, followed by the bridegrooms, his own children, grandchildren, and great-grandchildren; and to see the old gentleman no one would have imagined he was a centenarian: his gait was steady, and he was as straight as a post. At the wedding dinner in the evening, he sang at dessert a song composed for the occasion. This was followed by a ball, which he opened in person, dancing with astonishing agility for his age.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M. Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
 TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
 WEDNESDAY.. St. Bartholomew's, 1.30 P.M. St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.
 THURSDAY... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
 FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
 SATURDAY... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—Medical Society of London, 8.30 P.M. A Clinical Evening. Cases by Dr. Lichtenberg, Mr. William Adams, Mr. J. Astley Bloxam, and others.
 TUESDAY.—Royal Medical and Chirurgical Society, 8.30 P.M. Mr. Morratt Baker, "Removal by Operation of a Hairy Mole occupying half the Fore-head"; Sir James Paget, "Cases of Branchial Fistulae in the External Ears".
 WEDNESDAY.—Hunterian Society (London Institution), 8 P.M. Mr. C. H. Golding-Bird, "On Sayre's Apparatus for Spinal Curvature; and Further Remarks of Treatment of Strumous Glands by Electrolysis".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.
 AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.
 PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.
 WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.
 COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.
 CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

A RENEWED PLEA FOR BREVITY.

WITH the continued increase of the number of readers of the BRITISH MEDICAL JOURNAL (which has now a circulation of eight thousand copies weekly), the pressure on space by correspondents naturally grows apace, and we must once more remind our contributors of all classes of the necessity of cultivating brevity to the utmost degree. Of many communications of great interest which we publish from time to time, it is difficult to suppose that the same amount of information could not be conveyed in fewer words.

S. C.—Paris would be a very bad place for lady to go to learn nursing. As far as we know, there is no such thing as a training institution for nurses in Paris. The hospital nursing is done by Sisters of Charity, excellent women, who are, however, for the most part very poor nurses in a technical sense, and very ill instructed: what training they get, they pick up from the house-surgeons. In the end, of course, many of them become good nurses; but, on the whole, the nursing of Paris hospitals is very inferior to that of the English hospitals, and we should not advise anyone to go to Paris to learn nursing. There are a great number of excellent institutions for this purpose in London.

THE MEDICAL JOURNAL.

SIR,—Most singularly it happened, that during the time I was engaged reading the *Journal*, one of the letters which I have been reading, by an accident, aged ten years, came into my study crying. He had incautiously put his hand near to the spout of the kettle, the steam from which had severely scalded him. The hand was at once placed in a solution of bicarbonate of soda, one drachm to two ounces of water. After remaining in the solution for nearly ten minutes the hand was removed, but the pain had not abated in the least. The soda was then dusted over the burnt part, the effect being that the pain was quite unendurable. Another solution was then made, of double the strength first employed. In this solution the hand remained for three-quarters of an hour; at the end of which time it was removed, as the child cried so piteously. An application of lime-water and linseed-oil was then substituted, with the best effects.—I am, sir, truly yours,
 November 17th, 1877.
 ROBERT P. OGLESEN.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

ADVANCED TREATMENT OF THE INSANE.

SIR,—I read in the BRITISH MEDICAL JOURNAL of November 10th a notice respecting what is called "An Advanced Treatment of the Insane" introduced in some asylum in Scotland. This consists in having, for the supervision of lady patients, educated ladies only. If this be new to Scotland, it is by no means new in England, and I imagine there is not a private asylum in England into which the principle has not long been carried out. One is glad to hear that if our Scotch brethren have been so long behind us, they are now following in our wake; but it should be known that the system introduced is new only to Scotland.—I am, yours truly,
 November 1877.
 M.D.

PNEUMONIA IN CHILDREN.

SIR,—The BRITISH MEDICAL JOURNAL of October 27th contains an abstract of an interesting paper, read at the Harveian Society of London by Dr. Squire, on Pneumonia in Children, in which he states that it is "a disease of high temperature"; and he mentions one case in which a temperature of over 104 deg. Fahr. was reached, "yet the child recovered". I quite agree with Dr. Squire that one of the most marked features of pneumonia in children is high temperature; and I have met with several cases in which the temperature has exceeded 104 deg. Fahr. and recovery followed. I am now attending a child who is recovering from a severe attack of lobar pneumonia whose temperature reached 106 deg. This is the highest temperature I have ever observed in pneumonia. The following are the temperatures taken from the day I first saw the patient until convalescence. October 23rd, 104 deg. Fahr.; 24th, 104.8 deg.; 25th, 106 deg.; 26th, 104.2 deg.; 27th, 103.6 deg.; 28th, 103.2 deg.; 29th, 102.5 deg.; 30th, 101.8 deg.; 31st, 102.3 deg.; November 1st, 100.4 deg.; 2nd, 99.5 deg.; 3rd, 98.5 deg.—I am, etc.,
 GEORGE BROWN, M.R.C.S.
 12, Colebrooke Row, Islington, N., November 12th, 1877.

THE FEEDING OF INFANTS.

SIR,—Will you permit me to suggest to a Member of the Profession who has occasion to write to the *Hackney Standard*, that he will find some excellent remarks on the above subject in the second volume of Dr. Playfair's work on *Midwifery*.—I remain, sir, yours truly,
 J.

SIR,—As the author of a series of articles in the *Borough of Hackney Standard* upon the above subject, and as a member of the British Medical Association, allow me to offer a few remarks upon your criticisms in the JOURNAL of November 3rd. In the first place, to assert that it was "after due consideration", aided by the experience of having had the medical care of infants in an infirmary for upwards of seven years, besides private practice and practical experience, that I ventured to ventilate a subject the very importance of which in itself would have appeared sufficient justification. It cannot surely be considered to dishonour the medical profession endeavouring to aid the poorer class in the management of their little ones. It was my intention to submit the whole essay to your consideration upon its completion. I do not complain of having been forestalled in the matter, but consider it most unfair to have had judgment passed upon a mere fragment of the whole, in which I have endeavoured to show how farinaceous food becomes more easy of digestion by cooking and other influences brought to bear upon it, the mode of preparing the food, and with regard to its quantity, deprecating the so-called stuffing and cramming of infants, and recommending but a teaspoonful or two of solid food for each meal instead of a cupful, as commonly given; the dangerous practice of mothers giving their young ones a little of what they take themselves are severely commented upon. It must be borne in mind that there are cases where, after several trials, cow's milk has been found a failure with infants: I have before alluded to condensed milk as a substitute; and as this is considered to be wanting in certain essential elements, I have sought to point out how the deficiency may be made up. It is a question undoubtedly of vast importance, and my efforts have been to show how, by a little discretion and rudimentary knowledge, a happy medium may be arrived at. I am happy to state that I do not stand alone in my theory, and, in justification to myself and Salford Sanitary Association, recently brought under my notice. It appears that a code of directions for the guidance of mothers has been, after careful deliberation, issued by the Infant Mortality Committee of the aforesaid Association, consisting of some sixteen members of the medical profession. It will only be necessary for me to make one or two brief quotations, as follows: "If, after several trials, milk do not agree with the infant, give good barley-water, or strained oatmeal-gruel," etc. And further on: "After six months, when the gums begin to get irritable" (here let me just mention that many infants have teeth at the fifth month), "the child may gnaw a gristle or tough crust; and if other food be required beside the breast, it should be made with milk and water or barley, oatmeal, cornflour, semolina, or bread-crumbs made into a pap".—I remain, yours very truly,
 EDWARD JOHN ADAMS, M.R.C.S., etc.

SIR,—I had hoped that my letter on the above important subject would have given rise to more discussion, hence my delay in noticing Dr. Owens's letter on the subject. He holds that farinaceous food in any form is unsuitable food for infants, as their salivary glands do not assume their active functions until the age of four to six months. This explanation looks very well; but, unfortunately for its stability, there is the difficulty that the digestion of starch does not wholly depend on the salivary secretion. If Dr. Owens will read Kirkes *On Digestion*, he will learn that there are other secretions equally efficacious in the digestion of starch; and if he will further inquire, he will find that the majority of infants are fed on farinaceous food. He will probably also find that when mothers partly suckle their babies they have even an objection to milk, as they fear that the two milks (their own and the cow's) will disagree. I give the latter opinion for what it is worth. Another objection, and one which I have found to be a serious one, is the constipation caused by a purely milk-diet. In such cases, I recommend some farinaceous food to be mixed with the milk, with invariably good results. In fine, while I believe that it is not possible to feed the infant with the best of humanly obtainable farinaceous food. And I know that in my experience farinaceous food is the rule and milk the exception in the food of infants, and as I see daily children thus fed and well nourished, I cannot believe in any theory, however pretty, that clashes with facts under daily observation.—I am, etc.,
 L.R.C.S.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

CHEMICAL CONSTITUTION AND PHYSIOLOGICAL ACTION.

SIR,—My attention has been called to a paragraph in the *BRITISH MEDICAL JOURNAL*, in which reference is made to two lectures "On the Influence of Chemical Constitution on Physiological Activity," delivered by me before our College of Physicians in January and February last, and regret is expressed that I did not bring forward experimental evidence of my own in support of the views expressed. Permit me to say that no such unsuitable mode of conveying information relating to unpublished works was contemplated by myself or by the other lecturers, if I may judge by the results. My aims were (a) to provide an introduction for future communications on the same subject; (b) to connect existing evidence as to lead medical men to the conclusion that most of the marked physiological effects known to follow the injection of medicinal substances are due to definite chemical reactions produced within the body, as shown most distinctly by Crum-Brown and Fraser's researches; and (c) to group the probable reactions in a manner somewhat similar to that long ago employed by Broadbent in his attempts to account for the action of poisonous bodies.—I am, yours, etc.,

Dublin, November 7th, 1877.

J. EMERSON REYNOLDS.

THE GENT FUND.

SIR.—Some months since you were good enough to insert an appeal on behalf of Miss Gent, the daughter of a deceased surgeon. The result of that appeal has been the subscriptions a list of which I append below. I intend to close the list in the course of a fortnight, and I shall be pleased to receive any further donations. It may interest those who have subscribed that much has been done by their aid to relieve Miss Gent's wants, and she desires to tender to them her warmest gratitude and thanks. I remain, yours faithfully,

Leamington, November 19th, 1877.

JAMES THOMSON, M.D.

Dr. Slack	1 1	Miss Day, Bee, Cheltenham	5 0
Dr. and Mrs. Graham, Weybridge	1 0	Mrs. Cumberland	1 0
Dr. Q. de Derby	1 0	The Misses Searge	1 0
Mr. E. Cooper, Woking	1 0	L. W.	1 0
Edward Wright, Esq.	0 10	E. B.	0 5
Mrs. A. Sutherland	0 10	C. B. S.	0 10
A Friend	1 0	H. Veasy, Esq., Woburn	2 0
M. D.	1 1	The Misses Braddyll	2 0
Mrs. Oates	2 0	A. Answer	1 0
Mrs. and Miss Rotherham	1 0	Mrs. P.	1 0
H. R.	1 0	Per Mrs. Blackhall	0 15
J. B.	1 0	A Friend	0 10
C. W. B. F.	1 0	Miss F.	1 0
Rev. D. P. Chase	2 0	Dr. Bull, Hereford	1 1
Mrs. Matthews	1 0	Miss Russell	1 1
X. Y. Z.	1 0	Mrs. and Miss Beckett	1 0
H. Stear, Esq., Saffron Walden	1 1		

EZEMA IN CHILDREN.

SIR.—In answer to a Member in to-day's *JOURNAL*, I beg to state that if there be any of the characteristic discharge usual in cases of acute inflammatory eczema in the ichorous stage, I should advise, as a soothing application, the following remedy: Olei amygdalæ dulcis ʒij; olei amygdalæ amaræ ℥xx; mix. To be painted over the affected surface two or three times a day. If the disease be in the squamous stage, pure terebene is a capital application, to be used in the same manner. As regards internal treatment, I would suggest acid. nitric dil. in gradually increasing doses, according to age, combined with decoctum cinchonæ flavæ, and perhaps the administration of cod-liver oil. A diuretic might be of service. Sometimes the Vals water, or, if there be any anæmia, the Pymont or Tunbridge Wells water, is of use. Of course, many circumstances have to be taken into consideration in the treatment of eczema, as to causes, complications, diathesis, etc. I would advise "A Member" to try the above, however, along with nutritious diet, good air, and avoidance of stimulants.—Yours truly,

24, Park Square, Leeds, November 17th, 1877.

ARTHUR ALBUTT, L.R.C.P.

Mr. P. S.'s letter is libellous.

A CURIOUS MONSTROSITY.

SIR.—On November 17th, I was called on to attend Mrs. S., who was in labour of her sixth child. On examination, I found the os uteri fully dilated, the membranes ruptured, and an arm and thorax presenting. I performed version with the greatest ease; the body of the child was expelled by the natural efforts, no traction being made except by the finger in the mouth in the usual manner. As I expected, the child was premature, between the sixth and seventh month. I observed the following abnormalities, which I think are worthy of note. Both hips were dislocated; there seemed to be an absence or shallowing of the acetabula. The legs and feet presented a very curious appearance, as they were turned completely round, their posterior aspects being placed anteriorly. The nates were flat, but the folds of the groins were perfect. The left foot (except for its position) was natural; but the right had only three toes, or rather a big toe and a little one; the middle toes were represented by a fleshy mass. The anus was imperforate; nor was there the slightest depression or any appearance which would lead one to suppose that the rectum was in its normal position. The penis, or what represented it, presented a most curious appearance. It commenced just below the pubis, with an exceedingly broad base, which suddenly contracted to the normal size. Just before this contraction there were situated two nipple-shaped bodies, one on either side. There was not the slightest appearance of a scrotum or testicles. There was no glans penis, and the orifice of the urethra was unusually large. The appearance of these parts gave me the idea that the rectum was carried forward under the arch of the pubis, and that the bladder communicated with it. The remainder of the body was quite natural. The child lived about nine minutes. I regret that I was unable to make a complete examination of the body.—I am, etc.,

November 1877.

J. LARRY BREKETON.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

SAYRE'S TREATMENT OF SPINAL CURVATURE.

SIR,—I should feel much obliged to any of your correspondents who would furnish me with observations on any cases of theirs treated by Dr. Sayre's method of plaster jackets and suspension. I have a few cases of lateral curvature suitable for treatment, and if there are no more difficulties than Dr. Sayre's recent book sets forth, it may be assumed that many surgeons in this country will be inclined to give a fair trial where such excellent results are promised, and with myself will be glad of any practical hints. Is it possible to get the apparatus of any English instrument maker?—Your obedient servant,

COUNTRYMAN.

November 14th, 1877.

* * * The apparatus may be had of any good instrument-maker. We hear that Messrs. Maw, Son, and Co. alone have furnished forty sets of the apparatus: there must, therefore, be some considerable experience at hand by this time of the application of Dr. Sayre's plaster jackets.

CREMER'S EYE POMADE.

SIR.—In answer to inquiries, permit me to state that Cremer's pomade is an ointment composed, like Pagenstecher's, of precipitated yellow oxide of mercury, and preserved for use in compressible tin tubes furnished with cannulæ, through which the ointment can be readily squeezed between the lids. These tubes can be obtained from Messrs. Maw, Son, and Thompson, of Aldersgate Street. Cremer's ointment is a very reliable preparation, but it is chiefly to be preferred to others because of the handy and very convenient compressible tubes in which it is sold. It is probable that similar tubes filled with an ointment composed of the mercurial oxide, vaseline, and a little atropine, would be even more useful than Cremer's in the great majority of the cases in which the use of the latter is indicated.—I am, etc.,

Brecon, November 12th, 1877.

TALFOURD JONES, M.B.Lond.

TURPENTINE, TEREBENE, and "SANITAS".

SIR.—Mr. Kingzett has questioned the accuracy of your statement that turpentine and terebene are ozonisers, and asserts, in a somewhat dogmatic manner, that the reactions which are generally attributed to this property are really due to the evolution by those bodies of peroxide of hydrogen. Even admitting the accuracy of this assertion, it is rather difficult to see how it affects the practical bearing of your statements, inasmuch as for all practical purposes it makes but little difference which of these two hypothetical bodies is produced, since their value would be as nearly as possible identical.

With reference to terebene, to which Mr. Kingzett depreciatingly alludes, I am quite satisfied to base its claims to utility on two facts, which any medical man can readily test for himself, and which are quite unaffected by any theoretical considerations as to its composition or mode of action. They are, firstly, its singular power of deodorisation; and, secondly, its value as an external application for various surgical and medical purposes. These are properties of an eminently practical nature, which are not in the least affected by the question whether terebene is an ozoniser or not; but I have no hesitation in asserting that, though terebene does not possess in so high a degree as turpentine the property which is under discussion, for the simple reason that it is a more stable and less volatile body than turpentine, it does exhibit it under favourable conditions in a very obvious degree.

I have no intention to depreciate the body to which Mr. Kingzett has given the high sounding title of "Sanitas", and which, as the public are very copiously being informed just now by advertisement, is asserted to be "the only true antiseptic and disinfectant combined", and to be a preservative against small-pox, rheumatic complaints, and other ailments of man and beast; but when he states that it is quite free from turpentine, I can only say that I have a bottle of this liquid and one of spirits of turpentine before me as I write this, and I think that it will puzzle most people to distinguish the smell of the one from the other, so much are they alike; notwithstanding which it is certainly an interesting body, and would probably be not the less appreciated if its properties were not so absurdly exaggerated.—Faithfully yours,

FRANCIS T. BOND, M.D.

Gloucester, November 1877.

AN UNUSUAL MATERNAL IMPRESSION.

SIR.—A curious instance of what appears very like a maternal impression has lately come under my notice. A patient, who is a large manufacturer of horn-buttons, noticed, while one of his workmen was turning down a piece of horn, an unusual appearance in it, and, on inspection, he found in the centre of the horn, extending through the whole of the solid portion, the exact representation of a dog's face, perfectly distinct, similar to a rough haired sheep's dog, with long woolly ears, the face becoming gradually smaller towards the tip. The horn was that of a North American cow. The manufacturer has had the piece of horn turned into *solitaires*, and they are certainly unique of their kind.

To attribute this image in the centre of a cow's horn to a maternal impression, we may imagine that while the mother was in calf she was attacked by a dog, and impaled it on one of her horns—a microscopic photogram, as it were, of the dog's face being impressed upon the germ of the horn of the fœtus calf, and then developed, increasing in size by the gradual growth of the horn. We may carry our imagination a little further, and ask if this impression of the dog's face do not bear some relation to the popular belief that the examination of the retina of a murdered person will show an impression of the face of the murderer? How do we know that, if a pregnant woman be very much frightened by a person or animal, a microscopic or living photogram of that person or animal may not be impressed upon the fœtus *in utero*? and that if that fœtus arrived at maturity, on the dead body being minutely examined, including even sections of the bones, an enlarged impression might not be found? We may wander in theoretical musings, and wonder if the hallucinations of persons who have committed a crime, or been terrified by a person or animal, and fancy they are constantly seeing the image of their victim or the person or animal who terrified them, might not also arise from a microscopic image of their victim or terrifier being impressed on some part of their body; or that a pregnant woman being similarly situated, the impression might not be transferred to the fœtus *in utero*, and on that fœtus growing up, it may not be susceptible of like hallucinations. I once had a patient who informed me that she frequently saw the face of a person looking at her, always the same countenance; that she did not feel frightened at it, as it was so constant that when she sat down to write a letter the face frequently appeared to be looking at her through the window. This might have been a case of living photographic impression, brought occasionally into relief by some peculiar state of the system or atmosphere, electrical or otherwise.—Your obedient servant,

WM. H. TAYLER, M.D.

Anerley, S.E., November 2nd, 1877.

HOSPITAL FOR DISEASES OF THE THROAT, GOLDEN SQUARE.

SIR,—Will you please insert in your next issue the following extract from the minutes of a meeting of the Council of the Medical Staff, held at the Hospital for Diseases of the Throat on Tuesday, November 24th, 1877:—I am, sir, your obedient servant,
W. MACNEILL WHISTLER, Secretary to the Medical Council.

Extract from the Minutes of a Meeting of the Medical Council of the Hospital for Diseases of the Throat, Golden Square, held November 24th, 1877:
Dr. R. H. Semple in the Chair.

"Having listened to a detailed account of certain operations referred to in the recent charges against the medical administration of this institution, the Staff resolved unanimously that these operations were performed with proper skill and care, and that no blame can attach to Dr. Mackenzie's clinical assistant."

SIR,—I trust you will allow me space to make a few comments upon Dr. Prosser James's letter on the subject of the recent disclosures relative to the Throat Hospital, which appeared in your JOURNAL of the 10th instant; and also on Dr. Whistler's letter on the same subject in your last number.

Dr. James states that "certain individuals" met and held a "so-called" inquiry into the medical department of the hospital. Such expressions appear most discourteous, considering that this inquiry had been instituted by the President of the Hospital, at the request of the Prince of Wales, then Patron of the institution, and that the members consisted of three noblemen intimately connected with the charity (two of them having served the office of President), and a distinguished member of his own profession. His complaint that the inquiry was held without the assistance of the medical staff, who received no communication from the Committee of Inquiry, should have been addressed to Dr. Mackenzie and his friends, who were requested to send such witnesses as they considered desirable, and who alone are responsible for not communicating with the staff.

With regard to the inquiry into the medical department of the charity having been entrusted to so many laymen, upon which Dr. James lays so much stress, I would call his attention to the fact that the views of his friend and colleague Dr. Mackenzie do not appear to accord with his own in this respect, as Dr. Mackenzie objected to any medical man being on the inquiry, especially to Sir James Paget and Sir William Gull; although it is true that he afterwards qualified this objection, to a certain extent, by urging more than once that Mr. Walter Coulson, a friend of his holding a similar appointment to his own on the staff of another special hospital (St. Peter's, for Stone), should be one of the members of the court.

Dr. James further states that the Committee appear to have met to listen to allegations made by "dissatisfied officials who had either resigned or been dismissed". The charges were made by certain late members of the Committee of Management, some of whom had been for years members of that body, but who resigned owing to the alleged mismanagement of the medical department by Dr. Morell Mackenzie. That it was a difficult matter to institute any reform, may be well understood when it is mentioned that Dr. Mackenzie had, in addition to many most intimate friends, no less than six relatives on the Committee. The "dissatisfied officials" who resigned consisted of four members of the Committee of Management, the Surgeon, Secretary, and Matron. A porter of the hospital was certainly summarily dismissed by Dr. Mackenzie, without the sanction of the Committee, on a charge which the man alleged to be entirely unfounded; but that is not a sufficient justification for the assertion that the dissatisfied officials had either resigned or been dismissed; especially as his dismissal of the porter was one of the charges inquired into.

Dr. James states that any attempt to implicate the entire medical staff in the matter is "quite unwarrantable". From this expression, your readers would hardly believe that Dr. James and the rest of the medical staff had already held a meeting, and, without calling any witnesses or seeing the shorthand notes taken at the inquiry, passed a formal resolution to the effect that the charges were unfounded, and that the staff had perfect confidence in the administration of the Medical Superintendent! Is it to be wondered at that the staff are now not altogether satisfied with the position they have taken up?

As the lay element in the Prince of Wales's Committee of Inquiry has been so strongly objected to by Dr. James on behalf of the staff, surely the best course would be to set the matter at rest by petitioning the College of Physicians to hold another inquiry. Dr. Mackenzie (as a member of that body) would, I feel sure, gladly accede to such a suggestion, particularly as some of the charges made against him still remain unanswered, owing to his withdrawal from the investigation before it was completed; and it is only fair to him that they should be inquired into.

Dr. Whistler appears to have misunderstood my letter of the 31st October when he says that he was never excluded from seeing his patients. What I intended to convey on this point (which was only raised incidentally at the inquiry) was that, when Dr. Mackenzie was away for two or three months, he left the care of his patients to a medical man who was not on the staff, to the exclusion of one of the regular medical officers, to whose care the patients should have been entrusted. It must also be remembered that, under the By-laws of the Hospital, Dr. Mackenzie, as Medical Superintendent, had certainly more than half the beds in the hospital, and that he had the power of filling up the other beds if they remained vacant beyond a certain time; so that, for a period of two or three months, almost all the in-patients were thus placed by Dr. Mackenzie under the charge of a gentleman who was not on the staff of the hospital. Can Dr. Whistler say that this was right, or would have been permitted in any other hospital?—I remain, sir, your obedient servant,
H. K. EVANS.

21ST NOVEMBER, 1877.

THE MORTALITY OF INFANT ASYLUMS.

The discussion on infant mortality which the Carlisle Place Orphanage excited some time ago seems to have been taken up in Canada. In the *Toronto Globe* there are given some statistics of mortality from some infant asylums in the United States as well as in the British provinces, and these are worth noting. It appears that at the New York Nursery and Children's Hospital, which was opened some five-and-twenty years ago, the mortality has been as high as 86 per cent.; but, thanks to a more careful regimen, it is now reduced to 12 per cent., which strikes us as a very low rate indeed. But there they have a "country branch", a "cottage system" and a maternity hospital, where the young infants are kept with their mothers till they are six months old, so what principle we do not understand. But in Chicago, also, there are several "cottage" homes for destitute infants, where "mothers" are also admitted as nurses". The death-rate in this home is not stated. At an infants' Home in Montreal, the mortality in 1875 was 41 per cent.; in 1876, 25 per cent.—a result attributed to increased care and an addition to the number of nurses. At Halifax, N.S., "where the system of retaining as many mothers as possible is employed", the death rate is a little over 30 per cent. In Toronto, the Infants'

Home has been established for only one clear year. The mortality was high during the first six months—how high is not stated; but of eighty-seven children received at various times from June to December of last year, sixteen died. Of the eighty-seven, forty-five had their mothers in the institution: of this class, five died. The other forty-two were without mothers, and of this class eleven died.

SIR,—Can any of your readers kindly tell me where I may find a fairly complete biography of the discoverer of vaccination, Edward Jenner?—I am, etc.
November 19th, 1877.
R. F. G.

** Baron's *Life of Jenner* is, we believe, a very complete work.

IN consequence of the pressure on our space, we are obliged to defer the reports of several societies, the letters of Dr. Greenhow, Mr. Spencer Wells, Dr. Day, Dr. Bree, Dr. Lindsay, etc.

LEAD IN AERATED WATERS.

SOME time since, Sir Robert Christison condemned the use of syphons for lemonade owing to the action which free tartaric acid has upon lead, and the rapidity with which waters containing any free acid become charged with lead in syphons. According to Professor Miller, 0.0175 grain of lead per gallon is not an unusual amount for average cistern water. Mr. John Stewart Thompson, however, reports to the Edinburgh University Chemical Society that, after such water has been aerated and put into a syphon, the amount of lead dissolved in it begins to rise in a rapid manner. Thus in potash-water, drawn from a syphon, 0.0408 grain of lead per gallon was found to be present, being nearly 2.5 times the quantity found in the same water before it entered the syphon. Pure aerated water again drawn in a similar manner from a syphon, gave 0.0816 grain of lead per gallon, or exactly double the amount found in the potash-water, showing at once the well known protective action that salts of the alkalies and alkaline earths have on lead. Although these results are sufficiently high and alarming, still when the water is drawn off in small quantities at a time, as is frequently the case with invalids, the results are found to be still higher; thus when potash-water was so treated, 0.0455 grain of lead per gallon was found, while aerated water, drawn off in small quantities, gave 0.0933 grain of lead per gallon, showing a very marked rise in both cases. The cause of this increase in quantity of the lead appears to be owing not so much to the lengthened period of contact between the liquid and the metal, as to the fact that the nozzle of the syphon, being exposed to the atmosphere in a moist state, becomes rapidly oxidised or carbonated, and is thus left in the most suitable condition for entering into solution, so that, when merely small portions of the liquid are drawn off each time, a comparatively concentrated solution of lead is obtained. These results compare accurately with those which were obtained by Messrs. Savory and Moore in examining the contents of a series of syphons of aerated water for Dr. George Owen Rees, F.R.S., whose attention was drawn to the subject by detecting symptoms of lead-poisoning in himself after he had been in the habit for some time of drinking such aerated water.

AQUA PURA.—1. Atkins's (Fleet Street) cistern-filter is a very good one. 2. Assistance might be had from the Surgical Aid Society towards paying the expense of the orthopaedic instruments required. The name of the secretary is Mr. W. Tre-sidder, 16, Ludgate Hill, E.C.

D. M. R.—Dr. Bastian's treatises on *Diseases of the Brain*; Professor Charcot's *Lectures on Diseases of the Nervous System*, translated by the New Sydenham Society. A monograph, just issued from the press, on *Diseases of the Nervous System*, by Dr. Althaus, is very complete.

ON ALCOHOLIC STIMULANTS.

SIR,—With your permission, I beg to state a few words on the question of alcoholic stimulants. We have different temperaments to deal with, and it is with these that discretion is required. No one could see more of the pernicious habit of drinking than a medical man in a large manufacturing town. A great proportion of the disease one has to treat is from excessive drinking. Nearly every street corner has a grocer's shop with a licence "to sell beer off and on the premises". Women buy their wares, and have the temptation daily before them. Next comes the question, Why is this permitted? I think the legislature is to blame for this, who have power to refuse so many applicants. In the immediate vicinity of a medical man whom I know, there are nine or ten such shops. I have asked why they grant so many. The answer is, they all can sell. I assert that, if there were fewer of such beer-shops with retail licences, there would be less secret drinking by women. The legislature ought to be petitioned, headed by medical men. We have patients of a neurosis without sufficient moral control to say when; it is with this class we must exert our efforts to save. There are people who go into excess in anything; many eat greedily of unwholesome food, and a great amount of disease is brought on by gluttony. It is a difficult matter to stop excessive drinking in large towns; but I am confident that school-boards, coffee-houses, and public libraries for our young people, in a few years will raise the moral and social tone, they will be the bases we may hope to raise the future generation from the neuroses which haunt them. Our legislature will have to restrict the granting of so many licences. We know that there are temperaments that, if they take alcoholic stimulants, must go on if they can procure them: these are they to enforce total abstinence. I state that it is not necessary to discard stimulants because people of feebler moral control run into excess. When we meet people of that weakness, it is our duty to use every effort to restrain them; to tell them candidly they must not, whether they like it or not. We may lose a few shillings or a patient, but we gain in the end. The medical profession being total abstinents will not alter the state of drunkenness in this country, but the legislature of England can do more. If more of our wealthy citizens would build institutions of an enlightened nature and offer inducements to our youth, we should have less habitual drunkards. In health—in robust health, as I understand it, is when one is so vigorous as to be able to sleep, eat, and enjoy life with little deviation and good digestive powers—I do not think alcohol is required: but how many enjoy such a steady career? In disease, alcohol is of great service. In typhus and typhoid fever, pneumonia, and hosts of diseases in poor half-starved creatures, timely doses of sound alcohol work wonders, and can be proved by facts if time permitted. In persons of feeble digestive power, and in convalescence from wasting diseases, alcohol is of service. I never use stimulants in delirium tremens. It is a pity if any of our race cannot partake of a wholesome condiment without going into excess.—I remain, sir, yours truly,
JAS. WATERS HARRISON, M.R.C.S. & L.A.C., Lecturer on Forensic Medicine in the Shemeld School of Medicine.

MR. ROBATHAN'S attention is called to the standing notice, requesting that communications relating to changes of address should be forwarded to the Manager, and not to the Editor.

THE MOFFAT DEFENCE FUND.

SIR,—As the honorary secretary of the Moffat Defence Fund, I beg to say that it is now closed, and the amount subscribed by the members of the profession and by Dr. Moffat's immediate friends residing in his vicinity (Hawarden) was handed over to him this week. It will be gratifying to all concerned to know that sufficient means were raised to pay all the heavy expenses of the prosecution. Dr. Moffat has requested me to say how grateful he feels for the sympathy shown him under his recent trials, which will be remembered by him through life.—Believe me, dear Sir, Sir,
W. McEWEN.
COURT, NEWCASTLE.

THE SHAKESPEARIAN LIBRARY, STRATFORD-ON-AVON.

We are very disinclined to trench upon the limited space of these columns by the notice of any other than strictly professional subjects. The works and memory of Shakespeare are, however, so precious a possession of this nation, and one which the learned professions so warmly cherish, that we make exception for the subjoined statement; and we are perhaps more tempted to do so as the first name signed at the bottom is that of one of our most active Associates, who is at present mayor of the town, and who received a large number of the members of the Association with generous hospitality on the occasion of the Birmingham meeting. Mr. Flower, the generous donor of one-half of the sum required, is the father of the Curator of the Hunterian Museum in the Royal College of Surgeons.

"The desire to erect some monumental memorial to Shakespeare in his native town has for very many years been cherished, not only by the people of Stratford, but by very many throughout the kingdom, and at various times efforts have been made to give a practical effect to such desire. About two years ago, Mr. C. E. Flower put forth a scheme, which at once commended itself to those in whose minds the desire had grown into a duty. This scheme embraced the erection of a theatre, a library, and a picture gallery: a small theatre, where, at least once a year on the anniversary of his birth and death (April 23rd), one or more of the inimitable plays of this great man could be put in a fitting manner upon the stage; a library, chiefly, though not exclusively, devoted to the literature of the drama, and of those subjects allied to it; a picture gallery, on the walls of which could be hung works of art inspired by, and illustrative of the writings of, him, who as a word-painter has never been excelled. Mr. Flower gave a site and a money contribution of £1000, which was soon increased to over £3000 by the contributions of Stratford people. So much interest was manifested in this undertaking, backed by substantial aid from all parts of the country, that eventually an Association, called the Shakespeare Memorial Association, was formed, and was soon afterwards able to commence the building of the first portion (the theatre), the foundation-stone of which was laid with full Masonic ceremony on the 23rd April last, by Lord Leigh, Lord-Lieutenant of the county. All the money for this portion of the memorial, amounting to upwards of £10,000, has been subscribed and guaranteed, and the works are progressing satisfactorily. It is felt, however, that the memorial will be most incomplete without the library and picture gallery, and that if these portions can be proceeded with at the same time as the first portion, a very considerable saving will be effected. To do this, a further sum of £8000 is required. Our generous townsman, Mr. C. E. Flower, has again come to the front, and made us the liberal offer of £4000, on condition that a like sum be raised by the end of the year. At the mayor's annual banquet, on the 18th instant, Mr. Henry Graves, the eminent art publisher of Pall Mall, announced that he had, by will, bequeathed all his pictures of a Shakespearian character to this gallery. Two such noble gifts (conditional as they are) lay upon the people of Stratford in particular the heavy responsibility of raising this sum, so as to secure for the town locally, and the nation generally, the completion of this truly national memorial to the world's greatest poet. The mayor was requested to call a public meeting of the inhabitants of Stratford, which took place on the 22nd instant; and at this meeting a resolution was passed calling upon the corporation "to take steps to bring the subject before the nation, and especially before the corporations of the various cities and towns of the United Kingdom, in order to secure their aid in this national undertaking." It is in compliance with this resolution, and with a full sense of the duty and responsibility which devolve upon them, that the ancient Corporation of Stratford-upon-Avon now issues this address, appeals to the sympathy of the entire nation, and confidently solicits liberal subscriptions from all classes to enable the public to avail themselves of the gifts of Mr. Flower and Mr. Graves, and to present to the world a complete memorial, raised in honour of one who has bequeathed to his country the richest legacy.—(Signed) JOHN JAMES NASON, M.B., Mayor; THOS. HUNT, Town Clerk.—Town Hall, Stratford-upon-Avon, October 1877.

EXPERIMENTA IN CIRCUITU VITÆ.

SCHILLER, in his account of the proceedings of the Marshal de Vieilleville, thus relates the sad accident at the tournament, in which Henry the Second of France was killed by his captain of the guard Montgomery. They had had already one bout in the tournament and broken their lances, when the King desired a second. "Now, sire," spoke out de Vieilleville, "I swear by God that during three nights I have dreamed that your Majesty would meet with some misfortune, and that the last of June would be fatal to you. Montgomery also excused himself as being against the rule; but the King ordered it so, and both took their lances. They tilted at each other again and broke with the greatest cleverness their lances. But Montgomery, very awkwardly, did not throw the splintered lance out of his hand, as was the custom, and in running hit the King on the head direct on the visor, so that the stroke went upwards and penetrated the eye. The King let the reins fall and held on by the neck of his horse; this ran to the boundary, where the first two equeuries, according to custom, stayed, who immediately seized him. They took off the King's helmet, and the King said in a feeble voice that he was a dead man. All the surgeons came together in order to search the place in the brain where the splinter had penetrated, but could not find it, notwithstanding that the heads of four malefactors who were under sentence of death were cut off, into which lances were thrust in order to experiment."

WEDDED BY THE MARRIAGE OF AN EPILEPTIC.

SIR,—I should be glad to hear what the experience of the profession is on the above question. Does experience teach that marriage by an epileptic is generally beneficial either in curing or mitigating the severity or the number of the attacks, or does it tend to make the disease worse? I myself have known complete immunity from the disorder to follow marriage; and, on the contrary, I have seen cases rendered much worse, both as regards frequency and severity of the paroxysms, with the concomitant increase of the baneful mental effects, by the subjects having taken this step.

An epileptic patient of mine, a female aged 23, is hesitating whether to say Yes or No to her betrothed's proposal of immediate marriage, because of the serious

question whether, by accepting, she would be rendered more liable to the attacks, and thus be a sort of burden upon her husband, instead of, as she desires, "a help-meat for him." I need not point out the importance of this question to all concerned—the medical adviser, as well as the persons themselves and their relatives, etc. The former, indeed, is placed in a very responsible position when asked for advice *ex cathedra* in such a case, in which his decision is a matter of such overwhelming importance to those personally concerned. With respect to the young lady above alluded to, the disease appears to be inherited, and is, I believe, of the centric kind. Her brother died of the same affection at an early age. She herself is now frequently attacked, every three days or so, with the *petit mal*, the paroxysms being repeated perhaps daily, and on first awaking in the morning, for the same number of days; after which, other three days' intermission will follow, when they again return, to cease and again return as before. The attacks are less severe, but far more frequent, than formerly. Medicine appears to have benefited her little. There is no malformation of the cranium, and neither history nor appearance of scrofula in the family. The first paroxysm began after a fall down stairs, attended with fright, about five years ago. The catamenia are regular, but scanty, and the rest of the functions and all the organs are healthy. Her aunt, who was similarly afflicted, became quite free from epilepsy after marriage and the birth of her first child.

Should my patient marry? or should the advice be, Wait for twelve months, and again try the effects of careful medicinal treatment, coupled with the cold shower-bath, etc.? The importance of the question, both in this case and in others of a like nature, cannot be overrated, from whatever point of view we look at it. None of the standard works on medicine that I have by me (Watson, 5th edition; Bennett, 6th edition; Tanner, 6th edition; etc.), even so much as allude to the question. I will read with interest the opinions of my professional *confères* on the matter.—I am, sir, faithfully yours,
DOUBTFUL.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; The Derby Mercury; The Preston Guardian; The Scarborough Express; The Jewish World; The Scotsman; The Cork Constitution; The Freeman's Journal; The Hampshire Post; The Somersetshire Herald; The Isle of Man Times; The Sussex Advertiser; The Herts Advertiser; The Manchester Guardian; The Evesham Journal; The Yorkshire Post; etc.

* * * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. T. Clifford Allbutt, Leeds; Dr. I. Burney Yeo, London; Dr. H. Barnes, Carlisle; Dr. Wilson Fox, London; Dr. Edis, London; Dr. Foster, Birmingham; Dr. A. T. H. Waters, Liverpool; Mr. T. Spencer Wells, London; Dr. W. Fairlie Clarke, Southborough; Dr. Broadbent, London; Dr. Bradbury, Cambridge; Dr. R. Livinge, London; Dr. R. J. Garden, Aberdeen; Mr. Batterbury, Berkhamstead; Mr. Douglas Lithgow, Wisbeach; Mr. W. H. Box, Chirk; M.A.; Dr. Foulis, Glasgow; Mr. F. W. Cock, London; Mr. E. J. Adams, London; Mr. Nason, Stratford-upon-Avon; Mr. H. Arthur Allbutt, Leeds; Mr. J. W. Harrison, Sheffield; Mr. J. Farrer, Lancaster; Mr. W. Martin, Hammersmith; An Associate; Mr. E. C. Board, Clifton; The Secretary of the Hunterian Society; Mr. George Searancke, Scanberwen, Gronant; Dr. James Sawyer, Birmingham; The Secretary of the Society of Medical Officers of Health; Mr. Bell, Edinburgh; Mr. Murphy, London; Dr. J. A. Menzies, Naples; Mr. B. G. Evans, Tynant, near Cardiff; D. M. R.; A Reader; Dr. J. W. Moore, Dublin; Mr. L. Herbert Jones, London; Dr. Dowse, London; W.; Dr. Robert J. Lee, London; Mr. Roberts, London; Dr. John H. Sutton, Anerley; The Secretary of the Harveian Society; Dr. Edwards Crisp, London; Dr. Arlidge, Stoke-on-Trent; Mr. C. M. Jessop, Clifton; Mr. Oglesby, Leeds; Mr. Joseph Thompson, Nottingham; Dr. J. B. Brereton, Seaham; Dr. Arthur Leared, London; M.D.Ed.; Dr. J. Marion Sims, Paris; Dr. J. Ward Cousins, Portsmouth; The Secretary of Apothecaries' Hall; Dr. Thompson, Leamington; The Registrar-General of England; Mr. H. Cripps Lawrence, London; The Registrar-General of Ireland; Mr. Eastes, London; Dr. J. Milner Fothergill, London; The Secretary of the Royal Medical and Chirurgical Society; X.; Our Dublin Correspondent; Mr. Edmund Lloyd, London; Messrs. Southall Brothers and Barclay, Birmingham; Mr. G. F. Rossiter, Weston-super-Mare; Dr. Gr. mshaw, Dublin; M.R.C.S.E.; Our Edinburgh Correspondent; Mr. Charles D. Chubb, Torpoint; Dr. M'Ewen, Chester; Dr. Bree, Colchester; Mr. Lowndes, Liverpool; Dr. Saundby, Birmingham; Dr. M'N. Whistler, London; Dr. George Scott, Southampton; Mr. H. Taylor, Guildford; Dr. Atkinson, Kingston-on-Thames; Mr. Clover, London; Dr. J. Murray Lindsay, Mickleover; Mr. Robbatham, Brighton; Mr. T. Taylor, Cricklade; Mr. T. S. Pitts, Thorne; Dr. E. Ellison, Ipswich; Mr. T. S. Ellis, Gloucester; Dr. Urban Pritchard, London; Dr. J. P. Cassells, Glasgow; Dr. A. B. Brabazon, Bath; Dr. W. F. Wade, Birmingham; Mr. J. Dixon, Whitehaven; Mr. H. K. Evans, London; Dr. Greenhow, Chapel Allerton; Dr. Marshall, Clifton; etc.

BOOKS, ETC., RECEIVED.

Hospitals: their History, Organisation, and Construction. By W. Gill Wylie, M.D. New York: Appleton and Co. 1877.

A CLINICAL LECTURE ON COLOTOMY.

Delivered in University College Hospital, London.

BY CHRISTOPHER HEATH, F.R.C.S.,
Holme Professor of Clinical Surgery.

GENTLEMEN,—During the last year, you have seen in the wards several cases of disease of the rectum, in more than one of which I have performed colotomy. We again have a similar case, on which I intend to operate on Wednesday; and, therefore, I thought this a suitable opportunity for making some remarks on the operation.

Many of you, no doubt, will remember the case of the man M., who was in the hospital towards the end of last year. He was a man fifty-eight years of age, of blanched cachectic appearance, who had suffered severely for some time from cancerous ulceration of the rectum; and, shortly before he was admitted, fæces had found their way into the bladder. On admission, we found him suffering great pain, with fæces in the bladder and blocking up the urethra; and, if this state of affairs had been allowed to continue, no doubt the fæces would have formed the nucleus of a vesical calculus. The patient was admitted on December 27th, and on the 29th colotomy was performed in the left lumbar region. Immediately afterwards, the fæces ceased to pass into the bladder, and were all passed by the opening in the loin. The patient convalesced slowly, but fairly, and left the hospital in the following February. When first the operation was performed, he was troubled for a time by urine finding its way into the rectum. He was, therefore, placed on a Hooper's bed, so that the urine might gravitate into an utensil beneath. On calling at his lodging to-day, on my way to the hospital, I found that lately the urine had begun to escape by the artificial anus; and, when I passed my finger into the rectum, I found it more obstructed than on the last examination. It is probable that the cancerous mass there has increased and blocked the anus, so that the urine regurgitates through the rectum, and so out at the wound; in fact, the rectum and bladder in this case are one common cloaca. By diverting the fæces from the rectum, we relieved the man of the suffering caused by the obstruction, which, at his time of life, would soon have proved fatal. At best, he cannot live many months; but he will, at all events, end his days in peace.*

The woman now upstairs was admitted last week, with nearly complete obstruction of the great bowel. She is extremely emaciated, having nearly starved herself to death; the pain she suffers from the obstruction being so great that for some time past she has taken next to no food. This is not a case of cancer, but of constriction due to ulceration, probably syphilitic. She is married, and her history is that, ten years ago, she began to be troubled with habitual constipation and pain at defæcation. She noticed that her stools were very small in calibre, and was told she had stricture. There is no family history of cancer. She has had two children since the stricture existed. She has had no miscarriage. Thus, you see, the history is obscure, but at all events not cancerous, and there is no reason why her life should not be prolonged in comfort by the operation.

Of other cases of colotomy you have seen, one was that of a woman who was operated on last year, and who had a great mass projecting in her rectum, evidently cancerous. The only thing remarkable about this case was its unfortunate termination soon after the operation, which was on July 5th. On the following day, symptoms of peritonitis set in and the patient died on the 8th. The operation was easily performed, and there was no unusual pulling about of the intestine. No *post mortem* examination was held, but I am certain that the peritonæum was uninjured in the operation.

Putting together the different cases in which I have undertaken the operation, I find that, out of twenty-two cases, eight proved fatal and the rest lived variable lengths of time, the operation not being the immediate cause of death.† This is a good average, considering that the nature of the cases was so bad, especially those of obstruction. The other cases were for ordinary cancer, without obstruction, and for communication between bladder and rectum. One case was that of a lady with pelvic abscess after a confinement. The abscess seemed to have

opened up a communication between the bladder and rectum, so that fæces entered the bladder, blocking the urethra, and rendering the patient's life miserable. I performed colotomy in the left loin in 1872, and she is now quite well. She has little inconvenience, passing her motions by the opening in her side, and no one about her having the slightest idea that anything is wrong.

The bulk of the operations are performed for cancer, with more or less obstruction. If there be no present obstruction, then you do it for the impending obstruction or for the painful ulceration. Nothing is more painful than this ulceration of the rectum. The patient lives a life of agony, continually suffering from a hot, burning pain. Morphina may be given, but it affords no permanent relief; and the patient dies, either out of health from the constant use of the drug, or from exhaustion. If you divert the fæces from passing through the rectum, you at once relieve the patient's suffering, and undoubtedly prolong life, one of my cancer cases living two years and nine months after the operation.

Of syphilitic ulceration of the rectum, Mrs. K., whom you may have seen in the ward occasionally, affords a good example. In her case, the syphilitic ulceration is not primary, for that form is rarely met with, but tertiary; and tertiary ulceration of the rectum is much more common in women than in men, in the proportion of five or six to one. In them the disease seems to bear some relation to the vagina, as if the poison infiltrated through its wall into the rectum. First, there is painful ulceration, and, after that is well, it is followed by inveterate stricture of the bowel. Thus Mrs. K. had ulceration, with more or less stricture; and everything had been done, but nothing would cure the ulceration. I therefore performed colotomy, and it was followed immediately by great relief. But her's is a peculiar case, part of the fæcal matter still passing by the anus. Being anxious to know if this really were the case, I took her into the ward for a few days, to be closely watched by the nurses, and they confirmed her statement. It is difficult at first sight to understand how this occurs, the two openings being so completely apart; but I have noticed the same thing in one or two cancerous cases, and this is, in fact, the only drawback to the operation, and fortunately it is by no means constant.

The cases of stricture are the most formidable when the disease gives rise to complete obstruction. Now, obstruction may be acute or chronic. Acute is caused by some twist or band in the small intestine; but it is in chronic obstruction that colotomy is called for, because it is most frequently due to cancer of the sigmoid flexure. It is important, when called in to a case of this kind, to diagnose the state of affairs at once, and the great thing is to ascertain if there has been a gradually increasing difficulty of defæcation. That is sometimes not easily made out, especially in women; but, if you question closely, you will generally find that there really has been gradually increasing difficulty. Do not think that fæces "like tobacco-pipe" are absolutely necessary evidence of the state of the bowel. A very frequent condition is that of constant diarrhœa, in which small lumpy motions, with more or less liquid, are passed; therefore, the calibre of the motion affords no certain indication of stricture. From what I have said, you will have perceived that, in cases of chronic obstruction, the disease is most likely to be situated about the rectum; and it is often possible for you to feel it on examination with the finger, and in females you have the advantage of examining by the vagina. I find that, by using the fore and middle fingers, I can reach higher up the bowel than with the fore-finger alone, for then the middle finger is apt to be in the way. With two fingers, also, you can sometimes draw down the mucous membrane, and so reach a little higher. Still, the evidence thus obtained is often negative. Then the next best method is to pass a tube up into the bowel. A tube such as is attached to a stomach-pump is the most useful; but it is dangerous if not carefully used, for you may do harm by pushing it through a softened part of the bowel. If it be oiled previously, it may pass up readily enough; but when the finger is introduced by the side of it, you may find the end of it bent down. Thus, in a case of stricture, although you may apparently succeed in your examination, still you do not pass the obstruction. The best plan is to introduce the tube filled with warm-water; then distend the bowel slightly by injecting a little, at the same time pushing the tube a little further. By repeating the manœuvre again and again, you may either reach the obstruction or introduce the tube for its entire length. Generally speaking, you meet with obstruction at the sigmoid flexure, which prevents you going any further. Then, having made your diagnosis, the road is clear. But sometimes, on the other hand, you may push the tube up for its whole length and find no obstruction. Then, if you cannot obtain any evidence of the locality of the obstruction, you may perform the operation on the right side.

On one occasion lately, I performed the operation on the right side. It was in the case of an old lady with symptoms of obstruction of three

* The patient died on March 13th.

† Since the delivery of this lecture, I have had three operations with two deaths.

weeks' standing. All the tube had entered the bowel, and no guide to the position of the disease had been discovered. As I said before, I performed the operation on the right side, and the patient survived for six weeks, and died mainly, I believe, from a bed-sore. In that case, I met with a peculiar condition which I do not think is mentioned in any of the books, and which I have only seen on two occasions: I mean the presence of gas in the peritoneal cavity. On cutting down upon the bowel, I found the peritoneum considerably distended; but, there being good sunlight at the time, I was able to avoid opening the cavity, and the gas soon disappeared, and did not influence the patient's recovery in the least. I noticed something similar to this in a case in the hospital in 1874. There, again, the peritoneum was enormously distended, so much so that it was impossible to operate without pricking it, and the case terminated fatally from peritonitis. The explanation of this condition, no doubt, is that the bowel above the obstruction having been distended for some days, a certain amount of gas transudes into the peritoneal cavity. The practical bearing of it is, that you are liable to mistake the distended peritoneum for distended intestine.

And now as regards the operation itself. It is performed by preference on the left side, or on the right side under exceptional circumstances. The patient is placed on the right side, with a pillow under the loin, in order that the left loin may be thrown into greater prominence. You then measure a point midway between the anterior and posterior superior spines of the ilium, and from that point draw a vertical line upwards to the last rib. This line will give you the position of the bowel. Then make an incision four inches long, somewhat obliquely between the crest of the ilium and the last rib, half of the incision being on each side of the vertical line marked out. There is some difference of opinion as to the precise direction of the incision, some preferring it horizontal, others oblique. I myself prefer it slightly oblique, running parallel to the last rib. In making the incision, you divide the skin, subcutaneous fat, the external oblique and latissimus dorsi muscles, thus exposing the internal oblique. Having divided that for the whole length of the wound, the fascia lumborum comes into view, and you carefully divide it on a director. You have now exposed the loose fat about the kidney and colon in the anterior part of the wound, and the edge of the quadratus lumborum behind. Keeping the edges of the wound open with spatulae, you displace the fat with the finger and seek for the bowel. In cases of obstruction with distension, you have no trouble in doing this, the bowel presenting at the wound covered only by fascia transversalis. This fascia varies in thickness in different cases, and has sometimes been mistaken for peritoneum. But, if the bowel be empty, you tear through the fascia transversalis carefully with the finger-nail just in front of the quadratus lumborum, and, on introducing the forefinger, you will generally succeed in hooking the intestine. If you do not succeed in doing this, by turning the patient over on to his back the bowel will, in all probability, fall on to your finger. Bringing the bowel into the wound, you roll it round and expose the posterior surface, which, as you know, is generally uncovered by peritoneum, and, when the bowel is distended, this surface is much larger. With a large curved needle, you then pass a stout silk thread through the skin to one side of the ink-mark, across the bowel, and again through the skin at a corresponding point on the other side of the mark, repeating the proceeding at the other end of the incision. Thus the colon is held to the margins of the wound before being opened. A transverse incision is now made into the bowel between the threads, and, the finger being introduced, the two loops can be drawn out, and, on dividing them, you have four threads to fix the bowel to the wound only requiring to be tied. The rest of the incision on each side of the bowel is then closed by ordinary sutures, and the operation is completed. The complications are very small. The greatest difficulty is in reaching the bowel when it is empty, but, with a little experience, this becomes quite easy. ¶

Last week, with Mr. Erichsen, I saw an interesting case of total obstruction in a gentleman who had been treated homœopathically for three weeks. The small intestine was distended to three times its normal size, and there was a clear history of obstruction of the large bowel. We decided on colotomy, and I performed it as usual in the left loin. After I had finished the operation, on putting my finger into the lower opening in the bowel, I found a mass of disease, evidently cancerous, at the upper part of the sigmoid flexure; for I may say that it is not really the sigmoid flexure that is opened in colotomy, but the junction of the transverse with the descending colon; since, on putting your finger into the upper opening, you find that it goes horizontally in front of the kidney.*

These being the principal points concerning the operation, you will watch the one on Wednesday with greater interest.

* This patient survived the operation seven months.

REMARKS

ON

THE MORTALITY OF PLEURISY CONSIDERED IN RELATION TO THE OPERATION OF PARACENTESIS THORACIS.*

By WILSON FOX, M.D., F.R.S.,

Physician in Ordinary to Her Majesty the Queen; Holme Professor of Clinical Medicine in University College, and Physician to University College Hospital; etc.

[Dr. Fox desires to correct an error in the portion of his paper published in our last issue. It relates to M. Lebert's statistics of complicated and uncomplicated pleurisy (page 723, col. ii, lines 14 and 15). The sentence should have been: "Out of 28 deaths occurring in 201 cases, only 10, or 5 per cent., were free from grave complications."]

[Continued from page 725 of last number.]

AN analysis of the cases in which purulent transformation has occurred further shows, that tubercle of the lung has only a minor influence in its production, inasmuch as these form only 34 per cent. of the whole of the cases in which it occurred; but tubercle, in addition to other grave general or local lesions, collectively increases this percentage to 43. Conversely, the presence of tubercle *per se*, though probably not without some influence, does not show any marked tendency to the production of this change after paracentesis, if we regard the number of probably tubercular cases in which it has been performed. These are limited, but they are conclusive. Out of Tutschek's six deaths, three were tubercular, and only one of them underwent purulent transformation. Out of twenty-four cases operated on by Zeroni, six died, four being tubercular, and none underwent this change. Out of thirty-six cases by Oeri, there are twelve or thirteen of probable phthisis, and in only two did the effusion become purulent. Finally, it may be recalled that an analysis, by Attimont,† of twenty-nine *post mortem* examinations of fatal purulent pleurisy, shows that tubercles were absent in twenty and present in only nine.

It is tolerably certain, on the existing evidence, that the change is not due simply to the wound in the pleura; but I cannot resist the conviction that, in some instances, a change in the nature of the inflammatory process is induced by the withdrawal of the fluid. Time does not permit me to discuss whether the diminished pressure allows the escape of an increased number of leucocytes. I think this explanation improbable, and that suppuration in the pleura depends on other and more deeply seated parenchymatous changes in the structure of the membrane. There is, I think, a fair body of evidence that this artificial withdrawal does at times intensify congestion, as is shown by the hæmorrhagic character occasionally observed in subsequent reaccumulations; and further, that in some cases it directly increases the inflammatory action, as shown by the higher degree of fever occasionally (though not constantly) observed after its performance. Further, although purulent transformation may occur when the emitted fluid is clear, M. Moutard-Martin's argument, to which I have already alluded, would, if true, tend to show that intensification of the inflammation may follow the operation when the fluid is lactescent; for it is at least open to doubt whether this change would have occurred in such cases without surgical interference.

I think also that it may be asserted that there is but little *natural* tendency in serous effusions to undergo this change. Were it so, either the mortality of pleurisy, as a whole, would be much greater than it is, or the natural absorption of empyemata would be more frequent than is now very commonly taught. Looking at Table v, the transformation occurred in 14 per cent.; and, as shown in Table iv, it proved fatal in 9 per cent. of all operations.‡

I think also (though this is not susceptible of actual proof) that, in the vast majority of cases of pleurisy where suppuration occurs, it probably does so *ab initio* at early periods of the disease; that its occurrence depends on the special character of the inflammation; and that it does not result from a slow and gradual change in

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

† *Des Pleurésies Purulentes, Thèse de Paris*. Attimont analyses 130 cases, of which 80 recovered. *Post mortem* examinations were only made on 29.

‡ The difference between these two tables consists in the fact, that fatal cases only are given in Table iv.

an effusion primarily serous. There is a considerable number of cases published in which pus has been withdrawn by paracentesis, within the first week or ten days of the disease; and I think that it is a fair inference, from what we know of other serous membranes, to conclude that, if suppuration do not occur in them within this period, it is not likely to appear subsequently, except under new intensifications of inflammation arising from special causes; while there is, *per contra*, evidence to show that serous effusions may persist during many months without undergoing this change. Taken as a whole, the proportion of cases in which pus is found in the pleura at a first paracentesis may be represented, in the experience of different observers, as varying from 14 to 20 per cent.* Many of these were chronic cases, but in a large number the operation was performed at an early date. The large proportion of the cases in which the presence of pus is shown by a first operation may, however, I think, be reasonably referred to the severity of the symptoms by which the operation was determined, and the frequency of empyema, as such is probably fairly represented by the 14 per cent. reported by Ewald, and which corresponds, in some respects, to the general data of the mortality of the disease. On this evidence, I think that it must, therefore, be concluded that, in the vast majority of cases where suppuration has followed paracentesis, it must be directly ascribed to the operation, and that the mortality in this respect thence resulting is to be set down to its account.

The mortality also in the phthisical cases is exceedingly high, and I think that it may be reasonably questioned whether this also was not increased by the operation. Reliable data on this point are not very abundant; but there is a fair amount of evidence to show that serous effusions, even in the presence of tubercle, do, and not very uncommonly, undergo a natural spontaneous cure. Thus, out of thirty-two cases not operated upon, recorded by Meyer,† six were probably tubercular, and of these six only two died. Of ten cases of pleurisy in phthisis, recorded by Dr. Flint, four died, but in two of these the effusion was double, and in the remainder it is doubtful whether the effusion influenced the fatal event. Louis, it is well known, held a different opinion, and believed that pleurisy accelerated the course of phthisis. Dr. Walshe, on the other hand, has stated it as the result of his experience that pleural effusion does not materially influence the fatal result in this disease.

Looking at the statistics as a whole, it becomes very difficult to prove positively that paracentesis in serous effusions increases the mortality of the disease, or, if it do so, in what degree. The reason for this is, that it is impossible to say what proportion of the cases thus operated on would have proved fatal without such interference. Admitting, however, that they are selected, and taking Ewald's returns of the mortality of serous effusions not operated upon as a basis (and I think that this mortality of 2.7 per cent. may be reasonably taken as that at least of uncomplicated, if not of all purely serous effusions); and if we compare this with the 17 per cent. of Table III, or the 24 per cent. of Table IV, we shall find that these selections must have been made from a total, for the former, of 1,939; and for the latter, of 3,137 cases of *serous effusions alone*, to produce a similar mortality; and I very much doubt whether any such large numbers are really represented by the experience of the observers collected in these tables. Looking at the results of the practice of individuals, it seems hard to believe that 10 per cent. of Dupré's cases, operated upon in early stages, need necessarily have died without operation; and there is no evidence that Dupré's cases were specially selected on account of their severity or immediately threatened danger to life. A very similar remark may be applied to at least two out of twenty-one of Tutschek's, and to three out of thirty-six of Ewald's—each of which represents, therefore, a similar mortality of nearly one death in every ten or twelve operations in serous effusions. Any one undertaking the operation must, therefore, remember the possibilities which await him, since these cases are published to show the advantages of the operation, as performed skillfully and with modern precautions; and yet, to lose one in ten from such an operation is a risk from which most would shrink without grave reasons for its performance. Special consideration ought, therefore, to be paid to the advantages to be derived from the operation, and to the disadvantage resulting from its non-performance, before we regard it as the common treatment of serous effusions.

I think that attention is required to the fact that these effusions are

* Ewald, 14 per cent. in 250 cases (but 174 of these recovered without operation), Ott, 1 per cent. in 40 cases; Zeroni, 25 per cent. in 30 cases; Fort, 15 per cent. in 210 cases (Virehow's *Fachgesellschaft*, 1871. The original of this has been inaccessible to me). In Table III, the collective results give 37 per cent. in 537 cases in which the character of the fluid is stated, but probably the excess of empyema depends on these cases, having been selected for operation. Wray's *post mortem* returns give 6 per cent. in 120 cases of 26 per cent.

† *Annalen des Charité-Krankenhauses*, vol. xi, 1863.

not mere passive dropsies, like ascites from portal obstruction, which is only removable by mechanical means. They are inflammatory products, which tend to reabsorption when the inflammation which causes them subsides; and the only impediments to this reabsorption are want of expansibility of the lung, persistence of the inflammation, or changes in the pleura which diminish its absorptive power.

The arguments adduced in favour of an early operation are: 1. The fear of sudden death from an excess of effusion; 2. That long persistence renders the lung incapable of expansion; 3. The more rapid cure; and 4. The immediate relief of the patient. Two others have been adduced, viz., the danger of tuberculation from the persistence of the effusion, for which, however, I can find no evidence in the case of serous effusions; and lastly, the danger of a slow purulent transformation, which I believe also to be, in the majority of cases, an unfounded fear.

The first four reasons require some further consideration. The fear of sudden death from pleural effusions was very largely insisted on by Trousseau, and a fair number of instances have been collected of this event. The total of these which I have found recorded in medical literature are about fifty or sixty in effusions of all kinds, of which thirty are open to analysis. Most of the latter coexisted with serous effusions. Time does not allow me to enter into the very interesting details of this subject; but it deserves remark that paracentesis does not only, not always avert this danger, but that it sometimes directly causes it. Altogether, there have been between 30 and 40 cases recorded where sudden death has been more or less directly associated with the performance of the operation, so that, comparing the whole number of sudden deaths, as recorded without paracentesis, with those ensuing after the operation, the proportion of the latter will be found vastly to exceed the former, if we regard their comparative frequency in all cases of effusion, taken collectively. Into the details of these, time forbids me to enter; but my analysis of them induces me to believe that, in no fewer than sixteen, the sudden death was directly attributable to the operation or to subsequent treatment, and they may be summed up as syncope in seven; asphyxia, from acute œdema of the lung, in five; convulsions (in some from washing out empyemata) in three; and hæmorrhage from the lung in one case. I do not adduce these facts as an argument against the operation when otherwise indicated, for I believe that signs of threatened failure of cardiac power are among the most imperative reasons for its performance; but the argument is in danger of exaggeration if pressed as a reason for the mechanical withdrawal of the fluid independently of such indications.

The fact that long continuance of the effusion may endanger the expansibility of the lung is one deserving of gravest consideration; and it is, in my opinion, the most potent argument for an early performance of the operation. It is, however, to be remarked that probably the density of the adhesions and of false membranes are determined within periods at which the majority of observers at present still hesitate to operate, as involving risk of reaccumulation and greater danger of subsequent purulence of the effusion. I mean that, on the one hand, they commonly occur within the first fortnight of the effusion; and secondly, that the expansibility of the lung has been proved by actual experiment, and by the results of paracentesis, to persist as long as three, six, or eight months. Lastly, also, it must be remembered that a lung bound down by adhesions presents as great an obstacle to cure by paracentesis as by natural absorption.

It is also to be admitted, as proved by actual observation, that the cases which recover under early paracentesis do so, on the whole, in a shorter average time than those in whom it is deferred, and probably than those left to natural processes; and that in some the cure is remarkably effectual and speedy, though this is by no means invariably the case.

These are, I think, the only facts on which an indiscriminate performance of the operation can safely rest; but to my mind they do not outweigh the risks to which I have already called attention; and further, a perusal of published cases shows that, in a very considerable number, some dulness at the bases persists even after a cure by paracentesis.

I do not enter into an analysis of the facts which have been brought forward to show that operations undertaken at an early period of pleuritic effusions are attended by a *less mortality* than those performed at late periods of the disease. Cases thus grouped collectively, as by Dupré and Dr. Evans, undoubtedly give this result; but it appears to me that the argument deduced from it in favour of indiscriminate early paracentesis is open to a marked fallacy, inasmuch as a large number of the recoveries under these circumstances would probably have equally taken place if no operation had been performed; and, on the other hand, the delay of absorption is in itself an indication of unfavourable vital conditions. The facts, as they stand (though

I do not wish to press this argument), might almost equally be brought forward to show that paracentesis may be regarded as a very questionable expedient in effusions of long standing. There are, however, a sufficient number of cases of marked cures under these circumstances by this method of treatment to justify its application (though with some hesitation) in particular instances.

I have dwelt at a length which already has exceeded the limits of the time allotted to me on the treatment of serous effusions, because these are the most capable of analysis. For purulent effusions we have no positive data or standard of comparison by which to estimate the possible improvement, or the reverse, effected by paracentesis. Still, looking at the very high collective mortality of 37 per cent. following the operation, which is also equalled and often exceeded by the individual experience of nearly all recent operators, we must at least long for some improvement in this method of treatment. I think it not improbable that this may to some extent be attained by a careful application of Mr. Lister's antiseptic processes. Ewald thinks that the mortality may be diminished by early free incision.

Following the line of thought which has guided me in the consideration of the treatment of serous effusions, there are some questions which even yet appear to me to deserve consideration in relation to those of a purulent character, though they can only be stated as questions. They are summed up in one; viz.: Are there no natural cures for purulent effusions? The answer is undoubtedly in the affirmative; and strangely Ewald, on comparing Anderl's statistics of operated and non-operated cases with his own of operations on empyemata, points out that the non-operated cases show a mortality of 13 per cent. less than the operated: a result which induced him to abandon as fruitless this statistical inquiry. The recovery in the former class was due to external perforation, or to perforation of the lung. The last named event may be regarded as involving great dangers; but the favourable result of a spontaneous external opening, insisted on by Hippocrates, has been brought out very strongly by recent statistics; for twenty-five cases of this nature by Anderl show only two deaths, or less than 8 per cent.; while Dr. Goodhart gives eleven cases, all of which recovered. Ewald, however, in six cases, had three deaths, or 50 per cent. Even Anderl's eight cases of bronchial perforation give only three deaths, or 37 per cent.—a mortality less than that of many operations on empyemata; and other observations show that it is one mode, though an unfavourable one, of recovery.

Lastly, a question arises to which only a doubtful answer can be given; viz.: In what frequency can purulent effusions undergo spontaneous absorption? That it is possible is denied by some observers; but the fact is placed beyond dispute by an observation of M. Moutard-Martin.* An exploratory puncture only was made; pus was found; the operation was deferred, and the patient recovered. Other instances exist of a variable quantity of pus left in the pleura being removed by absorption and without requiring further operation. Dr. Goodhart states that the late Dr. Hughes affirmed, from his own experience, the possibility of the absorption of purulent effusion; and instances certainly occur (of which, through the kindness of Sir William Jenner, I have seen one example) where patients presenting the most advanced hectic, with all the rational symptoms of extensive purulent effusion, recover perfectly without operation. Further, on looking at the proportion of cases in which pus has of late been found in the pleura, it may fairly be asked whether it is not most likely that it was present in some of Louis', Colin's, and Dr. Walshe's cases, which underwent a natural cure by absorption. Again, chronic pleurisy in childhood is stated by almost universal consent to be nearly invariably purulent; and yet Barthez and Rilliet have stated that, out of thirteen such cases, they have known seven to recover by spontaneous absorption; and it may equally be asked whether the 623 cases from the Franz-Joseph Kinderspital, with a mortality of only 1.6 per cent., did not probably include some of this nature.

I do not propose to urge these questions as arguments against the evacuation of the pus in empyemata, but I do not think that they can be altogether lightly passed over. My chief object has been to show that the mere existence of a pleural effusion ought not necessarily to be regarded as a cause for immediate recourse to paracentesis, and that greater dangers attend the operation than are sometimes asserted to exist. The desirability of the operation cannot, as Dr. Gairdner wisely said some years ago, be determined by statistics, but by a careful consideration of individual indications. Although, therefore, I am most strongly of opinion that lives may be saved and health preserved by a careful performance of the operation where such indications exist, I believe that there is a risk of others being sacrificed by its indiscriminate employment which might have recovered had the dis-

ease been left to the natural processes of cure. Besnier has drawn attention (see Table 1) to the increasing mortality of pleurisy in the Paris hospitals, amounting to nearly the double of that of some former years, since the practice of thoracentesis has been largely followed; and, though he hesitates to ascribe it to this cause, the question thus raised deserves grave consideration. The dangers of the operation are not the less real because they are not immediately apparent. The first effect (with the exception of some cases of œdema of the lung following the operation) is commonly to produce relief; and this has given rise to the often repeated statement that it is invariably innocuous. The subsequent dangers are those of purulent transformation and repeated reaccumulation; and both of these are, I think, more distinct than is now often stated; and in the present day, when the facilities for the performance of the operation are so greatly increased by the use of the aspirator and of fine trocars, I think that Sir Thomas Watson's words of warning may be very appropriately recalled. "The mortality from uncomplicated pleurisy is exceedingly small. It would, I fear, be vastly augmented if every patient having manifest effusion were to be tapped. The danger of the operation is this, that it may, and probably will, induce suppuration or cause the effused fluid to become putrid."

I have not entered into the various interesting questions relating to the details of the operation in serous and purulent effusions; but I think that one point deserves attention—viz., that aspiration and the withdrawal of the whole of the fluid, when this is serous, appears to have some tendency to be followed by purulent transformation; and further, that, when the operation is required by the excessive amount present, the removal of a portion only is sufficient for immediate relief, and is very frequently followed by the absorption of the remainder.

I have added to the tables already given, one which Dr. Bowditch of Boston had the kindness to forward to me after they had been drawn up and printed for the illustration of this paper (see Table VI). If added to Table III, it would reduce the mean mortality of serous effusions to 16 per cent., and the mean mortality of the purulent and sero-purulent effusions collectively to 35 per cent. Dr. Bowditch's large experience gives great weight to the distinction which he draws between purulent and sero-purulent effusion, which deserves grave consideration in the nomenclature hereafter to be applied to these varieties.

TABLE VI.—*Enlarged Table of Results of Paracentesis, by Dr. Bowditch of Boston.*

(Sent to Dr. Fox after foregoing Tables had been printed.)

Character of Fluid and Disease.	Number of Cases.	Number of Deaths.	Per cent. of Deaths.	† Relief, temporary and sometimes permanent.	Number of Aspirations.	Permanent opening made.	Might have been successful (?) if a permanent opening had been made.
Serous	70	13	18.56	..	9	0	..
Pus (n)	45	11	24.44	..	81	10	5
Seropurulent (n)	23	11†	47.82	..	66	5	3
Bloody	33	12‡	34.24	..	73	..	..
Air	6	6	100	..	6	..	..
Gangrenous	1	1¶	100	..	1	..	..
Dry	7	0	0	..	7	..	..
Total	185	..	..	..	..	..	..

* Dr. Bowditch thinks that purulent and seropurulent effusions ought to be classified separately. The latter indicate, in his opinion, a deteriorated condition of system, and are less susceptible of cure. (Letter to the author.)

† Only two died at or about the time of the operation. Both had inhaled ether, and I thought that had the bad effect, and not the tapping.

‡ When fluid was withdrawn, all obtained temporary, and some very great and permanent, relief.

§ Anæmic condition of system played an important part.

¶ Malignant disease, rather than the tapping, killed.

|| The pneumothorax killed.

¶ The gangrene of lung killed.

ADDENDUM TO THE FOREGOING PAPER.

On the discussion of this subject, a very important question was raised by the President of the Section, Sir William Jenner; namely, the relative mortality of the operation of paracentesis at different ages. To it, I was then unable to give an answer. I have since then investigated this point as far as I have found it possible, although, in very many of the cases published, the ages are not given. The result of my inquiry into such of the cases as are included in the foregoing tables, where the age of the patient and the character of the fluid obtained are stated, is shown in the accompanying table (No. VII), from which I have excluded all cases of hydatids, pneumothorax, and simple hydrothorax, stated as such.

TABLE VII.—Showing the Relative Mortality of the Operation for Paracentesis Thoracis at different Ages.

Age.	ALL CASES COLLECTIVELY.				SEROUS EFFUSIONS.				PURULENT EFFUSIONS.				
	No. of Operations.	Number of Deaths.	Deaths per cent.	Complicated Cases Deaths per cent. of all Operations.	No. of Operations.	Number of Deaths.	Deaths per cent.	Complicated Cases Deaths per cent. of all Operations.	No. of Operations.	Number of Deaths.	Deaths per cent.	Complicated Cases Deaths per cent. of all Operations.	
Under 10.	67	17	24	2	4	1	25	0	25	63	16	25	22
10 to 20.	62	13	20	8	27	7	25	7	18	35	11	31	22
20 to 30.	152	44	28	13	67	20	22	13	8	65	24	35	25
30 to 40.	70	23	32	8	47	13	27	6	19	23	10	43	34
40 to 50.	63	28	44	17	43	20	46	23	23	20	8	40	5
50 to 60.	25	11	44	32	12	8	59	37	12	2	2	33	22
60 to 70.	5	2	40	20	2	2	99	33	33	1	0	0	0
Over 70.	1	1	100	100	0	0	0	0	0	1	1	1	0
Total ..	445	144	32	12	220	71	31	15	15	216	73	33	8

The collective mortality for serous effusions shown in this table is considerably in excess of the mean mortality exhibited in Table III. This is probably due in part to accident in the collection of cases under the conditions above stated; in part to the fact that these cases include Dr. Evans's and Anderl's collections, and also those cases of this class proving fatal given by Dr. Goodhart and Ewald, and which do not represent the normal proportion of recoveries. If these be excluded, the collective mortality is reduced to rather below the mean of Table III; viz., to 15 per cent. This table (No. VII) cannot, therefore, be taken as showing the mean mortality of the operation of paracentesis; but it has the advantage of being based on larger numbers than would be available were the above named exclusion made.†

Summarising this table into deaths before and after the age of thirty—the period at which rigidity of the thorax commences to be marked—we obtain the following results.

Serous effusions before aged 30, 120 cases, deaths 28 = 23 per cent.
 Serous effusions after aged 30, 109 cases, deaths 43 = 39 "
 Purulent effusions before aged 30, 161 cases, deaths 51 = 31 "
 Purulent effusions after aged 30, 55 cases, deaths 22 = 40 "

The deaths in serous effusions after thirty, therefore, exceed those in the operations performed before this age by 16 per cent.; while a similar comparison of purulent effusion shows an excess of deaths after this age of 9 per cent.

Examining further into the proportions of deaths in the complicated and uncomplicated‡ cases before and after this age, I find that the percentages of the mortality of all operations before and after thirty are thus represented.

Serous effusions before 30, 120 cases, } complicated cases, 14 = 11 per cent.
 deaths 28 } uncomplicated " 14 = 11 "
 Serous effusions after 30, 109 cases, } complicated " 21 = 19 "
 deaths 43 } uncomplicated " 22 = 20 "
 Purulent effusions before 30, 161 cases, } complicated " 13 = 8 "
 deaths 51 } uncomplicated " 38 = 23 "
 Purulent effusions after 30, 55 cases, } complicated " 6 = 10 "
 deaths 22 } uncomplicated " 16 = 29 "

Or the proportion of uncomplicated cases dying in serous effusions, after the age of thirty, exceeds those before that age by 9 per cent., while the similar difference in purulent effusions is represented only by 6 per cent. The conclusion, therefore, follows that the acknowledged high mortality of purulent effusions, after paracentesis, is proportionately less affected by the age of the patient than is that of serous effusions. On the other hand, the considerable mortality of the operation of paracentesis on serous effusions, after middle life, should induce caution in its employment. The difference is less perceptible, if we compare the proportions of complicated and uncomplicated cases with the whole number of deaths from the operation before and after this epoch of life. Thus, serous effusions give, before thirty years of age, twenty-eight deaths, of which fifteen were complicated = 53 per cent., and thirteen uncomplicated = 46 per cent.; while, after thirty, there are forty-three deaths, of which twenty-one were complicated = 48 per cent., and twenty-two uncomplicated = 51 per cent. But the relative mortality before and after this age is, I believe, better shown by the former

manner of regarding this question. A similar analysis applied to purulent effusions shows that, of fifty-one deaths before thirty, thirteen were complicated = 25 per cent., and thirty-eight uncomplicated = 74 per cent. After thirty, there are twenty-two deaths, of which five were complicated = 28 per cent., and seventeen uncomplicated = 77 per cent. This table would, however, show that in serous effusions nearly half the deaths before and after thirty are in uncomplicated cases; but a similar comparison in Table V shows that only one-fourth of the deaths occur in this class. It is known that after the age of forty pleurisy is, on the one hand, less frequent and at the same time more fatal than before that age, and the increased mortality really commences at thirty, as is shown by the accompanying tables, which I have constructed from two of M. Lebert's,* with which I have placed in juxtaposition the proportion of deaths occurring, after paracentesis, at the decennial periods of life.

TABLE VIII.—Showing (a) the relative frequency of Pleurisy at different Ages; (b) the relative Mortality of Pleurisy at different Ages; (c) the relative Mortality after Paracentesis at different Ages.

	Under 10 yrs.	10 to 20	20 to 30	30 to 40	40 to 50	50 to 60	60 to 70	Over 70
A.—Frequency of pleurisy in 921 cases, per cent. (Lebert) ..	2	13	11	23	17	7	8	0.6
Proportionate frequency of death at different ages in 54 cases of pleurisy (Lebert), per cent.	()	7	24	11	24	20	7	5
B.—Proportionate frequency of deaths at different ages in all cases of death from paracentesis—445 cases ..	11	12	30	17	19	7	1	0.6
C.—Ditto serous effusions—229 cases ..	1.4	9	31	18	18	11	2	0
Ditto purulent effusions—216 cases ..	21	18	33	13	17	4	0	1.3

By this table it would appear that, while 52 per cent. of all cases of pleurisy are met with after thirty, the mortality in a more limited number of deaths (fifty-four) amounts to 67 per cent. of the whole number. Unfortunately, we have no data as to the comparative mortality of pleurisy at different ages, in relation to the whole number of persons attacked at such ages. The three succeeding series again, bring into striking relief the high mortality of the operation in serous effusions after thirty, which, as gathered from Table VII, may be summarised thus :

All deaths after 30 from paracentesis, proportion of whole number of deaths = 45 per cent.
 Serous ditto = 60 "
 Purulent ditto = 30 "

The proportional numbers of the operations performed, after thirty, are, however,

All cases = 36 per cent.
 Serous effusions = 47 "
 Purulent effusions = 28 "

whence it will appear that, in proportion to the number of operations performed, the mortality of paracentesis on serous effusions after the age of thirty is nearly equal to that of the operations in purulent effusions after that age, a result which has been also shown by the preceding analysis (39 per cent. serous; 40 per cent. purulent).

Analysing further the causes of death in the seventy-one cases of serous effusion, I find the following facts in the deaths before and after the age of thirty :

	Before 30.		After 30.	
	No. of Cases.	Per cent. of deaths before 30.	No. of Cases.	Per cent. of deaths after 30.
Phthisis	1	35	1	2
Grave complications	1	35	11	13
Purulent transformation	1	35	11	13
No cause stated	7	23	14	17
Total	10	35	43	58

a. Two phthisical. b. Three phthisical.

Analysing the proportional frequency of each of these classes before and after thirty, we find that, of the whole number of cases of phthisis, 45 per cent. occurred before and 55 per cent. after this age; while the same comparison for each of the others gives, for grave complications,

* Small number.

† Such a deduction reduces the total to 241 cases—109 serous and 132 purulent. An investigation into the variations at different ages inclines me to the belief that the conclusions drawn from these smaller numbers would be fallacious.

‡ For the purpose of this analysis, I have treated as uncomplicated all those cases where no complications are stated to have existed.

* *Annalen der Krankheitslehre*, vol. iv, pp. 778, 783.

25 and 75 per cent.; for purulent transformations, 45 and 55 per cent.; and for cases of which no account is given (and in which, in this analysis, I have taken as uncomplicated), 33 and 66 per cent. respectively. The difference in the frequency of phthisis and purulent transformation is scarcely sufficiently considerable to be made the basis of any special deduction, though, *à priori*, the former might have been expected to be less frequent and the latter more frequent, comparatively, after the age of thirty. The bulk of the cases in which the greater preponderant mortality depends after thirty appears, therefore, firstly, in the greater number of general grave complications which were present after this age; and secondly, among unexplained causes of death; the latter showing an inherent tendency to a greater fatality of the operation in more advanced periods of life, into which, however, on the data at present existing, it does not seem possible to pursue this inquiry further.

ON THE VALUE OF PARACENTESIS OF THE CHEST IN THE TREATMENT OF PLEURITIC EFFUSION.*

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ALTHOUGH the practical value of paracentesis of the chest in the treatment of pleuritic effusions is generally admitted by medical writers, there is still wanting an uniformity of opinion as to the conditions under which the operation should be performed, and the results which are to be expected from it. With a view of promoting the discussion on this important subject, I am induced to give the estimate which I have formed of its value; and, in so doing, I shall briefly consider some objections which have been urged against it, and make a few remarks upon the method of operating.

The cases which I shall use to illustrate the paper are eleven in number, and comprise three cases of simple acute pleurisy, two cases of acute pleurisy occurring as a complication of enteric fever, three cases of subacute or chronic pleurisy, and three cases of empyema.

1. Acute Pleurisy.—Taking first the cases of acute pleurisy, the first patient was a young woman aged 20. The pleurisy was on the left side; the heart was displaced; the dulness over the left lung was almost universal, and the general symptoms were of an urgent character. The amount of fluid removed by Bowditch's syringe was sixty-six ounces. In the second case, a young man aged 17, the effusion was on the right side. Fifty-seven ounces of fluid were removed by paracentesis. The immediate relief experienced by both patients after the operation was very marked, and convalescence ending in recovery was speedily established. Previously to operating, the ordinary treatment had been tried without producing any perceptible effect upon the amount of effusion. In the third case, the benefit of the treatment by operation was also well shown; and, as the case presents some features of interest, it is given more in detail.

J. A., aged 18, by occupation a blacksmith, was admitted into the Cumberland Infirmary on June 25th, 1877, complaining of shortness of breath. He stated that, about a month ago, while in his usual state of health, he was seized with sudden pain in the right side; worse on taking a long breath. About the same time, he began to be feverish, to have shortness of breath, a slight cough, and frothy expectoration. The pain and cough continued for about a fortnight. His difficulty of breathing increased, and was worst when he was recumbent. He had not received any special treatment. On admission, his condition was as follows. The patient was a strongly made muscular young man of florid complexion; height 6 ft. 1 in.; weight about 12 st.; his face was flushed; respiration shallow and rapid, thirty-six per minute; no cough. On examination of the chest, the left side appeared to be enlarged; the intercostal spaces were somewhat widened and flattened; but measurement showed both sides to be equal, the circumference in the nipple-line being thirty-eight inches. There was no œdema of the chest-walls. The expansion on the left side was diminished, and vocal fremitus feebler than on the right side. There was absolute dulness on the left side, posteriorly as high as the spine of the scapula, and anteriorly as high as the third rib; over the apex, the percussion-note was hyperresonant. The respiratory murmur was absent at the base, and generally feebler than on the opposite side, except at the apex, where the breath-sounds were distinctly heard. On the right side, occasional crepitations were heard. The action of the heart was laboured, rapid, and irregular; the apex-beat was to be seen and felt

one inch to the right of the lower end of the sternum; the appetite was slightly impaired; the urine normal; morning temperature, 101 deg.; evening, 102 deg. The diagnosis in this case was not difficult. The dulness over the left chest, the absence of vesicular murmur at the base, and the general feebleness of the respiratory sounds over the left lung, together with diminished expansion and absence of vocal fremitus, pointed to the presence of a large effusion in the left pleural cavity. The displacement of the heart was also confirmatory of this view. The absence of any symptoms of hectic, the comparatively low temperature, and the absence of œdema of the chest-walls, indicated that the effusion was probably sero-fibrinous in character. The occurrence of pain on the right side, associated with left-sided pleurisy, is interesting; it is confirmatory of Laennec's assertion that, while pleuritis is on one side of the chest, the pain is sometimes on the other, an assertion which has been directly contradicted by Andral and Wintrich, but which has recently been corroborated by Gerhardt, who, in order to explain it, has supposed that there is an anastomosis of the sensory nerves of both halves of the chest. This proposition Huss, one of his pupils, has endeavoured to demonstrate anatomically (*Archiv für Klin. Med.*, vol. ix, p. 242).

In regard to treatment, the patient was ordered to be kept strictly in bed, to have beef-tea diet, and to have large doses of diuretics (iodide of potassium and infusion of digitalis). On the following day, the area of dulness over the left chest had increased, but the breathing was slightly better. On the 27th, two days after admission, there was evidence of still further effusion, and the dyspnoea was very considerable. I performed paracentesis, and drew off forty-five ounces of fluid, which was clear and of a dark amber colour. When examined microscopically, it contained numerous blood-corpuscles. On being allowed to cool, it coagulated to a firm gelatinous mass. The patient experienced no pain or cough during the operation, and there was great relief to the breathing, the respirations becoming slower, fuller, and deeper. The apex-beat returned gradually to its normal position as the fluid was drawn off. In the evening, the temperature was 103.6 deg.; breathing easy. On the following day, the morning temperature was 98.6 deg. He had passed a good night, and expressed himself as feeling greatly better. On June 29th, there was dulness over the left back as high as the sixth rib. The local application of iodine was ordered, and acetate of potash, in twenty-grain doses, was ordered to be added to the mixture.

July 7th. The diuretic had acted well, and the iodine had produced slight vesication of the skin. The dulness over the left chest was nowhere absolute; but the resonance was still slightly impaired at the base. For the last few days, a friction-sound had been heard over the lower part of the lung; the apex-beat was in its normal position. From this date, the patient's progress was one of continued improvement. He daily gathered strength; he had no urgent chest-symptoms; the dulness at the left base became less marked, the friction disappeared, and he became quite well. Towards the end of the month, there was a return of pleuritic symptoms, owing to fresh exposure to cold; but these were not of a serious character.

In the two cases of acute pleurisy occurring as a complication of enteric fever, paracentesis was performed three times in each case. The first was a young man aged 19, and the pleurisy came on during a very severe and protracted attack of enteric fever. The effusion was on the right side, and was of a sero-fibrinous character. The amount of fluid removed was on the first occasion 46 ounces, on the second 56 ounces, and on the third 123 ounces. The urgent dyspnoea was greatly relieved by the operation, and the patient finally recovered. In the second case, the patient was a gamekeeper aged 43, and the fever was of a severe type. The chest-symptoms first appeared on the twenty-fourth day of the disease, and the effusion was on the left side. The fluid removed at the first operation measured 50 ounces, at the second 47 ounces, and at the third 90 ounces, and was always of a serofibrinous character. Recovery was complete, and the patient now continues to follow his usual occupation without ever experiencing any chest-symptoms.

2. Chronic Pleurisy.—Of the cases of subacute or chronic pleurisy, the following is a good illustration.

J. L., aged 23, called at my house on August 18th, 1876. He had been sent to me by Mr. Arras, surgeon, of Wetheral. He stated that he had always enjoyed good health until nine weeks previously, when, after returning from fishing, he was seized with pain in the right side and distress in breathing. He had no cough. The pain in the chest continued for about a fortnight, but he did not feel sufficiently ill to leave his work. As the pain subsided, he began to experience greater difficulty of breathing, especially after slight exertion; and, as this symptom continued, he sought the advice of Mr. Arras, who recognised the presence of a large effusion occupying the right pleura

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cavity, and recommended him to see me with a view to paracentesis. On examination, I found that the right side of the chest was universally dull, both anteriorly and posteriorly, the dullness extending to the left side of the sternum. The right chest measured nineteen inches, and the left seventeen inches and a half; the apex-beat was to the left of the nipple-line. The respiratory sounds were very feeble on the right side, and the dyspnoea rather troublesome. Three days later, as no diminution in the effusion had taken place under the influence of diuretics, which he had been taking freely, I had a consultation with Mr. Arras, and removed by paracentesis 126 ounces of sero-fibrinous straw-coloured fluid. The relief to the breathing was very manifest, and the patient experienced no bad effects from the operation. Within two days, he was able to be up and out walking. Within a week, he stated that he had no difficulty of breathing after walking upstairs; the apex-beat was in its normal position; the right chest measured eighteen inches and a half, and the left eighteen inches; the dullness was nowhere absolute on the right side, but was most marked over the lower third of the lung, posteriorly, where, on auscultation, a friction-sound could be distinctly heard. He stated that he felt getting stronger daily. He continued to improve daily after this, and the friction-sound gradually disappeared. When examined on September 28th, no abnormal chest-sounds could be heard, and the patient stated that he felt quite well.

The second case was somewhat similar, but of not quite so long standing. It was that of D. L., aged 37, a farmer, who called upon me on June 25th, 1876, complaining of difficulty of breathing, which had first been noticed a month previously, but had gradually been becoming worse. I found a large effusion occupying the left pleural cavity. Iodine liniment was applied to the chest-walls, and diuretics ordered in large doses; but, in spite of these, the effusion increased, and, on July 2nd, the dyspnoea was very urgent. I performed paracentesis, and drew off one hundred ounces of sero-fibrinous fluid, which formed a complete jelly on cooling. There seemed to be a slight reaccumulation during the week; and, on July 9th, I operated again, this time removing only ten ounces. The patient rapidly improved after this, and by the end of the month he was able to go about his work as usual. He has had no recurrence of the chest-symptoms since that date.

The third case of chronic pleuritic effusion was in a young man aged 20. It was a right-sided pleurisy, and presented many remarkable features; but, as I have elsewhere (*vide Practitioner* for September 1875) given a detailed record of the case, I will only briefly refer to it here. The effusion had probably lasted twelve months, and, during the time the patient was under treatment in the hospital, paracentesis was performed fourteen times. The greatest amount of fluid removed at one time was on the occasion of the second tapping (April 9th), when 104 ounces were removed, and the smallest amount was at the last tapping (July 25th) when only seven ounces and a half were extracted. The reason why the fluid reaccumulated so frequently seemed to me to be a diminution of the natural absorbing power of the pleural membrane, owing to its having been so long unduly stretched by its contents. The patient was quite well when he left the hospital, and has since continued well.

3. *Empyema*.—The employment of paracentesis in the treatment of empyema has, in my hands, given unusually satisfactory results. The first case was that of a young lady, aged 19, who caught cold after bathing six weeks previous to coming under observation. I saw her first on September 9th, 1874. She had suffered from frequent and very distressing cough, pain in the chest, great restlessness and delirium. She was much exhausted, and had profuse perspirations. The physical signs indicated the presence of fluid in the left pleural cavity. Paracentesis was performed, and sixty ounces of perfectly inodorous pus was withdrawn. The immediate relief afforded by the operation was great. The general treatment was directed to restore the patient's exhausted condition. In a week, there being evidence of a reaccumulation of pus, paracentesis was again performed, and twenty-seven ounces of pus were extracted. Seven days later, a third operation was deemed necessary, and on this occasion nineteen ounces of pus stained with blood were obtained. On September 28th, or nineteen days after the first operation, the aspirator was again used, the fluid removed consisting of about eight ounces of pus largely mixed with blood. After the first operation, the patient's condition gradually improved; and, although convalescence was rather slow, owing, I think, in a great measure, to the very exhausted condition in which she was prior to the first operation, she ultimately got quite well. Seven months afterwards, the left chest measured seven-eighths of an inch less than the right. The patient was quite well, and, since that date, has suffered from no affection of the chest. In the next case, the result was not quite so satisfactory. The patient was a young woman, aged 25, ad-

mitted into the Cumberland Infirmary on April 15th, 1875. She had been ill since the 6th, suffering from symptoms of pleurisy. A physical examination revealed the presence of a large effusion in the left pleural cavity. As the dyspnoea was urgent, paracentesis was performed at once, and forty-eight ounces of slightly opalescent fluid removed. On microscopic examination, this was found to contain numerous pus-corpuscles. On the 24th, as the fluid had reaccumulated, paracentesis was again performed, and seventy-one ounces of perfectly inodorous pus was removed. On four subsequent occasions, the aspirator was used; but ultimately, from necrosis of the parietal pleura, there was a fluctuating tumour pointing about two inches below the angle of the scapula. On this being laid open, the empyema continued to drain, at first slowly, and after some days profusely. The patient's strength failing, a counter-opening was made and a drainage-tube introduced, a weak solution of carbolic acid (1 to 40) being syringed through the tube twice a day. From this date, the patient's condition rapidly improved. The discharge gradually became smaller and smaller in quantity. In six weeks, the drainage-tube was shortened, and the posterior opening was allowed to heal. In another fortnight, the tube was removed, and the patient rapidly recovered. When the patient left the hospital, there was a difference of one inch and a quarter in the measurement of the two sides of the chest, the left being the smaller. The third case of empyema was complicated with pneumothorax, and was probably the result of traumatic lesion. The patient was a married woman aged 53. I saw her for the first time in consultation with Dr. Maclarea on September 19th, 1876. She stated that, on the 13th, while engaged in forking corn from a cart, the horse moved forwards and she lost her balance. In the fall, her head struck the ground, and the front part of her chest was squeezed. She was greatly shaken and stunned, but, with assistance, was able to walk to a house near at hand. On the following day, she complained of pain under her right breast and slight shortness of breath. On the 18th, there was evidence of fluid in the right pleural cavity. On the 19th, when I saw her, the dullness over the right chest was universal; there was slight oedema of the chest-walls; the intercostal spaces on the right side were obliterated; the apex-beat was in the nipple-line; there was no evidence of fractured ribs. The dyspnoea was very urgent. Paracentesis was performed, the puncture being made two inches and a half below the angle of the scapula, and one hundred and fifty ounces of fluid removed by the aspirator. The fluid was of a pinkish colour, and consisted of perfectly inodorous pus. Towards the end of the operation, some air was withdrawn from the chest, and, on examination after the operation, there was tympanitic resonance over the greater part of the right chest. The distress of breathing was greatly relieved by the removal of the fluid; but, the patient's home surroundings being unsatisfactory, she was two days afterwards removed to the Cumberland Infirmary and placed under my care. On examining her some hours after admission, I found that there was absolute dullness over the base of the right lung; but above the percussion-note was quite tympanitic. Crepitations were rather abundant over the whole of the right chest; the pulse was full and rapid; temperature 99.6 deg. She was ordered complete rest in bed, beef-tea, and milk, and a grain of quinine three times a day. On the 28th, as the dullness still continued over the base of the right lung, and as it was believed that more pus remained in the pleural cavity, paracentesis was again performed, and twenty-one ounces of purulent fluid were removed. On examination under the microscope, this fluid was found to contain numerous pus-corpuscles, stellate and shrivelled blood-corpuscles, granules, and a few vibrios. From this date, the patient rapidly improved. On October 3rd, a friction-sound was observed as occurring over the base of the right lung, and the resonance at the base was improved. On the 12th, the resonance at the two sides was nearly equal. On the 18th, there were no abnormal chest-sounds to be heard, and she expressed herself as feeling quite well. She was discharged, but occasionally presented herself at the out-patients' room during the next four months, when I had an opportunity of satisfying myself that she continued well, and had no return of her chest-symptoms. When I saw her last, on February 6th of the present year, she stated that she felt quite well and strong for her work. On examination, I could detect no abnormal chest-sounds. This, I think, must be considered a very gratifying recovery from a condition which had in it many elements of danger, and rendered at one time the prognosis not very favourable.

Having recapitulated the chief points in the cases that have come under my own observation, I desire now to consider some of the opinions which have been advanced as adverse to paracentesis; to state the conditions under which I operate, and to discuss the best method of operating. In the eleven cases, the particulars of which I have given, paracentesis was performed thirty-eight times; viz., in four cases once, in two cases twice, in two cases three times, in one case

four times, in one case six times, and in one case fourteen times. In these operations, I met with no difficulty, and saw no danger that need cause any alarm. The admission of air into the pleural cavity happened on two occasions, but no evil consequences followed. The danger of it arises from the fear of converting a sero-fibrinous into a purulent effusion by the admission of septic particles. It is obviated by the improvements which have recently been made in the aspirator, and it is highly important that the physician should himself see that the apparatus is in good working order before proceeding to operate. It was from the apparatus getting out of order that air was admitted into the chest on the two occasions just referred to. In regard to syncope, it has been found that this is more likely to occur in left-sided pleuritis, and, as pointed out by Bartels, it is probably due to a twisting of the vena cava inferior as it passes through the quadrilateral foramen of the diaphragm, consequent upon the heart being pushed over to the right side by the effusion. In large effusions, this danger will be increased by the longer continuance of the effusion, and we ought to operate earlier in left-sided pleuritis than when the effusion is on the opposite side, on this very ground. The gradual withdrawal of the fluid which may be accomplished by the aspirator diminishes the risk of syncope, whereas, if the fluid prop to the heart be suddenly removed by the rapid withdrawal of the fluid, the danger will be increased. In introducing the trocar, one ought to prevent the risk of hæmorrhage from wound of the intercostal artery, by avoiding as much as possible the lower margin of the rib in the intercostal space, which is selected for the puncture. Several fatal results have been met with on the Continent from what is by the French physicians termed albuminous expectoration, and which, as stated by Fraentzel (Ziemssen's *Cyclopadia*, vol. iv, p. 672), is obviously identical with acute œdema of the lung. If this condition be due, as suggested by Dr. Johnson (BRITISH MEDICAL JOURNAL, October 1873, p. 479), to blood-stasis in the pulmonary capillaries, caused by coagula in the pulmonary veins, it is rather an argument in favour of operating at an early period of the disease. The longer the pressure of an effusion continues, the more likely are coagula to form. In all cases where the effusion is large, and where the dyspnoea is at all urgent, it is better to operate at once. There is, in my opinion, more danger in delay than in operating. Whether the case be one of acute pleurisy, chronic pleurisy, or empyema, better results may be obtained by paracentesis than could be expected from any other treatment. The cases of empyema which I have brought forward show, I think, that a fair trial should, in the first instance, be given to paracentesis before resorting to the radical method of free openings, counter-openings, and drainage-tubes. It is my practice to operate at once in all cases when the chest is two parts filled with fluid, without waiting for urgent dyspnoea to set in; but, if the chest be only half full, I usually wait for a few days to give a chance to ordinary treatment, and I have often been surprised at the rapid disappearance of effusions occupying nearly one-half of one pleural cavity under the influence of rest, iodine applications to the side, and diuretics. If, however, in the course of a few days, there be no diminution in the amount of effusion, I think it is better to perform paracentesis than to wait. The recovery is in this way more speedily expedited.

Having decided to operate, there are three points to consider:—1. What instrument to use; 2. Where the puncture should be made; 3. What amount of fluid to remove. In my own cases, I have used Wyman's syringe, as recommended by Bowditch, Dieulafoy's aspirator, and the bottle-aspirator introduced about the same time by Rasmussen of Copenhagen and Potain and Castiaux of Paris. I prefer the latter instrument; it is easier to the operator, and, I think, safer for the patient. The trocar ought to be a capillary one, so as to make as small a wound in the chest-wall as possible, and obviate the risk of suppuration along its track, which a large trocar would cause. The place I have selected for puncture has usually been in a perpendicular line with the angle of the scapula, in the eighth or ninth interspace, and an inch and a half above a horizontal line drawn through the lowest point at which the respiratory murmur is distinctly heard on the opposite side. This is the situation which is recommended by Bowditch. I endeavour to obtain as much fluid from the chest during the operation as possible, provided the patient experience no unfavourable symptoms. If there be much pain complained of, or very distressing cough, or if the patient feel sick or faint, I suspend the operation. During the operation, I recommend the patient to be in a semi-recumbent position, and I think it desirable to keep a watch on the pulse, and, if necessary, administer a stimulant. If there be a sudden stoppage to the flow of fluid before the effusion is exhausted, it may possibly arise from a plugging of the cannula by a fibrinous clot. This has happened to me once. Under these circumstances, it is usually recommended to withdraw the trocar and clean it; but this is

now rendered unnecessary by the invention of a trocar by Dr. Fraentzel. As soon as the operation is over and the trocar withdrawn, a little dressing of lint and plaster is all that is required for the puncture, and the plan of placing a small ice-bag to the seat of puncture may be followed with advantage, so as to obviate the fear of inflammation being set up along the wound of the trocar. In the after-treatment, I find the best results from iodine applications externally, and diuretics, consisting of the iodide of potassium, the acetate of potass, with small doses of infusion of digitalis or bitter infusion. In bringing my paper to a close, I trust that I have said enough to show that I place a high value on paracentesis of the chest in the treatment of pleuritic effusion, and that my confidence is based on good grounds. It will be a great satisfaction to me if the discussion on this subject which is now initiated should result in a more general adoption of the operation, so that in a short time we may be able to say of our medical men what Rasmussen says of those in Copenhagen, that every medical practitioner possesses his aspirator apparatus, and makes use of it in suitable cases.

NOTES ON PLEURITIC EFFUSION IN CHILDHOOD.*

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THE following notes are based chiefly upon observations made by the authors at the Children's Hospital, Great Ormond Street, and at the East London Children's Hospital. We have to thank our respective colleagues for permission to make use of such of their clinical material as we had the advantage, either conjointly or separately, of daily observing.

We do not attempt in this paper anything like a formal or exhaustive consideration of the subject. Such notes as we have to offer are based exclusively on what we have ourselves observed, and are laid down in the following lines:—

- a. The difficulties of diagnosis between pleuritic effusion and other chest affections in childhood;
- b. The difficulties of diagnosis between serous and purulent effusion.
- c. The natural course of pleuritic effusion in childhood, when unmodified by surgical treatment;
- d. The methods of treatment which have appeared to us most successful.

a. Difficulties of Diagnosis between Pleuritic Effusion and other Chest-Affections in Childhood.—There is very little more difficulty in discriminating lobar pneumonia from pleurisy in children than in adults. It is when we have to do with bronchial catarrh and collapse, with bronchopneumonia, or with the various forms of tuberculosis of the lungs, that difficulty constantly arises. We have repeatedly observed an amount of dulness due solely to collapse of lung, quite equal to that produced by a localised pleuritic effusion. Although it is true that bronchopneumonia and the various forms of tuberculosis of the lung are generally bilateral, we have seen three cases of bilateral empyema and three at least of bilateral serous effusion, undoubtedly inflammatory and not mere hydrothorax. Taking the classical signs of pleuritic effusion, we have seen in one case undoubted bulging and displacement downwards of the liver by lobar pneumonia. On the other hand, the concurrence of considerable retraction of one side of the chest, with a loculated empyema of that side and shrinking of the lung, is very common. It is well known that moderate effusion on the right side may exist, without displacement of the heart's apex to the left. On the other hand, we have seen cases of loculated empyema on the left side, where, in consequence of adhesions, or possibly of concomitant collapse of lung, the heart has not been displaced to the right. The use of the cyrtometer, introduced by Woillez and perfected by Dr. Gee, has almost superseded the old tape-measure as formerly used. We have again and again verified Dr. Gee's observation, that "considerable increase in the sectional area of the chest may occur, and the length of the periphery remain the same, by the passage of the elliptical form into the circular." "Thus with a moderate effusion in one pleura, the measurement is frequently identical with the measurement of the sound side." The essential fact is that, if the effusion be equally distributed, the shape of the transverse section of the affected side tends to assume the semicircle, as cyrtometer tracings show.

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Vocal fremitus in children is proverbially weak, and is not always attainable even on the sound side. It is, therefore, no wonder that the discrimination of thickened pleura from limited effusion is often impossible by ordinary methods. With respect to the site of dulness, we have found in many cases the tubular resonance of the compressed lung close to the sternum, instead of in the interscapular region. In one case, we found *post mortem* an empyema, which went round the root of the lung, and which during life had closely simulated, in percussion-signs, a mediastinal tumour. We have also seen two cases of empyema situated between the anterior edge of the lung and the pericardium. We have frequently found empyemata occupying the middle third of the thorax. In these cases, the lower portion of the lung has become fixed to the chest-wall by adhesions, and, therefore, imparted relative resonance to the surface corresponding to it. This relative resonance at the base is very embarrassing. We have seen three cases during life of double collections of pus, widely separated, but on the same side; and we have seen at least three similar cases in the *post mortem* room. One case has come under observation of diaphragmatic empyema, closely simulating hepatic abscess; another case of partially inspissated empyema round the apex of the lung. In view of such anomalous situations for pleuritic effusion, it is obvious that percussion is insufficient for diagnosis. But auscultation is often still less satisfactory. The weak respiratory murmur, heard occasionally over a pneumonic lung, is balanced by the not unfrequent tubular breathing over pleuritic effusion. This, and the delusive character of friction *râle*, were pointed out by Addison thirty years ago, and the auscultation of children abundantly justifies his sagacity. We will only add that, in one case, we heard a typical friction-*râle* over a spot, from which immediately afterwards three ounces of pus were withdrawn. In another case, assumed before death to be tubercular disease of the lung, a subcrepitan *râle*, conducted doubtless from the other side, was heard over what *post mortem* proved to be a loculated empyema.

b. Difficulties of Diagnosis between Serous and Purulent Effusions.—On this we need say very little. We are quite unable to subscribe to the statement of Bright and Addison, which has passed into ordinary school teaching, "that in most instances the transition from pleurisy to empyema is sufficiently obvious, the disease quickly giving rise to well-marked symptoms of hectic fever". We are reluctant to make any general statements on the temperature of the different forms of pleuritic effusion, the variation is so considerable. But at least it may be said that, with cases of serous pleurisy, there is sometimes very marked hectic, whilst with empyema there is often a very moderate degree. Thus in a case of serous pleurisy, the evening temperature ranged from 101.4 deg. Fahr. to 103.4 deg. Fahr., and the morning from 97 deg. Fahr. to 102 deg. Fahr. In another case, the evening temperature ranged from 101.4 deg. Fahr. to 104 deg. Fahr., and the morning from 101 deg. Fahr. to 103 deg. Fahr. We have observed a great many cases of empyema in which the highest evening temperature was 101.5 deg. Fahr. and the morning temperature normal. For many days together, in many cases, the temperature morning and evening has been normal or subnormal. It has appeared to us that the aspect of the patient—a peculiar anæmia, with an earthy complexion—and, above all, clubbing of the finger-ends, have been the most characteristic features suggesting empyema rather than serous effusion. We have never seen a case of serous effusion accompanied by clubbing, and we have seen very few cases of empyema where it has not been present to some degree, even when the illness has been only of a few weeks' duration. So frequent is the association that, we believe, if a child be seen with general pallor and clubbing of the fingers, one ought to think of empyema rather than of the other causes of clubbing, viz., chronic bone-disease, bronchiectasis, and congenital heart-disease. So far as the ordinary modes of physical examination of the chest are concerned, we know of no means of discriminating serous from purulent effusion, except when the latter has led to localised swelling, which we believe the former never does. There is nothing novel in urging the use of the hypodermic syringe for diagnostic purposes in chest affections; but the practical outcome of the foregoing part of our paper is, that if, as a matter of routine, this method were adopted in all cases where the slightest doubt existed, we should less often fall into error.

c. The Natural Course of Pleuritic Effusion in Childhood, when unmodified by Surgical Treatment.—Small serous effusions generally become absorbed, and moderate effusions likewise. We wish here to repeat, with respect to serous pleurisy, what we before remarked respecting empyema, viz., that retraction of the side is not to be taken as a positive proof that absorption has taken place. In children, so complete appears to be the power of re-expansion of lung after removal of fluid, that the very fact of observing great retraction has often been to us a suggestion in favour of some fluid still being present. Of the results of large serous effusions, unmodified by operation, we have no experience

to offer. We are at a loss to understand the data upon which any limit of time can be enunciated as to when a serous effusion will become purulent. Thus, after two months' illness, we have ascertained the presence of serum in the pleura; and again, in the same case, forty-two days afterwards. In two other cases, we have found serum to be present in the pleura, and three weeks afterwards still found serum. In one child, who for more than two months had had signs of effusion in one pleura, we found fourteen ounces of serum at the necropsy. Alongside of these facts, we have to consider the extreme frequency of purulent effusion in children. Thus, out of forty-four consecutive cases of pleurisy admitted as in-patients at Great Ormond Street, twenty-seven were empyemata. Taking another series of sixteen cases, fourteen were empyemata. Hence the question has frequently suggested itself, whether many of these cases were not empyemata *ab initio*. The shortest period, however, from the commencement of the illness, at which we have been able to establish the presence of pus, has been fourteen days. In whatever way an empyema may start, we have no doubt as to the disastrous issue of a large number of cases when left to themselves. The dangers, in our experience, have been due to asthenia rather than asphyxia. Marked lividity and dyspnoea, we have seldom observed. Progressive emaciation, anæmia, with characteristic sallowness of face, languor, shortness of breath on effort; cough, often absent for days together, sometimes spasmodic, attended now and then with vomiting and at other times with fœtor of breath, clubbing of fingers, and obstinate diarrhoea, have been the chief clinical features of such cases. In the light of *post mortem* experience, we are quite certain that true inspissation of an empyema is a rare event. We have only seen one such case. It occurred at the apex. There was some pasty material, with calcified nodules in it; elsewhere, adhesion. It is important to note that the child died with tuberculosis. Concerning the relations of empyema and tuberculosis, we have only seen one case in which the empyema appeared to owe its origin to the presence of tubercle in the pleura. In the majority of cases, we believe that tubercular pleurisy is a serous pleurisy, and generally slight. Judging from the few other cases of empyema, associated with tuberculosis, which we have seen in the *post mortem* room, it has appeared to us more likely that the tuberculosis was secondary to the empyema than the reverse. Of the various modes of spontaneous evacuation of empyema, rupture through the lung has appeared to us the least unfavourable. We have seen it occur in eight cases, where there had been no operative interference. On two of these, we made *post mortem* examinations. In neither, had evacuation of the cavity been complete. In one, the empyema had also ulcerated through the diaphragm and set up localised peritonitis. In the other case, the cavity contained some air; the lung was collapsed and carnified; ulceration of cartilage had occurred, amyloid disease, and tuberculosis. One of the others imperfectly recovered, after symptoms of gangrene of the lung. Two have survived, with extreme retraction and unexpanded lung. Another is very slowly improving. Two have made really good recoveries. We may remark that, in a number of cases treated by paracentesis, purulent material has been expectorated. We think it is too readily assumed that in such cases the pus always comes from the empyema-cavity. In some, no doubt, such is the case; but in others it has appeared to us probable that, owing to the impaired expansion of lung, conditions similar to those of bronchiectasis have obtained, and given rise to purulent sputum. With respect to spontaneous evacuation by external opening, our experience does not supply us with a single really good result. In the majority of cases which we have seen, pointing has occurred somewhere between the nipple and clavicle. This position is obviously unfavourable to complete draining. It is associated with ulceration of pleura, necrosis of rib or rib-cartilage, and frequently coexistent with abscess, and unhealthy ulceration of the adjacent tissues. Furthermore, the subsequent deformity in these cases has seemed to us more permanent and more extensive than in any others. It is held that permanent fistulæ are more liable to be associated with amyloid disease in the viscera, when there is disease of rib, than when there is not. We are bound to state, however, that we have made a *post mortem* examination on one case, in which, in spite of suppuration continued during nine months, and extensive rib-necrosis, we yet found no amyloid changes.

d. The Methods of Treatment which have appeared to us most Successful.—*1. Serous Effusions.*—We have already insisted on the value, for diagnostic purposes, of the exploratory puncture. We wish now to urge its claim as a therapeutic measure. We have instances in which it is impossible to resist the conviction, that the removal of a very small quantity of fluid has been rapidly followed by absorption. This was most conspicuous in a case where an effusion which, in spite of mercurials and diuretics, had continued to increase, very quickly became absorbed after a tentative puncture for diagnostic purposes. In

another case of moderate effusion, two days after the withdrawal of a small quantity of serum, the effusion had so completely disappeared that it was impossible to withdraw any more.* When the history is recent, and the effusion serous and small or moderate in amount, we prefer to abstain from further operative interference. When three weeks relapse without improvement, we recommend the additional removal of a small quantity, either by the hypodermic syringe or the aspirator. If the effusion be considerable, we believe that it is right to perform paracentesis at once; not only to relieve dyspnoea, but to give the lung a chance of re-expansion before adhesions bind it down. In a case where seventy-two ounces were removed from the chest by aspiration, from a boy nine years old, the lung immediately expanded and there was no reaccumulation. In another case, from a boy six years old, twenty-two ounces were removed, and there was also no re-accumulation. We think paracentesis should be performed quite irrespectively of pyrexia. As to drugs, although we have the strongest belief in the value of diuretics in the treatment of passive effusions into the peritoneal cavity, we cannot say that we have seen any benefit whatever from their use in pleuritic effusion; and, considering how frequently small serous effusions into the pleura in children are associated with the tubercular diathesis, we should be exceedingly chary in subjecting any such cases to a mercurial treatment. In young children, the use of blisters is not without grave risks of producing troublesome sores. We have not seen any harm result from the external application of iodine; indeed, it has seemed to us that its use, combined with the internal administration of iodide of potassium, has produced benefit. In this, as in every other wasting disease of childhood, cod-liver oil is invaluable.

2. *Purulent Effusion.*—If the exploratory puncture reveal the presence of pus, it is recommended to withdraw as much as possible with the hypodermic syringe. We have found great advantage in using a syringe capable of holding at least two drachms. Occasionally this will remove all that is present in one spot; moreover, gently moving the needle will give information as to the size of the cavity. It is quite marvellous to observe the rapid improvement which frequently follows the emptying of a very small collection of pus. We have found by experience the necessity of bearing in mind the possible existence of multiple collections of pus completely separated by adhesions. If the quantity of pus removed be incommensurate with the extent and intensity of the dulness, subsequent punctures must be made. We have never seen any evil results from such punctures during five years' experience, and thus have become as convinced of the safety as of the utility of the measure. If there be more pus present at a given spot than the hypodermic syringe will remove, it is better to introduce the aspirator trocar, and withdraw as much as possible.† The occurrence of a little bleeding in the course of the paracentesis has frequently ceased after the valve has been shut off for a few moments. If, after reopening, blood should continue to flow, it is recommended to stop the aspiration. In most of our cases, aspiration has been performed under anaesthetics. This has appeared to have three advantages: 1. The facility thereby gained for making a thorough exploration; 2. The avoidance of shock and collapse; 3. The avoidance of the troublesome cough, so well known at the conclusion of paracentesis thoracis without anaesthesia. Chloroform, preceded by a small dose of brandy, has appeared to us better than ether for these cases, on account of the avoidance of bronchial flux. We believe strongly that, if anaesthetics are used at all, they should be pushed to complete insensibility. When the effusion is general, we have found again and again the angle of the scapula a better position for puncture than the mid-axillary line. In localised effusions, the puncture ought to be made at the centre of maximum dulness, wherever that may happen to be. In a certain number of cases, there has been excellent recovery after a single aspiration. Seven at least of such cases have been observed. Successful results have been obtained after repetition of the aspiration up to six times. We have never seen albuminous expectoration. If the pus do not become fetid, and if at each successive operation the quantity notably diminish, there seems no reason to limit the number of attempts to cure the empyema by repeated aspiration. If the pus should become fetid, or rapidly reaccumulate in larger quantity, permanent drainage is recommended. In all cases, it is contended that this should be by a double opening. If possible, the first opening should be made in the front of the thorax, and the second below and internal to the angle of the scapula. A long probe, threaded with a piece of drainage-tube,

may be passed downwards and backwards from the first opening, and the second incision made over the point of the probe when it is felt through the integuments. The drainage-tube should then be drawn through and secured by tying the two ends together. We contend that, by the method of double openings, there is the certainty of more complete and rapid evacuation of pus, and consequently of more rapid adhesion of the parietal and pulmonary pleurae, than by the single opening. We have seen one case where a single opening only was made, and where subsequent closure took place; and it was found afterwards that two separate collections of pus had not been drained by it. The use of double openings and of a through drainage-tube diminishes this risk, although it may not entirely obviate it. We have often seen difficulties arise with respect to evacuation, when a single opening has been made only in the mid-axillary line. Apart from the unfavourable shape of the pleural cavity for drainage, it is important to bear in mind that, when retraction begins to take place, the ribs approximate most in the axillary region, and, in a child especially, there is risk of the intercostal space, through which the tube passes, being so narrowed, that the tube is occluded by the two contiguous ribs. In front and behind, the width of the intercostal space is greater, and undergoes less diminution as the side retracts. Most of the cases with which we have been concerned have been dressed with oakum. We have seldom had need to use stimulant injections; but in one case we saw marked and rapid improvement from the use of a solution of quinine, five grains to the ounce. One of the strongest arguments in favour of the method of double openings is that, in a large proportion of cases, it dispenses with the need of washing out the empyema-cavity. It is well known that washing out the chest has been followed, in a certain number of cases, by sudden death. Of this, fortunately, we have no experience; but we have experience of the terror and distress which the washing out induces (even when performed with an irrigator), and which in children constitutes a serious drawback. In the rare cases where, in spite of double openings, the pus has become fetid, we have obtained all the advantages derivable from injection by daily placing the little patient in a bath, with warm water sufficiently high to cover the upper opening. This secures a thorough, yet gentle and equable, cleansing of the empyema-cavity, and, moreover, is grateful to the child. Either Condry's fluid may be added to the water, or very weak solution of carbolic acid. If the latter, we wish strongly to point out the necessity of using carbolic lotion previously prepared with boiling water. When pure carbolic acid has been simply poured into the bath, we have seen some of it float in oily drops on the surface, and give rise to trouble.

REMARKS ON A SKIN-AFFECTION LATELY OBSERVED AND DESCRIBED AS DYSIDROSIS, CHEIRO-POMPHOLYX, AND POMPHOLYX.

By GEORGE THIN, M.D.

IN Dr. Tilbury Fox's book, *Skin-Diseases* (third edition, London, 1873), the author refers to a disease which "he describes in detail for the first time", under the name *dysidrosis*. The disease is, he states, "characterised essentially by the retention, in the follicles of the skin, of sweat rapidly and freely secreted". Dr. Fox portrays the affection in his *Atlas of Skin-Diseases* (plate li).

In his *Illustrations of Clinical Surgery*, plate x, Mr. Jonathan Hutchinson has portrayed the same disease under the name *cheiro-pompholyx*. A question of priority was raised by Dr. Fox (*Lancet*, 1876, page 563), to which Mr. Hutchinson replied (*ib.*, 1876, page 618). It seems that, while Mr. Hutchinson had been familiar with the disease for many years, and had described it in his lectures (the report of a clinical lecture on the subject, written out in April 1871, is published in the *Lancet*, 1876, page 630), he had not published an account of it, the first printed description of this affection being contained in an article by Dr. Fox in the *American Journal of Syphilography and Dermatology*, January 1873. The portrait in Mr. Hutchinson's plate was taken from a well-marked case of the disease in 1864, the same patient being seen during one of the attacks by Dr. Fox in 1871. To Mr. Hutchinson, therefore, belongs, in my opinion, the merit, as far as the published evidence goes, of having first recognised that there is a distinct and previously undescribed vesicular or bullous disease chiefly attacking the hands. To Dr. Tilbury Fox belongs the merit of having, at a later date, satisfied himself independently of the existence of the same disease, and of being the first to publish an account of it which was accessible to the profession. The symptoms and appearances which characterise this

* See a recent work published with its index, on the returning with a fine result of hypodermic syringe in children, followed by aspiration. The increase of bulk which occurs for a day or two is doubtless due to the starting of an inflammatory process, which ultimately effects the cure.

† We have not seen any English preparation quite that of Dr. Pottain, as made by Renault of Paris.

affection are fully described and portrayed in the writings and atlases of Mr. Hutchinson and Dr. Fox to which reference has been made.

Mr. Hutchinson and Dr. Fox have very different views as to the nature of the malady : Dr. Fox affirming that the disease is one of the sweat-glands ; Mr. Hutchinson believing, on the contrary, that there is "not the least fragment of evidence in favour of the assertion that cases of recurrent bullous eruption, on the hands of nervous persons, have anything to do with obstruction of sweat-glands", the "hypothesis seeming to him most improbable".

The question is clearly one that could not be settled by *à priori* reasoning. The description given by these observers could hardly leave a fair doubt that we had here to do with a hitherto unrecognised disease (to say nothing of the fact that, now that attention has been directed to it, cases are found to be by no means rare). But plausible as the sweat-gland hypothesis seemed, it could not be accepted until something at least in the shape of evidence was offered. Dr. Fox has produced no evidence which could affect our judgment one way or the other. The secretion of the vesicles was not shown to be sweat, and the sweat-glands or ducts were not shown anatomically to be affected.

For the first exact information regarding the nature of this disease, we are indebted to an American physician. Dr. A. R. Robinson has published, in the *Archives of Dermatology*, vol. iii, No. 4, 1877 (New York: Putnam's Sons), a memoir entitled "Pompholyx (Cheiropompholyx, Hutchinson ; Dysidrosis, Tilbury Fox)", in which he has shown that the fluid of the vesicles and bullæ is not sweat, but identical in its essential properties with blood-serum, and that the sweat-glands are not the seat of the disease.

Dr. Robinson's observations, it appears to me, are of sufficient importance to merit reproduction in a condensed form in this country ; and I shall now endeavour to give a short abstract of the results of his investigations. I shall at the same time take the opportunity of describing a case of my own, typical of others I have seen, in which there were not present those symptoms of nervous debility and exhaustion which have been frequently observed, and which have been hypothetically assigned as causes.

Dr. Robinson, when in London, had been made familiar with the disease by Dr. Tilbury Fox, and had afterwards seen a considerable number of mild cases of the affection in New York. The patient from whom he obtained material for chemical and histological study was a delicate man, born in 1846. Previously to 1866, a few vesicles appeared occasionally on his hands, but the first severe attack was in July 1871. It appeared first on the hands, afterwards on the feet, and lasted two months. The palms, palmar aspects, and sides of the fingers and soles were the parts affected. It was unaffected by treatment, but ceased spontaneously after two months. For six years afterwards, isolated vesicles appeared ; and, in February 1877, the second severe attack occurred. As Dr. Robinson's account of this attack is valuable as a contribution to the usual history of well-marked cases of the disease, and as the weight of his evidence regarding its pathology must partly rest on his having accurately identified his case as one similar to those described by the English observers, it will be well to give it in his own words. "During this last attack" (he observes), "begun in February 1877, and still continuing (June 14th), he has been under my care. The eruption had lasted about three weeks when I first saw him. It had commenced on the palms of the hands near the wrist, and spread over the entire palms and between the sides and on the palmar surfaces of the fingers. When I saw him, the majority were seated between the fingers. The eruption has changed but little in its mode of appearing and in its course since I first saw him. An outbreak is always preceded by a tingling, burning sensation in the parts, and the patient is more than usually depressed and nervous. The eruption appears as small clear vesicles, deeply placed in the skin. They may be single or collected in groups of two, four, or more. Very frequently the vesicles forming a group are all of the same age and size. The eruption always was symmetrical, and I have often observed that exactly corresponding parts of the hands or feet became affected at the same time. If but a single vesicle existed, it almost invariably dried up. Where there was an aggregation of vesicles, they were at first isolated, but afterwards frequently united and formed a bulla. If then the liquid was absorbed, the skin covering them became very hard and dry. I stated that the vesicles appeared to contain a perfectly clear liquid, but this afterwards generally became more or less opaque, though scarcely ever yellowish in colour. This latter occurred only when large bullæ were formed and the liquid slowly absorbed, *i. e.*, in other words, it was observed only when the bullæ were of several days' standing, and, as will be seen afterwards, was owing to the number of pus cells present in the liquid. The vesicles were never seen to have a red base. The walls of the vesicles appeared of a darker colour (from compressed cells) than the surrounding skin or the contained liquid. This really made the vesicles

look like sago-grains imbedded in the skin. The vesicles gradually became larger, and raised. Isolated vesicles in the palms of the hands seldom became raised above the level of the skin previous to absorption. Where they appeared in groups, they always became raised above the general surface, as also most of the isolated vesicles between the fingers. They were never pointed, but always had a more or less flattened top. After the absorption of the contents or rupture of the vesicles or bullæ, a reddened surface (on account of the thinness of the epidermis) was left behind. At no time was there a cracked or discharging surface, or any appearance resembling that of eczema in this region. Occasionally the eruptions spread peripherally, especially in the palms of the hands. There has been no change in the appearance of the vesicles since I first saw him ; but at present the disease is not so severe, the eruption consisting principally of isolated vesicles and but very few bullæ. Occasionally, however, an 'outbreak' occurs lasting two or three days. Then the eruption presents more of the character it had in an earlier period of the disease. The feet are also affected, but only in a slight degree, a group of vesicles appearing occasionally here and there. Their appearance is always preceded by a tingling in the part. They appear symmetrically, and often on exactly corresponding parts. There has never been any accompanying eruption on the other parts of the body. I have tried various local applications, and naturally without any benefit, except keeping the parts soft. Internally he has taken iron, strychnine, and pure phosphorus, and evidently with some benefit. To-day I have prescribed Fowler's solution of arsenic in five-drop doses, three times a day.* The patient is exceedingly nervous and depressed in spirits. He was so nervous that he hesitated several weeks before allowing me to remove a second portion of skin from his finger. Even then I was obliged to benumb the part with ether spray before using the knife. He says his forearms and hands feel benumbed and 'sleepy', especially in the morning, if he keeps them elevated above the bed-clothes. He sweats a great deal, yet the hottest day in summer is not too hot for him."

The contents of the small vesicles, and of all vesicles of only a few days' existence, contained no formed elements ; but, at a later stage, "out-wandered white blood-corpuscles were found", the number present being proportionate to the age of the vesicle or bulla. Their presence pointed to the probability of the liquid in which they exist having had its origin in the blood, *i. e.*, that it was effused serum. This was confirmed by testing with nitric acid. "An albuminous coagulum was immediately produced, with the nitric acid in the usual proportion obtained from serum ; whilst testing the sweat, in the same manner, not a trace of a precipitate was observed. Thus the disputed point between Mr. Hutchinson and Dr. Fox was clearly decided by this simple test."

The histological part of Dr. Robinson's memoir is full and able, and is well illustrated by woodcuts from the author's own drawings. Portions of skin, containing vesicles in all stages of formation, had been removed and examined microscopically by means of approved methods. The process was found to consist of an escape, first, of serum, and later of serum and white blood-corpuscles, from the blood-vessels of the papillæ. The serum pushes its way upwards amongst the cells of the rete Malpighii, and, pressing them aside, collects in the form of vesicles either in the upper part of this layer or between the rete and the corneous layer. Each primary vesicle corresponds to one papilla. As these primary vesicles become larger, the epidermis between them becomes more and more compressed, until, finally, the partitions give way and the larger bullæ are formed. The subcutaneous tissue below the vesicles was found to be normal ; but considerable round-cell infiltration was found in the upper part of the corium. "The sweat-glands were found to be perfectly normal, and there was no distension whatever of their ducts with sweat. In one case, a sweat-duct was the principal structure separating two vesicles and delaying their union."

Dr. Robinson believes the disease to be a neurosis, and dependent upon a change in the central nervous system, not of the brain, but of the spinal cord. Mr. Hutchinson remarks : "There can, I think, be no doubt that this eruption is a neurosis, its tendency to spontaneous cure and its frequent coincidence with other nervous symptoms being of considerable weight in that direction." Dr. Tilbury Fox observes that it "occurs in subjects of what is termed nervous debility, or in those in whom anomalous nervous symptoms have occurred, or in such as have been prostrated by worry, mental anxiety, overwork, or the like".

As far as I can gather, the only grounds for referring the disease to the nervous system are its tendency to symmetry, and our ignorance of any other cause. There is no proof offered that the nervous system,

* I have used the solution in several cases, and it has proved very tiresome, but reappeared seven days after ceasing its use.

central or peripheral, is primarily affected in the disease; and the use of the term *neurosis* means, in this instance, neither more nor less than what it means in the majority of cases in which it is used. Nor am I sure that we can consider it as essentially a disease of broken-down constitutions. Dr. Fox remarks that "no patient is well who has this disease"; but I have seen lately two well-marked examples of the disease in healthy vigorous young men. One of them I saw through the kindness of a colleague. The other occurred in my own practice; and, to illustrate this point, I will give a summary of his case. The history will, I hope, also assist in establishing the independent nature of the malady, which is probably still considered by many observers as a form of eczema or pemphigus.

In June 1877, A. H., building surveyor, a well-built man of medium height, twenty-nine years of age, asked my advice in the following circumstances. During the summer of 1874, he first noticed the appearance of small clear vesicles in the epidermis of the sides of the fingers. They dried up gradually, never burst, gave him little inconvenience, recurred repeatedly while the weather was hot, and disappeared in winter. They reappeared in the summer of 1875, on the sides and backs of the fingers, principally on the forefinger of the left hand. They were then not bigger than a pin's head. They again disappeared when the weather became cool, and, when they returned in the summer of 1876, for the first time five or six of the small vesicles joined to form a large one. They were still limited to the backs and sides of the fingers, and again disappeared during winter. In May 1877, they began on the radial side of the forefinger of the left hand, and within a fortnight had appeared on the backs and sides of the fingers of both hands. At the same time, they appeared on both palms and on the palmar surface of the middle finger of the left hand. They never appeared on the palmar surface of the other fingers. They were now also on the ball, back, and radial side of both thumbs. When I saw him in June, they were found in all these situations. There were none on or above the wrists. They varied in size from a pin's head to bullæ as broad as a sixpence; the contents being clear in the former, and dull or almost yellowish in the latter. The bases of the vesicles or bullæ were accurately limited, and the skin between them was neither reddened, moist, scaly, nor cracked; in short, was not eczematous. The number, especially on the palms and thumbs, was very considerable. The largest bullæ were over the joints of the fingers. He complained of pain and stiffness of the arms and axillæ, and, on examination, several faint red lines were observed, extending on the inner aspect of the limbs from the wrist to the armpits. On examining the feet, I found several vesicles on the inner side of the great toe of the left foot. This was the only part of the feet affected. Within a few days, the irritation of the lymphatics had disappeared, and shortly afterwards the vesicles and bullæ dried up and the epidermis came off in large flakes. But the relief was only temporary. He informs me that, from July till the end of September, he suffered from seven distinct attacks, the latter ones being chiefly on the right hand. In the attack which came on in July, the fingers swelled for the first time, and a discharge of yellowish serum took place between the skin and roots of the nails of the middle and ring fingers of the right hand. The last eruption began three weeks ago, and dried up in about a week. I find now (October 14th) that on the right hand the skin on the radial surface of the thumb, the sides and backs of the fingers, chiefly the middle and ring fingers, is red, slightly swollen, and a little scaly. The nails of the middle and ring fingers are undermined and broken near the root; the nail of the forefinger is slightly affected, that of the little finger is healthy. The palms are normal in appearance; on the left hand traces of the malady being found only on the thumb.

This man is and always has been in excellent spirits and health. He perspires very freely in hot weather or when he takes exercise. His hands are generally colder than is usual; even in summer a cold breeze making them chill. He has been long subject to chilblains; at one time on the feet and latterly on the hands. There are evidences, therefore, that the circulation in his hands is defective. His muscular development and power, however, are quite up to the full standard of health. There is not a single indication of any special debility of the spinal cord or peripheral nervous system, unless the fact of the eruption itself, the cold hands, and the chilblains be so considered.

We have seen that Dr. Fox, in accordance with his theory of the disease, named it *dyssidrosis*; Mr. Hutchinson, from its bullous nature and most frequent seat, named it *cheiro-pompholyx*. Dr. Robinson proposes to call it simply *pompholyx*. As it is not absolutely confined to the hands, he regards the term *cheiro* as incorrect; and seeing that, according to the later strict nomenclature of skin-diseases, *pompholyx* cannot be used in its old meaning, he ingeniously proposes that the new disease should be presented to the old name. From the theoretical point of view, little objection can be taken to his proposal.

CLINICAL MEMORANDA.

CHYLOUS URINE.

UNDER the head of Clinical Memoranda, I observe in the *JOURNAL* of November 17th some observations on a case of chylous urine by Dr. A. Morison. From the age of the patient, and the circumstance that she is an Algerine Jewess, I have no doubt that it is the same person who consulted me several times last year. I took rather full notes of the case, and find under the head of February 7th, 1876, that the urine looked like milk and water; that a copious precipitate was caused by nitric acid; and that by Trommer's test indications of sugar were well marked. The same sample of urine, when filtered, did not, however, yield these indications. It is not stated by Dr. Morison whether he used the filter in his chemical testing, or what chemical test he relied on. Corroborative proofs of the presence of sugar are, however, mentioned, and, as conditions alter, he may be quite right in the entire statement. But the imperfections of the copper test for sugar is well known, and it is possible that the so-called chylous material may in some cases cause the same reaction as grape-sugar.

The vital signs in the case were much debility, pain in the lower back, extending along the outside of the thighs to the knees, absence of perspiration, troublesome heat of hands and feet, and thirst; the legs were œdematous. I have no wish to anticipate Dr. Morison in the promised details of the case; but the special note I had made about sugar, the point on which he lays so much stress, induces me to make these few remarks. I have lately met with another case of chylous urine in a man in which spontaneous coagulation existed in a remarkable degree.

ARTHUR LEARD, M.D.

HERPES ZOSTER.

SUPPLEMENTING the cases of herpes that Mr. Lucas has mentioned as occurring in his practice at Guy's Hospital, I wish to mention two cases which I have lately had under my care, demonstrating, I think, conclusively that there was a local cause which set up irritation to the nerves affected in these cases.

CASE I.—W. G., aged 14, came to me in August last, and complained of great pain in his right side, about the level of the sixth rib. On auscultation, respiration was normal. Percussion elicited a resonant sound. He had no cough. His general health seemed impaired, and there was loss of appetite. Treating him for pleurodynia, I ordered ammonia, bark, and aconite. In two or three days, he returned, feeling no better; and, on examining the chest again, there was a distinct blush three inches wide, reaching round from the middle line in front to within an inch of the spine. On deep pressure, I found a prominence on the rib (sixth), evidently indicating a node. I put him on iodide of potassium, with perchloride of mercury and bark, and told him to call in a day or two. When he next presented himself, there were copious and distinct crops of vesicles, showing clearly the course of the affected intercostal nerve. The eruption continued for some time; but, by persevering with the medicine, the prominence on the rib melted away, and with that the herpes also. I may add that, in this case, there was a strong syphilitic taint.

CASE II.—An old labouring man recently sent for me to see him, when I found great pain in the bend of the knee; this caused him so much discomfort that he had to discontinue work. Hot fomentations were ordered and an opiate at night. Two days afterwards, I found copious and distinct crops of vesicles along the outer half of the calf of the leg, two large crops on the outer side of the tendo Achillis, and two small bunches—one on the little toe, the other on the outside of the next toe—indicating the course of the external saphenous nerve; the bend of the knee appeared hard and brawny, without any pulsation. Judging it to be an abscess, I opened it after Hilton's plan, passing a director into an incision made through skin and fascia, and on this passing a dressing-forceps. Although I passed it deeply, nothing escaped, whereupon I plugged the wound with lint, and next morning was rewarded by finding a large discharge of pus going on; immediately upon this the herpes disappeared. Keeping him on stimulants and bark, he daily improved and returned to his work in seven days.

I think we may conclude from these two cases that pressure on the nerves was the cause of the herpetic eruption in these cases. In conclusion, I would hazard a hypothesis, although it may be a mere matter of speculation, whether the vesicles seen under the tongue in cases of whooping-cough have any causal link with the irritation to the nerve-distribution of that part.

L. HERBERT JONES, M.R.C.S., etc.

SURGICAL MEMORANDA.

CONGENITAL HERNIA INTO THE UMBILICAL CORD.

I.

VOGEL clearly describes the method in which this infantile deformity occurs, and clearly defines the condition of exomphalos or omphalocele congenita; and Steiner refers to it under the term hernia funiculi umbilicalis.

In the BRITISH MEDICAL JOURNAL of December 13th, 1873, page 689, is the record of a case of congenital umbilical hernia which came under my notice in the practice of the Westbourne Dispensary. The condition was one of several deformities observed during life, and the report of the examination, which I was fortunate to obtain after death, afforded abundant evidence that any operative interference would have proved useless, and therefore unjustifiable.

In vol. x (1874) of the *St. Bartholomew's Hospital Reports*, Mr. Marsh, in his reports illustrating the surgery of childhood, has quoted the above case with five others, which are exceedingly interesting in reference to the question of surgical interference on such occasions. Mr. Marsh remarks: "It will be noticed that, in two of these six cases, strangulation had taken place, three of the children died, and the remaining three recovered from conditions that would certainly generally be fatal."

In Mr. Cooper Forster's and Dr. C. Visick's cases, Nature practically saved the infants; in Mr. Steele's case, the accession of urgent symptoms, the presence of recent lymph, and the protrusion of coils of intestine doubtless justified division of the stricture at the umbilical orifice; and in Dr. Fairbrother's case also interference appeared to be demanded. It is a source of condolence with the operators that their efforts did not save their patients. These six cases, however, suggest important considerations in reference to operative procedure in cases of exomphalos.

The case recorded by Dr. Meredith in the JOURNAL of November 17th, 1877, page 693, resembled in many points the features presented in my own case; and I apprehend that the absence of impulse on crying and straining, with the limited size of the tumour, point to the existence of extensive intra-uterine peritonitis. These two cases contrast strongly with the other five quoted by Mr. Marsh in his report, in the relative size and physical signs presented by the umbilical tumour.

Dr. Pockhammer's case, quoted in the above-mentioned report, illustrates in a striking manner how an infant life so imperilled may be saved by a timely and heroic operation. It must be remembered, however, that, in this case, Nature rendered great aid; for the tumour was formed "by the displaced liver, with the gall-bladder well formed". So much does Vogel consider the liver an agent of extreme value in maintaining patency of the ring, that he goes so far as to add the dictum: "Those congenital umbilical ruptures in which a portion of the liver does not intervene can never be reduced"; and again: "Congenital ruptures which contain a section of the liver possibly are capable of undergoing a spontaneous cure."

In reference to the surgical view of the question, the desirability of operative procedure being employed or not would appear to be decided in favour of operation; 1. If the abdominal ring be of large size, and if the tumour indicate by its size and characteristics, such as impulse on crying or straining, the presence of a considerable portion of slightly adherent intestine; 2. With the presence of urgent symptoms, indicating strangulation, if the tumour be of large size; 3. When the liver, or a portion of it, is included in the congenital umbilical rupture. Each and all of these would warrant opening the sac, division of any stricture, and then the drawing down as much as possible of the intestine, if the lymph be recent, so as fully to separate all available adhesions, previously to the return of the protruded and extracted contents within the abdomen. As auxiliaries, before closing the wound with stitches, a piece of drainage-tube to permit free exit of discharge from the lower end of the wound, continuous warmth to the abdomen, and the administration of opium carefully watched, should be employed. The reverse of the above conditions, such as (1) a small ring and tumour containing intestines, with absence of impulse on crying or straining; 2. The occurrence of sphacelation of either the sac or contents of the congenital hernia; 3. The absence of the liver, or a portion of it, would lead one to reject operation, to give "a prognosis of death within a few days of birth, in all probability", and to abstain from purgatives.

Cases in which the sac has burst before the surgeon is called upon to operate fall within the category of those in which it is imperative to see that no harm is done, even though the small prospect there is of

affording relief may prove a temptation to interfere. In these cases, the *vis medicatrix nature* performs doubtless the major part of the cure.
H. CRIPPS LAWRENCE, L.R.C.P.Lond., etc.

II.

In reference to Dr. Meredith's interesting case of congenital hernia, I wish to call attention to a similar case which occurred in my practice ten years ago. It is reported in the tenth volume of the *Transactions* of the Obstetrical Society, and was of interest so far that the expansion of the umbilical cord contained (with the exception of the duodenum) the whole of the small intestines and the ascending colon. The child lived four days.

JOSEPH THOMPSON, L.R.C.P.Lond., Nottingham.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS AND ASYLUMS
OF GREAT BRITAIN.

MIDDLESEX HOSPITAL.

CASES ILLUSTRATING THE DIAGNOSIS AND TREATMENT OF
MENORRHAGIA.

(Under the care of Dr. ARTHUR W. EDIS.)

THE cause of excessive uterine hæmorrhage is often very difficult to determine; and, as there are many and various conditions which may produce this symptom, the narration of a few typical cases may prove of interest. As they are taken in the out-patient department, time will only allow a brief sketch of the more important details.

CASE I.—H. R., aged 33, married seventeen years, mother of seven children (the youngest twelve months old)—no miscarriages—stated that she had always had good times at her confinements, and that there was nothing unusual about the last one. The child was living and healthy, and was nursed for the first six months, being then weaned, as the patient became too weak to suckle, owing to continuous sanguineous discharge, which she regarded as profuse menstruation. For the past seven months, she had scarcely ever been free from it, the discharge at times being of an offensive watery character, as if mixed with blood. Little or no pain was experienced for the first few months; but lately she had "dragging and aching pain", and thought she had lost flesh. On examination *per vaginam*, the uterus was found to be less mobile than normal. The cervical portion was much enlarged, irregular in outline, bleeding readily upon touch. The cervical orifice was very patulous, and the tissue very friable—presenting, in fact, the well-known characters of epithelioma, the so-called cauliflower excrescence.

It is comparatively rare to find epithelioma in so young a patient; and yet, by a curious coincidence, not unfrequently, another patient, aged 30, single, presented herself the same afternoon suffering from the same condition. In the case under consideration, as the patient could not leave home on account of her family, any treatment beyond mere palliation of the symptoms was out of the question. The internal administration of iron, with appropriate local applications, served, however, to improve materially the patient's general health, restrain the hæmorrhage, and lessen the fœtor of the discharge.

CASE II.—A. K., aged 13, menstruated for the first time a few months before admission, the discharge being somewhat profuse. During the last five weeks, there had been almost a constant sanguineous discharge, which had weakened the patient much and caused her mother much anxiety. The patient, a frail delicate-looking girl, one of five, lived at home with her parents. For the last few months, she had been troubled with a cough. On examining the chest, no active signs of tubercle were found. The bowels were regular, and there was no history of overwork. The menorrhagia, in all probability, was due to constitutional weakness. A mixture of bark and acid thrice daily, and iron in the form of pill twice daily, were prescribed, with the effect of checking the discharge within a few days; and, by persevering with this treatment, the interval between the periods was increased to five weeks, and the general health also much improved.

CASE III.—C. W., aged 39, married ten years, mother of four children (only one living, the youngest, four years old), complained of severe bearing down pain, constant nausea, inability to take food, flatulent distension of the abdomen, and violent attacks of spasm, causing severe agony, and rendering the patient very hysterical. Three months since, after having missed one period, she was taken with

severe abdominal pain, which she likened to labour, followed by a sanguineous discharge, leading her to believe that she had miscarried, though no lumps or clots were expelled. The patient was rather stout, of healthy appearance. The tongue was flabby, pasty, tremulous, and redder than natural, being inclined to be dry in the centre. The bowels were irritable, often acting several times daily. She stated that for the last ten weeks she had had a constant sanguineous discharge, almost amounting to flooding at times, necessitating her lying up and unfitting her for domestic duties.

On examination *per vaginam*, the uterus was found to be enlarged to about the fourth month of utero-gestation, the fundus being readily detected above the brim of the pelvis. The cervix was much enlarged; the os was patulous and intensely granular. The abdomen was much distended with flatus, the abdominal walls being loaded with fat.

In this case, the hæmorrhage seemed due to the granular condition of the cervix, aggravated, no doubt, by the fact of utero-gestation and the frequent imbibition of alcohol in the form of brandy and water and stout and bitter ale, to which the patient was in the habit of resorting, as she felt sick and sinking, and was yet unable to take any food. The characteristic nervous tremor and fetid odour of the breath pointed clearly to the influence of alcohol, which, by causing congestion of the liver, interfered materially with the portal circulation, and so tended to promote hæmorrhage from the cervix. A few doses of calomel, an effervescent saline mixture, and the careful application of strong nitric acid to the neck of the uterus, served to arrest the hæmorrhage and materially improve the patient's condition.

CASE IV.—H. E., aged 36, married eighteen years, mother of eleven children, five of whom are living, the youngest five years old (two miscarriages), for the last twelve months had had almost constant sanguineous discharge, seldom clear for more than a few days, profuse at times, making her feel so weak and exhausted that she could hardly attend to her household duties. A month before she came to the hospital, she had a severe fall, and had been in pain ever since, "more especially in the left groin, lower abdomen, and across the small of her back", preventing her from moving about.

On examination *per vaginam*, the uterus was found to be much less mobile than normal, bulkier, and somewhat retroverted. To the left of the uterus, a considerable deposit, of firm fleshy consistence, was detected, extending up to the brim of the pelvis, and occupying the greater part of Douglas's pouch, tender on pressure. The os was patulous, and thick treacly sanguineous fluid was exuding from it. The hæmorrhage had been much more profuse during the last month. She was unable to lie on her left side, any pressure upon the left hip seeming to increase the pain considerably.

In this case, the hæmorrhage commenced after her second miscarriage, and was probably due at first to a condition of subinvolution, with possibly some granular degeneration of the cervical mucous membrane. The fall down stairs just at the time when she considered that the period was present, the sanguineous discharge having been profuse for some few days, doubtless produced the hæmatocele which was detected on examination, and served to aggravate the symptoms. Rest in the recumbent position was enjoined, the bowels were regulated with a pill of aloes and nux vomica, and a mixture of ergot with acid and bark was prescribed. The following week the patient reported herself as feeling better than she had done for a twelvemonth, and the hæmorrhage had abated, though not entirely. Within a few weeks, the general health improved very much; the period was rather profuse, but less than before. The deposit gradually lessened in bulk, and when last seen she was convalescing rapidly.

CASE V.—M. W., aged 47, married twenty-one years, was the mother of three children, and had had two miscarriages. The youngest child was nine years of age. Subsequently to her confinements, for the first four years, she was perfectly regular. About five years ago, she began to lose profusely at her periods, the duration gradually increasing and the interval diminishing until, for the last four or five years, she had seldom been free from sanguineous discharge—for about ten days every month the loss being rather severe. There had been also a slimy mucous discharge, occasionally clear in colour, but generally tinged with blood. Her general health had suffered considerably. She had taken medicine, and been told that it was the "change of life", but no examination had ever been made, or any trouble taken to diagnose the nature of the affection.

On examining *per vaginam*, the finger detected a softish irregular mass, about the size of a large walnut, high up in the vagina, attached to the interior of the uterus by a long pedicle about as thick as the little finger, which was closely encircled by the os uteri. The finger could readily be passed all round the growth and the pedicle plainly distinguished, showing it to be a polypus. As the patient lived some distance from the hospital, and could not conveniently leave home,

the growth was seized by stout ovum-forceps, and torsion applied. The growth was thus readily removed, without producing pain or causing hæmorrhage. A mixture of bark and acid was ordered with a view to improve her general health, and a lotion of sulphate of zinc to be used twice daily. Four days later she presented herself, improved in health. On examination, the cervical canal, as well as the os uteri, was found to be very granular, so strong nitric acid was applied. Quinine was ordered, and the lotion to be persevered with. Ten days later, she came to report herself as quite convalescent, and thought it was not necessary to continue her attendance.

CASE VI.—A. B., aged 38, married seventeen years, mother of ten children (one miscarriage), was last confined seven weeks before she came to the hospital. Six weeks after her confinement, she began to lose blood *per vaginam*, the loss being so severe as to amount to a flooding. She complained of dragging pain in the lower part of the back, bearing down, inability to stand or move about, much weakness and sense of discomfort. On examination, the uterus was found to be excessively bulky, retroflexed, and tender. The cervix was large, the os uteri patulous, and the cervical canal intensely granular. Nitric acid was applied freely to the canal for about an inch and a half. Rest in the recumbent position, on the face as much as possible, or in the knee-shoulder position from time to time, was enjoined; a mixture of bromide of potassium, bark, and ergot was prescribed; and a lotion of sulphate of zinc to be used twice daily. On the following week, a Hodge's pessary was inserted, and nitric acid again applied to the cervical canal. The support gave much comfort. The hæmorrhage was checked within a few days, and the patient improved materially in health. She continued attending regularly for six weeks, by which time the condition of the uterus had altered considerably for the better. A mixture of bark and acid was then ordered. The next period was somewhat profuse, and attended by dull aching pain in the back. Perseverance in the treatment for another few weeks succeeded in restoring the patient to a much better state of health. The process of involution went on satisfactorily. The Hodge's pessary was allowed to remain in for a few weeks longer, as the uterus was still inclined to retroflexion.

This was an instance of subinvolution, the uterus being retroflexed and the cervical canal intensely granular. No local depletion was resorted to, as the insertion of the Hodge's pessary served to keep the uterus in its place, thus diminishing the congestion and favouring the process of involution. The patient is now convalescent, but is still wearing the Hodge's pessary.

LIVERPOOL LOCK HOSPITAL.

WE have received from Messrs. W. McCHEANE and FREDERICK LOWNDES, Surgeons to the Hospital, the following statistics of cases admitted during the two years from June 1st, 1875, to May 31st, 1877, inclusive.

Careful and accurate records of hospital practice are always desirable, but especially at the present time, of hospitals set apart for cases of venereal disease exclusively. The prevalence and severity of these diseases, the relative frequency of primary syphilis and simple venereal sores, above all, the prevention of these diseases, are all questions of the day, which can only be answered by careful observation of well ascertained facts. In the spring of 1875, a new register was required for this hospital, and it was suggested by Mr. Serjeant, the Superintendent, that the new register should be so constructed as to give the most complete records of the many interesting cases treated here, under their proper classifications. The present register contains five different columns, headed "Gonorrhœa", "Simple Sores", "Primary", "Secondary", and "Tertiary" "Syphilis", respectively. It is our practice, in all cases where the character of the primary sore is doubtful, to defer entering the diagnosis in the register until subsequent observation has rendered this conclusive. The following statistics, which have been most carefully collected with Mr. Serjeant's valuable assistance, may be relied upon as accurate:

Total number of cases admitted, 945: of these, 669 were males, and 276 females. Of these cases there were: Primary syphilis, 331; Secondary syphilis, 252; Tertiary syphilis, 44; Venereal sores (simple), 169; Gonorrhœa (with or without complications), 139; Vaginal Discharge (only), 14; Urethral Discharge (in females), 3; Bubo, 114. These numbers have not been added, many of the cases being complicated with others: bubo with gonorrhœa or simple sores; primary with secondary syphilis or with gonorrhœa, etc. The preponderance of primary syphilis over simple sores will at once attract observation, the proportion being almost exactly two of primary syphilis to one of simple sores. The predominance of the male over the female patients in numbers will also be apparent, though it is only in accordance with what has been so frequently observed in other Lock hospitals of a volun-

tary character—viz., that women will not, as a rule, enter hospital until unable from suffering to continue their calling any longer. The accommodation afforded in the Hospital is twenty-five beds on the female side; twenty-five on the male side; with one extra bed for cases of special urgency. The accommodation for females is, under existing circumstances, more than sufficient, the beds being seldom more than half filled; while that for males is wholly inadequate, many patients having to be refused admission for want of room. Hence the number of males given above must be considered as limited by the accommodation.

The following summary of the admissions for two consecutive weeks will give a good example of the remarkable fluctuations which occur in the number of admissions, and also of the nature of the cases.

Cases admitted during the Week ending Saturday, October 28th, 1877, under Mr. Lowndes.—Males: 1. Orchitis; 2. Condylomata, Ulcerated Mouth and Throat; 3. Ulcers of Prepuce and Corona (primary syphilis); 5. Gonorrhœa; 5. Phimosis, Ulcers under Prepuce; 6. Condylomata; 7. Papular Eruption; 8. Ulcers under Prepuce. Females: 1. Condylomata; 2. Ulcer of Os Uteri; 3. Condylomata and Ulcerated Throat; 4. Ulcers of Nymphæ and Verruca; 5. Ulcers of Nymphæ and Fourchette, Suppurating Bubo; 6. Ulcers of Labia, Suppurating Bubo.

Cases admitted during the Week ending October 27th, 1877, under Mr. McCheane.—Males: 1. Ulcer of Prepuce, suppurating bubo (simple); 2. Ulcers of Prepuce (simple); 3. Ulcerated Condylomata (secondary); 4. Open Bubo (simple); 5. Gonorrhœa and Perineal Abscess; 6. Gonorrhœa and Rheumatism; 7. Ulcers of Prepuce (primary syphilis); 8. Ulcerated Bubo. No female applied for admission this week, an occurrence by no means unfrequent, although this is the only hospital in Liverpool where females with venereal diseases are admitted. The severity of the cases is not to be wondered at, when we consider the size and population of this great seaport, the large number of seamen always present—reckoned at from forty to fifty thousand, circumstances invariably accompanied with a large number of prostitutes of a very low and degraded class, a large proportion of whom must be constantly disseminating disease.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, NOVEMBER 27TH, 1877.

CHARLES WEST, M.D., President, in the Chair.

ON THE REMOVAL BY OPERATION OF A HAIRY TOLL OCCUPYING HALF THE FOREHEAD. BY W. MORRANT BAKER, F.R.C.S.

THE case which formed the subject of the paper was that of a child who, when ten years old, was admitted into St. Bartholomew's Hospital, under Mr. Baker's care, on account of a congenital hairy mole which occupied half the forehead. Its greatest diameter, from side to side, was three inches and a half, and its vertical diameter two inches and three quarters. The integument composing it was deeply pigmented, being of a dark blackish brown tint, with a very uneven surface, and in some parts almost warty. A quantity of brown coarse hairs grew from nearly every part of the surface, some of them being an inch or two in length. The mole was vascular, and always bled profusely when in any way hurt; but it was not distinctly nævoid, and had only grown in proportion to the rest of the body. The treatment was begun by cutting away, under chloroform, the surface of the mole; taking care to keep the incision from extending to the subcutaneous tissue. The bleeding was controlled by a pad and bandage, and the surface was allowed to heal under the scab which subsequently formed, and which was but little disturbed during the progress of the case. The whole of the surface was removed by two operations of this kind; and the result obtained was, on the whole, satisfactory, especially with regard to the total absence of any unevenness or contraction of the scar. But a good many of the hairs grew up again; and there was partial reproduction of the pigment. The treatment was continued, after an interval, by the application of nitric acid, the scab being but little disturbed, as on the occasions on which the knife was used. It was necessary to apply the acid on several occasions before the whole of the disease was eradicated; a considerable interval being sometimes allowed to elapse between the times of application of the caustic, in order to test the effect. At the date of the patient's readmission into the hospital for the third time, in October 1877, the disease was found to have almost completely disappeared; the only traces of its presence being here and there a spot of pigmented skin, with a few fine hairs growing from it. The scar-tissue was smooth, whitish, glazed, and

supple, not in the slightest degree contracted, and not dragging at all on neighbouring parts. It was quite level with the adjacent healthy integument. The author remarked that the result of the case related justified the conclusion that large hairy moles and similar deformities of the skin, hitherto supposed to be beyond the reach of surgical operation, may be safely removed by simple measures, if these are carried out with sufficient care. (The patient was shown to the Society at the meeting on November 13th; and the paper was illustrated with a drawing and photographs.)

CASES OF BRANCHIAL FISTULÆ ON THE EXTERNAL EARS.

BY SIR JAMES PAGET, BART., F.R.S.

AFTER briefly describing the general characters of the cervical branchial fistulæ, which have long been known as due to the incomplete closure of one or other of the lower branchial fissures, the author gave an account of similar fistulæ observed on the ears of seven members of one family. The persons in whom they were found were, a gentleman and his sister and five of his eight children; and the same gentleman, his father, his sister, and four of his children had each one or two branchial fistulæ at the sides of the neck. The aural fistulæ were in every instance seated on the upper and anterior part of the helix; very slender canals with narrow orifices, extending from above downwards, and in the adult half an inch or rather more in length. None of them secreted or gave any distress. After references to the six or seven similar cases that have been published, and to some other malformations of the external ear, probably due, like these, to imperfect closure of the first postoral branchial fissure, the author pointed out that there are now sufficient evidences of malformations due to incomplete closure of every one of the branchial fissures; and then referred to the association between these cases and those of supernumerary ears. Such ears, he believed, are found only over the lines of former branchial fissures, and may be considered as cutaneous opercular growths, homologous, though abnormally, with the natural auricles. He pointed out also that many of the persons born with aural branchial fistulæ have become deaf, and have thus been instances, however slight, of the general law indicated by Dr. Allen Thomson, that malformation of the external ear are often associated with other defects in parts formed in or near the first or mandibular arch.

Mr. DALEY showed a rudimentary ear, which he had removed from a child two years old. On one side there was a well-formed ear; on the other was the rudimentary one, which was removed as being unsightly. It had a very small depression, leading to a fistulous opening, which would admit only a fine wire.—Sir JAMES PAGET had no doubt that the case was one of branchial fistula.—Mr. ALBAN DORAN said that one class of malformation consisted of clefts in the middle line, arising from defects in the closing in of the visceral arches. These were completely closed comparatively late in embryonic life, and the defective closure was often accompanied by ectopia of the heart, bladder, etc. These were pure deformities, having no morphological bearing. Another class included such cases as were described by Sir James Paget; and these had a morphological as well as a pathological interest, representing the permanent condition of some lower animals. These defects originated in very early embryonic life; and, as they occurred in parts which did not protect vital organs, they were not attended with any results tending to shorten life.—Mr. CALLENDER would suggest that some cases at least of ranula might be due to defect in the closing in of the structures between the mandibular and lingual arches. Referring to a suggestion that the cartilage found in the track of branchial fistulæ might be representations of cervical ribs, he was of opinion that such cartilages were to be rather considered as portions differentiated off from the masses of cartilage intended for the development of the hyoid bone and laryngeal cartilages.—Mr. FRANCIS MASON had never seen a case of branchial fistula in the ears. But last year he had consulted Sir James Paget in a case of branchial fistula in a young lady, in whom the canal could be traced nearly to the pharynx, though it could not be found to open into the throat.—Dr. ALLEN THOMSON showed drawings of three cases of malformation of the external ear, in which one or more fistulous openings were also found. In two of the cases, there was complete occlusion of the external meatus. In one, there was also a defective development of the lower jaw, indicating the connection of the malformation with the development of the postaural arch and parts connected therewith. There were also cleft palate and displacement of the incisor teeth, indicating a tendency to hare-lip. In these cases, there was great deafness, but not so much as to render the subjects complete deaf-mutes; there was some power of speech, though indistinct. In the third case, the subject, a young man, heard pretty well, and was able to communicate readily with others and to receive instruction. Yet the ear-passages in him were completely closed. He heard mostly by the top of his

head, which he presented while listening, at the same time covering in the side of his head and his defective ears with his hands. Dr. Thomson had also ascertained by experiments with the tuning-fork, etc., that he heard through his head; and he thought it was in consequence of the equal double conveyance of sound to the ears. In cases of closure of the meatus externus, the tympanic bone and all belonging to it were absent, and the part was completely closed in by a mass of bone. Hence an attempt to form a meatus by operation must be unsuccessful, although Sir Astley Cooper had attempted to do this in one of the cases which Dr. Thomson now mentioned, and the late Professor Miller of Edinburgh in another.—Mr. RIVINGTON was acquainted with a medical man in the country who was the subject of a malformation of the ears. There was a small aperture in the helix of each ear sufficient to admit a probe, which passed apparently towards the petrous bone. Occasionally there was a discharge from the openings. The malformation was hereditary, and was confined to the maternal side. One aunt had it in one ear; other relatives in both. He had often seen such fistulous openings in the ears of aural patients, which discharged a secretion.—Mr. PUGIN THORNTON referred to two cases of branchial fistula which he had had under his care.—Sir JAMES PAGET thought the malformation to which he had referred would be found to be more common than was supposed. As to the cartilages felt in the course of the branchial arches, the opinion that they represented cervical ribs was not his, but Heusinger's; but the question as to their nature was a difficult one to settle. In Mr. Mason's case, he did not think that the fistula opened into the pharynx. Of sixty recorded cases, fifty had been described in Germany, two or three in France, and very few in this country. Mr. Doran was right in pointing out the distinction between branchial fistulae and defects in the middle line. He did not think, however, that there was a true case recorded of defect in the middle line affecting the neck, except in utterly malformed monsters. In the cases which had been described, the defect was probably due to the imperfect closure of abscesses.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, NOVEMBER 20TH, 1877.

CHARLES MURCHISON, M.D., LL.D., F.R.S., President, in the Chair.

Aneurism in Abscess of Liver.—Dr. PEARSON IRVINE exhibited this specimen. It came from an old soldier, aged 40, who had served in India, where he had fever and ague, but who subsequently had good health. One day he began quite suddenly to vomit, became insensible, and, when he recovered consciousness, found a pool of blood beside him. He several times at intervals after this fainted, sometimes with hæmatemesis, sometimes without it. He had throbbing in the epigastrium, and a large tumour in the left epigastrium, which disappeared after a bleeding. He died suddenly. At the necropsy, the stomach was found adherent to the liver, in the left lobe of which was an abscess, full of odourless pus. The abscess had perforated the stomach, which contained a large blood-clot. The aneurism contained a firm clot. The artery in which the aneurism existed would admit a small probe. The rest of the artery was perfectly healthy. The aneurism was produced by the destruction of the surrounding tissue, the vessel thus losing the support so furnished, just as aneurisms form in the cavities of diseased lungs.—The PRESIDENT said such a lesion might, perhaps, be found not so very rare as it seemed. The frequency of bleeding when hepatic abscesses are opened or hydatids removed was suggestive.

Aneurism in Ulcer of the Stomach.—This specimen was exhibited by Dr. DOUGLAS POWELL. It was taken from a man who had cavities in his lungs, and who also had an empyema. Hiccough and other signs of peritonitis set in, and were followed by hæmatemesis, after which the man died in a few minutes. On *post mortem* examination, the stomach was found full of dark coloured blood. The stomach had on it an ulcer of the size of a florin, in the centre of which was a small oval aneurism; it was of the size of a pea, and had a small slit in it. In the duodenum, which was adherent to the liver, was another ulcer. The vessel being left unsupported, an aneurism had resulted. Such aneurisms were found even in children, when the lungs had contained cavities. In this man, there was old caseous disease of the lung, commencing to soften, and also recent miliary tubercle.—In answer to a question put by Dr. C. T. WILLIAMS, Dr. POWELL said there was no tubercular ulceration of the intestines.

Hyperostosis associated with Cancer.—Dr. CAYLEY brought forward some bones from a man aged 65, who died of cancer. There was no definite family history to be obtained; and the man had had good health, except a fistula in the lower jaw. Severe dyspepsia set in suddenly; then rheumatism of the legs. After this, he had bronchitis, and became emaciated, with much shrinking of the right lung. The liver was

drawn into the chest. There was a murmur heard over the heart. The skin had on it many small cutaneous naevi. The tibiae were curved; and the lower jaw was enlarged. The dyspepsia improved; but the man died with dyspnoea. On *post mortem* examination, the right lung was found to contain a number of cancerous masses; and in the liver there were a number of cancerous nodules. The tibiae were increased in circumference, from thickening of the outer layers. The fibulae were little affected. The jaw was also similarly affected. A bicuspid tooth was found in a cavity in the jaw. The calvarium was thickened, especially the right parietal bone. The left clavicle was also thickened. As in most of Sir James Paget's cases, this hyperostosis was associated with cancer.—Mr. BUTLIN asked as to the nature of the cancer as revealed by the microscope.—Dr. CAYLEY said it was medullary.

Hyperostosis of Tibia.—Dr. CAYLEY showed for Mr. NUNN a cast of an altered tibia. It was taken from an old female, who had a fall, which was followed by a solid swelling in the left leg and rheumatism in the knee. After a long time, the swelling went away, leaving the tibia curved forward. The right humerus was also affected. The lady was alive now at the age of eighty-one. Her family was very long-lived.

Syphilitic Tumour of Cerebral Artery.—Dr. GREENFIELD said the tumour was exhibited before the Society two years ago. It was of the size of a pea, and was in the left anterior cerebral artery. Thrombosis and brain-softening had followed. There was no other sign of syphilis. It was an early gummatous growth. It consisted of an inner and caseous mass, surrounded by a firmer capsule. It consisted mainly of lymphoid tissue, round cells, with reticulum amidst them, growing around some small vessels. The vessels themselves were thickened by a growth from their endothelium; this gradually formed an obstruction to the blood flow in the vessel. There was also some growth from the outer coat in some of the vessels. As to the mode of growth, Dr. Greenfield said these thickenings of small vessels were marked in syphilitic growths. The question arose, was such thickening to be found in other chronic inflammatory growths? He thought it was; but not to the same extent as in syphilitic growths.—In answer to a question put by the PRESIDENT, Dr. GREENFIELD said it was doubtful if there were any other evidence of syphilis.—The PRESIDENT said it was a very interesting question whether such growth was peculiar to syphilis.—Dr. GOODHART stated that he had a specimen at home of such thickening of the vertebral vessels, with softening of the brain, where there was no history of syphilis, nor any evidence of it.—Dr. GREENFIELD said the change was like that worked by syphilis in the larger arteries. Was such a thickening the cause of the cessation of tubercle?

Hæmorrhagic Pachymeningitis.—Dr. GREENFIELD exhibited a specimen of this lesion, which was common in chronic lunatics. In this case, it was associated with alcoholism. It occurred in a funeral coachman, who was a very great drunkard. He fell and broke his leg, was brought into hospital, and had delirium tremens, followed by convulsions and death. His temperature became high, and his urine was albuminous. The body was comparatively warm when the necropsy was made, seventeen hours after death. The calvarium was healthy, and the dura mater was readily separated. It was of a yellow colour. On cutting into it, a cyst was found on the arachnoid surface. There was no old hæmorrhage. The dura mater on the left side had on it a number of white cicatrices. The membranes of the cyst were tough, and continuous with the dura mater. On microscopic examination, the vessels were found larger than normal, and full of blood. The inner layer of the cyst-wall was very vascular. There was some coagulated blood in portions of the spinal sheath. The blood in the lungs was fluid. This lesion had been called hæmatoma of the dura mater, and was chiefly found in the insane. It had been produced by chronic alcohol poisoning in dogs.—The PRESIDENT inquired as to the state of the spleen. In different forms of fever, such blood-cysts were found. These were found once during a fever epidemic in St. Petersburg in considerable numbers.—Dr. GREENFIELD stated that the spleen was soft, friable, and in all respects like the spleen in typhoid fever. There was nothing to be called fever in this man, who died four days after the fracture.

Chyluria.—Dr. ROUTH exhibited a specimen of chylous urine. It came from a gentleman aged 37, who suffered from dyspepsia, with slight jaundice. He was a native of Barbadoes, and when young had fever. He went to New York, and suffered no longer from fever; but he had what was called in the West Indies "hæmorrhage from the kidneys". From this he quite recovered. He returned to Barbadoes, and had a second attack. After an interval, he had a third attack of chylous urine. After this, he again suffered from fever; and then had a fourth attack of chyluria. He came to England to be under medical treatment. He suffered severely from attacks at intervals, with

pain in the left leg, then in the stomach, with flatulence, cramp, and dyspnoea. The attack ceased by vomiting until bile appeared. The next day, the skin was tinged with yellow. The chyluria was followed by backache, languor, and pain in the testicle. There was a coagulum formed in the urine; it formed in the bladder in the West Indies. When the patient was first seen, the urine was clear; in three days, the chyluria came on. A delicate coagulum formed on the surface of the urine when permitted to stand, with a layer of bloody fluid at the bottom. The urine was alkaline. There was some serous albumen in the urine. A curdy precipitate was formed by the addition of acetic acid. The fluid passed readily through filter-paper. On microscopic examination, the urine at three hundred diameters was seen as a dull grey fluid, containing swollen red blood-corpuscles and minute refracting particles, probably protoplasmic, bacteria, and a corpuscular matter with oil-drops. There were also spear-shaped bodies with well-defined outlines, which might be the *filaria hominis sanguinis*. From the ready diffusiveness of this fluid through filter-paper, its ready passage through the renal capillaries might be conjectured.—Dr. DICKINSON said they probably were *filariae*. The *filaria* had only been found in the East Indies. Chyluria did not depend on these worms. He had under his care a case in a man who had never been out of Great Britain, in whom the chyluria was marked. No *filariae* were to be found.—Dr. MORISON said he had a patient who had chyluria almost constantly. It grew more pronounced towards night, as food was taken during the day. She felt pain in the back on the right side. Then she felt as if something had burst, after which she obtained relief and passed clots. There were no *filariae* to be found, and no casts. Sugar was present in the urine in small quantities. There was great diffusibility through filtering-paper of the urine in this case.—Mr. BERKELEY HILL mentioned the case of a man who had a chylous flow from the thigh. He, too, had shivering, nausea, and vomiting before a flow of chylous fluid. The flow was followed by great lassitude.—Mr. MORRANT BAKER said an analysis of the fluid in this case had been made, and the case was recorded in the Society's *Transactions*. The fluid was milky, not clear.—Dr. DICKINSON questioned if it was a discharge from the kidney. Was it truly renal? There were no casts. And yet, if there were so much fibrine passing down the renal tubules, there would be casts. It probably depended upon a direct admixture of chyle with the urine in the bladder; some backward flow. It was not truly renal.—A specimen of the urine in the three cases mentioned were referred to the Chemical Committee.

CLINICAL SOCIETY OF LONDON.

FRIDAY, NOVEMBER 23RD, 1877.

GEORGE W. CALLENDER, F.R.C.S., F.R.S., President, in the Chair.

A Case of Acute Suppurative Synovitis of the Knee: Evacuation of the Pus with Antiseptic Precautions: Recovery.—Mr. GODLEE contributed for Dr. MARRIOTT of Sevenoaks the report of this case. The patient, aged 3½, was of a family predisposed to tubercular disease. He fell on his knee in July last, and next day complained of pain; on the following day, the joint was painful and swollen, and the boy feverish. For sixteen days, these symptoms increased in severity, the limb being placed on a splint all the time; about an ounce of serum was then allowed to escape by a very small puncture from the joint. Temporary relief followed. Again, however, the symptoms increased in severity, a rigor ensued, and the joint became greatly swollen. Five days subsequently to the first tapping, a second withdrawal of an ounce and a half of liquid, which was this time pus, was made with full antiseptic precautions, a drainage-tube was inserted, and the limb again placed on a splint. Great relief at once followed. On the fourth day, the drainage-tube was removed, and, ten days subsequently, the wound was quite healed. The limb still remained on the splint bound in carbolic gauze. Passive movement of the joint for an hour a day was begun about a fortnight afterwards, and soon the boy walked, and his splint was entirely removed. Dr. Marriott thought the good result due to his strict attention to antiseptic precautions.

Mr. MORRANT BAKER doubted whether the successful issue could be solely attributed to the antiseptic precautions. Quite recently, he had under his care a child two or three years of age, whose case closely resembled that just read. It was a case of acute suppurative synovitis of the knee, and he had treated it by opening the joint in two places: one incision being above and to the inner side; the other below and to the outer side of the joint. Poultices were then applied, but no antiseptic precautions were taken, and the joint had now completely recovered. He believed that a month hence it would show as free movement and as little deformity as Dr. Marriott's patient.—Mr. MAUNDER said that acute suppurative synovitis of the knee-joint was

such a formidable matter that every one would congratulate Dr. Marriott upon the happy result of his case. Many, however, could recall similar cases successfully treated, especially in the young subject, on the same principle as acute abscesses elsewhere: namely, by free incision.—The PRESIDENT suggested that Mr. Baker should, on the completion of the case, also bring his patient to the Society.

Popliteal Aneurism for which the Femoral Artery was twice Ligatured.—Mr. CHRISTOPHER HEATH read notes of this case. The patient, a man aged 36, an engine-driver, applied at University College Hospital with pain in the right knee, and was found to have a small popliteal aneurism. He was admitted on July 2nd, when pressure by Carte's tourniquet, by Esmarch's band and rope, and by flexion of the knee, was carefully kept up without relief. The femoral artery was tied above the sartorius on July 26th. A catgut ligature was used, and the operation was performed antiseptically. Pulsation returned in the aneurism in nineteen hours, and lasted fourteen days, and then ceased for eleven days, when it reappeared. Four days later (twenty-ninth day), pulsation was found in the whole length of the femoral artery. Pressure was again applied to the vessel; but the aneurism continued to increase, and, on September 19th, the femoral artery was tied with a hempen ligature below the sartorius. Pulsation returned in the sac the following day, but gradually grew weaker and ceased in seven days. The second operation was not antiseptic, and the ligature gave rise to a good deal of suppuration; but the patient made a good recovery, and left the hospital on October 20th.

A Case of Popliteal Aneurism treated by Ligature of the Superficial Femoral Artery with Carbolised Catgut, followed by the Formation of an Aneurism at the Seat of Ligature.—Mr. THOMAS SMITH related the case of a man, aged 42, who had been under his care at St. Bartholomew's Hospital with popliteal aneurism, which had existed two months before admission. The case was at first treated unsuccessfully by digital compression; subsequently, the superficial femoral artery was tied with carbolised catgut, Mr. Lister's antiseptic method being employed. The ligature controlled the circulation for forty-eight hours, at the end of which time pulsation was again felt in the aneurism, and the operation failed as regarded the cure of that disease. The wound healed rapidly, without suppuration or constitutional disturbance. The patient left the hospital, contrary to advice, sixteen days after the operation, with the aneurism feebly pulsating. He returned in a month, with the circulation in his femoral thoroughly restored and the aneurism pulsating forcibly. He refused to undergo any treatment, but was supplied with an elastic stocking to the whole limb. Six months later, he again showed himself with the popliteal aneurism larger in size, and with a second aneurism, about the size of a large walnut, just beneath the scar of the operation-wound; it pulsated very forcibly, had a well marked thrill, and a loud rasping *bruit*. After a few days' rest in bed, an unsuccessful attempt was made to cure the aneurisms by the application of the Esmarch bandage; finally, the superficial femoral was ligatured just below the upper aneurism; carbolised silk was used for the ligature, both ends being cut off, and antiseptic precautions adopted. Pulsation in the lower aneurism at once ceased and never returned; recovery was rapid; there was no local disturbance or any constitutional irritation. After the operation, the pulsation in the upper aneurism gradually diminished in force, and, at the end of five days, the swelling was much smaller, and pulsation was scarcely perceptible in it; in a few days, however, it had regained its former size and pulsated as on admission. As it caused the patient but little inconvenience, he declined further treatment and left the hospital. Mr. Smith, after bearing testimony to the advantages of carbolised catgut as a material for ligature to wounded vessels, doubted whether, as at present prepared, it was trustworthy when applied to large vessels in their continuity. Until the occurrence of this case now related, he had had no occasion to find fault with this form of ligature from his own experience, and he had been disposed to attribute the untoward results which had occurred in others' hands to some avoidable defect in the catgut employed. The very ligature used here was, however, kindly sent to him by Professor Lister; it might, therefore, be supposed that it was as good as could be made. Mr. Smith remarked that, while it was open to anyone to think that the fault lay in the operator, and not in the material employed, yet we now possessed abundant evidence to prove that carbolised catgut, when employed for the ligature of large arteries in their continuity, was not thoroughly trustworthy; it was uncertain in its effects on the arterial coats, this being chiefly due to its varying degrees of solubility in the tissues of the living body. In confirmation of this statement, he referred to Dr. G. Y. Heath's paper published this year in the *Lancet*, to Mr. Bryant's cases recently read before the Clinical Society, and to a paper by Mr. James Lane in the *BRITISH MEDICAL JOURNAL* for November 10th. He drew attention to the following facts; viz., that, in three of Mr.

Bryant's cases, the ligature was found to have divided the vessel completely, and to have been itself absorbed. In Mr. Lane's two cases which were examined, the one thirty-two days after ligature, and the other twenty-eight days, the external coat of the vessel was found uninjured in both cases, while the ligatures had disappeared. In one case published by Mr. Heath, at the end of three days, the ligature was found softened and partially absorbed. In another case, the catgut was found on the subclavian *in situ* at the end of fifteen days, while the vessel was perforated. In the same patient, another ligature applied to the carotid at the same time had wholly disappeared, the artery being uninjured.—Mr. Smith expressed a hope that ere long some improvement might be discovered in the method of preparing the catgut, which, without destroying altogether its solubility, would enable it to constrict an artery for such a time as might be sufficient for a firm clot to form within the vessel. In estimating the possibility of the occurrence of aneurism at the seat of ligature, Mr. Smith drew attention to the peculiarity of the patient in this case, who, by his rashness, did all in his power to contribute to the untoward result.

Mr. MAUNDER said that although he had recently spoken upon this subject at that Society, yet he deemed it to be one of such vast importance, and felt so strongly upon the matter, that he would venture to address the meeting again. He would say at once that he would not use catgut again to ligature an artery in continuity. He had been gradually led to the conviction of the dangers associated with it, not by his own personal experience, which had been as good as when silk was used, but from a knowledge of the disasters which had happened to other surgeons. Mr. Bryant's and Mr. James Lane's cases had been alluded to, and he found it difficult to understand how Mr. Bryant arrived at the opinion that catgut was the best material to use, when it had behaved in an unexpected way on the arteries, that secondary hæmorrhage had occurred in two of his cases, and that this "ligature dissolved within an uncertain period". Mr. Lane's cases had not been attended by any peculiarities inconsistent with safety, but in one or two instances rather the reverse. He (Mr. Maunder) had tied twenty-eight arteries in continuity; nineteen with silk, and nine with antiseptic precautions, and of these, five with catgut. He had not had an instance of secondary hæmorrhage in his practice; but contended that if serious and sometimes fatal consequences had attended a method of treatment in the hands of surgeons like Spence, Eben Watson, Callender, and as was now illustrated by the cases of Heath and T. Smith, equally competent to tie arteries as himself, the material ought to be abandoned by him as *peculiarly* unsafe. It was, however, only fair to Mr. Lister that, if catgut were used at all, it should be used with strict antiseptic precautions, otherwise those surgeons who employed it only repeated, with the addition of a modicum of carbolic acid, the experiments of Sir Astley Cooper and others, who abandoned it in favour of silk. In his first antiseptic case, he (Mr. Maunder) used a carbolised silk ligature, cut short, antiseptically. The wound healed rapidly without suppuration, and his patient, a gentleman actively employed, had the ligature on his common carotid artery at that moment, the operation having been performed in September 1868. He was glad to find that Mr. Smith had used antiseptic silk and had obtained primary union. This was the ligature which he (Mr. Maunder) would use in future.—Mr. BARWELL said that he must again differ from Mr. Maunder, although he concurred in much that had been said as to the unreliability of catgut. Secondary hæmorrhage was not unknown to occur when the silk ligature was employed, and it was not a common result in cases where catgut was used. So, again, the formation of the aneurism at the seat of ligature in Mr. Smith's case did not merely depend on the material used; it might have followed any form of ligature. Again, in Mr. Heath's case, he could not see what connection there was between the recurrence of pulsation for a second time, after it had ceased for fourteen days, and the form of ligature used. Possibly the catgut was too rapidly absorbed, and perhaps the inner coat insufficiently divided. He thought that if the gut had been kept long in oil, and if the ligature were tied too tightly, its absorption would be hastened. It ought to last from three to six days. For himself, he usually tried to avoid doing more than simply divide the inner coat, so far as that was possible; not tying the second knot more firmly than the first. Thus occlusion of the artery was obtained without the risk of rapid absorption of the gut or ulceration of the vessel-wall.—Mr. GODLEE asked Mr. Heath what form of ligature he intended to use in the future. From his using silk in the second ligature, he implied that the accident was due to the catgut. Was he going to discard catgut in favour of silk?—Mr. HEATH, in reply to Mr. Barwell, supposed that in his case the ordinary changes took place in the artery after its occlusion by the ligature, and the return of pulsation in the aneurism a few hours later was ordinarily seen. Then he believed that some coagulation took place in the aneurism, and that when the

current in the artery was restored by the loosening of the ligature, the flow was sufficient to wash away the obstructing clot. The second ligature produced complete obliteration of the artery. To Mr. Godlee he would say that he had not made up his mind as to what form of ligature he should use in future, and he regretted that Mr. Lister had not been present to give them information as to his own practice, which should be a guide to those who were now groping after truth. Certainly it was only fair to use antiseptic precautions when using the catgut ligature.—Mr. T. SMITH thought that all the differences of opinion in vogue as to the mode of tying the ligature, as to the time for its solution, etc., depended upon the very great variation shown by the ligature with regard to its absorptive qualities, it remaining in various cases undissolved from twenty-four hours to thirty days. No one knew how long it should be soaked in the oil to render it perfect, and the ligature given to him by Mr. Lister himself was not available for compressing the artery for more than forty-eight hours. He would like to know why Mr. Lister finally discarded the use of carbolised silk. Was it because in one case a secondary abscess had formed? He differed from Mr. Barwell in his opinion that the material had nothing to do with the formation of the aneurism in his case: for, if silk had been used, the vessel would have been thoroughly divided, and pulsation would not have recurred in it within forty-eight hours of its application. It had been shown by experiments on animals that an aneurism could be produced by traction on an artery leading to division of its inner coats. For himself, he would again use an antiseptic catgut ligature to-morrow if Mr. Lister would give it him.

Iodide of Potassium Eruption.—Dr. TILBURY FOX read a paper upon this subject. After a brief review of what was at present known concerning the toxic action of iodide of potassium in inducing eruption of the skin, the author related the particulars of two cases. In them, a few doses of the iodide produced an acneiform rash, which gradually developed into what at first sight appeared to be a bullous eruption, the bullæ varying in size from a pea to a shilling and more, but which it was contended was a modified phase of acne, the iodide, as in the case of the bromide, stimulating the sebaceous glands and their surrounding parts to an excessive degree, so that, as a consequence, altered serum (*i.e.*, liquid) was rapidly poured out, causing rapid elevation of the cuticle, and giving rise to the appearance of ordinary bullæ with opalescent contents. In some instances, these bullæ-like bodies had burst and given place to fungoid masses. The author drew attention to the fact that patients in whom this disease was produced must be regarded as possessing a peculiar idiosyncrasy as regarded the iodide, and that the rash resembled closely that induced by the administration of bromide of potassium in some cases. The paper was illustrated by water-colour drawings of the eruption.

The PRESIDENT agreed that the form of eruption described must be rare. He had never seen it. He thought that, as a rule, these eruptions from drugs were met with less often when the latter were given for affections not complicated with skin eruptions. In some cases, the iodide might be continued without causing an increase in the rash produced by it.—Dr. BROADBENT said that the second case related by Dr. Fox was the second of that form of eruption from iodide of potassium which had come under his notice, and he was thus able to recognise its nature, the iodide being subsequently given, by way of experiment, to reproduce the eruption. The patient was extremely ill with hæmoptysis complicating renal disease, and she also had ulceration on the tongue. The first case seen by Dr. Broadbent was that of a young girl with an albuminoid liver and enlarged spleen, who subsequently died in a fit. In her case, small doses of the iodide (three grains) were followed by a bullous eruption over the body; and here, again, after the skin had returned to its natural state, the eruption was recalled by again resorting to the drug. In both there was, no doubt, a marked idiosyncrasy to iodide of potassium. He had never seen any such effects produced by large doses in syphilitic patients. The contents of the bullæ so rapidly formed seemed to be serous, and not products of altered gland-secretion.

HARVEIAN SOCIETY OF LONDON.

THURSDAY, NOVEMBER 13TH, 1877.

W. H. BROADBENT, M.D., Vice-President, in the Chair.

Sacculated Aneurism.—Mr. LOVELL brought before the Society a case of sacculated aneurism of the aorta, which burst into the pericardium. The patient died suddenly in bed. He had never complained of pain, and had very little cough. A second unruptured aneurism was found higher up the aorta. The kidneys were healthy.

Bone Syphilis in the Infant.—Mr. CRIPPS LAWRENCE related a case of an infant where there was swelling of the distant phalanges of the fingers and of a metatarsal bone in one toe; there was also a brawny

swelling of a pectoral muscle, and thickening of the sternal end of the clavicle; the child had purulent ophthalmia. The child improved under iodide of potassium and grey powder. According to Dr. Taylor of New York, in his work on *Bone Syphilis in Children*, it was always the first and not the second phalanges which were involved.

A New Method of Opening Lumbar Abscesses.—MR. OSMAN VINCENT described a method by which he had opened eighteen lumbar abscesses without a fatal result. The abscess was first opened and then injected with a solution of equal parts of sulphurous acid and water, after which a poultice was put on. Next day, the injection was renewed and some tenax applied. The treatment went on till the cavity healed up. The injection sometimes gave pain. Sometimes the fluid returned clear, and at other times black. When sulphurous acid was injected, it acted upon the pyogenic membrane, and then pus did not reform.—A discussion followed.

Acute Dementia in a Child: Recovery.—DR. BROADBENT related the case of a child aged 9, belonging to a healthy family, which became acutely demented. It had been a quick child, and very industrious about its lessons. It had overworked itself, complained of pain in its forehead and abdomen, and then took to bed. When admitted to St. Mary's Hospital, she soon refused her food, and was fed by enemata, and subsequently by a tube through the nose. She then closed her eyes persistently, and refused to put out her tongue. Sometimes her respirations were very rapid. Her bowels were regular, and her urine normal. Faradisation was resorted to; a slight current produced no effect, but a strong current elicited faint cries, and made her put out her tongue. By the persistent use of the battery, she roused up until the sound of it would cause her to open her eyes and put out her tongue. Gradually, she quite recovered. The case might have been mistaken for tubercular meningitis, from the excavated abdomen and apparent unconsciousness. When the sensation was tested, tears rolled from under her eyelids, but she did not cry. She evinced a great dislike to her mother and teacher when at the worst; on improving, she regained her normal feelings towards them.

EPIDEMIOLOGICAL SOCIETY.

NOVEMBER 14TH, 1877.

Surgeon-General JOHN MURRAY, M.D., President, in the Chair.

THIS was the first meeting of the session. Surgeon-General Dr. John Murray, the new President, took the chair in succession to Mr. Netten Radcliffe, and delivered an address, of which the following is an abstract.

On some of the Conditions which influence the Epidemic Prevalence of certain Diseases in India.—DR. MURRAY said that India afforded an ample field for the observation of epidemic diseases, from its great extent, the regularity of its seasons, and the variety of its climates. The organisation of the medical department and the liberality of the Government allowed the investigations to be fully developed. An especial opportunity was afforded for an inquiry into the dissemination of cholera by an outbreak of the epidemic at the Hurdwar Fair in 1867, when more than two millions of pilgrims were assembled. Dr. Murray was in the vicinity at the time, and issued instructions to all the medical officers in the Upper Provinces to report the appearance of the first case of the disease in their district and its subsequent course. By this means, its progress with the stream of returning pilgrims was distinctly traced. It spread equally towards all points of the compass with the same regularity, and the question of its transmissibility by human intercourse was thus set at rest. In carrying out an investigation into the nature and treatment of cholera, nearly two hundred questions were put by Dr. Murray, to which categorical answers were required from upwards of five hundred officers of Her Majesty's British and Indian Medical Services. The answers could be tabulated as "Yes", "No", "Doubtful", and the total, summed up, the result showing the opinions of practical men. On any point on which these were almost unanimous, the question might be considered settled. In a table showing these opinions on seventy-one of the most important questions, there was a concurrence of over 98 per cent. on fifty-one of them, and on only seven questions were the concurrent opinions under 95 per cent. For example, 98 per cent. showed the communicability of the disease. Such unanimity on medical subjects was rare. One of the advantages caused by our increased knowledge of cholera had been the regulations issued by the Government of India for the removal of troops from cantonments into tents on the appearance of the epidemic. In most instances, this step has been followed by an immediate arrest of the attack, and in all by its decided amelioration. This measure was most favourably spoken of by the Sanitary Commissioners in their latest reports. The influence of a previous attack of the disease, though generally protective in other epidemics, was clearly shown to be not so

in cholera by an examination of the returns of this disease in the Central Jail at Agra during five epidemics in five successive years, a recurrence of the attack amongst the prisoners being not uncommon. The monthly returns of the European troops kept in the office of the Medical Department in Calcutta were complete from the beginning of this century. Those from the civil population only reached back to 1870. From these returns, tables were exhibited showing the deaths from cholera among the European troops in Bengal and the Upper Provinces for sixty-two years. The results extending over so long a period could not be accidental. There were returns of the mortality from small-pox among the native population, from typhoid fever among the native prisoners, and from ague among the native troops, for shorter periods. The great prevalence of cholera among the Upper Provinces was limited to a period of four months, coinciding with the rainy season; whilst during the four months of the cold season the mortality was only about 2 per cent. A similar result was shown by the returns from the European troops in the Bombay Presidency. It was remarkable that all the three epidemics in London in 1849, 1854, and 1865 occurred in the same season. In Lower Bengal, the season differed; most part of the country was under water at the period when cholera prevailed in the Upper Provinces. It was also more diffusive in the Madras Presidency, where there were two rainy seasons. Small-pox prevailed in India in the hot season, and declined when the rains appeared, and, except in Madras, was little found till the end of the cold season. Typhoid fever prevailed during the cold season, and subsided as the hot season advanced. The plague in Mesopotamia and Persia in 1876-77 ran a similar course. Ague and intermittent fever prevailed during the rainy season in the Upper Provinces, but in the damp climate of Bengal there was only a slight diminution during the cold season. All epidemic diseases had much in common, so that the knowledge of one facilitated the investigation of others, though the action of each specific poison on the body differed as distinctly as the crops on a field when different grain was sown. The simultaneous attack of two epidemic diseases in the same individual was rare, as these diseases generally prevailed at different seasons; but they were sometimes found together in India. Cholera assumed an intermitting type, with excessively profuse perspiration; typhus and small-pox produced black pox; ague with dysentery caused blood-flux; ague with plague produced the intermittent and labomic fever of the Europeans.

SOUTH-EASTERN BRANCH: WEST KENT DISTRICT MEETING.

NOVEMBER 20TH, 1877.

Two Cases of Acute Chorea.—DR. C. E. HOAR related two cases of chorea, occurring in the West Kent General Hospital, which supervened during undoubted attacks of acute rheumatism, and were fatal. The patients were young women in domestic service, aged 18 and 15 respectively. In one case, the choreic movements commenced on the ninth day of illness, and became rapidly worse, so that the patient died on the thirteenth day comatose, with a temperature at 109 deg. In the other, choreic movements were observed during the fourth week of her illness. On admission into hospital, on the forty-fifth day, there were no joints affected. The temperature was 103.8 deg.; pulse 132. She at first seemed to improve, but after a week also became somewhat rapidly worse, and died on the fifty-fifth day. The temperature was 107 deg. She was not comatose, but had profuse acid perspiration the day before death, and vomiting and diarrhoea. In both cases was observed a systolic blow over the apex of the heart, which disappeared before death in the latter case; whereas, in the former, careful *post mortem* examination of the heart revealed no valvular lesion. The second case had had rheumatic fever and chorea seven years previously. In one case, chloral hydrate in moderate and large doses, and together with bromide of potassium, had no effect in quieting the jactitation. Subcutaneous injection of morphia, in half-grain doses, at first relieved her, but only for two or three hours each time, and at last that had no effect; so that one grain was injected, its effect being carefully watched, but even that dose was ineffectual to procure rest. Her temperature did not reach 104 deg. till the night before her death. In the second case, much benefit resulted from chloral hydrate, in doses of, at first, twenty grains, then thirty grains, and afterwards sixty grains, though none was administered for the three days preceding her death. Stimulants were freely given. On two occasions, chloroform was inhaled, with the effect of quieting the violent movements for about five minutes only, evidently having no permanently good effect. The chloral produced several hours' refreshing sleep, and the jactitation was always less the day succeeding the night-draught of chloral. Her temperature never reached 105 deg. until the day of her death.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 1ST, 1877.

RECENT IMPROVEMENTS IN THE SANITARY STATE
OF THE BRITISH ARMY.

MR. EDWIN CHADWICK'S address on Health, recently delivered before the Public Health Section of the Social Science Association, is most interesting in all its parts; but we propose to-day to call the attention of our readers only to the few but pregnant paragraphs (they are but two pages) which refer to the changes effected by preventive medicine in the rate of sickness and death in the British Army. After detailing the steps which were taken under Lord Palmerston's administration in 1855 to stop the dreadful waste of life from disease among the forces in the Crimea—steps which were so perfectly successful that Mr. Chadwick feels justified in saying that, after the practical destruction of the army first sent out, "the second army was saved, and returned in a better condition of health than the army at home"—he proceeds thus:

"Chiefly at the instance of Lord Herbert, under the influence of structural improvements advised by the Army Sanitary Commission, army sanitation has advanced, under more or less perfect provisions, from a death-rate of 17.5 in the year 1858 to a death-rate of 9.6 for the whole army in 1875. The death-rate of the Foot Guards was in 1858 20.4 per 1,000; it was last year 7.72. The deaths amongst them from continued fevers have been reduced from 2.45 to 0.44, and of tubercular diseases from 12.53 to 1.69, per 1,000 of mean strength. New hospital accommodation, provided on the old experience of the curative service of a constant bed-lying sickness of 100 per 1,000 of force, has been found to be in excess to more than the double of what is now required. The effects of sanitation in the army have been progressively manifested in the army on foreign stations, in some instances to a considerable degree, of which I will mention one—the instance of Gibraltar, where from 1818 to 1836 there was a death-rate of 21.4 per 1,000. Progressive reductions have followed barrack improvements, general drainage, water-supply, and other sanitary works there until 1875, when the death-rate was 5.50 per 1,000, and the place is made the most healthy spot out of England for troops."

There is an obvious fallacy in comparisons made between the general death-rate of the army in former and in present times, depending on the different conditions of enlistment. When men were recruited for long periods of service, the average age must have been greater, and invalids were much more likely to die in the service. But no such objection can apply to comparisons of the actual death-rate of the troops at a given station, as at Gibraltar in the passage just quoted. At least, the excess in the average age which we have assumed to have existed in former times could only account for a very small part of the difference in death-rate; and, in fact, no one doubts the enormous saving in life, and consequently in money, which has been effected by the application of sanitary improvements to the army. Speaking of the results of the appointment of a Royal Commission, on his recommendation, to inquire into the state of the Indian army in 1859, Mr. Chadwick says:

"The report of this Commission stated that the death-rate of the British soldier since the first occupation of the country has oscillated round 60 per 1,000. Dr. Cunningham gives the present death-rates among the British troops in India at 17.48. The average rate of the preceding four years was 17.65, though 1875 was a great choleraic epidemic year. These are the death-rates in India; but, as some die on the voyage home and others at Netley, the total death-rate was 18.52."

The saving of life is equivalent to the addition of whole regiments to the army; the saving of money to the interest on millions of capital, reckoning only from the difference in the tale of dead. And it must not be forgotten that there is a further enormous gain in the health and strength of the survivors. It is, indeed, an amazing triumph—"an imperial work, and worthy kings"—though carried out really by persons of humble station and antecedents, for whom the decoration of a C.B. is thought a rich reward, while titles and pensions are reserved, not for those who save life, but those who destroy.

And there is another aspect of sanitary progress shown us in the two pages of this report to which we have confined our remarks. It is this: from time immemorial, the extremes of climate have been held necessarily fatal to the inhabitants of temperate countries. Every one remembers how the old poet speaks of the lands "sub curru nimum propinqui Solis in terrâ domibus negatâ", and how it has been assumed as a matter nearly self-evident, or, if not, at any rate settled for us by woeful experience, that Europeans can hardly live in such climates, or at least only the hardier can, and the race cannot be propagated successfully. But the improved experience of our army is rather tending to show that, with adequate and proper precautions, there is scarcely any climate in which any race of man may not be naturalised and permanently settled. Let us hear what Mr. Chadwick says on this head.

"On a threatened invasion of our West Indian possessions by cholera, we were called upon at the General Board of Health to organise a Sanitary Commission for defence. One result of that examination, chiefly conducted by Dr. Gavin Milroy, was to show that the excessive ordinary death-rates there (50 in 1,000), and the assumed impossibility for the white races to live and have succession there, were mainly the results of insanitary conditions. The army sanitary statistics are confirmatory of that view. In the Leeward command, the death-rate was, from 1819 to 1836, no less than 96 per 1,000. Great improvements have been made at all the stations of late years, and the management of white troops has been much improved. In 1875, the death-rate was 5.98 per 1,000. As in the prisons, so in the barracks, it may now almost be said that epidemics are not permitted there. Whosoever any occur there, an inquiry is made as to the causes, with a view to their removal; whilst epidemics carry away thousands of the civil population, the industrial forces of the country, without any proper inquiry whatsoever."

This opens a yet wider prospect of national progress and strength than any reform can offer which is merely confined to our home population or our public services. It has been the fashion to say lately that England is becoming more an Asiatic than an European power. It would be more true to say that England is the only power in the world which extends over every part of the globe. But one great cause of danger to us in holding so extensive a dominion with so small a population of the governing race is the necessity of garrisoning, as it were, with British colonists as well as soldiers a number of insalubrious places, in which the precious stock of Englishmen is being constantly decimated by epidemic and endemic diseases which our fathers used to regard as natural and inevitable. One of the most important questions of the day to those who are responsible for the administration of our vast possessions in Asia, Africa, and tropical America is, whether these foes to European life are really inseparable from the climate, or whether, as seems most probable, they are not rather produced by a neglect of sanitary laws—a neglect far more fatal in tropical than in temperate regions. If this be so, the entire avoidance of such neglect, the rigid observance of sanitary laws by the whole population, might eradicate some of the greatest scourges of the human race, might make the plague as much a matter of history in the East as in England, render yellow fever innocuous and cholera a tradition. Of course, no such change can be looked for as possible in all its extent in our times; it requires a profound alteration in the habits of some of the least enlightened and most immobile of all the inhabitants of the earth. Still, the influence of government and the governing race is great in such countries, just in proportion to the ignorance and weak-

ness of the natives; and, if our public men can ever be got to recognise the immense services which sanitary science has already rendered, and the boundless prospect of future strength which it holds out to the most cosmopolitan of all nations, a change will be commenced the result of which the imagination can hardly realise. All honour to those who, like Mr. Chadwick, have laboured, through good and evil report, to confer so great a boon on England and on the world.

THE ORIGIN OF PUS-CELLS.

THE nature of the inflammatory process, and more particularly the source of the element known as the "pus-cell", continue to engage the attention of pathologists to a degree commensurate with the fundamental importance of the subject. The surprise excited by Cohnheim's demonstration of the emigration of the white blood-corpuscles having subsided, numerous observers, loath to part with theories which they had believed to be firmly established by facts, set themselves strenuously to work to discover whether the older and the newer doctrines were not compatible, whether "proliferation of connective corpuscles" might not rank with the "emigration" of white blood-corpuscles as a source of pus. The constantly renewed attempts to prove this proliferation are of themselves presumptive evidence that it has not yet been proved.

Many of the memoirs that this question has suggested are of permanent value, inasmuch as they throw light on the darker points of the normal histology of various structures. Several suggestive papers of this kind have appeared lately. In the sixty-eighth volume of *Virchow's Archiv*, Dr. Socoloff describes the results of an investigation conducted by him in the laboratory of Professor Virchow himself, the special object of study being the "formation of pus-cells and changes in the membrana propria of the mucous membrane in inflammation of the bronchi". The material on which the observations were made was obtained by inflaming the bronchi of dogs and rabbits with chromic acid and bichromate of potash.

Dr. Socoloff believes that his preparations enable him to discard two alleged sources of the round or pus-cells found in the secretion of the inflamed mucous membrane of the air passages. In these preparations, the thick layer of pus-cells was completely separated from the mucous membrane by the membrana propria, and in one class of them no round cells were found in the substance of the membrane nor surrounding the blood-vessels. That they had not fallen out in the preparation, was shown by their not being seen in thick sections carefully handled. They could not in this instance, therefore, the author argues, have come from the blood-vessels, nor could they be products of proliferation of the connective tissue corpuscles of the mucosa. Were they products of endogenous cell formation in the columnar epithelium? The answer is again a negative. Such endogenous cell-formation has been described by previous investigators, but in this case no evidence of it was found. Round cells were, indeed, seen within epithelial cells, independent altogether of the nucleus of the cell, but there was no transition observed between clumps of cell protoplasm and the round cells, and as in the same instances red blood-corpuscles were also found within the epithelial cells, it was decided that both the red blood-corpuscles and the round cells had entered the epithelial cell from without. The author having produced inflammation in a milder form satisfied himself by another series of preparations that the pus-cells originate in active proliferation of the layer of cells which normally lies in one or two rows between the epithelium and the membrana propria. But although he denies the power of proliferation of the columnar epithelium of the bronchi, he concedes it to the epithelium of the mucous glands, and that on the ground that the glandular cavity was found full of round cells, whilst the ordinary epithelium had disappeared.

If this supposed proliferation of the subepithelial cells were established by direct observation, it would be impossible to over-estimate the importance of Dr. Socoloff's experiments, but there is unfortunately here, as in so many attempts that have been previously made to detect the process of cell growth, an impassable breakdown in the facts. Dr. Socoloff does not profess to have observed any process of proliferation in the subepithelial cells. His argument, for it is only an argument, amounts to this: where there is in the normal condition one or two layers of epithelial cells, there are now masses of pus-cells; there are no pus-cells observable in the mucous membrane or around the vessels, and they are not produced endogenously within the columnar epithelium; therefore, they are produced by proliferation of the cells which formerly occupied the position they now occupy. It is a simple *petitio principii*. That the subepithelial cells can proliferate at all is the question at issue. Such a process has never been observed nor described, nor does Dr. Socoloff describe it now.

But there is, further, another assumption in Dr. Socoloff's reasoning to which exception can be taken. Finding round or pus-cells well preserved on the surface of the membrane and none around the blood-vessels, he assumes that there were none in the latter situation. There are histologists who would demur to this conclusion. The preparations were hardened in bichromate of potash solution and alcohol, and there is reason to believe that delicate cellular elements in a dense tissue do not always survive this treatment. This would explain why round cells were observed in the substance of the mucosa where there had been greater destruction of tissue. The hardening agents could then act on the cells as freely as if they were on the surface of the membrane.

Dr. Socoloff has noted a fact of importance to histologists. He has found that, under the influence of inflammation, cellular elements in a continuous layer become visible in the membrana propria of the mucous membrane. These cells are characteristic, and distinct from the epithelium on one side of them or the cells of the mucosa on the other. In preparations stained in picro-carminate of ammonia, he observed that nuclei existed in the membrane, and were situated at regular distances from each other. The exact nature of the cells to which the nuclei belong is not very evident from the description or drawings. The author, on account of their granular protoplasm, the size of the nuclei, and their arrangement in a layer, believes them to be analogous to the endothelium of the blood-vessels. The structure of the membrana propria is one of the subjects in regard to which better information than that we now have is much to be desired, and Dr. Socoloff's observations are on this account valuable.

THE LAW OF CORONERS' INQUESTS.

WE publish in another column the proceedings at a recent meeting of the Parliamentary Bills Committee of the British Medical Association, relating to the subject of the mode of appointment of coroners and the present method of carrying out medico-legal inquiries in relation to their Court. It is understood that the Government have in hand a Bill, of which the effect will be to make considerable changes in the method of electing coroners, and to place the whole of these appointments in the hands of the legal profession. Moreover, recent circumstances have indicated that the method of obtaining medical testimony at inquests and subsequent criminal trials is open to amendment; the whole matter is one which has for some years engaged attention from time to time, and in respect to which opinions have been very generally expressed that some reform is required. It is very desirable, therefore, at this juncture, that the questions raised should be very fully considered by the medical profession, with the view to obtaining, if possible, some general consensus of opinion on the direction in which these reforms should point, and the shape which they should take. The proceedings of the Parliamentary Bills Committee will, there

fore, probably be considered opportune; and, as means have been taken in the first instance to obtain the opinion of persons of considerable experience and no small authority, the members of the Association have now before them some elements of value upon which to base their consideration of the matter. The question is still in its preliminary stage, a subcommittee having been appointed to go further into the details, and to endeavour to digest a report for future consideration. The members of the subcommittee are Dr. A. S. Taylor, late Lecturer on Medical Jurisprudence at Guy's Hospital; Dr. Ferrier, Professor of Forensic Medicine at King's College; Dr. Southey, Lecturer on Forensic Medicine at St. Bartholomew's Hospital; Dr. A. P. Stewart, Mr. Sibley, Dr. J. Rogers, Mr. Carttar, Coroner for West Kent; Mr. Langham, Deputy-Coroner for the City of Westminster; Dr. Hardwicke, Coroner for Central Middlesex; together with Mr. Ernest Hart, Chairman of the Committee. We shall hope to find that this subject proves of sufficient interest to induce our members generally to favour us with their views on the matter; and it is probable that a thorough discussion of this subject in the JOURNAL may assist the Committee to arrive at conclusions, which they could thus bring under the notice of the proper authorities in a manner which would command their attention. It is certainly very desirable that the question should be thoroughly sifted, and that a free expression of medical opinion should be obtained before legislation is commenced in the House of Commons.

THE HEALTH OF THE CUSTOMS OFFICERS OF THE PORT OF LONDON.

THE annual report of the Medical Inspector of Her Majesty's Customs for 1876 gives a highly favourable account of the sanitary condition of the officers of that department in Dr. Dickson's charge. During the year, there were only five deaths from disease and one from accident, and only one case of invaliding or premature superannuation. These figures are the lowest on record. The number of *employés* in the outdoor department of the Customs average about one thousand. The combined rate of death and invaliding was, therefore, only 7 per 1,000 in the year under consideration. Since the year 1862, the corresponding annual mean rate has been 17 per 1,000 (*viz.*, 10 deaths and 7 invalided), and prior to that date it was 24 per 1,000. The very few cases of death and invaliding that occurred in 1876 were of men well advanced in life, who succumbed to chronic or organic disease; and as a large proportion of the officers of the port are above middle age, the exceedingly low rate of mortality is very remarkable.

The registration of disease has been carried out fully and minutely for many years; and the results are of much interest, as conveying practical information concerning the health of the middle aged middle class section of the male population of the metropolis, leading lives of steady industry with considerable exposure to the weather. Of this important class of the community, the Customs officers may be deemed fairly representative. As might naturally be expected, diseases of the respiratory organs and rheumatism are the most prevalent types of illness; but gout is also frequently met with, chiefly of hereditary origin, and more common in warm damp weather than in cold. Rheumatism and gout together constituted no less than 18 per cent. of the total amount of illness in the year, the normal annual average being only 15 per cent. Respiratory affections, on the other hand, were under the usual proportion, forming 23 per cent. of all the cases, and 18 per cent. of the total time lost by sickness. Heart-disease and maladies of the nervous system were in excess of the annual average; disorders of the skin and cellular tissue were below it. Accidents, singularly enough, occur from year to year in a more uniform ratio than any class of diseases, and last year caused 10 per cent. of the entire incapacity of the force; this being the ratio which, with trifling deviation, has obtained in the last twenty years. Notwithstanding the extreme heat and dryness of July and August (three and a half degrees above the average), there was a remarkable exemption from

bowel-complaints. No epidemic appeared in the force during the period; indeed, febrile and zymotic diseases caused but a very small proportion of illness—only 5 per cent.; and, as in many years past, no instance occurred of any infectious malady having been contracted on duty, notwithstanding the free communication most of the officers necessarily hold with vessels, cargoes, and crews from all parts of the world. The few zymotic cases observed were traceable to contagion from their families or neighbourhood, or to domestic insanitary conditions. The mean daily number incapacitated by all causes was 29.4, or 3 per cent. The mean duration of each case was eighteen days, and the proportion of time lost by reason of sickness or accident was (including Sundays) eleven days for each member of the force.

Dr. Dickson has appended a note to the blue book, giving a brief summary of the sanitary statistics of the Customs officers of the Port of Liverpool during the year 1876. From this it appears that the mean daily number ill has been 4 per cent. on strength, and the average loss of service per man has been fourteen days in the year. The deaths were in the ratio of 15 per 1,000, and the invalids in that of 5 per 1,000. These figures, although below the normal averages of the Liverpool Custom House, are, as will be seen, considerably less favourable than in the corresponding force stationed in London.

DR. THOMAS STEVENSON has been appointed to succeed Dr. Alfred S. Taylor as Lecturer on Medical Jurisprudence at Guy's Hospital.

WE understand that a new quarterly journal of mental diseases, entitled *Brain*, will be issued early next year by Messrs. Macmillan. The editors will be Dr. J. C. Bucknill, F.R.S., Dr. Crichton Browne, Dr. Hughlings Jackson, and Dr. Ferrier, F.R.S.

SURGEONS Allen and Sibbald are mentioned as deserving of the favourable consideration of the Lords of the Admiralty, in the Admiral's report, for their prompt volunteering for, and efficient services with, the torpedo expeditions on the occasion of the encounter between the *Shah* and the *Huascar*.

ACCORDING to information received from Vienna, Russian telegrams announce that the Minister of War lately ordered the University of Moscow to subject at once all medical students to examination, and send them without delay to the seat of war, because of the great scarcity of medical help. A second order followed, directing the utmost speed to be observed.

A PRESENTATION of a timepiece and purse of sovereigns was made to Captain Mercier this week, on the occasion of his resigning the chairmanship of the Hospital Saturday Fund Committee. It was stated that through this fund about £20,000 had been subscribed by the working classes for distribution among the hospitals of London, and that the fund was now placed on a permanent and satisfactory basis.

MR. TEBB, of anti-vaccination notoriety, has written to the *Times* to defend his faith, complaining that an anti-vaccinator had to struggle under the opprobrium of ignorance, obstinacy, fanaticism, idiocy, etc.; and asserting that, as to ignorance, he believed anti-vaccinators, as a rule, knew more about vaccination, its history and characteristics, than even the run of medical men; and because of their knowledge they were what they were—fanatics—or wiser than their generation.

THE Society of Apothecaries have decided to offer two prizes for competition by young women under twenty years of age in the science of botany. The prizes will consist of a gold medal, and a silver medal and books, to be awarded to the first and second candidates respectively in order of merit. The Rev. M. J. Berkeley (the examiner for the prizes given by the society to medical students) will conduct the examinations. The date of the examination and the conditions of competition will be published shortly.

THE CONJOINT SCHEME.

WE understand that the only medical authority which has not yet appointed its delegates to the Committee of Reference is the University of London. As soon as the two members from the Metropolitan University are appointed, the Committee will be able to meet and proceed at once with its duties.

THE STUDY OF DERMATOLOGY.

THE medical officers and lecturers of the Middlesex Hospital, at their meeting on November 26th, with a view to further the study of dermatology among the students, created a lectureship on that subject, to which Dr. Robert Living, lately physician in charge of the skin-department, has been appointed.

DEATH OF MR. MARSON.

WE deeply regret to have to announce the death of Mr. James F. Marson, who has been for forty years resident-surgeon at the Small-pox and Vaccination Hospital, Holloway. Mr. Marson has long been known as one of the highest authorities in this country or in Europe on the subject of vaccination and small-pox, and his valuable and reliable data, based upon a well digested experience, have helped to form largely medical and public opinion on the subject of the prevention of small-pox, and to lay the basis for the legislation to which this country already owes much, and will, we trust, in future owe much more, in the diminution of mortality from small-pox.

THE RED CROSS SERVICE.

CONSIDERABLE attention has been directed to the treatment by the Russian authorities of Drs. Vachell and Douglas, two of the Red Cross surgeons attached to the ambulances of the Stafford House Committee, who were captured recently by the Russians whilst in charge of a hospital before Plevna. As we stated last week, these two gentlemen were treated with great kindness and courtesy when in the camp before Plevna, but were subsequently forwarded to Bucharest, with orders that the journey should be continued to St. Petersburg, where they were to be handed over to the English ambassador. Dr. Vachell, however, is suffering seriously from dysentery; and a certificate having been given by Dr. Lamson, at Bucharest, that Dr. Vachell's health would be endangered by such a journey, they have been allowed to remain at Bucharest, not without great reluctance on the part of the local authorities to forego the completion of their programme. They are treated with great courtesy and consideration in their captors' hands, as is due to their position and to the conditions of the Geneva Convention under which they act. On the other hand, some annoyance has been caused, it is stated, among the Turkish authorities by statements alleged to have been made by these gentlemen concerning the treatment of the Russian wounded by the Turkish soldiers on the field, and as to other matters in respect to the conduct of Turkish soldiers. Mr. Barrington Kennett has issued a minute, reminding all the officers of the ambulances acting under the Red Cross that it is their duty strictly to abstain from making any statements which can convey any information to either party with whom they may chance to find themselves, or be turned to the prejudice of the belligerents on either side. This rule is obviously conveyed in the sense of the principles upon which the Geneva Convention is based, and cannot be too strictly observed by all the servants of the Red Cross Societies.

INFANTILE MORTALITY IN BIRMINGHAM.

THE meeting on this subject, which we have already referred to, was held last week, under the presidency of Mr. Kenrick, Mayor of Birmingham. It was convened by the Health Committee of the Town Council, in concert with a "Ladies' Association for Useful Work". We are glad to learn that it was influentially attended, and promises good results. Resolutions were proposed "deploring the present high rate of mortality arising from preventable causes", and stating "that, as ignorance about diet and management causes probably half the

deaths of children under one year old, it is both the interest and the duty of the community to lessen this sacrifice of infant life by the wider dissemination of knowledge on health subjects"; and "earnestly appealing to all who recognise the need of spreading sanitary knowledge for help in securing lectures and other agencies for their enlightenment". Speeches in support of these resolutions were made by Mr. Chamberlain, who suggested a "sanitary mission"; by Dr. Heslop, Mr. R. W. Date, Miss Kenrick, and others. The Macclesfield programme was highly approved, viz., "that mothers should be restricted from working for a limited period after confinement; that *crèches* or nursing homes should be established under medical inspection, and visited by ladies' committees; that the sale of narcotic and injurious soothing drugs should be limited; and that a more rigid inquiry should be made into the cause of all uncertified deaths and medical evidence taken"; and it was decided to adopt further means for spreading sanitary knowledge amongst mothers especially. There are already many classes formed for lectures and instruction, and it is desired to increase the number of these, and to organise house-to-house visits, etc. It was reported that the property lately acquired and improved by the Corporation was already deteriorated by the ignorance and bad habits of the occupiers. The present infantile mortality in Birmingham is 16 per cent. (under one year), nearly half of which is from diarrhoea, atrophy, and convulsions. The local journals, in discussing the subject, point out that many general causes, poverty, climate, etc., have to be considered, as well as mere ignorance. The coroner has furnished a practical commentary on the text by holding inquiries into the deaths of three infants; one of whom had been taken to a chemist for bronchitis, and then, after a railway journey, was allowed to lie face downwards till suffocated; another died in convulsions, said to be due to teething; and a third, an illegitimate child, had been placed out with several different nurses at 3s. per week, till convulsions caused death. Dr. Heslop, in his pamphlet, eight years ago, recorded that, of 383 cases, only 39 had been seen by a medical man, 154 having been shown to druggists. Facts seem little better now than then.

ADULTERATION OF DRUGS.

AT Sheffield, on October 12th, William Watson, chemist and druggist, was summoned for unlawfully selling spirits of nitrous ether not of the nature, substance, and quality of the article demanded by the purchaser. The Town Clerk prosecuted on behalf of Dr. Griffiths, medical officer of health. Inspector Brammer proved that he purchased four ounces of spirits of nitrous ether from the defendant, and left the article with the borough analyst, who made the following certificate. "The sample had a specific gravity of .9127, which corresponds to a dilution of 100 volumes of spirits of nitrous ether or sweet spirits of nitre of good quality with about 44 volumes of water. In addition to being diluted with water, the sample contained only a minute trace of real nitrous ether, which is present in considerable proportion in spirits of nitrous ether and sweet spirits of nitre of good quality, and which is the most important constituent." Mr. Allen, the borough analyst, in his evidence said that the drug was useless for the purpose for which it was sold. The virtue was gone, and any one buying it as a medicinal drug—and it was a popular remedy—would be grossly deceived. The defendant said that he bought the drug from a firm in York, where he had traded for twenty-five years. He sold it just as he received it, without adding any water. The Bench said they were bound to protect the public, and imposed a fine of £5. Upon such prosecutions as this, the *Pharmaceutical Journal* recently expressed the opinion that their general result had been to demonstrate the relative purity of the preparations commonly sold by dispensing chemists throughout the country. We are very glad if this be so; but one of its correspondents appears from experience to have formed a different opinion. He writes: "Supposing a person purchased laudanum at twenty places in any provincial town, what would be the proportion that would be equal to the *British Pharmacopœia*; or, to take another example, ipecacuanha wine or compound tincture of rhubarb? Our

trade, or any other trade dealing in articles that come under the cognisance of the Act, would act very foolishly were they to continue selling such articles as have been condemned under its operation. All the rubbish that was formerly sold has had to be destroyed or sent abroad for the heathens. But the stomachs of Englishmen are relieved of the trouble of digesting plaster of Paris, excepting when they take lac sulphuris." It seems probable, therefore, that if not always efficient in procuring the conviction and punishment of adulteration, these prosecutions have at least a salutary deterrent effect, which has, however, not been carried far enough; and it is desirable that public analysts should persevere in their efforts to obtain for the public pure and reliable medical preparations, so far as chemical analysis can assist in procuring that result.

THE RUSSIAN WOUNDED.

It is reported that, in consequence of the inefficiency of the present arrangements for the removal of sick and wounded soldiers to Russia, and the indignation that has been evoked at St. Petersburg by the neglect of the latter, the Russian Government has appointed a commission of influential individuals to report upon the best means of improving the sanitary service of the Red Cross Society upon the railways of Southern Russia.

THE HEALTH OF THE POPE.

A CORRESPONDENT writes to us from Rome as follows:—The increasing weakness of Pius IX, and the prevalent belief that the first cold weather would prove fatal to him, are the reasons assigned for the summoning of Dr. Vanzetti of Bologna to consult with Ceccarelli, the Pope's surgeon. Vanzetti, who saw His Holiness several times, expressed a general approval of the treatment hitherto pursued; and, though he recommended that an open blister established by Ceccarelli should be allowed to close, he did not interfere with the issues on both legs, which are very œdematous as high as the knees. The signs and symptoms from which the Pope suffers—œdema, breathlessness, drowsiness, and pains in the limbs—are easily explained by the gradual advance of the chronic renal disease and coincident increase of the secondary cardiac mischief. With rest and quiet, Vanzetti sees no reason to believe that the end is imminent, though he is cautious enough to emphasise the possibility of sudden death at any moment. A gentleman who was present on November 21st, at the reception of the pilgrims from Carcassonne, describes the Pope's appearance as changed painfully for the worse. He was borne in on a chair, looking pale and dejected: his eyes had lost their vivacity; his smile, so well known from his portraits, had vanished; his voice was scarcely audible; his head hung forward on his breast; his tongue lolled on to the lower lip, which was pendent. He pronounced a few words, blessed the pilgrims, and was carried out. Even this amount of fatigue has proved excessive, as he has been confined to his bed since that day from so-called rheumatic pains in the legs.

SENTENCE OF DEATH FOR PROCURING ABORTION.

AT Manchester, on November 12th, before Mr. Justice Lush, Ann Cartledge, a midwife, was charged with the wilful murder of Elizabeth Coleman on the 24th of October last. The evidence went to show that the prisoner had introduced an instrument for the purpose of procuring a miscarriage. Inflammation ensued, and death resulted from peritonitis and gangrene three days afterwards. The jury found the prisoner guilty, but strongly recommended her to mercy. His lordship then passed sentence of death in the usual form.

INDECENT LITERATURE.

AT Wandsworth Police Court, on November 16th, Mr. Matthew Allison Orr of Clapham appeared to answer a summons to show cause why certain obscene writings and prints, which were found and seized upon his premises under a warrant granted by Mr. Paget, should not be destroyed. Mr. Pridham appeared to prosecute on behalf of the Medical Defence Association, and Mr. Besley for the defendant. Evidence was

given of the seizure of 1,700 copies of a pamphlet on overpopulation, 750 copies of *Instructions*, and one hundredweight of *England to the Rescue*. Mr. Bridge made three orders for the books and papers to be destroyed. Mr. Pridham applied for costs; but Mr. Bridge advised him not to press the application, stating that the Society had done its duty.

PROTECTION OF INFANT LIFE.

DURING the last three sessions of Parliament, a Bill has been introduced by Mr. Charley, at the instance of the Infant Life Protection Society, for the amendment of the law of homicide as it affects cases of infanticide. The Bill has received the support of the majority of the members of the Government and the judges, and it has failed in passing chiefly because the pressure of business on the Government has prevented this important Bill from having the amount of time allotted to it for debate that it requires. It is sought to amend the law in two important points: that the extreme sentence should be abolished in cases of infanticide, and the utmost punishment fixed at fifteen years' penal servitude; and that the mother may be punished for any injury inflicted on the child, either *during* or after birth, that may lead to its death. The need of this amendment of the law is frequently illustrated. A case has recently occurred at Bournemouth, in which a domestic servant was found guilty of the lesser crime of concealment of birth, and sentenced to six months' hard labour, because the medical witness could not prove that the child's death was due to the wound in the throat, which was shown to be sufficient to have caused its death. He could not swear that the child was completely born before the wound was inflicted; and it may have died during birth, although it had breathed. It would then, by the existing law, be *no crime*, even could the medical witness swear that it had actually died of the wound during its birth. The jury could find no other verdict than that of concealment of birth. If there had been no concealment of the birth by the mother, had she told any one of the fact of her pregnancy, and had she called any one to her when she was in labour, there would have been no concealment of birth, and consequently no legal crime, although she deliberately destroyed her child during its birth, and confessed it to judge and jury, as a woman did at Lambeth a few years ago, and was discharged from custody.

UNCERTIFIED DEATHS IN YORKSHIRE.

IN reference to our note published in last week's JOURNAL, pointing out that of the deaths in the Skipton registration district thirty-eight per cent. were "uncertified", we are reminded that this district and that of the Settle Union have been without a medical officer of health since November 1876, when Dr. West Symes's period of office expired; and that in the neighbouring Keighley rural sanitary district there has been no medical officer of health for a considerably longer period—nearly three years. We are also informed that the chief medical practice in Addingham is conducted by an unqualified practitioner (who is also a guardian of the poor), and that this accounts for thirteen out of fourteen deaths last quarter being "uncertified". This gentleman acts for the regularly appointed Poor-law doctor of the district, who is non-resident.

PADDINGTON WORKHOUSE INFIRMARY.

AT the last meeting of the Paddington guardians, a report was received from a committee appointed to consider the report of Dr. Bridges to the Local Government Board upon the condition of the workhouse infirmary, in which he stated that he found seventy-six patients in the wards; that there was only one paid nurse with pauper helpers to attend upon them; and suggested that two additional nurses should be appointed. The committee reported that they had examined the medical officer and the master, and ascertained that out of the seventy-six patients there were very few acute cases, most of them being old and infirm; that, in their opinion, there was no necessity to increase the number of nurses; that the patients were very well cared for, and were grateful for the attention they received; and the

committee regretted that Dr. Bridges did not abstain from making his comments as to the staff of nurses before the officers and inmates, "as it was likely to engender a spirit of discontent in the house".

CONTAGIOUS DISEASES.

MR. DAVID DAVIES, the Medical Officer of Health for Bristol, in a report (on which we have already commented) upon certain areas alleged to be unhealthy, which it is desired to condemn for the purposes of the Artisans and Labourers' Dwellings Improvement Acts, has the following paragraph, which we commend to the attention of statesmen and legislators.

"The memorialists state that there are in this area twenty houses of ill-fame. After a careful inspection of the area, and after entering and inspecting most of the houses, I do not think that the number has been overstated; but to this I can only state that, however much the fact is to be regretted, I have no power to interfere with or control these houses in the slightest degree. However much they may contribute to the spread of a certain disease and consequent suffering and mortality, both the British public and the legislature have decreed that effectual means for materially diminishing this evil shall not be enforced except in a few favoured garrison towns. It has been thought by able legislators that the simple addition of the words 'or any contagious disease' to certain penal clauses of the Public Health Act, 1875, would solve the difficulty, and would make no invidious distinction between the sexes. For my own part, I shall be glad if this will bring the contending parties on a common ground for a common end; and I have, as a private individual, twice signed petitions to both Houses of Parliament for this alteration in the Public Health Act."

EXPERIMENTUM IN CORPORE VIII.

THE deplorable mortality amongst new-born infants in France has for some time occupied and disturbed the public mind, and the French medical and administrative corporations have been seeking how to avert the social perils presented by the present state of things. The system of putting children out to nurse as practised in France has been severely arraigned, and efforts have been made by the societies for the protection of infant life, by the Academy of Medicine, and by the law originated by M. Théophile Roussel, to at least ameliorate the terrible results of this nursing by proxy. It seems that the municipal council of the city of Paris wished to take a share in these laudable efforts, but, by some curious blunder, has proposed a plan which has naturally evoked a strong expression of condemnation from the French Academy of Medicine, to whom it was for consideration referred by the Conseil de l'Assistance Publique. The project in question was that the municipal council would place at the disposal of the Conseil de l'Assistance Publique the funds necessary to make a full course of experiments so as to determine the value of bringing up infants by hand. The standing committee on infant hygiene of the French Academy of Medicine, to whom the consideration of this singular expedient was referred, almost unanimously condemned the project, and M. Devergie even went so far as to characterise it as an immoral conception.

SCOTLAND.

LORD SELBORNE has been elected Lord Rector of the University of St. Andrew's. Of 143 students who voted, 79 were for Lord Selborne and 64 for Mr. Gathorne Hardy. The voting took place on Thursday, November 22nd last, from 9 until 11 o'clock.

DR. JOSEPH COATS has been appointed editor of the *Glasgow Medical Journal*, which has been hitherto edited by a Committee, of which Dr. Clark was the last Secretary. It is also intended to publish it monthly, instead of quarterly.

A BOY named James Cheny, aged eleven years, died last week in Glasgow from the effects of an overdose of drink. On the evening before his death, he was found with another boy lying drunk in the road. The pair were taken to the Northern Police Office, where they were attended during the night by a medical man. The deceased continued to sink, and died without regaining consciousness.

LAST Sunday, being Hospital Sunday in Edinburgh, collections were made in the churches of all denominations in the city on behalf of the Royal Infirmary.

INCREASE OF STUDENTS IN SCOTCH UNIVERSITIES.

WE mentioned last week the increase of the medical students at the University of Edinburgh. We hear that there is likewise a considerable increase of the medical students of the Glasgow University, and that the class-rooms, especially those of Professors Gairdner and Macleod, are so crowded that additional seats have been put in, so as to cover every available inch of space. Professor McKendrick has one hundred and thirty students in his class, and his room is full. This remarkable increase of students in the Scotch Universities is very noteworthy, and has an extremely interesting relation to the completeness of the teaching and clinical arrangements there, and the advantages which these Universities offer to their students.

EDINBURGH UNIVERSITY BUILDINGS FUND.

STRENUOUS efforts are being made in Edinburgh just now to raise an additional sum of money before the end of the present year, so as to secure the insertion in next year's estimates of a sum of £20,000 promised by the Government, on condition of the raising of £10,000 in addition to the large amount already subscribed towards the erection of the new buildings, a large part of which are to be devoted to the medical classes. The following statements are made in the notice of a public meeting which has been issued by the Principal of the University, the meeting to be held on November 29th. "It having been intimated by the Lords Commissioners of Her Majesty's Treasury that a sum of £20,000 has been inserted in the draft parliamentary estimates for next year, as a first instalment of a grant of £80,000 towards the fund for the extension of the Edinburgh University buildings, but that this item *will be struck out of the estimates* unless, in addition to the subscription list of £82,000, which was submitted last year to Government, £10,000 more shall have been subscribed before the 31st December next, a public meeting will be held to consider the means to be adopted to avert so great a disaster as the loss of the Government grant of £80,000. All who feel an interest in the prosperity of Edinburgh are respectfully invited to attend. Subscriptions to the University Buildings Fund, payable in four yearly instalments, which may be intimated in the meantime to the Principal, will be announced at the meeting and published in the new subscription list." It would be a matter for the greatest regret if the large grant promised by the Government were to be lost for the want of the comparatively small sum remaining to be collected. We feel sure the medical alumni will do all they can to secure the desired sum as speedily as possible.

GLASGOW UNIVERSITY.

It is announced that the Marquis of Bute has offered to build at his own expense, and present to the University, the grand hall, which is still wanting in the centre of the building, according to designs prepared by Sir Gilbert Scott, R.A. Lord Bute has had a meeting in London with Sir Gilbert, and it is expected that the plans of the proposed hall will shortly be submitted for approval to the Senate of the University. The hall is intended to run north and south across the quadrangle, and the architectural style will be the Scottish baronial, to harmonise with the rest of the University. The estimated expense of the building is about £50,000. Before the work can be commenced, however, a considerable sum will be required, which must be provided by the University, for building the ground-floor structure on which the grand hall is to stand.

RECKLESS ADMINISTRATION OF LAUDANUM.

AT Paisley, on Monday, a young woman was charged with culpable homicide, as also with culpable and reckless administration of laudanum, in so far that on October 15th she administered to an infant child, aged seven months, sixty drops of laudanum, from the effects of which the child died next day. She pleaded not guilty. The evidence showed

that the child was put out to nurse during the day while the mother was at work. The prisoner and the woman who had charge of the child had been drinking, and, in order to quiet it, the prisoner administered a halfpennyworth of laudanum, from the effects of which it died. The accused was found guilty on the second count, and sentenced to three months' imprisonment.

ROYAL MEDICAL SOCIETY OF EDINBURGH.

At a meeting of the Society held on November 23rd, the following gentlemen were elected Annual Presidents: Robert Roxburgh, M.B., L.R.C.S.; Johnson Symington, M.B., C.M., M.R.C.S.; David Hart, M.B., C.M.; George A. Gibson, M.B., D.Sc., F.G.S.

HYDROPHOBIA.

DR. J. B. RUSSELL, the Medical Officer of Health for Glasgow, in his report to the Town Council, on Monday last, mentions a fatal case of hydrophobia which has lately occurred in the city. The victim was a woman twenty-eight years of age, who, on the 20th January last, was bitten on the right hand by a black retriever, which she was endeavouring to eject from a front shop which she kept. The wound was at once sucked and cauterised with nitrate of silver, and no serious result was anticipated until a few days ago. The disease, when it had once set in, developed with great rapidity, and she died within forty eight hours after the first appearance of the symptoms. Dr. Russell concludes his remarks on the case with a reference to the public measures possible for the control of this disease. "These", he says, "consist essentially in a reduction of the number of dogs in the community, and the restraint of the remainder; and I would apply the same principle as in the prevention of ordinary contagious diseases. Do not call your measures into existence at certain seasons, and under a sense of present danger. In regard to hydrophobia, there is no scientific basis whatever for confining our raids upon stray dogs, and our enforcement of muzzles to the so-called dog-days of summer. The capturing and destruction of unclaimed dogs, and the use of collars and muzzles, ought to be quietly and systematically carried on and prescribed all through the year, and from year to year." The matter was remitted to the magistrates.

GLASGOW MATERNITY HOSPITAL.

WE have seen an early copy of the medical report of this hospital for the last twelve months. We turned to it with some attention to find whether the Flora Maclean case, about which so much talk has arisen, may have affected the number of patients. It cannot but be expected that this story would have some effect, especially as publicity was given to the statement of the woman before its refutation in the public trial. We find that, during the year, there were 254 deliveries in the hospital, against 293 last year, or a decrease of 39; and that in the out-door department there was a decrease of 117, the numbers being 820 and 937. Considering all things, this seems a very slight decrease; and it appears that, as to in-patients, they have little enough accommodation. There is nothing else of very particular consequence in the report. The medical officers call upon the directors to afford better accommodation for teaching; and, considering that this is virtually the only obstetric school in Glasgow, it is clear that there ought to be special provision made for the students. There is one matter in the report which strikes us as peculiar. There was a fatal case of septicæmia; "and the nature of the disease, implying some poison in the atmosphere of the wards, led to a thorough search being instituted. This resulted in the discovery that the soil-pipes were perforated. These pipes were renewed, and this was followed by a thorough fumigation of the house. It is satisfactory to record that those means led to the complete stamping out of the disease"; which means that they had no case subsequent to the one. Thus, septicæmia is here traced to drain-pipes, and we here read of stamping out a disease, of which only one case existed—an inferential statement which seems overpositive. The author of the report is too much inclined, perhaps, to make things *coulcur de rose*, and might have done good service if, for instance, he had pointed out to the directors that it is a very undesirable thing that the matron of such a hospital should have the dismissal of patients in her own power, however good she may be.

IRELAND.

THE corner-stone of the new buildings of the Adelaide Hospital is to be laid by the Marquis of Headfort on Tuesday next.

A BAZAAR in aid of the funds of the recently established Dublin Orthopædic Hospital was opened on Thursday in the Rotunda.

HIS Royal Highness the Duke of Connaught has notified to the Secretary, the Rev. Canon O'Brien, his consent to become the Patron of the Cork Ophthalmic and Aural Hospital, accompanying his intimation with a donation of £20 to the funds of the Institution.

A MEETING of the inhabitants of Rathfarnham was held last week, in reference to a water-supply, when resolutions were passed that arrangements should be made for obtaining the Varty water for the town.

MR. EDWIN LAPPER, Licentiate of the King and Queen's College of Physicians, and Fellow of the Chemical Society, has been appointed to succeed the late Dr. Handzel Griffiths as Lecturer on Chemistry in the Ledwich School of Medicine. Mr. Lapper has been for some time past assistant to Dr. Cameron, the Professor of Chemistry in the Royal College of Surgeons. His appointment is in every way a most satisfactory one.

HOME FOR INCURABLES, CORK.

THIS institution, which was opened in 1872, has, in consequence of the demands made for admission, proved altogether inadequate for the purposes required; and the enlargement of the present Home being impracticable, it has been determined to erect a new hospital. The new institution will have wards for males and females, apartments for the Lady Superintendent and nursing staff, and all the improvements that experience can suggest. Upwards of £1,800 has already been given for the building fund, and we trust that, for purposes so desirable, the amount still required will soon be obtained.

QUEEN'S COLLEGE, GALWAY.

DR. PYE, who succeeded Dr. Cleland as Lecturer on Anatomy and Physiology in this College, will vacate the Chair of Materia Medica, which he held in the same institution; and the candidate who may be selected will enter on his duties at the commencement of the next term, the 7th proximo.

BELFAST ROYAL HOSPITAL.

THE third annual meeting under the Royal Charter of the subscribers of this hospital took place last week. From the report of the Board of Management, we learn that the bazaar held last year realised the handsome sum of £2,242, the Committee being deeply indebted to the ladies who took an active part in obtaining such an addition to the hospital funds. As regards the collection of subscriptions, the plan of dividing Belfast into various districts with separate collectors for each portion, has not worked satisfactorily, and the offer of Mr. Vere Foster to collect the entire of the subscriptions for the current year has been accepted; that gentleman promising to add ten per cent. to all new subscriptions under £1 he may succeed in obtaining. The number of students in attendance at the hospital for clinical instruction has been one hundred and sixty-five during the winter session, and eighty-six in the summer session, being an increase of forty-one on the preceding year. The Medical Report showed that during the year ending 31st August last, 1,687 cases were admitted into the wards, which, with 50 cases remaining in hospital at the termination of the previous year, made a total of 1,737 patients under treatment; of these, 92 died, but 17 were moribund and expired within twenty-four hours of their admission, leaving 75 deaths, or a mortality of 4.30 per cent. The surgical operations performed numbered 194, of which 12, or nearly 6.1 per cent., were followed by death. It is satisfactory

to find that none of the deaths were ascribable to blood-poisoning or other unhealthy condition of the hospital. The report refers to the opening of the Convalescent Home in connection with the hospital as a subject of congratulation, as it will relieve the wards of patients who no longer require constant professional supervision, and whose restoration to health will be hastened by residence in the country, and by comforts not often obtainable in the crowded dwellings of a large town. The financial statement showed that the income of the charity from all sources, including donations, bequests, subscriptions, pay patients, etc., amounted to £7,231, leaving a balance after all expenses of £837. Hospital Sunday only realised £528, which, in a wealthy place like Belfast, is far below what should have been obtained; but as this institution is the only general hospital in Belfast, it received the entire collections made for this purpose.

THE SANITARY CONDITION OF CORK.

AN important inquiry was commenced recently in Cork by Dr. McCabe, one of the inspectors under the Local Government Board. It appears that serious charges were extensively circulated that fever prevailed to a great extent, arising, it was alleged, from the impure water supplied to the inhabitants; and in consequence of these representations, the Local Government Board sent an inspector to examine into the matter. Dr. McCabe signified his intention of dividing the investigation under three heads, viz., the prevalence of fever in Cork and its causes; the administrative sanitary arrangements of the city; and the state of the water-supply and the alleged pollutions in the river above the water-works. The evidence of the dispensary medical officers was to the effect that enteric fever was more prevalent than usual; but they attributed it to defective sewerage and bad sanitary arrangements. In no case was the infection traced to pipe-water; but it was shown that some of the patients had drunk well-water before they were attacked. Dr. O'Sullivan stated that the increase of fever in his district was due to bad sanitary arrangements and overcrowding, a part of the locality being subject to tidal flooding, when the water came up through the sewers, leaving sewage deposited on the floors of the houses. The Government Veterinary Inspector proved that unsound and unwholesome food was exposed for sale in the poorer portions of the city; he considered that where there was a properly organised sanitary staff, such a state of things should not be tolerated, and he believed that the sanitary arrangements of a city could not be perfect without a slaughter-house, where the cattle would be inspected before and after slaughter. Dr. Hobart was of opinion that zymotic diseases were caused in Cork more by defective drainage than by the water-supply, and thought that a thoroughly systematic drainage should be carried out through the city, so complete that both branches of the river should be free from pollution. Dr. O'Connor, Professor of the Practice of Medicine in the Queen's College, also gave evidence, referring to the various epidemics of fever which had occurred before the introduction of the present supply, which he believed to be pure and a great benefit to the inhabitants. The inquiry has been adjourned for a few days, but so far the evidence given is altogether in favour of the prevalence of enteric fever being principally due to defective sewerage.

RATHDOWN UNION.

AT a meeting of the Board of Guardians held lately, a letter was read from the Local Government Board, drawing their attention to the recent report made by their inspector as regarded the nurse accommodation, there being only one paid infirmary nurse, who also acted as midwife, and was assisted only by a woman of advanced age. Lord Monck moved that the recommendations of the report with reference to obtaining additional help in the infirmary should be carried out, as to have only one female nurse for one hundred and forty-eight patients and sixty-two children was simply absurd. After some discussion, Lord Monck's motion was carried, and it was resolved to advertise for a hospital sergeant.

SMALL-POX.

SOME cases of this disease have been under treatment during the past fortnight in the Cork Street Fever Hospital. A child suffering from an extremely malignant purpuric form of the disease died in the hospital last week, in a little more than twenty-four hours after his admission. The boy was unvaccinated. The sanitary officers of the Corporation deserve some credit for the promptitude with which they had the child removed to hospital and his bedding and room disinfected. After death, however, the parents declared their intention of removing the body to their own house, probably for the purpose of waking it, before burial. The hospital authorities took all the measures in their power to prevent such removal.

CORONERS' MEDICAL WITNESSES.

AT a special meeting of the Corporation of Dublin held last Saturday, to consider the schedule of presentments for next year, this subject, to which we referred last week, came before the Council. It was stated that in consequence of the decision in the case we then reported, a fresh arrangement should be made relative to medical evidence at inquests. A pretty general expression of opinion was pronounced that Dr. Egar, the medical witness in the case, should be, if possible, reimbursed his costs; as he was virtually fighting the battle of the Corporation, which saved money by the arrangement with him. The items of the vote, which was then agreed to, are as follows: coroner's salary, £500; medical and other expenses attending coroners' inquests, £200; city morgue, £100: total, £800.

PATHOLOGICAL SOCIETY OF DUBLIN.

LAST Saturday, the annual meeting of this Society was held in the Anatomical Theatre of Trinity College. There were no morbid specimens exhibited. As we intimated a fortnight ago, Mr. Edward Hamilton was nominated and elected President of the Society for the session. The following officers and members of Council, having been duly nominated, were also elected. *Vice-Presidents*: Samuel Gordon, Robert McDonnell, J. T. Banks, T. J. Tufnell, G. H. Kidd, Thomas Hayden. *Council*: A. W. Foot, J. M. Purser, A. H. Corley, C. E. Fitzgerald, James Little, T. E. Little, J. W. Moore, G. F. Duffey, Lombe Atthill, William Moore, B. G. McDowel, and Henry Tyrrell. *Honorary Secretary*: William Stokes. *Secretary and Treasurer*: Edward H. Bennett. *Secretary for Foreign Correspondence*: R. D. Lyons. On the motion of Dr. Lyons, seconded by Mr. Tufnell, a vote of thanks was unanimously accorded to the retiring President, Dr. Hayden, for his exertions on behalf of the Society and his marked attention to its interests during his year of office. It was resolved that, for the future, the meetings of the Society should be held at the hour of half-past four o'clock on Saturday afternoons.

OVARIOTOMY.

THIS operation was again performed twice—on successive days—in Dublin last week. Dr. Henry Fitzgibbon operated on the 21st ult., in the City of Dublin Hospital. The operation was performed under the carbolic spray, and all necessary antiseptic precautions adopted. The result so far has been most satisfactory. On the following day, Mr. O'Grady operated in Mercer's Hospital. The tumour was a very large one, multilocular, and contained some solid masses. The case was complicated with slight ascites, and there were several firm adhesions; consequently, there was a good deal of hæmorrhage. A caoutchouc drainage-tube was introduced into the peritoneal cavity, and secured below the clamp. The patient rallied well after the operation, and had a good night. The following morning, some fetid fluid was withdrawn through the tube by means of a syringe, and an equal amount of weak carbolic water injected. Towards the termination of this procedure, the patient, who was in excellent spirits, and feeling very comfortable, suddenly exclaimed that she felt giddy. Simultaneously, her body-heat seemed rapidly to rise; she was unable to articulate; her countenance became ashy pale, and her lips livid;

the pulse failed; and her hands were convulsively clenched. All the efforts made to stimulate the heart to action were unavailing. The respirations became more and more distant from each other; and she died in about an hour after the fatal seizure. A careful *post mortem* examination was made. The brain and its vessels were healthy. All the cavities of the heart (which had a considerable deposit of fat on its surface) were empty, and the valves and orifices were normal. The lungs were greatly congested, and on section dripped with blood. The pulmonary artery and the pulmonary veins contained a large quantity of fluid, dark-coloured blood. There were no clots in the peritoneal cavity. The peritoneal surface of the incision had firmly united (death occurred twenty-three hours after the operation), and there were evidences of recent, as well as of more chronic, inflammation. No clots were discovered in any vessels. The operation was also performed in a third case, by Dr. Atthill, in the Rotunda Hospital, on Thursday last.

SURGICAL SOCIETY OF IRELAND.

THE first meeting of this Society, for the current session, took place in the Albert Hall of the Royal College of Surgeons, on the 23rd ultimo. The attendance of members and visitors was the largest we have ever seen on a similar occasion. Dr. Robert McDonnell, F.R.S., the President of the College of Surgeons, and *ex officio* President of the Society, delivered a most admirable and stirring address, his subject being: "What Experimental Physiology has done for Surgery." As might be expected, such a theme was a congenial one to one who stands in the first rank amongst us as a physiologist and a surgeon. Having alluded with regret to the great injury done to the progress of experimental physiology by professional men of high standing, who denied that any beneficial result had accrued to medical or surgical science from experimentation on living animals, although they unwittingly daily availed themselves of the knowledge thereby acquired, the President remarked that men might be excellent rule-of-thumb physicians or surgeons, yet, at the same time, ignorant as to the mechanism of the causation of the sounds of the heart, or of the process of occlusion of an artery by a ligature or by torsion; just as a telegraphic clerk might be an excellent manipulator of his instrument, and yet know nothing of the science of electricity. Taking, as a text, a case of tumour in the vicinity of the wrist-joint, recently successfully removed in Dr. Stevens's Hospital, he showed how each step pursued in that operation had been originally elaborated and tested by experiments on animals. There was, first, the administration of anæsthetic then the application of Esmarch's bandage; next, there was torsion of the arteries and the use of carbolised catgut ligatures; and finally, the hypodermic injection of morphia; a mode of treatment first practised by Rynd of Dublin, who previously tested its safety on sporting dogs. Dr. McDonnell then alluded to the vast importance and practical bearing of the experiments of Billroth and Weber, in relation to the subject of surgical fever. He spoke of the great progress made in surgery since the days of Paré and Hunter—a progress due, in great measure, to the results of experiments on animals—and the consequent enormous gain from suffering to mankind. The true physiologist was not, he affirmed, an inhuman or cruelly selfish man. With reference to the Act—the title of which he would not insult his hearers by reciting—which had been passed with the object of regulating physiological investigation, he had reason to believe, although he would regret the occurrence, that it led to occasional violation of the law. It was a preposterous thing that he, the President of their College, was dependent upon a licence from the Chief Secretary to the Lord-Lieutenant, for liberty to perform a legitimate physiological experiment. Having further referred, at some length, to the moral or ethical aspect of the subject, he advised his audience to treat, with the contempt they deserved, the selfish fanatics and childless women who got up so-called antivivisection agitations; and who endeavoured, by gross misstatements and false assertions, to deprive the sick poor of the advantages of hospital relief.

PARLIAMENTARY BILLS COMMITTEE: THE LAW OF CORONERS' INQUESTS.

A MEETING of the Parliamentary Bills Committee of the British Medical Association was held on November 14th, for the purpose of conferring with some professors of medical jurisprudence and metropolitan coroners upon the subject of the law relating to coroners' inquests. There were present, Mr. ERNEST HART (in the Chair); Dr. J. C. Bucknill, F.R.S.; Mr. C. J. Carttar, Coroner for West Kent; Dr. Ferrier, F.R.S.; Dr. Hardwicke, Coroner for Central Middlesex; Mr. Reginald Harrison (Liverpool); Mr. W. D. Hemming; Mr. Holder (Hull); Mr. Langham, Deputy Coroner for Westminster; Mr. W. T. Manning, Coroner of Her Majesty's Household; Dr. J. Randall; Dr. Joseph Rogers; Dr. R. Southey; Dr. James Stevenson; Dr. A. P. Stewart; and Mr. Thomas, Deputy Coroner for Central Middlesex.

The CHAIRMAN presented letters from Dr. Alfred S. Taylor, Dr. Guy, Mr. Humphreys, and others, regretting their inability to be present, and expressing their desire to attend further meetings. He stated that, besides the printed memoranda presented to the Conference, he had also one in writing by Dr. Reginald Southey, Lecturer on Medical Jurisprudence at St. Bartholomew's Hospital. He then explained the object of calling the meeting, which was to enable the Parliamentary Bills Committee to consider whether any, and if any, what alteration was required in the law as it at present exists in relation to coroners' inquests—a subject of much importance to the medical profession. At that time, the scope of the inquiry had not been limited, but it might afterwards be found desirous to limit it or subdivide it into two parts; first, the more immediate medical matters; and secondly, the law relating to coroners' courts. It was understood that Mr. Cross had it in his mind to effect some considerable alterations by fresh legislation in the mode of electing coroners and in the mode of conducting coroners' inquests; therefore, it was thought desirable to invite gentlemen having special knowledge of the subjects to confer with the Committee, which, after hearing their opinions, might consider whether it should appoint a Subcommittee to deal with the subject in detail. If the Subcommittee were able to come to any decision, they might do as they had done in respect to other questions, make representations to the Home Secretary of what appeared to them to be necessary. He then expressed to the coroners present the satisfaction which the Committee felt in seeing them there, although he had no doubt that the subject was as interesting to them as it was to the Committee. It had been thought that it would facilitate the proceedings to ask those gentlemen who were willing to do so to draw up suggestions which might form the basis of the discussion. Dr. A. S. Taylor, than whom he did not think anyone had more medico-legal experience as an expert, had drawn up a memorandum which had been circulated among the gentlemen present, and which they would be prepared to discuss, giving their independent opinions upon it, or upon subjects which would bear some relation to it. He suggested that perhaps Dr. Hardwicke, who had also prepared a memorandum, copies of which were on the table, would open the proceedings by explaining the general idea which pervaded that memorandum.

[The Memoranda of Dr. Taylor and Dr. Hardwicke were as follows.]

1. Memorandum on Coroners' Inquests and on Medical Evidence.

By Dr. A. S. TAYLOR, F.R.S.

1. It is generally admitted that a complete change is required in the mode of electing coroners. To effect this, a special Act of Parliament must be passed, abolishing the Acts under which those officers are now elected, and laying down new rules for the qualifications, appointments, and duties of coroners.
2. It is also admitted that the methods now open to coroners to procure medical evidence for their inquests are defective. This remark applies especially to the modes in which the *post mortem* examinations, as well as the chemical analyses required, are now conducted.
3. In order to initiate proceedings which may be necessary to reveal a criminal act, the coroner is at present bound to issue his orders in accordance with the Medical Witnesses Acts; namely, the 6 and 7 William IV, c. 89, and 1 Victoria, c. 68.
4. Under this system, local practitioners are employed to make the *post mortems*, and any chemist whom the coroner can find to make a chemical analysis for the small fee allowed by law, is generally entrusted with those parts of the viscera which require examination.
5. Such a mode of proceeding is eminently unsatisfactory. The duties are ill performed. Neither the general practitioners nor chemists are sufficiently remunerated for their labour and loss of time, and, as a

rule, they have not had sufficient experience to justify them in undertaking these responsible duties.

6. Certain recent cases have brought the defects of this system prominently before the public. A change is urgently required, not merely for the sake of the public, but of the profession; and by recent events it has been shown to be necessary for the proper administration of the criminal law.

7. A proper remedy for the evils thus brought to light under the operation of the Medical Witnesses Acts would be their immediate repeal, and, in substitution, the appointment of two officers, one skilled in making *post mortem* examinations and in a knowledge of the causes of death, as indicated by morbid changes in the body, and the other skilled in the chemical detection of poisons as well as in a knowledge of those *post mortem* changes which indicate the action on the body of all ordinary poisons.

Appointments.—8. The *post mortem* examiner should be a member of the College of Physicians or Surgeons, and should produce testimonials of having attended a course of *post mortem* inspections in some recognised hospital, and of having himself made, as well as assisted in making, such inspections. *a.* He should be elected by the magistrates in Quarter Sessions assembled. *b.* He should be set in motion by the order of a coroner or of one or more magistrates, and make a written report, with such additional oral evidence as may be required. *c.* His range of duty should be the county or borough, like the county or borough analyst. *d.* The remuneration for his services should be that of a skilled professional man; he would have to resign the emoluments of his profession for these responsible duties. He might be remunerated by an annual salary, payable quarterly, or by a certain fee for each case, say, from two to three guineas (in my view, not less than three guineas), exclusive of expenses incurred. *e.* His reports should be considered official, handed to the coroner or magistrate, and filed as documents for reference. *The Analyst.*—As a rule, it should rest with the *post mortem* examiner to determine whether a chemical analysis is required, and to what extent this should be carried in any particular case. The present Acts of Parliament limit the analysis to the "contents of the stomach and intestines"; but the analysis of the liver and other organs for absorbed poison is now an important part of the investigation, and the analysis under a new arrangement must be made complete, and include all parts of the body, as well as liquids and solids of a suspected kind, which may have any bearing on the case.

9. The parts intended for analysis should be handed, under seal, by the *post mortem* examiner to the analyst. In reference to any morbid appearance in the stomach or intestines, these parts should be examined by both of the officials, and they should agree to a joint report, or, if they differ, the reasons for the difference should be stated. If the analyst have no knowledge of pathology, his opinion should not be asked on this subject; his duty should consist in drawing up a complete report in plain language, without any technical terms, so far as they can be excluded, setting forth the discovery or non-discovery of poison; the nature of the poison and the quantity found, whether found in the stomach or intestines only or as absorbed poison in the liver. This report should be signed and presented to the coroner or magistrate, and oral evidence should be given by the analyst, if required.

10. The analyst should be a Fellow of the College of Chemistry, and produce testimonials showing that he has studied chemistry practically in a chemical laboratory for two years, and that he has attended one or more courses of practical toxicology, and has exercised himself in the process for detecting poisons.

11. The duties of medical or food analyst for a county or borough might be associated with this office. This would render the expense less heavy. The remuneration of the analyst should be on the same scale as that assigned to the *post mortem* examiner. The appointment to this office might be made by the magistrates in Quarter Sessions.

12. These two appointments might be at once made for each county or borough by and with the consent of the magistrates, and with the consent of the Secretary of State for the Home Department. They would add to the cost of administering the criminal law, but they would prevent the scandals which so frequently result from the present loose manner of conducting these inquiries.

Notes on the Amendment of the Laws relating to the Coroners' Courts.

By Dr. HARDWICKE, Coroner for Central Middlesex.

Preamble of a Bill.—It is desirable to amend the law relating to coroners as to (*a*) the proper qualification for the office; *b.* The mode of election; *c.* The nature of his duties; *d.* The payment of expenses; *e.* Inspection of the body by jurors; *f.* The limiting of jurors to five or seven persons; *g.* The compulsory establishment of public mor-

tuaries, with the convenience of a coroner's court; *h.* A schedule of cases on which inquests should be held by statutory law; *i.* By-laws for the conducting of *post mortem* examinations and analysis for poisons.

The nomination of a coroner should be by a magistrate, member of Parliament, town council, or guardian of the poor. The qualification for the duties being that he should be qualified to practise medicine or law, or any branch of either profession, or that he should possess a degree from one of the universities in Great Britain. He should take rank as magistrate, and have the powers of one.

The election of coroners for counties should be made by the freeholders on the franchise lists; for boroughs by the mayor and members of the corporation; and subject to the same laws that relate to bribery and undue influence as apply to the election of municipal councillors and members of Parliament. The election should be approved by the Lord Chancellor, Home Secretary, or President of the Local Government Board.

The duties of coroners should be better defined as to the class of cases on which inquests ought to be held. It should be deemed a preliminary inquiry of the first instance, and not a criminal trial, of those persons charged or accused, and, as it often happens, are before another tribunal, but an investigation into causes and circumstances relating to death, when arising from violence or accidents, suicide, homicide, sudden, obscure, and unexpected deaths, and deaths from known or natural causes where blame or suspicion exists, or where a medical practitioner refuses to certify the cause of death from want of actual knowledge. (*vide* Schedule of Cases proper for Inquests.)

The payment of the coroners' salaries and the fees for witnesses, and the other necessary expenses of holding of inquests, should be a part of the judicature of the country paid from the Imperial Exchequer, and subject to the same audit as other public offices, such as that of the stipendiary magistrates, County Court judges, and they should be required to make annual reports and returns of cases coming under their jurisdiction.

A modification should be made in the laws relative to the viewing of the body, making it not compulsory for the whole of the jury. It may be dispensed with altogether, provided the identification be sworn to by friends or relatives of the deceased before the coroner who holds the inquiry; and, in any inquiry of the cause of death from violence and unnatural causes occurring at sea, the identification on oath should be dispensed with.

In the opinion of most persons, the jury system, instead of being abolished, should be limited to five or seven persons, except in homicide and accidents, where a criminal charge is preferred, or where blame and negligence are alleged against any person or persons known or unknown.

Public mortuaries, or a suitable place for the reception of the dead, should be provided in every district. The police-station in a country village should be used. Persons found dead or drowned, persons waiting to be identified for *post mortem* examination, require a specially fitted up place. A mortuary proper should be provided in all large towns for the temporary deposit of dead bodies of friends and relatives who have to be removed from crowded dwellings, or from a single room inhabited by a family, or for those cases of death from a dangerous infectious malady.

Contiguous to the public mortuary should be the room for a coroner's court, jury, and witnesses, the same room being well adapted for a waiting-room, where friends and relatives can assemble before the funeral leaves for a cemetery. There should be a proper custodian attached, who should keep a register and have charge of the bodies placed under his care previous to interment.

In the making of *post mortem* examinations, and in the analysis for poisons, some modification of the present practice of coroners is desirable. The summoning under the Medical Witness Act will not require any change; but medical men called in or attending the deceased should not, as they now do, expect as a matter of course to give evidence and make *post mortem* examination in every such case on which the coroner holds an inquest. He (the coroner) should have power to employ special pathologists or experts, and the public analyst, for making the *post mortem* examinations complete. In a large number of inquests, the *post mortem* examinations are made in a very incomplete manner. The expert would have to make the necropsy either in the presence of or by conferring with the medical witnesses as to the previous history of the case, and he should record in writing the details in a more systematic manner than is done at present. Such documents to be used as evidence and as pathological data for a trial before the judicial tribunals in cases where it may be found desirable.

Medical men in active general practice would be glad to be relieved

of this duty. Both on public and private grounds, this change has become a necessity.

Schedule of Cases for Inquests.—Inquests should be held in the following class of cases:—"It is evident", says Dr. Farr, "that, if the body can be interred before the inquiry, it will open a door to crime by rendering detection difficult, if not impossible". 1. *Suicide, Homicide, Infanticide*.—In all these cases, it is important for the coroner to institute an immediate preliminary inquiry into the exact circumstances and mode of death; more with a view to future judicial action than for the purposes of ascertaining the guilt or innocence of any one person or persons concerned. 2. *Accidents and other Violent Causes.*—In all cases of death caused or accelerated by accidents or other violent means, whether neglect is or is not known, alleged, or suspected at the time. It is important to determine by a formal inquiry the nature of accidents at sea, and whether blame or negligence is alleged against anyone. 3. *Sudden Deaths.*—In all cases, an inquest should be held when the certificate of the cause of death is refused by a qualified medical practitioner, and it should always be refused when he has no previous knowledge, or where neglect, mystery, suspicion, violence, poison, or carelessness is or may be suspected. Where no previous history of any disease is known with accuracy, the certificate should never be given. 4. *Found Dead.*—In all cases of persons found dead, whether from drowning, poisoning, or injuries, or even natural causes, as sudden death, whether there are suspicious circumstances or not, it is desirable that an inquest should be held, and the giving a medical certificate should be deemed an impropriety. 5. *Persons Found in a Dying State.*—In cases of persons found in a dying state, injured, insensible or helpless from intoxication, with or without marks or injuries, inquests should be held. These are an extremely unsafe class of cases for any medical man to be induced to give the usual certificate required for registration, even when he possesses previous knowledge of an old-standing disease. Frequently circumstances transpire in evidence which show that a formal verdict of a jury is highly satisfactory to friends, and is preferable to allowing a body being registered and buried hurriedly on the authority of a medical certificate. 6. *Deaths from Natural Causes in Public Institutions.*—Notice of death occurring in hospitals, workhouse infirmaries, prisons, reformatories, lunatic and imbecile asylums, persons living away from their friends and parents, illegitimate children and foundlings, should be sent on a proper form to the coroner of the district. In these cases, good reasons can be shown why inquests should be held on a larger number of cases than at present come before coroners. Medical men should refuse all certificates in hospital, asylum, or Poor-law institutions, where the death and circumstances are at all mysterious, or supposed to be accelerated by sanitary neglect, bad nursing, want of food, or from drinking habits previous to admission. Where relatives or friends of the deceased are not present, it is desirable for the authorities to clear themselves of any suspicion. Many cases are proper for inquests where there has been want of proper and qualified assistance at childbirth. All cases of illegitimate children out at nurse are subjects for inquiry. Deaths, frequently one or more, in the same house from epidemic or spreading diseases are proper cases for inquiry, implying blame on some one for neglect of sanitary laws and isolation or removal from infection. The coroner is the only authority empowered to get evidence upon oath and obtain proper witnesses for an official investigation.

Dr. HARDWICKE said that for a little time he would leave his own memorandum and refer to Dr. Taylor's. He spoke, of course, with great deference to a person in Dr. Taylor's position; but the first thing that struck him was that Dr. Taylor's memorandum confined itself to two points; one was the appointment of special experts (he might say there were three points, as Dr. Taylor alluded to the mode of electing coroners); the other point was the appointment of public analysts. The question had been before himself and Dr. Lankester ten years ago, when they made an effort to get special medical examiners to assist or take the place of the person appointed by the Medical Witnesses Act. They were crippled in many ways; they were kept within certain lines by the Medical Witnesses Act. Calling in the last person in attendance before death, or the first after death, was, to a certain extent, a wise and proper regulation. They found that the defect certainly was in the direction which had been pointed out pretty clearly—the *post mortem* examination was not done in the perfect manner in which it should be. They, therefore, tried to get medical experts to assist; they thought they had power to do so, and he was not quite sure they had not, and that the opposition of the magistrates only was really in the way. They (Dr. Lankester and the speaker) wanted to appoint one person in each district to assist at the *post mortem* examination, and give evidence, if necessary. If they could get some special experts, it would be ex-

trremely desirable, and would require almost no modification of the law, except a clause in some future Bill to amend the Medical Witnesses Act. The result of the movement in the matter was that a wet blanket was thrown upon the scheme when it was first spoken of, he had forgotten where. Mr. Lord of Hampstead spoke of it as tampering with the privileges of the profession. (In answer to a question, Dr. Hardwicke said that the remarks were made upon a paper read by Dr. Lankester at the Social Science Association, and it was stated that it was at the meeting at Oxford.) Dr. Hardwicke proceeded to say that a large amount of feeling was shown in the profession, so they came to the conclusion that it was an unthankful subject, and were compelled to drop it. As a general feeling had, he thought, been arrived at now in the profession and by the public in favour of some alteration, it seemed to him there was no great difficulty about it. Power might easily be given to the coroner to nominate someone in his district to assist in *post mortem* examinations, at a fixed salary, or remunerated by some small payments; and that would not increase the expense of inquests much. In reference to the appointment of analysts, he could not quite see a practical method of dealing with the question. Coroners had not quite failed in that respect, as had been stated; they generally made a good selection, and had not gone to the first chemist they thought of.

Dr. ROGERS asked if it were in the power of the coroner to issue a precept for the purpose.

Dr. HARDWICKE said it was competent for the coroner to do so. He (Dr. Hardwicke) usually got the jury to express an opinion requiring it to be done, and with that he did not find much opposition to the expense from the magistrates. He was of opinion that the coroners should be empowered to employ the public analyst in his district to make the analysis, and a competent pathologist to assist on the *post mortem* examination. He would not say anything about the election of coroners at that moment. There were other points put in detail which they should take home for consideration; they were almost too serious to go into without some further thought beforehand.

Dr. JOSEPH ROGERS said he led the opposition at the Social Science meeting, when Dr. Lankester called attention to the subject. To a certain extent, in his increased experience, he was disposed to modify his strong opposition to Dr. Lankester's proposals. He laid his objection to the line then proposed, believing at the time that under the Medical Act the young men would get a better pathological experience, and did not wish to take away the small emoluments which were a God-send to them; neither did he want to throw upon the rising body of the profession the imputation that they were not up to their work. At the same time, he could not but admit that *post mortem* examinations were often made in a perfunctory manner, owing, he had no doubt, to the want of pathological teaching in the medical schools. He received very little such teaching in the schools; and, had he not been at the Marylebone Infirmary, would have known very little of it. During the past twenty years, he had been obliged to keep a qualified assistant, and had in that time had eighteen or twenty assistants. His experience of them was that they were singularly ill-informed upon pathological anatomy. When he had entrusted them with the making of a *post mortem* examination, he had not been satisfied with the result. He would not go so far as Dr. Taylor; but, if it were decided that for each particular district there should be a medical expert well versed in pathological anatomy for the assistance of the coroner, he would go with him entirely, because such assistance would be invaluable for the discovery of the real results of a pathological inquiry. If they supported that, they would have the general body of the profession with them; if any one proposed to upset entirely the Medical Witnesses Act, that would be throwing such discredit upon the bulk of the profession that it would be resisted in every way. Passing to another point, he said that on two occasions he had had to invoke the aid of an analyst in the examination of a dead body. In one case, the coroner had directed it; but in the other he had taken upon himself to call in the analyst, and had been informed that, under the circumstances, the coroner had no funds out of which to pay the expense; the law, in that respect he thought, ought to be altered.

Dr. FERRIER read a memorandum which he had prepared on the matter, as follows.

Memorandum.

Whereas it is expedient that the practice relating to judicial *post mortem* examinations and other forensic medical questions should be amended, it is suggested—

1. That the coroner or other magistrate should, in cases requiring medical investigation and opinion, be aided by competent medical assessors or advisers.

2. That, from the hospital physicians, surgeons, obstetricians, patho-

logists, anatomists, toxicologists, etc., of the district (town, county), or equally qualified medical men, a list of names should be selected, to one or other or more of whom, as the case may require, application should be made to investigate the case.

3. That the results of the investigation should be embodied in a report, and supplemented by such oral evidence as may be deemed necessary.

4. That those selected should not be called upon to relinquish their ordinary professional duties, nor receive any fixed salary, but be remunerated in a sufficient manner for each investigation they may be called upon to make.

5. That those selected might be styled pathologist-assessor, etc., of the district or court to which they may be appointed; that the appointment of these assessors should be vested in the Local Government Board or Home Secretary; and that the fees should be payable by those in whom the power of election is vested.

He believed that in the present state of science there would be a very great objection to appoint a medical jurist to give an expert's opinion upon every matter. It was a general opinion that each expert, in his own department, must be the medical witness; therefore, he did not think it desirable to appoint an expert at a fixed salary, but would advise the plan of naming a number of persons to whom the coroner could apply, and call them in and pay them for their trouble. In answer to a question, he said he had vested the election in the Local Government Board or the Home Secretary. He had received a letter from Dr. MacLagan, Professor of Medical Jurisprudence in Edinburgh, who agreed with him in the main in his views, and stated that the plan adopted in Scotland was very much like what was proposed. There, in a case of death involving circumstances of suspicion, the Procurator-Fiscal, in his capacity of public prosecutor, presented a petition to the sheriff for a warrant to examine, or, where necessary, to exhume a body. When he had got the warrant, which, of course, was almost invariably granted, he selected two medical men to make the dissection; generally he took as one of the experts some man in the neighbourhood in whom he had confidence, and who thus came, if he did the first case well, to be regularly employed for other cases in that district. The second expert was very often some practitioner who might have seen the case, or who might be a friend of the Procurator-Fiscal.

Mr. HOLDER (Hull) said, at the last annual meeting of the Association, he prepared a paper on the Necessity of the Amendment of the Coroner's Court, of which he had sent a *résumé*, which was inserted in the JOURNAL on September 1st. He was taken ill when he should have moved a resolution on the subject, and could not do so. In the *résumé*, he suggested that the coroner should be constantly associated with an assessor.

The CHAIRMAN asked what was here meant by an assessor.

Mr. HOLDER said his view was that, before giving a decision, the coroner should be assisted by an assessor to decide whether it was desirable to hold an inquest or not. He urged the need of such an officer, by mentioning a case in his own experience in which the daughter of a man who never had medical attendance was sent to an asylum, she having a few weeks before put some poisonous liniment into beef-tea with the intention of poisoning her father. She was let out, and a week afterwards the father was taken suddenly ill and died. He saw no evidence of a ruptured vessel or other cause of death, and of course could not give a certificate. Information was given to the coroner, who wrote to the registrar saying that he should not hold an inquest in the case, leaving the registrar to make out the cause of death. Shortly afterwards, the girl was sent back for trying to blow up her mother with half a pound of gunpowder. At all events, he said, in that case an inquiry should have taken place into the cause of the father's death. When an examination of the whole subject relating to the coroner's court took place, the question would be raised whether a public-house was a proper place in which to hold an inquest. He knew that in the town of Beverley, and in his own town of Hull, it was the custom of jurymen to spend the money they received at the place where the inquest was held, for the good of the house; and the practice of holding inquests in public-houses, therefore, degraded the jurymen, and was a most improper system. When the jury met in a council-room or school-room, as in some cases they did, there was a marked difference in the manner of their deliberation. In his opinion, assessors had been in existence, not confined to coroners' courts, but extended to higher courts, miscarriages of justice would not have taken place. As to pathological experts, he held some years ago that young men entering the profession could do a *post mortem* examination, and his argument was still good. They had to pass the College examination in pathological subjects; and if, after that, it was said that they did not know anything about pathology, it would be casting a slur upon the profession which was not deserved.

The CHAIRMAN did not think they ought to admit that a slur was imputed by any person. The point raised in the memoranda read was, that *post mortem* examinations for coroners' inquests, involving often legal charges of murder or of manslaughter of various degrees, were a special matter, and ought, in the view of the authors of these memoranda, to be conducted in a special manner.

Mr. HOLDER said that what he had said was fully the view of the Branch in Hull, which numbered then more than a hundred members; and Mr. Craven, a surgeon of high standing in Hull and out of it, had expressed to him the conviction that an alteration such as that proposed would be sweeping away the privileges of the profession for the younger men, who felt the benefit of the one or two guineas for giving medical testimony. He was quite disinterested in the matter, for he did not depend upon it; and he added further that, in consequence of making a *post mortem* examination, his life had been in danger for twenty-four hours, and he did not know whether he would ever get over it. He further remarked that, since pathology was becoming a more determinate study, the College of Surgeons would be found to require a knowledge of it. As to chemical experts, they were necessary, because he did not think that the medical man was able to make an analysis of subtle poisons.

Dr. BUCKNILL said that the question was wider than the last observations would lead them to believe; it seemed to deal with the question in a narrow and patchwork way. They must not only consider the subject as it affected the medical profession, but as it would be accepted and was likely to be dealt with by the legislature. Was it likely that, if the legislature made any changes, they would make such small changes? The public mind was directed to and dissatisfied with the imperfections in the mode of inquiry by coroners. The Penge inquiry was the culminating point of the dissatisfaction, and especially in the conduct of the *post mortem* examination, which was performed by competent men. Looking at their position and the number of them present, they could not have foreseen that any question would have been raised as to the mode in which it was done. They could say it was performed in a manner up to the average. The fact was, inquests were conducted for a special purpose. The *post mortem* examinations for legal purposes were very delicate operations, and required special training; therefore they must look to their being placed in some way under some person trained specially. They would have to consider how they were to be done, not only in London and the large towns, but all over England. He disagreed from Dr. Ferrier in his suggestion as to the person to be appointed to make the *post mortem* examination. His thoughts went rather in the direction of the medical officer, or a man holding a similar position to the sanitary medical officer, a man capable of making a *post mortem* examination and an analysis of the contents of the stomach.

The CHAIRMAN remarked that the appointment of such a person was the proposition of the late Dr. Rumsey.

Dr. BUCKNILL was not aware of that. He held that they must stick to the question, how the duties could best be performed, and how they could best present themselves to the legislature of the country and say, "We recommend you to do so and so". It appeared to him that Dr. Ferrier's proposition for a list of persons to be called upon would alter the present state of affairs very little; he could not see why coroners could not then go to those people.

Dr. HARDWICKE: We can.

Dr. BUCKNILL said that, if anything was to be done in that direction, it would be done in the direction of the State prosecutor, who would certainly be appointed one day. It was thought that a Bill for the purpose would have been introduced last session. The State prosecutor would help the coroner by the powers he would have of calling in the persons whose testimony was required. His own feeling was that the best idea would be to develop the inquiry, whether there ought not to be a State medical officer, or whether he should be a separate officer from the State medical officer.

The CHAIRMAN said that the State medical officer suggested by Dr. Bucknill would be analogous to the *Kreis-physikus* of Germany.

Dr. SOUTHEY said that the practice in every district in France, Germany, and Bavaria was that a district officer in a case of death was in the first instance applied to by the police. He inspected the body, and furnished a report. If, upon that, the next law officer thought it desirable that an examination should be made, he directed it to be made. Then, a State official of the district was obliged to be present to overlook the whole *post mortem* examination. He might, if it were dangerous to him by reason of sores on the hands or other reason, provide a substitute to make the examination, but he must be present to see it, and observe the body, which the other person displayed and illustrated to him. He could, therefore, draw up a report quite as well

as if he had made a *post mortem* examination himself. He had no doubt that some alteration would be effected in the law before long, and advised medical men to take some part in leading the change into the right direction. He could not but think that it would be desirable if they retained something like the old coroners' court. He read his suggestions as follows.

Suggestions upon the Office and Functions of Coroner.

1. The coroner should be a barrister of seven years' practice at the bar.

2. His duties should consist in making inquiries into all cases where the cause of death is not certified by a medical man who has attended a person during his last illness; or when the cause of death is not so exactly certified as to satisfy the district registrar.

3. He should be assisted by two medical men of experience and entitled to command public confidence, and paid an annual salary determined by a three years' average of their services.

4. He should be elected, as heretofore, by the votes of the freeholders of the district to which he is appointed. He should have a seat on the bench of county magistrates. He should be paid a salary equal to that of a county court judge.

5. He should be assisted by twelve jurors, and should be empowered to compel attendance of witnesses, to issue warrants for apprehension, to remand, arrest, bail, imprison for contempt, and have all such powers as belong to a county court judge.

The coroner's court should be held either in the board-room of the workhouse, or of a hospital, or vestry of the parish; but on no account in any public-house. The best plan would be to have a special board-room, built as an annex to the mortuary of the parish.

The appointment of the district medical coadjutors of the coroner should be made by the Presidents and Councils of the Colleges of Physicians and Surgeons respectively, a physician and a surgeon to each coronership.

The fitness of candidates for the above appointments can be only ascertained by subjecting them to a special examination in matters of medical police and hygiene. This should be undertaken by a conjoint board.

The duties of the coadjutor should consist in examining the body and circumstances of death, and reporting thereon to the coroner; in making *post mortem* examinations when these are, in the opinion of the coroner, desirable; in forwarding substances for analysis to analytical chemists; the separate expenses of such analysis being paid by the coroner out of a fund provided by the Crown prosecutor for this purpose.

The coroner's medical coadjutor may also be health-officer of his district; but this combination of offices is only desirable in country districts.

Each coadjutor should be allowed to provide a substitute, if this be a person qualified according to the Crown requirements. For the due payment of this substitute the coadjutor should be held responsible.

The coroner's coadjutor should be paid a fixed salary, adjusted according to the sum of services required of him, but not less than £500 *per annum*.

The appointment should be made for three years, but renewable; having a retiring pension attached adjusted upon the scale of his services and their duration.

In cases of doubt or difficulty, or difference of opinion between his medical coadjutors, the coroner may apply to a court of medical assessors, belonging to each county, for their advice; and, if their report still dissatisfies him, to a central court of final appeal.

The county court of medical assessors should consist of seven practising medical men, engaged in practice for not less than seven years; three senior officers, if possible, of hospitals; two superintendents of asylums; two accoucheurs; one analytical and one dispensing chemist.

The final court of appeal should be constituted in London, and consist of three physicians, each of whom should have been a teacher of forensic medicine at one of the London, or Edinburgh, or University schools; one surgeon; and two analytical chemists.

Dr. BUCKNILL said Dr. Southey did not provide the gentleman who was to call in the coroner.

Dr. SOUTHEY did not think it necessary to do so, but only to sketch out the duties. He merely showed what general line of alteration could in his opinion be taken.

Dr. HARDWICKE did not quite see what they allowed as necessary inquests, or where the blame of holding unnecessary inquests existed. A large number of the deaths that took place, 6 per cent., ought necessarily to come under the precognition of the coroner. Out of that 6 per cent., only in half in the extreme could a question of culpability exist, and where all the apparatus suggested could be brought in. The

real cause of holding inquests was the refusal of the medical man to give certificates from reasons satisfactory to himself.

Mr. CARTTAR said the Committee had done him a favour by inviting him there that day. He had not intended to take part in the discussion; but, in consequence of what had been said, he was tempted to speak, and, as a legal coroner of forty-six years' standing, he might be allowed to know something of the duties and of the law relating to the office. That was a very important question. There was a law which required what should be done, and defining the duties of the coroner, who had not merely to make an inquiry into deaths, but had to satisfy the country and the public as to the cause of death, whether from natural causes or otherwise, and further, who, if anybody, was liable for that death criminally. The law of the case was distinctly, plainly, and simply laid down in the way mentioned in a book called *Humphry on Coroners*. This book, he feared, was out of print; but if the gentlemen would have a search made for it, and would read it, they would come to the conclusion that there was not a finer law in existence. It was there clearly laid down what the law on the duty of a coroner was; and if the coroner were kept within the law, he would give greater satisfaction than ever. He always maintained that the power of a coroner in his court was unlimited, and never got into a difficulty, although he by no means rested on a bed of roses with the magistrates of the county of Kent. The amount of remuneration that should be given was in the coroner's power to fix, and he had unlimited power to do what he considered best. It appeared to him that, in raising the question as to the *post mortem* examination, they were rather throwing a slur upon the medical profession. He had always looked upon the medical men who gave evidence in his court as men upon whom he could place the utmost reliance. He did not know how they could alter the law for the better. Alluding to Dr. Ferrier's suggestions, he said he did not know where they were to draw the line. If they called in a number of men to give evidence on particular points, any person who rested under suspicion of having caused the death must necessarily be allowed to call medical witnesses in his favour to rebut that testimony; therefore, if such a system were admitted, there would be no end to it. The most important evidence at an inquest was that given by the medical man attending at the time of death, and they would put him out. In answer to Dr. Southey, the speaker said the coroner was bound to call the medical man who last saw the deceased, and pointed out, to illustrate the statement, the case of the coroner for Denbighshire, which had been made public. He further stated that, if the deceased were not attended by anyone, perhaps a stranger in the place in which he died, the coroner might call whom he pleased. He (Mr. Carttar), in that case, made it a practice to call the police-surgeon or the parish doctor. When he wanted any person to attend, he ordered him to be summoned. In regard to the question of the *post mortem* examination, what could illustrate it more than the Penge case? Could anything more have been done than was done in that case? He had always made it a rule, where any question was likely to arise, to advise the medical man ordered to make the *post mortem* examination not to do it alone, but to have one at least, or two if possible, with him.

The CHAIRMAN: Was each paid?

Mr. CARTTAR said in the Penge case the woman died on a Friday. On the Tuesday he stopped the funeral by telegraph, and when the medical man was ordered to make the *post mortem* examination, he then said he must not do it alone, but must have others with him.

The CHAIRMAN repeated his question, and asked Mr. Carttar to state what power he had to summon more than one to be present, and what provision there was for paying them. Had the coroner, by law, power to order three or four persons to attend the *post mortem* examination, and to pay them?

Mr. CARTTAR thought the coroner had that power. He always had all the assistance he wanted, but he had a question with the magistrates then about it. He proceeded to state the steps that he took in the Penge case to have the *post mortem* examination properly done and all parties represented. There were in all six medical gentlemen present at the necropsy, all of them most capable. Five out of the six were well known to him, and he did not think five better men could have gone to a *post mortem* examination. Yet others of the profession, knowing only half of the facts, made the extraordinary opposition to the opinions given. As to the point raised about the analyst, there they had no difficulty; he had found none, and never did anything else than go to London and have the very highest authority. Dr. Taylor, Mr. Rodgers, Dr. Tidy, and others, had made his analyses. He had had no difficulty in getting them properly paid: his analyses had cost £2, 3s, and up to 50 guineas. For the Penge case, the analysis cost £35; his magistrates had certified for it, because it was absolutely necessary. They had hitherto made no objections to such payments.

The CHAIRMAN said that was a very unusual experience. Many

medical men refused to take an analysis except on the Home Secretary's authority and guarantee of the paymen, alleging that the magistrates frequently refused to pay the necessary fees.

Mr. CARTTAR then alluded to the refusal of coroners to hold inquests, and said that no coroner in England would have refused to hold an inquest in the case of the girl who attempted wholesale murder. There must have been some mistake about it.

Mr. HOLDER said what he had stated was a fact.

Dr. HARDWICKE said there was no need to dispute the statement, because it was well known that many coroners did not care to hold inquests in a large number of cases.

Mr. CARTTAR said the case mentioned must be an exceptional one, and probably capable of explanation. As to holding inquests in public-houses, he would remind the Committee what public-houses were. Not many years ago, the magistrates met in them, and even at that time the Petty Sessions at a town in Kent were held in a public-house. He pointed out the difficulties under which coroners laboured in that respect, having to hold their inquiries in the most convenient place they could find. He had in one case to hold an inquest in a theatre. His magistrates had decided not to make the allowance for the room, whenever a death took place in a house having an apartment large enough for the purposes of his inquiry. As most of the inquests were held on persons belonging to the poorer classes, it was some time before he found an opportunity of obeying the order. The first was in the case of a death in the house of a nobleman, one of the magistrates, who objected to the inquest being held there, but allowed it, and afterwards complained, at the meeting of the magistrates, of what he termed gross misconduct on the part of the coroner, and wanted to get the order rescinded. The explanation given was that the coroner was only obeying the orders of the magistrates, who refused to rescind their order, and told the coroner to use a room in the house wherever he could get one fitting; and he had since invariably held the inquest in the house. He was, however, shaken very much in that determination by what transpired in the Bravo case, when one of the arguments used in the Court of Queen's Bench, when the application was made to reopen the inquiry, was that the inquest was not a public one, but held in a room in a private house. He did not think either that they could have one fixed place; they would almost want a room in every street. If they wished his jury and himself to walk from the court three miles to view the body and three miles back, he would say that it could not be done. He would not enter into the question of the election. He had had to stand two, and had had enough of them. He thought opinion on the subject was already pretty well settled, and Mr. Cross had made up his mind what should be done and what should be the qualification. If the medical profession thought it advisable to bring some pressure to bear upon the matter in their own interest, it was then time to take some action; and if the legal profession thought they should move in it, he had no doubt they would do it; but he rather fancied the outline had already been sketched. He thought the election would be taken out of the hands of the freeholders, and probably placed in the gift of the higher officers of the ministry. It would never do to put the appointment in the hands of the magistrates of the county. Replying to inquiries as to whether, in the case of a *post mortem* examination, a written report should be sent in, he said that would not do. Was a person to be hung upon a written report?

The CHAIRMAN said the written report would be only a preliminary step to holding an inquest.

Mr. CARTTAR still objected to such a thing being received, and said an accused person, should, as a matter of right, be allowed to question the evidence. The suggestion was altogether bad. He never accepted a written report.

The CHAIRMAN said it was a question of facilitating the decision of the coroner whether he would or would not hold an inquest; and would a written report by an expert assist in that respect?

Mr. CARTTAR said that would cause an entire alteration of the manner in which inquests were conducted. The proposals, if adopted, would be creating a great difficulty. Very little indeed was required to be added to give the coroner power to find good men. He asked what would be the event of carrying out the system for calling in those men. If they called anyone, was the decision to be final?

Dr. FERRIER said they would be sure of the evidence of a person capable of forming a just opinion.

Mr. CARTTAR did not know how they were to be sure of that; and gave a case in which five men (two of them from London), five as good men as could possibly be selected to make a *post mortem* examination in a case of poisoning, and who might be assumed, he supposed, to do the thing rightly, yet forgot to tie up the stomach, and split or throw away the blood, and did not think of it until afterwards.

The CHAIRMAN said that made the case very much stronger against the present method. What was wanted was a system under which those who made the *post mortem* examinations could not omit to do anything in the necessary routine.

Mr. CARTTAR admitted that it was desirable to have a better system; he did not like the word "expert", but preferred "skilled men". Those men must be passed by some body, and he opined that they would be passed by the highest medical authorities in Council. He proceeded to state the subject of a difference that existed between himself and the magistrates about a bill of his, in which he charged for three medical men. An explanation was demanded of him, and he sent his explanation. A lady had been married about three years. In consequence of the conduct of the deceased, the husband had decided that they should live apart, and made arrangements for her to live with her mother. He saw her occasionally. On the night previous to her death, the husband was in her society for about an hour. She afterwards saw some gentlemen friends, and a good deal of champagne was drunk. At about five o'clock in the morning, she was insensible and in strong fits. The nearest medical man (Mr. Louttit) was sent for—no doubt a good man. He found bruises on the back, shoulders, arms, thighs, and stomach. The bruises on the back were of some standing, and those on the thighs were said to have been caused in tumbling up to bed overnight. The relatives were communicated with. Mr. Louttit had two medical men to assist him; one was from the *Dreadnought*. The husband took down Dr. Sieveking, and the brother Mr. Thomas Bond of Westminster Hospital. All the five doctors saw the deceased in fits. The husband asked for a private interview with Mr. Louttit, and, in course of conversation, asked if there were a suspicion of poison; that was communicated to the other medical men, who saw in her symptoms not inconsistent with poison. The woman died thirteen hours after being seized. Not one of the medical men could say of what she died. When the *post mortem* examination was made, the medical gentlemen found no appearance of poison whatever, and agreed that death had resulted from alcoholic epilepsy. He paid those men two guineas each. He had received a request from the jury that he should call them to give testimony. He conceived it within his duty and authority to call in anybody he might want. The answer he received from the clerk to the magistrates was not quite satisfactory. It was that, to allow further consideration of the matter, the whole amount would be struck out of the charges. He was requested to include it in a future account; but he (the clerk) did not think more than one charge of two guineas would be conceded.

Dr. HARDWICKE had often been similarly treated.

Mr. CARTTAR said it was not well understood what a *post mortem* examination should be; it was a necessity that whoever made the examination must be present the first time. The public seemed to believe that one man could make one, and after that another man might make another.

Mr. HOLDER said they could not tell where suspicion was going to arise. It arose often two or three days after the *post mortem* examination had taken place.

Mr. CARTTAR mentioned the Penge case to support the last statement. He knew that the object of the Committee was a good one, but could not see any reason for the proposed changes. He always gave the medical men, if they wished it, any further assistance.

It was urged by a gentleman present that the making of a *post mortem* examination might render the inquest unnecessary.

Mr. CARTTAR replied that in five cases out of twenty he had a *post mortem* examination made before he held the inquest, and if the result were satisfactory he held no inquest, but paid for the report, and the fee was allowed by the magistrates.

Dr. HARDWICKE remarked that that was a curious experience. Coroners generally were not aware that any such power existed, nor would magistrates allow such fees. In Scotland, he heard the other day there were many complaints of the Procurator-Fiscal refusing to pay medical men whose report he had received; but, finding he had made a mistake, the fees had been paid, as had also even some of the back ones. In England, however, it was quite a new feature.

Mr. CARTTAR said, for instance, in the cases of children found dead in bed, where it was shown that they died from natural causes, he did not hold an inquest, but paid for the *post mortem* examination and medical report thereon.

Mr. HOLDER said the magistrates only paid for inquests duly held.

Mr. CARTTAR said an inquiry was made by his magistrates of the cases he had had, and they were all calculated in his salary, whether an inquest was held or not. That was done under Act of Parliament.

Mr. LANGHAM said it would be the old County Act that was referred to.

Mr. CARTTAR said if the coroner found that an inquest was un-

necessary he might dispense with it, and the county could allow him a reasonable sum for his trouble. The magistrates always calculated those cases in his salary. They had asked him if he would accept £1 a case, and he had agreed to do so.

The CHAIRMAN said that apparently, by a special reading of the law, there was introduced, in Mr. Carttar's district, a system of inquiry which did not prevail in other parts of the country.

Mr. LANGHAM remarked that the old County Act gave that power, but it was abolished by the last Act.

Dr. A. P. STEWART suggested the adjournment of the meeting, and said they need only concern themselves with the medical part of the question, and not take it up in its general aspects.

The CHAIRMAN said a large number of doctors were coroners; and, if the proposed Government Bill became law, it was understood that in future no medical man would receive such appointments. This was a matter for serious consideration.

Dr. STEWART was aware of that, but thought the subject for their consideration was as to the best way of getting medical evidence really trustworthy in cases of suspicious death. That was the main thing, and there did seem to be some considerable unanimity of opinion on that point. He alluded to an application made to the Government in 1868, which was part of the plan then proposed, to get the medical officer, or some person not exclusively the medical man who last attended the deceased, to be present in order to give skilled evidence and to assist the coroner or judge in his inquiry. However, they had got a vast amount of opinion that day which would be exceedingly valuable; and when they met again, after having carefully considered the printed papers before them and the others read, which might be printed, they would be able, he thought, to arrive at a decision in regard to the matter which would be satisfactory.

Dr. DANFORD THOMAS urged the importance of having some fit and proper person to make the first inquiry into the cause of death. That inquiry was at present made by a police-constable, a beadle, or some person appointed by the coroner, who received three or four shillings a case: in London it was three shillings; in the country it might be more. That person went to the house and viewed the body and sent in his report. Upon that report the coroner ordered the inquest. It was most important that the first inquiry should be made by a competent person. That question, he thought, might come within the scope of the society. Another consideration was whether the registrar of deaths should not be a medical man. The persons who then held the office were also very ignorant; they did not even understand the terms used, and were incapable of forming an opinion whether the certificates were of any use or not; by reason of that the deaths were often improperly entered. He suggested that they might consider whether, if they had medical men for registrars, they should be the preliminary inquirers. To the evils of which he complained were to be attributed the mistakes made, notably in the case of Sir Charles Lyell.

The CHAIRMAN said that was a very important point. He suggested that a Subcommittee should be appointed to consider the matter in detail. It was then resolved that the following gentlemen be appointed a Subcommittee to put the documents into conjoint form, and draw up a report for the next meeting of the Committee: Dr. A. S. Taylor, F.R.S.; Dr. Ferrier, F.R.S.; Dr. Southey; Dr. A. P. Stewart; Mr. Sibley; Dr. J. Rogers; Mr. Langham; and Dr. Hardwicke.

It was understood that Mr. Langham, the Secretary of the Coroners' Society, would not in any way represent the Society on the Committee, but would, in anything he might say, simply express his individual opinions.

The proceedings then terminated.

MEDICO-LEGAL CASES.

THE MORTMAIN ACT.

A CASE has been recently tried before Vice-Chancellor Sir James Bacon, in which the question raised was as to the validity of a gift in a will to a corporation for the purpose of building and endowing a dispensary. The action was for the administration of the will of William Sands Cox, by which he bequeathed to the corporation of Tamworth the sum of £3,000 consols, and directed that the proceeds of £1,000, part thereof, should be expended in the erection of a plain simple building as a dispensary, and £2,000, residue thereof, should be held as an endowment fund for the said dispensary. And he directed that no lands should be purchased or buildings erected out of the aforesaid sums given for the purpose of endowing the said hospital and dispensary, or any or either of them. It was proved that the corporation of Tamworth possessed an ancient charter enabling them to hold lands in mortmain, and held land upon which such dispensary could

conveniently be built, and which they were willing to give for the purpose. It was, however, argued on behalf of the next-of-kin that the testator had only directed that the £2,000 endowment fund should not be expended in purchasing land, and the £1,000 might, therefore, be partly expended in such purchase, and so the gift must be declared void. After hearing the arguments, Vice-Chancellor Bacon said he should very much wish to be able to declare in favour of the charity; but he could not read the will as altogether negating the purchase of land with part of the £1,000 consols, and so the result of the gift might possibly be to bring new land into mortmain. In order to make such a gift valid under the Mortmain Act, it must be clearly expressed either that the new building was to be on specified land already in mortmain, or that no land was to be purchased with the money. The testator probably intended, as had been argued, that the money should be expended in building on land already in mortmain; but he had not expressed himself with sufficient clearness, and he was compelled to hold that the gift to the charity failed.

VICE-CHANCELLOR HALL had before him last week the case of *Attree v. Howe*, which raised the question whether a gift under the will of the late Mr. John Bates of Brighton, of certain railway debenture stock to charities, was void or not under the Statute of Mortmain. Mr. William Pearson, Q.C., Mr. Eddis, Q.C., Mr. Dickinson, Q.C., Mr. Morgan, Q.C., Mr. Renshaw, Mr. Bunting, Mr. H. Greenwood, Mr. Langley, and Mr. Millar, were counsel for the parties. His lordship held that railway debenture stock was an interest in land, and, therefore, could not be devised to charities.

ILLEGALITY OF COUNTER-PRACTICE.

THE important case of the Society of Apothecaries *v.* Shepelly, which involves the issue of the illegality of counter-practice by chemists, has been heard this week on appeal before the Lord Chief Baron Kelly and Baron Cleasby, the counsel in the case being Sir Henry James, Q.C., and Mr. Buzzard, Q.C., for the appellant, and Mr. Day, Q.C., for the Society of Apothecaries. After a long argument, in the course of which the judges expressed some strong opinions, apparently very unfavourable to the chemists, they declined to proceed to deliver judgment, considering that the facts of the case had not been sufficiently brought out in the case brought before the county court judge, and required that the case should be retried more thoroughly before a superior court. This course will, we believe, therefore be adopted.

THE SICK AND WOUNDED IN THE RUSSO-TURKISH WAR.

WE have received a letter from Dr. Leslie Maturin, who is now serving with the Red Cross Organisation attached to the Roumanian army under the auspices of the Russian Sick and Wounded Fund. He recently went to the East with four other British surgeons under Dr. Humphry Sandwith, and dates his letter from Turnu Magurele, November 20th, 1877. As our information from the seat of war has hitherto been principally derived from the English surgeons working on the Turkish side, the following extracts from Dr. Maturin's letter respecting the Roumanian hospitals will be read with increased interest. He says:—Turnu Magurele is a small and dirty town situate on the Danube opposite Nicopolis, on the great highway between Roumania and the allied armies operating before Plevna, and is a sort of half-way house between that place and the hospital headquarters at Bucharest, from which it is distant about one hundred and twenty miles; and from the former place, all the sick and wounded here are derived. The system adopted in their transport is as follows. The more urgent cases are treated in tent-hospitals at Grivitzta, close to the scene of operations. Accommodation there being scanty, those who are capable of being moved have their wounds dressed, and are forwarded in ambulance wagons drawn by horses and oxen to Verbitza, distant eight miles, where the urgent cases are retained; the remainder, having their wounds attended to, are forwarded to the next station at Metchka, distant five miles from the previous one. Here a similar course is pursued, and the remainder are transported to the next station at Moslem Selo, a distance of eight miles, where, being again subjected to similar treatment, they are sent on here, a distance of eight miles, where all, except the more trifling cases, are retained, the rest being sent to the different hospitals in the country situate nearest to their homes, where, after receiving treatment, they are invalided or sent again to the front, according to circumstances. This system applies only to the Roumanian wounded, the Russian wounded capable of transport being, as a rule, forwarded to their own country by way of Tirnova and Simniza. The wounded in these stations referred to

are treated in tents; the roads are bad, and after rain almost impassable, being from two to three feet deep in mud, both ambulance wagons and cattle being often so immersed as to defy all efforts at extraction. The hospitals here are permanent, and capable of accommodating upwards of one thousand patients, extemporised for the most part of private houses, hotels, and granaries requisitioned by the Government for the purpose. They are nine in number. There are six military hospitals, of which Dr. Hahn is surgeon-in-chief, and Dr. Callendara medical director. One of these is a tent hospital for medical cases.

There are two private hospitals under the Red Cross Society—that of the "Independenta", established by a Mme. Rosetti, an active and philanthropic Englishwoman resident here, and presided over by Dr. Fialla, head of the Red Cross Society here, and Dr. McNalty, assisted by Messrs. Conolly and Pattison of the National Aid Society; the other, "L'Établissement de Jassi", is presided over by Dr. Rouss, an Englishman resident in this country. These two establishments are well managed, and the wounded skilfully attended to. In the military hospitals which are under the management of the surgeons of the Roumanian army, for the most part foreigners educated in Paris and Vienna, there is great room for improvement.

The Red Cross hospitals are situated about half a mile outside the town in a healthy locality, and are under the superintendence of Dr. Fialla, a German practitioner resident in Bucharest, a courteous gentleman and a skilful surgeon. They are temporary erections composed of interwoven osiers, the interstices being filled with mud, and the interior being lined with planks plastered with the same material, whitewashed, and roofed with maize stalks. They are capable of containing one hundred wounded, and are well warmed, lighted, and ventilated. The arrangements for the comfort of the inmates are admirable; they lie on iron camp stretchers, and are well found in medical comforts, medicines, stimulants, linen, and hospital appliances. The antiseptic system is imperfectly carried out. I am attached to this hospital with Mr. Fulford, a surgeon employed by the Society, assisted by Messrs. Davies, Smyth, and Dymott, of University College Hospital. For attendants, 25 assistants, 4 Charity Sisters, 8 nuns, and 6 monks are employed. In the temporary hospitals is accommodation for forty ambulance horses.

Since the 1st of September, five secondary amputations and three disarticulations have been performed here for comminuted gunshot injuries of the bones and joints. Of the amputations, two were of the upper, three of the lower extremities. All the disarticulations were of the upper extremities. Three of the amputations terminated fatally—one from septicæmia on the second day; one from hæmorrhage on the second day; and one from tetanus on the sixteenth day, the wound being at the time cicatrised. Of the disarticulations, one case was fatal, from the supervention of phlebitis on the fifteenth day accompanied by multiple abscess. I am unable to forward any statistics of operations in the military hospitals, no record of the proceedings being kept.

CORRESPONDENCE.

THE CASE OF MISS MARTINEAU.

SIR,—In your number of to-day, page 712, Dr. Markham asks whether, in my experience "in similar cases of ovarian cyst where the heart is sound, there is either usually or constantly produced by the tumour such symptoms as those under which Miss Martineau suffered". In reply, I think I may say that, if not "usually" or "constantly", such symptoms of failing power or irregular action of the heart are *very frequently* present in cases of ovarian disease, even when the cyst is not nearly so large as it was when described by Sir Thomas Watson as "reaching as high as the lower part of the epigastrium".

I need hardly remind your readers how very commonly such hurried breathing on exertion, flutterings, or irregular or intermitting action of the heart, are complained of by middle-aged rather stout people who cannot or do not take much exercise, who lead sedentary town lives, and suffer from flatulent indigestion. If anything in the abdomen or pelvis interfere with the free descent of the diaphragm, the action of the heart becomes still more feeble or irregular, and the symptoms so produced are aggravated.

It is one of the great advantages of ovariectomy that, when a patient recovers after it, she is not only relieved from the burden of the ovarian tumour and from the effects of its direct pressure, but also from the secondary effects produced by its interference with the free action of the heart and lungs, and with the ability to take exercise, to sleep, and to fulfil the ordinary duties and enjoy the usual pleasures of life without fatigue or suffering. Indeed, it is extremely common to

hear patients, several years after recovery from ovariectomy, declare that they had never been so strong and well before as since the operation.

I cannot conclude without joining in your own gratification at finding Dr. Markham again at work after his long illness, and in adding the expression of my own hope that he may very soon be among us again, as well and strong and useful as ever.—Yours very truly,

T. SPENCER WELLS.

Upper Grosvenor Street, November 17th, 1877.

SIR,—Until I had read the letter of Dr. Markham which appeared in the BRITISH MEDICAL JOURNAL of November 17th, I had believed that the case of Miss H. Martineau, in its moral and physical aspects, after it had elicited so many critiques in medical and other reviews, had passed away from the immediate memory of the general public and of the medical profession, and that no one was desirous to

"Further seek her merits to disclose,
Or draw her frailties from their dread abode."

But in this I have been mistaken, and I am once more required to say a few words in explanation—I will not say in vindication—of my own connection with the case. No one could be more sensible than myself of the great talents and many fine qualities of Miss Martineau's character, but perhaps no one had better opportunities of being cognisant of its weaknesses; and of these the most prominent was the tenacity with which she adhered to an opinion once expressed, and her intolerance to those who objected to its truth, however powerful might be their arguments. Sometimes she would bring a discussion to a close with the somewhat dogmatic assertion, "But I know it". Perhaps it was from this firm adhesion to an opinion once entertained that she was led to ignore, as I am informed on good authority that she did, while residing at Ambleside, the existence of any tumour, always attributing her morbid symptoms to the supposed diseased condition of the heart. However, as I trust this is the last time that I shall be required to take any professional notice of this case, I shall recapitulate some of the circumstances connected with it, which may render it better understood by Dr. Markham and other readers of the BRITISH MEDICAL JOURNAL.

In the first place, I will mention two things which are essential to its full comprehension.

First, the temporary relief which was attributed to mesmerism was not unforeseen. When Sir Charles Clarke visited Miss Martineau, and agreed with me in supposing that the uterus was the seat of disease (in which it appears we were not correct, though Mr. Spencer Wells says it was a natural error, and one which did not affect the issue), he used a somewhat homely illustration, which offended the taste and excited the displeasure of the patient. He said that, as the organ grew larger, it would rise as if from the kitchen to the parlour, intimating that relief would be thus obtained, but not cure.

Next, I would observe that the relief obtained by the tumour emerging from the pelvis was not entirely continous with the use of mesmerism, but had begun at a much earlier period. This is proved on the testimony of Miss Martineau herself (see report of her case. In September 1843, she wrote: "I suppose I owe my much improved comfort mainly to them" (pills with iodide of iron). "Indeed, it is very great. . . . The almost total absence of sickness and the striking lessening of 'distress' are such a comfort to me." The course of this was gradual, but sure; and in April 1844 I was enabled to discover a patent change in the condition of the organ. At this time, Miss Martineau began to move about her room pretty freely, even mounting on a chair to reach a book from her shelves; and she was angry with me for prognosing that presently "she would take up her bed and walk".

It is a mistake to suppose that I advised the use of mesmerism. I acquiesced in it, as her mind was so set upon it, and so many friends had advised its employment. It amused and interested her, and I think she believed in it.

It must be remembered that the last time I ever saw Miss Martineau was at the end of 1844, thirty-two years before her death; and at that time she neither had nor believed that she had heart-disease. Of what subsequently took place in reference to her health I had only the slightest information from time to time. From the letter of Sir Thomas Watson (see BRITISH MEDICAL JOURNAL, July 8th, 1876), I thought he stated explicitly his opinion that Miss Martineau was free from organic heart-affection when he saw her eleven years after she had ceased to be under my observation, and his persuasion was that she had had a similar opinion from Dr. Latham. I concluded that his testimony was decisive. How Miss Martineau believed that she had received from these two eminent physicians an opposite opinion I am unable to conceive. But Dr. Markham seems to look upon Sir Thomas Watson's communication in a different light, and draw from it a different conclusion; and I do not feel called upon to decide whether

the symptoms noted by Sir Thomas Watson were occasioned by organic disease of the heart or by hysterical excitement or any other cause. At any rate, both physicians appear to have assured her that "her life was in no immediate danger". I regret with Dr. Markham that the condition of the heart could not be ascertained at the *post mortem* examination; but for this omission Mr. King gave good reasons. To him I am indebted for his notes of what he discovered at that time: the displacement of the contents of the chest, including the heart, from the pressure upwards of the tumour, and the supposed immediate cause of death.

Though Sir Thomas Watson speaks of a tumour of great size as having been known to Dr. Latham, it is remarkable, as I am credibly informed, that Miss Martineau would not admit of its existence. May I not ask, is it possible that she could be unconscious of its presence? and could she do otherwise than connect it in her own mind with the former disease, of which she believed that she had been cured by mesmerism? Might not a noble candour have induced her to acknowledge and communicate this important truth? Even to myself her generous nature might have induced her to make it known. If this had been done, it is probable that, by the skill of Mr. Spencer Wells, her life might have been prolonged for some years.

It remains for me to notice what Dr. Markham says on my remark that Section 3, vol. ii, contains little fact and much imagination. (I might use a very much stronger expression.) I would only refer him to the little book lately published by Dr. Carpenter (*Lectures on Spiritualism*), in which he proves that the clairvoyance of Miss M. Jane in regard to the shipwreck was perfectly untrue; and this fact may be taken as a key to nearly everything above contained in the section.

It is no agreeable task to point out weaknesses in a character adorned with many merits; but it would be wrong not to explain misapprehensions of mischievous tendency, and to endeavour to establish the truth of which Miss Martineau declared herself to be so uncompromising an advocate.

Before laying down my pen, I must congratulate Dr. Markham on his improved health.—I remain, yours truly,
T. M. GREENHOW.
Newton Hall, Leeds, November 1877.

SIR,—Dr. Markham's letter in your impression of the 17th instant induces me to reply to the question which he asks, whether, as Mr. Spencer Wells states, "the heart's action was impeded by the ovarian cyst", as "neither Sir T. Watson nor Dr. Latham, who were both aware of the existence of the tumour, suggested that the symptoms they noted were in any degree attributable to its presence"; and, moreover, "whether, in similar cases of ovarian cyst, where the heart is sound, there is either usually or constantly produced by the tumour such symptoms as those under which Miss Martineau suffered". I may say, in answer to these inquiries, that such symptoms are exceedingly common. Mr. Spencer Wells having for some years now paid me the compliment of asking me to examine the condition of the thoracic viscera in his ovarian patients previous to operation, I may perhaps be permitted to offer an opinion as to the symptoms in Miss Martineau's case, and to answer some of the objections raised by Dr. Markham. As long as the ovarian tumour remained in the pelvis, the symptoms were pelvic, and not thoracic; but, when the tumour rose above the umbilicus and reached the epigastrium, the descent of the diaphragm was interfered with and the heart's action was embarrassed. The progress of the case rather points to disturbance of the cardiac circulation during the later years of Miss Martineau's life, not necessarily organic, but rather sympathetic and functional. The notes taken by Sir T. Watson in 1855, as quoted by Dr. Markham, entirely support this view: "short breathing on exertion, intermission, and subsequent boundings of the heart, dyspnoea, fluttering and bump of the heart". Sir T. Watson also writes: "The heart is heard extensively over the chest, noisy, the first sound approaching a thrum. No actual bruit." These signs are scarcely consistent with a heart "weakened through degeneration of its structures", as Dr. Markham suggests. The physical signs most characteristic of fatty degeneration of the heart are weak impulse and indistinct sounds, which were wanting when Sir T. Watson examined Miss Martineau in 1855. It should be remembered, that such heart-complication is by no means rare in persons advanced in life, who are suffering from exhaustive disease in a distant organ, especially when they are doomed to a sedentary and painful life.

I have now examined the chest in a great number of persons suffering from ovarian tumours in various stages of size and growth, and the result of my experience is entirely confirmatory of Mr. Wells's opinion. Let us analyse the symptoms recorded by Sir T. Watson: breathlessness on exertion. Some patients, when the tumour has been of rapid growth, cannot move across the room without the feeling of faintness and impending syncope, and in these cases the heart will be frequently

found displaced, its apex thrown upwards towards the left axilla in the third interspace, and the left auricle seen and felt occupying a large space, having a sudden spasmodic jerk of excitability rather than of strength, as in the palpitation of nervous persons. Then dyspnoea in these cases is often so great that the patient cannot assume a recumbent position, and the first sound approaching a "thrum", a drum-like murmur not unfrequently heard over the conus and pulmonary artery, *all due to pressure*, altered sounds and action having no relation to fatty change, and entirely disappearing with the removal of the tumour and the return of the heart to its normal position.

Dr. Markham suggests that, if the cyst were ten years in reaching the epigastrium, as mentioned by Mr. Wells, the heart, "if healthy, would have had abundant time to exercise its natural power of adaptability to such external interference". But clinical experience does not endorse this statement. A heart displaced or pressed upon (particularly at such a time of life as that of Miss Martineau when seen by Sir T. Watson) never does accommodate itself to the pressure and physical changes. I have known periodical tapping relieve the symptoms; but, as soon as the cyst has refilled, the trouble has returned with all its former intensity. I have also known ovarian patients suffer for years from what they considered heart-affection and never obtain any relief till the tumour was removed. It is within the experience of Mr. Spencer Wells that patients labouring under ovarian disease have been sent to him by medical men who feared the inhalation of an anæsthetic, through the idea that the heart was undergoing organic change. Over and over again, the symptoms have disappeared with the removal of the tumour. Fulness of the thoracic veins, distended jugular veins, epigastric pulsation from dilatation of the right ventricle, have all departed when the tumour has been extirpated, and it would, I am equally confident, astonish many persons to observe the remarkable changes that ensue when the abdominal cavity has been freed of the cyst and its contents.

If corroborative evidence be further needed to prove that the heart-symptoms were due to the abdominal trouble, Mr. King has supplied it in his account of the *post mortem* examination quoted by Dr. Greenhow (*BRITISH MEDICAL JOURNAL*, April 14th, 1877, page 449):—"The liver was elevated into the chest by pressure from below, but otherwise appeared normal...The diaphragm was much arched, by which the cavity of the chest was much diminished. There must of necessity have been considerable interference with the action both of the lungs and heart from pressure." Surely, this evidence, *primâ facie*, is opposed to "fatty degeneration" at the time when Miss Martineau consulted Sir T. Watson, and will induce Dr. Markham to renounce the view that "the heart, if healthy, would have had abundant time to exercise its natural power of adaptability to such external interference".—I am, etc.,
W. H. DAY, M.D.

Manchester Square, W., November 20th, 1877.

THE PENGE CASE.

SIR,—Your readers must by this time be tired of the Penge case and of seeing my name. I do not, therefore, propose to discuss any further the questions of medical evidence on which Mr. Taylor has expressed himself so decidedly and at such length. It is the less necessary to do so, since Mr. Taylor now recognises the fact that his views are opposed to those of persons whose experience gives them eminently a right to be heard, and explains this discrepancy by the ignorance on the subject of starvation (must we not assume—on the subject of brain-disease also?) which he assumes to prevail even in the highest ranks of the profession. No one, so far as I know, has said anything so foolish as that, in case of such a difference of opinion, Mr. Taylor must necessarily be wrong; but at least we may use the old words: *Malo cum Platone errare*. I am content to be wrong in such good company.

Will you allow me very briefly to state, as a satisfaction to myself, my view of the moral aspects of the case, which I now for the first time feel at liberty to express? I believe that the death of Harriet Staunton was essentially a death from disease; but that there was evidence of gross neglect and ill-treatment, in the case of a person excluded from her legitimate home, enfeebled by disease and also by mental weakness, if not complete dementia. By these agencies, as well as by an untimely journey, in which the patient's good was certainly not the sole object aimed at, I believe the fatal result was accelerated. If this view be correct, a verdict of manslaughter against the three persons now undergoing penal servitude would have met the justice of the case; and this is precisely what the papers assert to be the virtual effect of the commuted sentence, the amount of penalty being, of course, a matter for the judge. I have never written or said in evidence a single word inconsistent with such a verdict as this. In fact, my evidence contained a clear recognition of the grounds which would justify it.

It is with respect to the question of emaciation that these facts are most important. Emaciation, like poverty, may be the result of many concurrent factors. If a person, in the circumstances of Mrs. Staunton, had not become emaciated and dirty, it would have very surprising; and scarcely less so, had disease, when it came, failed to produce unusually rapid and extreme effects.

May I also be permitted to say, in order to guard against a misconception which has already arisen in some quarters, that we have argued and can only argue on the basis of the evidence brought into court? No account has been taken of a later version of the *post mortem* record, differing widely from the first, and containing statements which, in Professor Virchow's words, are "utterly irreconcilable" with the sworn depositions and evidence to which all the witnesses expressed in general terms their assent. The assent of these gentlemen to the later version must be, in the case of all but Dr. Wilkinson, a matter of recollection; and every one must know how easily the memory is deceived in trying to recal the details of a necropsy made six months before. Dr. Wilkinson, it appears, made notes at the time, which were the basis of this later report, and a copy of which was given long ago to the solicitors for the defence. They certainly never reached the witnesses called for the defence, and for the purposes of the trial were virtually non-existent. If the promised pamphlet appears, these notes should be published *verbatim*.

Few persons can regret more than I do the unfortunate conflict of opinion which has arisen. Had the witnesses for the prosecution given due weight to the evidence of disease, without attenuating the presumptive evidence of neglect and privation, I believe the same result as has actually come about might have been arrived at without opposition, and a serious scandal avoided. But, had their evidence been uncontroverted, a still more serious and irremediable scandal would have been the result, which was only averted by the prompt and combined action of those whose opinion must and ought to have the greatest weight both with our profession and with the public.

I am, etc.,

J. F. PAYNE.

London, November 26th, 1877.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH.

THE second ordinary meeting of the Session will be held at the Royal Hotel, College Green, Bristol, on Wednesday evening, December 12th, at half-past Seven o'clock: H. MARSHALL, M.D., President.

EDMUND C. BOARD, *Honorary Secretary*.

7, Caledonian Place, Clifton, November 21st, 1877.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

THE next meeting will be held at the Greyhound Hotel, Croydon, on Thursday, December 13th, 1877, at 4 P.M.; Dr. C. W. PHILPOT in the Chair.

Dinner will be provided at 6 P.M. Charge, 6s., exclusive of wine.

The following communications are promised.

1. Dr. Goodhart: Some Cases of Enlargement or Inflammation of the Mediastinal Glands.

2. Mr. Howard Marsh: A Paper.

3. Dr. Duncan will show Sections of Diphtheritic Tonsils.

4. Dr. Lanchester: Some Remarks on Calomel as a Medicine.

5. Dr. Philpot: On an Outbreak of Diarrhoea in Upper Norwood.

6. Mr. Richardson: On Croydon Hospital Cases.

JOHN H. GALTON, M.D. Lond., *Honorary Secretary*.

Woodside, Anerley Road, S.E., November 27th, 1877.

THAMES VALLEY BRANCH.

THE next meeting of the above Branch will be held at the Spread Eagle Hotel, Wandsworth, on December 18th, at 5 o'clock.

Those members who may be willing to read papers are requested to communicate with the Honorary Secretary as soon as possible.

There will be a dinner at the above hotel at 7 o'clock. Charge, 7s. 6d., exclusive of wine.

F. P. ATKINSON, M.D., *Honorary Secretary*.

Kingston-on-Thames, November 1877.

PROCEEDINGS OF THE COMMITTEE OF COUNCIL.

At a meeting of the Committee of Council, held at the Freemasons' Tavern, Great Queen Street, London, on Wednesday, November 7th, 1877: Present, Mr. W. D. HUSBAND (Treasurer), in the Chair, Dr. Eason Wilkinson (President), Dr. Clifford Allbutt, Mr. Alfred Baker, Mr. J. Wright Baker, Dr. M. M. De Bartolomé, Mr. E. C. Board, Dr. Louis Borchart, Mr. Callender, F. R. S., Dr. Alfred Carpenter, Dr. Chas. Chadwick, Dr. J. W. Eastwood, Dr. B. Foster, Mr. R. S. Fowler, Dr. E. L. Fox, Dr. W. C. Grigg, Dr. C. Holman, Mr. J. R. Humphreys, Mr. Arthur Jackson, Dr. D. J. Leech, Mr. Frederick E. Manby, Mr. Frederick Mason, Dr. Edwin Morris, Dr. Charles Parsons, Dr. Edward H. Sieveking, Dr. A. P. Stewart, Dr. W. F. Wade, and Dr. Edward Waters:

Read letter of apology for non-attendance from Mr. Elliston.

The minutes of the last meeting were read and found correct.

Resolved: That the candidates whose names appear on the circular convening the meeting, with the exception of one who was not proposed in accordance with the by-laws, be elected members of the Association.

Read invitation from Cork, of which the following is a copy.

"4, Camden Place, Cork, October 18th, 1877.

"Dear Sir,—While the members of the Association in the South of Ireland are much disappointed at the decision of the Committee of Council not to visit Cork in 1878, as anticipated, they desire, through me, to renew the invitation for 1879. This acquiescence in the desire of the Committee of Council has been intimated to me by the following gentlemen, who signed the previous invitation, and by those whose names are written in red (in italics) who were prevented from being present at the meeting, or have, since the issuing of the invitation, joined heartily in the movement.—I am, yours faithfully,

"H. MACNAUGHTON JONES,

"President South of Ireland Branch, Local General

"Secretary of Reception Committee.

"To W. D. Husband, F.R.C.S.,

"Treasurer British Medical Association, London.

"John Adderly, M.D.; Ringrose Atkins, M.D.; William Beamish, M.D.; Henry Corby, M.D.; W. J. Cummins, M.D.; James G. Curtis, F.R.C.S.I.; James A. Eames, M.D.; J. P. Golding, M.D.; J. R. Harvey, M.D.; Charles Harvey, M.D.; W. H. Holmes, M.D.; H. Macnaughton Jones, M.D.; D. C. O'Connor, M.B.; D. C. O'Connor, jun.; Stephen O'Sullivan, M.D.; William H. Sandham; T. C. Shinkwin, M.D.; William Tanner, M.D.; R. H. Townsend, jun., M.B.; E. R. Townsend, jun., M.D.; W. C. Townsend, M.D.; Surgeon-Major Orton; Surgeon-Major Collis; D. Hadden, M.D.; Bandon; D. D. Donovan; W. H. Holmes; J. D. Cronin, M.D., Queenstown; *J. Donovan, M.D., Ballincullig; P. J. Cremen, M.D.; Aug. O'Connor, M.D.; T. Crowley, M.D.; Dep. Surgeon-General Crocker: W. Belcher, Bandon; P. Berry, M.D., Mallow; D. H. Scott, M.D., Queenstown; D. Cagney, Charleville; P. L. Walsh, M.D., Buttevant; J. O. Sisk, M.D., Fermoy; Oscar Woods, M.D., Killarney; J. McDonough, Killarney; L. T. Griffin, Killarney; George Hickson, Killarney; J. Hayes, M.D., Tralee; J. E. Currey, M.D., Lismore; R. O'Reilly, Lismore; J. Gelston, sen., M.D., Limerick; D. O'Flynn, M.D., Glanmir.*"

Resolved: That the cordial thanks of the Committee of Council be given to the members of the South of Ireland Branch and other members of the Association in the South of Ireland for the renewed invitation to hold the Annual Meeting in Cork in 1879, and this Committee will recommend its acceptance, and pledges itself to use every effort to obtain the assent of the Annual Meeting.

Regulations, submitted by the Subcommittee, for the Medal for Distinguished Merit, and for the conduct of the Annual Meeting, were considered. Some were adopted, and the consideration of others was postponed to a future meeting.

Resolved: That Addresses be given at the Annual Meeting to be held at Bath, in August 1878, in Medicine, Surgery, and Forensic Medicine.

Resolved: That Dr. Goodridge of Bath be requested to give the Address in Medicine.

Resolved: That Mr. C. G. Wheelhouse of Leeds be requested to give the Address in Surgery.

Resolved: That Professor Douglas Maclagan of Edinburgh be requested to give the Address in Forensic Medicine.

Resolved: That the gentlemen whose names are as follows be the Arrangement Committee for considering the arrangements for the meeting to be held in August 1878 at Bath, viz.: The President, the President-elect, the Treasurer, Mr. Alfred Baker, Dr. Chadwick, Dr. E. L.

Fox, Mr. R. S. Fowler, Dr. Goodridge, Mr. Bartrum, Mr. Mason, Dr. Sieveking, Mr. Skeate.

Resolved: That the metallists be invited to dine with the Committee of Council and their friends in January next, that the medals be presented to them on that occasion; and that Dr. Sieveking, Dr. Stewart, and Mr. Callender be a Subcommittee to make the necessary arrangements.

The minutes of the Scientific Grants Committee were read, and it was

Resolved: That the minutes of the Scientific Grants Committee of this day's date be approved and the recommendations carried into effect, and that a special grant be made of £100 towards the expenses of an investigation into the Pathology and Treatment of Rabies and Hydrophobia.

SOUTH WALES AND MONMOUTHSHIRE BRANCH: ORDINARY MEETING.

A MEETING of this Branch was held in the Dowlais Iron Company's Library, Dowlais, on Thursday, November 8th; J. TALFOURD JONES, M.B., President, in the chair.

New Members.—D. A. Davies, M.B. (Swansea), J. Marshall, M.B. (Brecon Infirmary), and W. Morgan, Esq. (Clydach), were elected members of the Branch.

Spring Meeting, 1878.—It was resolved that this meeting be held at Caerathen in April.

Papers.—The following were read.

1. On the Treatment of Carbonic Acid Poisoning by the Inhalation of Oxygen, by D. RAY.

2. On Poor Law Management, by Dr. SHEEN.

Mr. PEARSON CRESSWELL illustrated on a patient Sayre's Method of Treating Curvature of the Spine; and Mr. JAMES THOMAS showed a Modification of the Apparatus.

Mr. TALFOURD JONES exhibited a specimen of Aneurism of the Aorta, which had been treated by large doses of Iodide of Potassium, with temporary relief.

Medical Defence.—The following resolution was carried *nem. con.*: "That a Medical Defence Committee representative of this Branch be formed."

The members, under Mr. Cresswell's guidance, afterwards paid a visit to the Bessemer Steel and Siemen's Works, and were extremely pleased with what they saw there.

The *Dinner* took place at the Castle Hotel, Merthyr, at which about forty-five members and visitors were present.

On arrival at Dowlais in the morning, the members were most hospitably entertained at breakfast by Mr. and Mrs. Pearson Cresswell.

STAFFORSHIRE BRANCH: ANNUAL MEETING.

THE fourth annual meeting of the above Branch was held on Thursday, October 25th, 1877, at the Railway Hotel, Stoke-upon-Trent. Present: Dr. MILLINGTON, President, and twenty-seven members.

The PRESIDENT introduced his successor, Dr. J. T. ARLIDGE of Newcastle, who then took the chair.

Vote of Thanks.—Dr. TOTHERICK proposed: "That the best thanks of this meeting be given to the retiring President for his services during the past year." This was seconded by Mr. GARNER, and carried unanimously. Dr. MILLINGTON acknowledged the compliment.

New Member.—Dr. John Day of Walsall, a member of the Association, was elected a member of the Branch.

President's Address.—The PRESIDENT delivered an address upon the Pathology of Chorea.

Mr. SPANTON proposed that a cordial vote of thanks be given to Dr. Arlidge for the excellent, valuable, and instructive thesis which he had just read. Dr. J. H. TYLFCOTE seconded, and Dr. MILLINGTON, Dr. TOTHERICK, and Mr. VINCENT JACKSON supported the motion; and it was carried with applause.

Report of Council.—Mr. VINCENT JACKSON read the annual report, as follows.

"Your Council has much pleasure in reporting in favourable terms of the Staffordshire Branch. The Branch now concludes the third year of its existence, and already it has achieved not only a permanent, but a by no means unenviable position amongst the twenty-eight Branches of the British Medical Association. It numbers one hundred and six members, sixteen being additional since the last report. Six members have left the Society; four on account of removal, and two have died, viz., Dr. Steel and Mr. B. Tomkinson.

"Three ordinary meetings have been held during the past year; the attendance of members at each has been more than an average one, and the interest all have evinced not only in the numerical prosperity of our Branch, but also as regards the scientific value of the communications and exhibits read and presented has been encouraging and hopeful. Your Council trust that it will never be forgotten that the British Medical Association is the largest medical society probably in the world, and, as such, it is of necessity a great power in the land; and, as its Branches strengthen and multiply, so the more quickly will the Association assume such proportions that its movements will be the movements of the profession, its voice the voice of the profession, and its utterances, ceasing to be supplicating, will be commanding.

"The thanks of your Council are given to the following gentlemen for their contributions to the work of the Society during the past session: Dr. J. H. Tylecote, Mr. C. Orton, Mr. Garner, Mr. Alcock, Mr. J. Hartill, Mr. W. H. Folker, Mr. Spanton, Mr. Frost, Dr. Millington, Mr. E. F. Weston, Mr. Vincent Jackson.

"Your Council would direct the attention of the meeting to Rule 5, which declares 'That the annual meeting of the Branch shall be held in October, at such place as may be determined upon at the previous annual meeting. The annual meeting not to be held in the same town two years consecutively.' Hitherto, as is well-known, the towns selected have been Stoke, Stafford, and Wolverhampton; but with the laudable desire of rendering the Branch more known and popular, it has occurred to your Council whether it would not be expedient that the annual gathering should be held occasionally in some of the other towns of Staffordshire, to wit, Lichfield, Burton, etc. Your Council bring this matter before you only as a suggestion, and to ventilate what appears to them to be a course of action likely to be followed with a benefit. If the proposal should be considered desirable or useful, your Council pledge themselves to give to any recommendation of this meeting the utmost practical effect possible."

The adoption of the report was moved by Dr. MILLINGTON, seconded by Mr. E. F. WESTON, and carried.

Financial Statement.—Mr. FOLKER was especially requested to examine and audit the accounts of the Society, and to report upon its financial condition at the next ordinary meeting.

Next Annual Meeting.—Mr. KELTY proposed that the next annual meeting be held at Stafford. This was seconded by Mr. ORTON, and agreed to.

Election of Officers for 1877-78.—The following were elected. *President-elect:* E. F. Weston, Esq. *Vice-Presidents:* W. Millington, M.D.; H. Day, M.D. *Honorary Secretaries:* Vincent Jackson, Esq.; Ralph Goodall, Esq. *Treasurer:* E. F. Weston, Esq. *Council:* F. Boldero, Esq. (Penkridge); C. H. Crawford, M.D. (Stafford); E. Fernie, M.D. (Stone); W. H. Folker, Esq. (Hauley); John H. Freer, Esq. (Rugeley); P. M. Kelty, Esq. (Walsall); H. M. Morgan, Esq. (Lichfield); C. Orton, Esq. (Newcastle-under-Lyme); J. J. Ritchie, Esq. (Leek); J. Y. Totherick, M.D. (Wolverhampton); J. H. Tylecote, M.D. (Sandon); J. K. Wynne, Esq. (Eccleshall). *Representatives in the Council of the Association:* J. T. Arlidge, M.D. (Newcastle); H. Day, M.D. (Stafford); W. H. Folker, Esq. (Hanley); D. H. Monckton, M.D. (Rugeley); W. D. Spanton, Esq. (Hanley); J. Y. Totherick, M.D. (Wolverhampton).

Votes of Thanks were passed to the Treasurer and Honorary Secretaries.

Dinner.—The members and their friends dined together at the close of the meeting.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.

THE last ordinary meeting of the present session was held at the George Hotel, Portsmouth, on October 31st, 1877. About twenty members were present, and the President (Dr. CASE of Fareham) occupied the Chair.

The PRESIDENT offered a few remarks upon gratuitous medical assistance and public charities.

Papers, etc.—1. Mr. H. B. NORMAN read some notes on Fracture of the Femur.

2. Dr. MANLEY reported a case of Fracture of the Skull. A discussion followed, upon the indications for performing the operation of trephining.

3. Dr. WARD COUSINS exhibited a large Cystic Tumour of the Mamma recently removed from a patient at the Royal Portsmouth Hospital.

Dinner.—In the evening, the members dined together at the hotel, under the presidency of Dr. Case.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH :
ORDINARY MEETING.

THE second ordinary meeting of the session 1877-78 was held in the Queen's College, Birmingham, on November 8th: present, SAMPSON GAMGEE, F.R.S.Ed., President, in the Chair, and forty-three members.

New Members.—Mr. A. B. Simpson, of Birmingham, and Mr. T. G. Vawdrey, of Handsworth, were elected members of the Branch.

Precedent Dispensaries. Dr. MONKTON (Rugeley) read a paper on Provident Dispensaries, in which he advocated their establishment, gave an account of the working of the Rugeley District Hospital and Provident Dispensary, and brought forward a scale of subscriptions for benefiting members.—An animated discussion followed, in which the President, Mr. H. L. Browne, Mr. Watkin Williams, Dr. Underhill, Mr. W. C. Garman, Mr. Yates, Mr. Manley, Mr. Palmer, Mr. Morgan, Mr. Ker, Dr. Johnston, and Mr. Oakes, shared.

PUBLIC HEALTH
AND
POOR-LAW MEDICAL SERVICES.

VACCINATION.—Mr. A. S. May of Forest Hill District, Lewisham Union, has received from the Local Government Board £15 2s. for successful vaccination in his district: this being the second grant that he has received.—A grant of £97 6s. has also been awarded for the same reason to Mr. R. S. Smallman, M.B., Wigan; and one of £81 3s. to Mr. Linton, Medical Officer of the Chester-le-Street Union.

POOR-LAW MEDICAL APPOINTMENTS.

PITTS, T. S., L.R.C.P.Ed., appointed Union Medical Officer for the Thorne District of the Thorne Union, *vice* George Goody, M.R.C.S.Eng., resigned.
RUSSELL, Arthur J. F., L.K.Q.C.P., appointed Medical Officer to the Workhouse and District of the Union of Workop, also Public Vaccinator.

PUBLIC HEALTH MEDICAL APPOINTMENTS.

RUSSELL, Arthur J. F., L.K.Q.C.P., appointed Medical Officer of Health for Workop.

OBITUARY.

ALEXANDER KNOX, M.D.

DR. KNOX died last week at his residence, Beechcroft, Strandtown, Belfast, aged 75. Born in 1802, he engaged in private practice in Ballycastle for several years, arriving in Belfast in 1845. In 1851, he was appointed a Poor-law Medical Inspector, his connection with the Poor-law Board lasting for twenty years, when he retired on superannuation. He was a gentleman of kindly disposition, and proved himself a most efficient officer in the various duties required by the office he held. His contributions to literature included, among others, *On Cholera*, *Irish Watering-places*, etc.

ROBERT KERSHAW, M.R.C.S.

In the sudden and unexpected death of Mr. Kershaw, late Secretary to the London Hospital Medical College, that Institution has sustained a great loss. Mr. Kershaw was born at Heywood, in Lancashire, where his family have long been well known. He was educated at Middleton, and afterwards at the Liverpool Collegiate School. In early life, it had been his desire to enter the medical profession, but circumstances prevented his doing so, and for some years he was engaged in his father's business, where he was principally concerned in financial matters. As Captain of the Fourth Royal Lancashire Militia, he was known as one of the best rifle shots in the district, and throughout his life he remained a keen sportsman. At length enabled to follow his early desires, he entered as a student at the London Hospital, and after passing through the curriculum, he qualified at the College of Surgeons in 1873, and was appointed House Surgeon and subsequently Medical Clinical Assistant. Mr. Kershaw then became assistant to Dr. Sutton in the pathological department, where he worked with great success at pathological histology, and assisted in the preparation of many of the sections of the spinal cord exhibited by Sir William Gull and Dr. Sutton in illustration of the subject of

arterio-capillary fibrosis. In this department, he has left behind him a permanent memorial of his industry and powers of organisation in a valuable and systematically arranged catalogue of the histological specimens. When the College Board was formed two years ago in connection with the London Hospital, Mr. Kershaw was appointed secretary, and devoted his whole time and energies to this work till the day on which he was seized with the fatal symptoms. His work here was characterised by zeal, courtesy, correctness, and discrimination of character. To his powers of organisation must be largely attributed the recent improvement and growth of the School, as indicated by the total entry of sixty new students at the commencement of the present session. His loss is deeply felt by the staff and managing bodies of both Hospital and College. On two or three occasions, symptoms of an intestinal affection had caused some alarm, but the onset of the fatal symptoms was sudden, and preceded his death by only two days; the immediate cause of death was intestinal obstruction.

MEDICAL NEWS.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 22nd, 1877.

Bigger, Samuel Ferguson, 2, Albert Street, N.W.
Crick, Samuel Arthur, Casby, near Leicester
Evans, Charles Walter, Arlington Road, N.W.
Rugg, James Foster, Middle Street, Brighton

The following gentlemen also on the same day passed their primary professional examination.

Atkinson, John Mitford, London Hospital
Evans, James William, University College
Fox, Joseph Tregelles, London Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

ADDENBROOKE'S HOSPITAL, Cambridge—House-Surgeon. Salary, £65 per annum, with board and residence. Applications to be made on or before the 17th instant.

ALNWICK UNION—Medical Officer for the Embleton District.

BAKEWELL UNION—Medical Officer for the Matlock District.

BRADFORD UNION, Yorkshire—Medical Officer for the Horton West District.

CHINA—Medical Missionary for the Church of Scotland Mission. Salary, £350 per annum, and residence. Applications to the Rev. Dr. Cumming, Sandyford Church, Glasgow.

INVERNESS DISTRICT ASYLUM—Assistant Medical Officer. Salary to commence at £80 per annum, with bed, board, and washing. Applications to be made on or before the 12th instant.

KENT AND CANTERBURY HOSPITAL—Surgeon. Applications to be made on or before the 7th instant.

KIDDERMINSTER INFIRMARY—House-Surgeon.

NORTH-EASTERN HOSPITAL FOR CHILDREN—House-Surgeon. Salary, £100 per annum, with rooms, attendance, coals, and gas. Applications to be made on or before the 4th instant.

POOLE UNION—Medical Officer for the Workhouse.

PORTLAND TOWN FREE DISPENSARY—Resident Surgeon and Dispenser. Salary, £100 per annum, apartments, fire, gas, and attendance.

QUEEN'S HOSPITAL, Birmingham—Resident Physician and Resident Surgeon.

Salary, £50 per annum, with board and residence. Applications to be made on or before the 1st instant.

ST. GEORGE'S and ST. JAMES'S DISPENSARY—Physician. Applications to be made on or before the 4th instant.

TAVISTOCK UNION—Medical Officer for the Tavistock District and the Workhouse.

MEDICAL APPOINTMENTS.

RUSSELL, A. J. F., L.K.Q.C.P., appointed a Certifying Surgeon under the Factory Act.

BIRTHS, MARRIAGES, AND DEATHS.

BIRTH.
MARRIAGE.
DEATH.

MOORE.—On November 17th, at 3, Queen Street, Lancaster, Percy St. Aubyn Daniel, only son of *J. Daniel Moore, M.D., F.L.S., aged 7 years.

BEQUEST.—The University College Hospital has received a sum of £2000 under the will of the late Mr. George Moore, of Whitehall, Cumberland, and Bow Churchyard, London, to be applied in some way that may yield a permanent benefit to the institution.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 2 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

MONDAY.—	Medical Society of London, 8.30 P.M. Dr. Woakes, "On the Connection between Stomachic and Labyrinthine Vertigo".
TUESDAY.—	Pathological Society of London, 8.30 P.M. Mr. Butlin: Multiple Sarcoma in a Boy (living specimen). Dr. P. Irvine: Multiple Tumours of the Brain. Dr. Dickinson; Specimens of Chylous Urine. Dr. Ralfe: 1. Urine from a Case of Phosphatic Diabetes; 2. Gangrene of the Lung in a Case of Lead-poisoning. Dr. Wilks: Case of softening Syphiloma of the Liver. Mr. Wagstaffe: Dermoid Cysts growing along Line of Branchial Fissures. Dr. Dowse: Specimens from a Case of Paralysis Agitans. Dr. Goodhart: Symmetrical Sarcoma of Ossa Ilii, with Hyperostosis of Cranium. Dr. Goodhart: Cerebral Tumours in a Monkey. Dr. Morison: Case of Chyluria. Dr. Ord: Fat from Case of Chyluria. Dr. Garlick: Diaphragmatic Hernia.
WEDNESDAY.—	Obstetrical Society of London, 8 P.M. Dr. Redwood, "On Secondary Puerperal Hæmorrhage"; Dr. John Bassett, "Cases of General Dropsy in the Fœtus"; Mr. Thompson, "On Complete Rupture of the Perinæum"; and other papers.—Royal Microscopical Society, 8 P.M.
THURSDAY.—	Harveian Society of London, 8 P.M.: Ballot, 8.30 P.M.: First Harveian Lecture. [Dr. Graily Hewitt, "On the Mechanical System of Uterine Pathology".

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

A RENEWED PLEA FOR BREVITY.

WITH the continued increase of the number of readers of the BRITISH MEDICAL JOURNAL (which has now a circulation of eight thousand copies weekly), the pressure on space by correspondents naturally grows apace, and we must once more remind our contributors of all classes of the necessity of cultivating brevity to the utmost degree. Of many communications of great interest which we publish from time to time, it is difficult to suppose that the same amount of information could not be conveyed in fewer words.

MR. W. A. RAPER (Great Waking) is requested to take notice that all communications respecting change of address should be addressed to the General Manager, and not to the Editor.

MR. J. I. DOBELL's letter has been referred to the Hydrophobia Committee.

TRAINING INSTITUTIONS.

OUR Paris correspondent writes:—Your reply to S. C. anent sick nursing, and which appeared in the last issue of the JOURNAL, is quite in accordance with the remarks I made in my letter of June 16th, 1877, on the subject; but I have to recall to your mind that there is a training institution for nurses in Paris, as you will find by the letter referred to. Dr. Duchaussoy is director of the institution, and Dr. Duchesne sub-director, from whom information may be obtained. The address of the former gentleman is 8, Rue des Beaux-Arts, and that of the latter 85, Rue des Saints Pères, Paris.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

AN APPEAL.

SIR,—Together with a few friends, I am desirous of soliciting the charitable benevolence of the profession on behalf of the family of a medical man who, through illness and misfortune, are at present in the most abject poverty and distress. I feel certain that our appeal will not be in vain, and shall be glad to receive contributions and acknowledge the same, with your permission, in this paper.—I am, sir, yours faithfully,
JOHN JAS. EBERLE, Principal of the Medical College, Easingwold, near York, Nov. 27th, 1877.

HOSPITAL FOR DISEASES OF THE THROAT, GOLDEN SQUARE.

SIR,—In your editorial remarks last Saturday, you appear to endorse a letter from Mr. Evans, thus giving it an importance to which it would not be otherwise entitled. This induces me to say that it contains a number of misstatements, and so perverts my words that I beg you (and every reader interested in the matter) to turn again to my letter in the JOURNAL of the 10th instant. You will then see that I did not object to any inquiry, so that I could not object to the "lay element" of the committee. I did not object to any individual, lay or professional. I stated facts, and asked your judgment upon them. I declared my own clinic open to every possible investigation. I professed myself alone responsible for that; and, as a physician to the charity, my duties and responsibilities alike begin and end with the care of my own patients. I certainly do think that "laymen" alone are not the best judges of purely professional work, and I do not think medical men can form an opinion of my clinic without seeing it. I said and repeat, that "any attempt to implicate the entire medical staff in a private dispute is unwarrantable"; and I believe that "sentiment" will find "an echo in the profession". I did not presume to write "on behalf of the staff". On the contrary, I distinctly stated that I had not been able to discuss the matter with my other colleagues. If my statement appeared "discourteous", it can only be because it is impossible to describe some actions in a way which is "agreeable" to those who commit them. Possibly, the circulation of a report reflecting on the staff, without first allowing the members to see it, is such an act. I cannot admit that it was the duty of any one other than the committee of inquiry to communicate with the staff.

The other matters mentioned by your correspondent do not particularly concern me, nor do I know whether his statements about them are more accurate than those I have corrected, nor where he obtained his information as to the acts of the staff, and as to their satisfaction "with the position they have taken up". As to the resolution on which you comment, it expresses the opinion of the staff respecting certain operations which were made the basis of the only grave medical charges against the superintendent. Surely the members of the staff ought to be competent to form an opinion as to whether these operations were properly performed.—I am, sir, your obedient servant,
PROSSER JAMES.

3, Dean Street, Park Lane, November 27th, 1877.

MR. PUGIN THORNTON's letter on the above subject should be addressed to the journal whose remarks he criticises.

PERFUMES, FRAGRANCES, AND "SANTALS".

SIR,—Kindly permit me to make a brief reply to Dr. Bond's letter of last week. The delusion under which Dr. Bond labours in regarding peroxide of hydrogen and ozone as "two hypothetical bodies", suffices, in my opinion, to explain his difficulty in understanding "the practical bearing of your statement", and at the same time invalidates his other expressed opinions.—Yours truly,
Scientific Club, November 25th, 1877. CHAS. P. KINGZETT.

THE MEDICAL INJUNCTION OF STIMULANTS.

SIR,—Dr. Dyce Duckworth's admirable paper, published in the JOURNAL for November 10th, will, I think, become the manifesto of the medical profession of England on the uses and abuses of alcohol in health and disease, when it is carefully read by the intelligent members of the profession, and adopted by them as the expression of their opinions upon the subject. The concentration of medical opinion upon the subject of alcohol was never more imperiously demanded than at the present moment, when an agitation is going on which is calculated to weaken the public mind in the effects of medical treatment, and the true value in certain cases of the use of stimulants in the management of disease. As far as I am concerned, I would not alter one word of Dr. Duckworth's paper. It is argumentative, exhaustive, and eloquent. It says the best and truest thing in the best and most expressive language. It is just the style of truth which confounds the total abstinence and leaves him without a shadow of defence, except that the language is "bombastic". It is, in fact, too conclusively true to meet with an echo in the pre-occupied mind of a teetotaler-at-any-price. It is just and comprehensive, liberal and learned, and holds up the balance with no feeble or wavering hand between all parties.

I think we ought to have a manifesto, to place in the hands of the Committee on Drunkenness, and to circulate among our patients and friends. If the feeling of the profession be favourable to such a proceeding, I will thankfully be one to receive the names of the profession as approving the document in question.—Your obedient servant,
C. R. BREE, M.D., Senior Physician to the Essex and Colchester, November 20th, 1877. Colchester Hospital.

DRESSING OF BURNS.

SIR,—In answer to Mr. Oglesby, allow me to state that for many years I have used ordinary white paint for the treatment of burns and scalds, and never knew an instance of failure. The pain ceases in a couple of minutes. The paint, repeated if necessary, forms a new skin; there is no discharge, and no further application necessary. I have never, during many years' experience, known a case of lead-poisoning from its use. Even in cases where death ensues from extensive and deep burns, it saves suffering, but then requires repeated application. A wide-necked bottle full of paint should be kept in every house, ready for immediate application. Where large naevi have been destroyed by the actual cautery, its application has saved all after-suffering. During twenty years' attendance as surgeon to the Ashton Barrack Hospital, and during ten years' attendance as surgeon to the Ashton Infirmary, I always adopted this method. In psoriasis and eczema, in the early stages, it is very valuable.—Yours, etc.,
ALFRED ASPLAND,

Consulting-Surgeon to the Ashton-under-Lyne Infirmary.

Dukinfield, Cheshire, November 28th, 1877.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W. C., and not to the Editor.

THE PENGE CASE.

SIR,—As a general practitioner from another quarter, I venture to request that you and your readers will permit me to assert that *my opinion on the cause of Harriet Staunton's death is as much entitled to respect as that of those eminent persons who differed from the formed opinion of the medical men for the prosecution*; and the reason I make this bold assertion is, that I, too, can interpret facts quite as accurately as those who were not present at the *post mortem* examination, and yet who had the temerity to assume that of all persons they alone were capable of forming a correct opinion. No one, sir, knows better than yourself how difficult it is to present symbolically the impressions in your mind which shall call up a similar image in the minds of others. That which to you is clear, distinct, and definite, is, by inapt expression, likely to produce a cloudy, indistinct, and indefinite impression to others; yet the conclusion you have arrived at, how inapt soever your symbols may be, is correct. This is just the position in which the medical men for the prosecution were. They had a perfectly clear idea in their minds of the cause of death, and so stated it; but because some of their symbols leading up to the final conclusion were faulty, out upon them pounced certain persons who were of opinion that a gross injustice was about to be perpetrated. Fortunately, the learned judge preserved his senses, perceived that these intelligent persons had not been in attendance at the *post mortem* examination, and even neglected to call one of the five medical men present at it: he ruled that their forensic ability was not to be exceeded by his own, since he was in place and they were out of place. The hubbub which ultimately ensued, arose from the jury mistaking moral for legal wrong, in awarding the extreme penalty to all the prisoners. Cases occur in which medical men well know that there is a guilty intention; but unless they can see very clearly that a distinct end is to be gained, are very properly chary of coming forward. Two such cases have occurred to myself, both of privation of food—one an adult woman, on whom I made a *post mortem* examination, and found the appearances as stated on this trial, but also found some trifling lesion by which I could furnish a certificate. The other case was that of a child, in which there was no *post mortem* examination. In both these cases, proof of guilt would have been impossible, a great stir would have been created, my name published to the world, and *cui bono*? My almost unsupported testimony would not have procured a conviction, however strong the medical evidence, when the legal evidence was defective. But in this case we have five medical men supporting one another, besides circumstantial evidence, to ensure a conviction, yet their credit is opposed and a clamour raised for a specialist to conduct a *post mortem* examination for legal purposes. I for one shall be very sorry when I am deemed incapable of interpreting anatomical appearances presented to me in the deadhouse. I enjoy a *post mortem* examination, and love to make it intelligible to others: but to describe it on paper or symbolically is not easy, unless one is accustomed to it.

I would here just venture to say that our hospital pathologists should instruct their students a little more than they do. At the charge of being wearisome, they should state daily over and over again what their students may be supposed to know; or, better still, one student should write down a full description of everything from the pathologist's mouth as the examination proceeds. Students then would learn; teachers would not dare to shrug their shoulders to some not over sensible question from a student. I once asked a German pathologist for an explanation of some anatomical lesion. His reply was, "Look and see". I learned what I wanted to know when I wrote out the case.

In conclusion, I venture to hope that members of the profession may receive more courtesy from one another for the future, and that we general practitioners may be credited with being able both to "look and see" and draw our conclusions quite as correctly as those who are mere specialists. I hate specialists and centralisation. Depend on it, sir, there is as much good common sense in the country as there is in town; and those who were not at the *post mortem* examination of Harriet Staunton have no right to contradict the expressed opinion of five intelligent medical gentlemen. Apologising for this long letter, yours truly,

Clifton, November 22nd, 1877.

C. M. JESSOP.

SIR,—May I venture to ask your readers who Dr. Donovan is, who has been so much quoted in the Penge case, and has so accurately described the symptoms and *post mortem* appearances observed in cases of starvation? Is he a hospital physician and pathologist, or a general practitioner? I am decidedly of opinion that united action should be taken by those of us who are engaged in general practice to express dissatisfaction with the manner in which some of our member suffers pain, all the members suffer with it. I feel assured we can only command respect as a body by acting as far as possible in union.—I am, sir, your obedient servant,

Kingston-on-Thames, November 1877.

F. P. ATKINSON.

POPULATION AND SANITATION.

SIR,—I should wish to supplement Dr. Drysdale's admirable letter on "Population" of to-day's JOURNAL by a statement which might be useful for sanitary reformers to take into consideration at the present time. Statistics prove that amongst the poor of this land fifty-three of every one hundred born die in infancy; and of those who reach manhood or womanhood (about one-third only of those born), are able only just to barely live. If, therefore, increased sanitation, better houses, better drainage, pure air, and less dirt, enable those who now die in early life to reach adult age, what will be the consequence? Nearly two-thirds more human beings would be thrown on the food-supply (which is now not sufficient for all); and, not having their due amount of food for maintaining themselves in health, would suffer untold misery. Famine would stalk through the land, with disease in its train, and the population of the country would be in a worse plight than before. It must not be supposed that I wish to decry sanitary measures: no, let them go on and prosper to their greatest extent. What I would rather wish to impress is this, the practice of early marriage combined with "conjugal prudence". The population would thus be limited to the amount of necessary subsistence, and this, along with the spread of a knowledge of the laws of sanitation and their practice, would banish disease, misery, war, poverty, and prostitution from our country. If, however, population be allowed to increase at even its present rate, all sanitary rules and regulations will ultimately prove abortive. It is a duty, therefore, of all who are interested in the well-being of their fellow-creatures to lay before them proper knowledge of the great "laws of population" as well as of sanitation.—I am, sir, yours, etc.,

Leeds, October 27th, 1877.

ARTHUR ALLBUTT, L.R.C.P. Edin.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

WHAT IS THE EFFECT OF MARRIAGE UPON EPILEPTICS?

SIR,—My experience is, that where the marriage rites are moderate the effect is salutary, often removing the disease; but if moderation be not observed, the results are disastrous. It is a delicate question, but the profession ought to face it resolutely.—I am, etc.,

A. A.

DR. G. K. POOLE (Upper Norwood) writes:—If your correspondent "Doubtful" will turn to page 763 of Flint's *Practice of Medicine* (Lea, Philadelphia), he will see the practice of advising marriage as a remedy for epilepsy strongly censured.

THE letter of Mr. H. Harden has been referred to the general manager.

THE THEORY OF TRAINING.

SIR,—The recent remarkable performances of Gale, Weston, and other pedestrians, has taken the profession by surprise, and given rise to various speculations as to the theory of training. We have been accustomed so long to associate great physical strength, agility, and endurance with large muscular development, well proportioned body, and graceful bearing, that we are not prepared to expect great endurance from men of small size, light weight, and slight muscular development. The careful investigations of Dr. Pavy during Weston's long walk led to no satisfactory results, chiefly because he directed his attention to the waste of nitrogenous tissue, and neglected the carbonaceous, on the supposition that physical force results from the destruction of muscular tissue. Mr. Gant, who has watched Gale constantly during his long walks, is so little satisfied with this commonly received theory, that he attributes Gale's feats to his indomitable will. In making this statement (BRITISH MEDICAL JOURNAL, November 10th), Mr. Gant probably means to imply that "where there is a will there is a way"; for, as a serious explanation of physical endurance, it cannot, I think, be entertained by any one. The will cannot create physical force; it can only excite and direct it. A man with a strong will may be able to exact from his muscles a larger amount of work in a given time than one with a feeble will; but the work will be limited by the consumption of the materials from which it is evolved, and of which, indeed, it is the exact equivalent. The law of equivalence in animal dynamics, as laid down by Dr. Mayer of Heilbronn, was explained with his usual lucidity by Professor Tyndall in his recent address at Birmingham. The muscle and fat of the body are derived from the food, and animal heat is derived from their combustion by combining with the oxygen admitted by the lungs. When the muscles are inactive, slow combustion goes on; and for every grain of carbon burnt, a perfectly definite amount of heat is produced. When the muscles contract, the combustion is quickened, and the additional heat is liberated in the muscles themselves. If external work be done, as in lifting a weight or hammering a nail, the heat is no longer developed in the body, but transferred to the weight lifted or the raised hammer, and is liberated when they fall, and the heat thus liberated is exactly equal to the combustion inside the body. Thus the body is an apparatus efficient beyond all others in transforming and distributing the energy with which it is supplied, but it possesses no creative power. A man weighing 150 lbs., by the consumption of a single grain of carbon can lift his body to a height of eight feet, and by the consumption of two ounces four drachms twenty grains, to a height of ten thousand feet. Mayer maintains, against Liebig and others, that the muscles in the main play the part of machinery, converting fat into the motive necessary to animal motion, and believed they held fast or let loose muscular energy as an engineer by the motion of his finger in opening or closing a valve liberates and controls the mechanical energy of a steam-engine. "These views" (which are very imperfectly stated for want of space) "are," says Professor Tyndall, "now universally entertained." Their application to explain the results of physical training is very obvious. If we admit, with Dr. Mayer, that the muscles can convert fat and other constituents of the blood into force (a view I entertained long before I was aware of Mayer's) without first assimilating them to their proper tissues, the bounds of the animal organism to generate force are widely extended beyond what could result from the self-destruction of the muscles or the exertion of the will. The limit to physical energy is to be found in exhaustion, or poisoning by imperfect secretion of waste products of the nervous structures. The feeling of fatigue only accompanies voluntary muscular actions; and, as John Hunter suggested long ago, it is probably in the mind and the nerves, but referred to the parts to which the latter are distributed. The stiffness which follows unusual muscular exertion is to be attributed to stretching of the fibrous tissues—the tendons, ligaments, and funes.

The whole theory of training is comprised in two words—sound health; and its practice should depend on an ample supply of food, good digestion, large chest capacity, free secretion, mature muscular development, and large trunk relatively to the size of the limbs. "High breeding," or "good blood," so essential an element in the training of racehorses, is due to the selection and hereditary transmission of qualities most favourable to physical endurance, and comprise, in addition to those favourable to sound wind and limb, economy of materials—small bones and tendons. Possibly Gale and Weston excel others in these particulars.—I am, etc.,

CHARLES ROBERTS.

2, Bolton Row, Piccadilly, November 20th, 1877.

S. A.—Sir James Page's Lectures have been republished in a volume by Longmans. Some of them appeared in this JOURNAL.

A QUESTION OF TREATMENT.

SIR,—Can any member of the Association relieve a suffering member by suggesting a remedy for the following distressing symptom, which has afflicted me for the last four or five months, making my days uncomfortable and my nights hideous? A burning, stinging, pricking, itching sensation at the right heel, and a little way up the tendo Achillis. This will come on suddenly and last for hours, and as suddenly depart. Unfortunately, it generally comes on at night, and prevents my sleeping without sedatives. Gentle friction with the hand seems to ease it, but electricity, cold, chloroform, opiates, aconite, belladonna, chloral, camphor, veratrum, carbolic acid, and huile de cade have all failed to give relief. Being a sufferer from neuralgia of the feet and legs, and ataxic symptoms, the effects of some nerve-pressure, due to syphilitic inoculation, contracted in the performance of professional duties years ago, I have applied also specific remedies—mercurials, iodine, and mercurio-iodides—without effect. Any suggestion from one who has met with this disturbance of sensation and been able to relieve it will be most thankfully received by yours,

SUFFERER.

A. B.—Registered practitioners changing their residences should communicate the change to the Registrar of the General Medical Council, at the office of the Council, 315, Oxford Street.

RECENT PREPARATIONS.

MR. WILLIAM MARTINDALE (Newcastle, Scotland) has prepared a remedy which, from the known anti-arthritis properties of salicylic acid, will probably be of great service in the treatment of rheumatism. It is only slightly soluble in water, and it is recommended that it be administered in the form of electuary, with syrup of ginger or orange, or in the form of a pill. Sulphide of calcium pills, varnished, offer a suitable form of administering this remedy, which has been much recommended in small doses for patients suffering from tubercular abscesses of glands, boils, etc. Olanodyne is a combination of the strong anodyne alkaloids, of which we have, however, no personal experience to relate. Of the nitrite of amyl capsules, which Mr. Martindale supplies encased in silk and cotton-wool, we have already spoken with approval, as being the safest and most convenient means of administering small doses of nitrite of amyl for inhalation.

The letters of Messrs. Alexander R. Dyer and T. L. Craister, who desire to become members, have been forwarded to the general manager, who will send them communications.

IN reply to the inquiries of "Countryman" in the JOURNAL of November 24th, respecting Dr. Sayre's treatment of spinal curvature, the following answers have been received.

1. Mr. W. J. TIVY (Dilwyn, Leominster) writes:—I have myself put up four cases within the last month with very good success, besides having seen and assisted in four others. My four cases were of Pott's disease; three of them were of a very aggravated form, with great deformity, and accompanied by much pain on moving. None of them suffered any pain during or after suspension and putting up, and at once expressed themselves greatly relieved, and able to walk better; one patient stating that she felt she had now got what she always wanted—viz., something to take off the weight of the head and shoulders. I have since seen them, and find that they are all straighter (one being two-and-a-half inches taller, and another one-and-a-quarter inches taller than before suspension and putting up), and that they suffer none of their former spinal pains, are able to eat better, and to take exercise with comfort. Two of the cases at which I assisted were of lateral curvature, and the benefit was most marked: in fact, I consider that these cases, with those of Pott's disease with slight deformity, are most benefited by this treatment. Not knowing where to procure Dr. Sayre's apparatus, I had one made for me at home (an ironmonger, saddler, and carpenter supplying each article separately). I had a series of five apparatuses made, and supplied by Messrs. Maw, Son, and Thompson. The great advantages of this treatment are the immediate relief afforded, the lightness of the appliance, and the ability to take exercise which it affords patients who otherwise would be compelled to recline a great deal, and thus lose the advantage of walking out of doors.

Dr. Sayre advocated in this country the employment of suspension and the plaster of Paris bandages, had many opportunities of testing such treatment. I have every reason to be satisfied. The advantages are, that the treatment does not require such close confinement to the recumbent posture as hitherto resorted to; at the same time, a certain amount of extension is kept up upon the vertebral column; and, also, in favourable weather, the treatment can be carried on in the open fresh air, which I consider essential towards maintaining the general health of children endowed with strumous diatheses. The apparatus in use at the Sydenham Children's Hospital was supplied by the Messrs. Arnold, surgical instrument makers, in Smithfield.

Eczema in Children.

MR. A. RAE (Stonehouse) suggests doses (say ten grains three times a day) of acetate of potash, dusting the parts night and morning with tannin, and keeping the bowels open with cooling laxatives—e.g., cream-of-tartar, or sulphate of magnesia and sena. In a case in which the eruption was on the brow, cheek, and chin, he gave about thirty grains of the acetate of potash three times daily. The patient was otherwise healthy lad, sixteen years of age. He had tried Fowler's solution in vain. The use of it was followed by conjunctivitis. He had also tried iron and dilute muriatic acid, with no better result; also ointment of oxide of zinc, first alone, and afterwards with tannin, in the proportion of an ounce of the former to a drachm of the latter. After the treatment by acetate of potash was adopted, progress was rapid and striking. The face is now perfectly whole, and the patient has resumed his usual occupation.

Mr. J. DIXON (Whitehaven) remarks that the treatment must be topical, for the relief of local irritation. The local treatment that he has always employed and found successful has been directed to the exclusion of air and the prevention of desiccation, thus alleviating local distress. The scabs that form from drying of the exudations are, perhaps, one great cause of keeping up the disease. For the purpose of maintaining constant moisture, he frequently employs a plan recommended by the late Professor Bennett. A piece of lint, saturated in a very weak alkaline solution (thirty grains of bicarbonate of soda to a pint of pure water), is applied to the part affected, and covered with oiled silk or gutta-percha tissue. The dressing is changed twice a day. This mode he has employed with universal success in adults. The only case in which he has used it in youth was in that of a girl thirteen years of age, where the disease involved the whole of the face: a cure was effected in about a fortnight. But in addition to the local treatment, the patient had three-minim doses of Fowler's solution thrice daily. Another form of local treatment that he employs is the use of a lotion consisting of oxide of zinc ninety grains, glycerine half a fluid ounce, water to eight fluid ounces. This to be applied twice daily, and the part to be covered by lint and gutta-percha tissue. Of internal remedies, arsenic in the form of Fowler's solution is given, either simply in water or in conjunction with other tonics and alteratives, as iron and iodide of potassium. He also in many cases gives cod-liver oil.

MR. ST. JOHN ACKERS.—The causes of accidental deafness omitted by the author of the above pamphlet, and referred to by our reviewer in our impression of October 24th, are—1. Inflammation of the membrane of the middle ear, resulting in considerable destruction of the membrane tympanum, or implicating the labyrinth. 2. Simple non-suppurative inflammation of the middle ear, resulting in such deposits and adhesions as to destroy the functions of the membranes and ossicles. 3. Inflammation of the labyrinth, resulting in suppuration, deposits, or thickening. 4. Certain cerebral lesions, under this head would be classed most of those cases which are commonly said to be due to "fits". 5. Syphilitic affections of the auditory apparatus, usually of the labyrinth, due to a congenital taint, which has not affected the organs until some time after birth.

MEDICAL EDUCATION.

SIR,—Will you be so good as to permit me to state briefly some points in the course of practical study which medical students undergo, in which it appears to me there is a deficiency of teaching. Every student should be a pupil for two years to a general practitioner. By it he would learn the art of dispensing, and would therefore know when drugs were correctly dispensed; he would learn the appearance and characters of drugs, the taste, smell, and appearance of mixtures, pills, powders, and lotions; the best combination of drugs; and his memory would be stored with many useful every-day receipts and appliances; he would learn minor surgery; he would acquire civil manners; he would learn obedience, and the relations between doctor and patient, and the behaviour of one doctor towards another. All this knowledge would be insensibly acquired, manners and character formed, and knowledge gained of the utmost value in after-life. When he goes to the public hospital, from the first day till he is qualified, he should never be allowed to shirk the deadhouse. He should be diligently hunted up, not bullied, but kept in hand. If less quick than his neighbours, he should be encouraged by teachers who themselves possess zeal, and have the faculty of making others feel they are in earnest, and not in haste to get through a given work. Every student in turn should write from dictation of the pathologist or his deputy the whole proceedings of the *post mortem* examination. By this a student would acquire the spelling of medical words and method in the conduct of a necropsy. In the second and third years, he should be allowed to dictate the proceedings under the direction of the pathologist: by this he would acquire confidence before his fellows, facility and aptness of expression. In the dissecting-room, third-year students should demonstrate to second and second to first-year students, under a directing agency. It is not the part of directing agents to run about a dissecting-room like students doing a bit of dissection here and a bit there. The demonstrator should direct and conduct only.

I venture to think that a student under such a course of treatment would be considerably benefited, and escape mistakes to which at present, without pupilage, he is liable.—I remain, sir, yours truly,

November 24th, 1877.

C. M. J.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The W. & K. Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; The Derby Mercury; The Preston Guardian; The Scarborough Express; The Jewish World; The Scotsman; The Cork Constitution; The Freeman's Journal; The Hampshire Post; The Somersetshire Herald; The Isle of Man Times; The Sussex Advertiser; The Herts Advertiser; The Manchester Guardian; The Evesham Journal; The Yorkshire Post; etc.

** We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. J. Marion Sims, Paris; Mr. T. Spencer Wells, London; Dr. E. H. Greenhow, London; Dr. H. Barnes, Carlisle; Dr. Thin, London; Dr. Wilson Fox, London; Dr. Tripe, London; Dr. J. D. Moore, Lancaster; Mr. J. H. Barnes, Liverpool; Mr. R. Garner, Stoke-upon-Trent; Dr. W. A. Raper, Great Wakering; Surgeon-General Maclean, Southampton; Mr. A. Pearce Gould, London; Our Glasgow Correspondent; Mr. A. Barron, Southampton; X.; Mr. Balmanno Squire, London; Dr. Noble, Manchester; Mr. J. I. Dobell, Charlton Kings; Dr. J. Wallace, Greenock; A Member, Bournemouth; Dr. W. Fairlie Clarke, Southborough; Mr. Richard Davy, London; Mr. H. Harden, St. Mawes; Our Paris Correspondent; Dr. Brabazon, Bath; Dr. Longmore, Woolston; Mr. Martin, London; The Secretary of the Harveian Society; Mr. F. W. Lowndes, Liverpool; Dr. F. J. Brown, Rochester; Mr. Jessop, Clifton; Dr. Crosskey, Lewes; Dr. Lindsay, Perth; Mr. Garraway, Faversham; Mr. W. J. Tivy, Dilwyn; An Associate; Dr. A. J. Coldstream, Leith; The Secretary of Apothecaries' Hall; Dr. A. K. Dyer, Sutton-in-Ashfield; Dr. Nankivell, Torquay; Dr. F. Warner, London; Dr. Thorburn, Manchester; Dr. Spencer Smyth, Forest Hill; W.D.; Dr. Goldie, Leeds; The Registrar-General of England; Mr. Husband, York; Mr. Kingzett, London; Mr. Lawson Tait, Birmingham; The Registrar-General of Ireland; Mr. Habgood, Eastbourne; Dr. Rabagliati, Bradford; Dr. Edis, London; Dr. Cornelius Fox, Chelmsford; Our Dublin Correspondent; Mr. H. Sewill, London; Mr. Roxburgh, Edinburgh; Dr. Reid, Newbiggin; Mr. G. Eastes, London; The Secretary of the Medical Society of London; M.R.C.S.; Dr. J. Milner Fothergill, London; Dr. Thomas Barlow, London; The Secretary of the Obstetrical Society; Mr. Christopher Heath, London; The Secretary of the Royal Microscopical Society; Dr. Joseph Bell, Edinburgh; The Secretary of the Pathological Society; Dr. R. Persé White, Dublin; Dr. J. W. Moore, Dublin; Mr. John J. Eberle, Easingwold; Dr. Seymour H. Munro, Nantwich; Dr. Howie, Liverpool; Dr. Grimshaw, Dublin; Our Edinburgh Correspondent; Dr. Prosser James, London; Dr. R. W. Batten, Gloucester; Mr. J. R. Upton; London; Dr. H. Jeaffreson, Wandsworth; Mr. Reginald Clarke, London; Dr. A. J. F. Russell, Workop; Dr. Leslie Maturin, Turmu Maguire; Dr. Laidlaw Purves, London; Messrs. Houghton and Co., New York; Mr. Visk, Ipswich; Dr. J. W. Galton, Anerley Road; Dr. G. Reddie, Wanstead; Dr. Poole, Norwood; Mr. Pugin Thornton, London; Dr. Joy, Tamworth; Dr. J. B. Sanderson, London; Dr. Mackey, Birmingham; Mr. J. W. Haines, Jarrow-on-Tyne; Mr. Cornell Price, London; Mr. Alfred Aspland, Dukinfield; Mr. Mercier, London; Dr. Bradbury, Cambridge; Dr. Joseph Rogers, London; etc.

REMARKS ON BATTEY'S OPERATION.

By J. MARION SIMS, M.D.

I.—INTRODUCTORY: DR. BATTEY'S CASES.

DR. EDWARD J. TILT was the first to call our attention specially to ovaritis, to point out its influence on the general health, and to lay down rules for its treatment. But, notwithstanding the additions he made to our knowledge on this subject, we constantly see cases of ovaritis, so-called, which baffle our best efforts and are hopelessly incurable. In some cases, we find continued ovarian pain and exacerbations of suffering at the menstrual epoch that are almost unbearable. Now and then, this ovarian trouble produces such violent disturbance of the vascular and nervous systems, that life is jeopardised. Occasionally, it terminates in epilepsy or insanity, and ultimately in death.

To my countryman, Dr. Robert Battey of Georgia, we are indebted for what light we now have on the serious consequences of what he terms an unrelieved menstrual molimen. In 1872, he first called our attention to it, pointed out its complications and dangers, and demonstrated a method of relief for it when otherwise incurable.

It is curious and interesting to trace the steps by which important discoveries have at different times been made in medicine. Now and then, the truth is stumbled upon; again it is reached empirically; but sometimes we reason it out. As an illustration of the latter process, the discovery of chloral by Liebreich is an excellent example. The investigations of Battey in connection with the question under consideration were pursued according to the inductive method, and his conclusions were arrived at by the careful study of a single case.

In 1865, Dr. Battey had under his professional care an unmarried lady twenty-one years old, who suffered most intensely during the menstrual epoch. She had complete amenorrhœa. She could not menstruate, simply because she had no uterus. Notwithstanding the absence of the uterus, each monthly effort was attended with such agony, with such vascular and nervous excitement, that she was, as it were, worn out with suffering, and she eventually died of mere nervous exhaustion. She died, as Battey thought, from the immediate effects of an unrelieved menstrual molimen.

With the history and termination of this case fresh in his mind, he began to reason thus: "I have never seen or heard of a death like this in a woman after the menopause. It seems that the sufferings and unfortunate termination of this case were due to an unrelieved menstrual molimen. There can be no menstrual molimen without ovulation. There is no ovulation after the menopause. Cannot the menopause be produced artificially? The removal of the ovaries will, of course, arrest ovulation, stop the menstrual molimen, and bring about the menopause. In other words, extirpation of the ovaries will produce artificial change of life, and this will cure the patient."

Such was his reasoning. The more he thought of it, the more logical it appeared to him, and he determined to put his theory to the test of experiment as soon as a suitable case presented itself. Some time after this, he saw another unmarried lady, aged 30, who had been a confirmed invalid for sixteen years, or during her whole menstrual life. She suffered from complete amenorrhœa, having had her menses but twice during all this time. Notwithstanding the non-appearance of the menses, the menstrual molimen was very severe, accompanied by headache, suffused face, and often with epileptiform convulsions that left her in a comatose state. During these paroxysms, she had repeated attacks of pulmonary congestion, followed by protracted cough. Ordinarily, these paroxysms were relieved in a measure by vicarious hæmorrhages, sometimes from the stomach, sometimes from the lungs, most frequently from the rectum, and occasionally from the nose.

She had repeatedly had pelvic cellulitis, terminating in abscess, and, on several occasions, in hæmatocele. Her attacks, recurring at intervals of five, six, and eight weeks, were always violent, and often seemed to threaten life.

Dr. Battey had this patient under observation and treatment for more than six years, and he exhausted the resources of his art without relieving her in the least degree. Coming to the conclusion at last that there was no hope of curing her, and that she must soon die un-

less he could arrest the menstrual molimen, he determined to remove the ovaries, with the view of bringing about change of life. His patient readily consented to the operation, fully understanding all its dangers. But he had no precedent for it. He then wrote to many of the leading obstetricians and gynaecologists of the country, stating his views, and asking their opinions on the subject. But he received no encouragement whatever from any of them. His patient was anxious, nay clamorous, for the operation, and he was obliged to perform it on his own responsibility, without a word of approval from any of his brethren. Indeed, the voice of the profession was against the operation then, is opposed to it now, and is likely to be so for many years to come.

In August 1872, Dr. Battey performed the operation of extirpating both ovaries in this case by the abdominal section. The pedicles were tied with silk ligatures cut short and dropped in the peritoneal cavity. Each ovary presented a recently ruptured Graafian vesicle, in one of which the blood had not yet coagulated, looking as if the ovum had just escaped. The progress of the case was slow. Septicæmia supervened, but was successfully combated with intraperitoneal antiseptic injections after the method of Peaslee. Convalescence was tedious, but the cure was complete. All the nervous phenomena, the convulsions and the cough, the pelvic inflammations, the abscesses, the hæmatoceles, etc., disappeared with the cessation of the menstrual molimen; then she rapidly gained flesh and strength, and she is now in good health.

In this instance, Dr. Battey fortunately proved the truth of his theory, and established a rule that may be followed in similar hopeless cases.

When Dr. Battey published his operation, I wondered that he selected the abdominal instead of the vaginal route for the removal of the ovaries. He has now performed this operation twelve times, twice by the abdominal and ten times by the vaginal section. He gives the following reasons for preferring the latter method.

1. The tissues cut through in the incision are thinner and less important than those of the abdominal wall.
2. With judicious management, air need not, and generally is not, admitted to the cavity of the abdomen, which is inevitable in the abdominal method.
3. A peritonitis set up in the pelvic membrane is much less likely to become general, and is much less grave in its consequences.
4. The drainage of serum from the *cul-de-sac* is prompt and continuous.
5. With care, there is no interference with the mass of the intestines.
6. With properly educated touch, the ovaries are reached with greater facility, and they are brought into view with less strain upon the broad ligaments.
7. These combined advantages render the vaginal method less dangerous to the life of the patient.

As Battey's experience forms the basis of all I have to say on this subject, it will be appropriate to give here a brief synopsis of his cases and results. As his first case has already been detailed, I shall begin with his second, and give the remainder *seriatim*.

CASE II, aged 35, married; had one child five years old. She had bad health ever since her confinement five years ago. There was persistent neuralgia of the left ovary. The ovary was somewhat enlarged and always painful. The pain was aggravated by touch. All treatment was unavailing. Life was miserable. The left ovary was removed by vaginal incision (1873); the pedicle was tied, the ligature hanging from the vagina; there was cystic degeneration of the ovary. Recovery from operation was rapid, and there was great relief for a time. But soon the left ovary began to enlarge, and became as painful as was the right before its removal. The result was, that she was not improved. She was to undergo a second operation for the removal of the remaining ovary.

CASE III, aged 38, married; three children, the youngest nine years old. She had been an invalid ever since her last labour. She had endometritis and continuous ovarialgia. Insanity was threatened. Both ovaries were removed (1874) by vaginal incision. The *ovarium* was used; no ligature was applied; no suture. Recovery was rapid. The cure was perfect and permanent.

CASE IV, aged 24, married two years; sterile; had been bedridden two years. She had excessive ovarialgia, aggravated by menstruation or exertion. She took morphine in large quantities to relieve the ovarian pains. The left ovary was removed (May 1875) by vaginal incision. The ovary was bound down by adhesions, which were broken down with the finger-nail and removed piecemeal. Recovery was tedious. She was somewhat relieved, but not cured. She still suffered so much that the operation was to be repeated for the removal of the remaining ovary. Result: not improved.

CASE V, aged 35, married; sterile. She had been invalid and bedridden for many years, and had dysmenorrhœa. Ovarian pains were unceasing. The right ovary was very tender on pressure. Coccygodynia was present. The right ovary was removed (May 1875) by the vaginal incision. The pedicle was ligated. Recovery from the operation was rapid. Improvement was slight. The pain recurred in the left ovary, which was removed by a subsequent operation. The result was unsatisfactory; not improved.

CASE VI, aged 30, married; four children, the youngest six years old. She had been invalid ever since her last confinement. She had ovarian dysmenorrhœa and constant ovarian pains for six years, and was the subject of morphinism. The mind was unbalanced, threatening insanity. Both ovaries were removed (1875) by the vaginal incision; the pedicles were ligated, and the ligatures brought out by the vagina. All went on well till the ninth day, when she was taken suddenly with pain in the abdomen, and she died of peritonitis in twenty-four hours afterwards. *Post mortem* examination discovered an abscess round the stump of the right ligament (and ligature), which, bursting into the peritoneal cavity, produced the peritonitis.

CASE VII, aged 25, single, had severe dysmenorrhœa from her first menstruation at the age of 14. She had had ovarian pains all the time. She had been bedridden for four months. Her nervous system was completely shattered. She took morphia daily in large quantities, also sixty grains of chloral every night. Both ovaries were removed (1875) by the vaginal incision. The pedicles were treated by the *écraseur*. Convalescence was rapid. The cure was complete and permanent.

CASE VIII, aged 28, married; one child eleven years old. She had been invalid eleven years, ever since the birth of her child. She had metritis, pelvic cellulitis, and pelvic abscesses. The uterus was irritable, hypertrophied, fixed in the pelvis by effused organised lymph. She had continued ovarian pains. The left ovary was enlarged and very tender on pressure. Both ovaries were removed (1875) by the vaginal incision. A small hæmatocele in Douglas's *cul-de-sac* was opened and cut through. The ovaries were found to be bound down by adhesions, and were removed with great difficulty. The *écraseur* was used. The ovaries were not removed in their entirety. The operation was unsatisfactory. Convalescence was very slow, and was accompanied with pelvic inflammation and pelvic abscesses. The result was no improvement whatever.

CASE IX, aged 35, married; sterile. This is the same already described as Case V, in which the right ovary was removed by vaginal incision three or four months previously, without improvement. The left was now removed by vaginal incision. The previous operation was followed by pelvic inflammation. The ovary was bound down by adhesions that did not exist at the previous operation. It was broken down by the finger and removed piecemeal. The operation was unsatisfactory. She recovered rapidly from it; but the result was no improvement. Dr. Richardson subsequently performed Nott's operation of excision of the coccyx for the coccygodynia, which was not at all relieved by the removal of the ovaries.

CASE X, aged 29, single. She had been invalid for many years from functional heart-trouble. She had ovarian dysmenorrhœa. Ovarian pains were persistent. Her mind was impaired by long suffering. Both ovaries were removed by the vaginal incision (1876). The *écraseur* was used. Peritonitis followed, and death occurred on the third day. No *post mortem* examination was made.

CASE XI, aged 34, married; one child, still-born, fourteen years ago. The labour was tedious; the forceps was applied. Sloughing followed, then total atresia of the vagina. She never menstruated since delivery, and had been invalid ever since. She had several operations for atresia, all of which failed. Her general health was completely broken down. She had dreadful suffering every month, with unrelieved menstrual molimen and its attendant symptoms. The operation was performed by abdominal incision, because atresia vaginae prevented the vaginal. Both ovaries were bound down by adhesions, but were liberated and removed entire. The *écraseur* was used. Both ovaries were of normal size; the left showed a Graafian vesicle recently ruptured. Recovery from the effects of the operation was rapid. She was cured completely and permanently.

CASE XII, aged 22, married four years; sterile. She had had bad health for six or eight years; dysmenorrhœa, pelvic and ovarian pains, worse in the left ovary, and epileptic convulsions. Operation was done by vaginal incision (1877). Both ovaries were bound down by adhesions; the right was partially removed, the left wholly. The *écraseur* was used. The operation was unsatisfactory. She was not improved. Dr. Battey thinks of repeating the operation by abdominal section to remove the remaining portion of the right ovary.

[To be continued.]

THE IMPORTANCE OF PRESERVING A VACUUM IN THE PLEURAL CAVITY AFTER PARACENTESIS OF THE THORAX AND THE INSERTION OF THE DRAINAGE-TUBE;

WITH DESCRIPTION OF A METHOD BY WHICH CONTINUOUS ASPIRATION MAY BE EFFECTED.*

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THERE is one important principle on which, it will be allowed, the successful treatment of empyema and hydrothorax depends in those cases which have required the insertion of the drainage-tube, or where any other plan for preserving an opening into the pleural cavity has been adopted. If we consider the effect of making an opening by which air is admitted into the pleural cavity, we perceive that the expansion of the lung is more or less diminished so long as this opening remains patent. We also perceive that, if the opening be of such dimensions that the air which passes into the pleural cavity is greater in volume than that which passes into the lung in inspiration, there is practically no expansion of the lung and its functions are destroyed. It is evident that, in order to obtain perfect expansion of the healthy lung, there must be no communication between the pleural cavity and the external atmosphere, for the effect produced even by a small opening is very considerable. If we wished to ascertain with accuracy the extent to which the expansion of the lung would be diminished by inserting a tube into the pleural cavity, we should have to consider two important points, in addition to those which would enter into the question if the pleural cavities were independent of one another, and the minute air-tubes were non-elastic. By admitting air into one pleural cavity, we disturb the equilibrium which exists between them when both are closed. We also liberate the force which the tissue of the lung possesses, in virtue of its elastic character, on the side from which atmospheric pressure is removed.

Supposing that the tube which is inserted be very small, in comparison with the aperture of the glottis, the elasticity of the lung will produce such diminution in its volume as to admit a certain quantity of air into the pleural cavity, which must remain, unaffected by the movements of respiration. The resistance offered by a very small tube would be such as to produce but little effect, compared with that which would be produced by a tube of such diameter as that usually employed in cases of paracentesis of the thorax.

When we observe that the tube used for laryngotomy is of sufficient diameter to admit the air necessary for ordinary respiration, it is evident that the drainage-tube will allow such an amount of air to pass through it as almost, if not quite, to annul the forces exerted on the lung by the various muscles of respiration. These considerations enable us to perceive how important it must be to bring the force of atmospheric pressure to bear upon the lung, when it has been compressed by pleural fluid; and we discover the objections which present themselves to the method of treatment of empyema by the insertion of the drainage-tube. We also perceive what may be urged against the method of treatment with the aspirator, the most important of which is the too brief duration of the force exerted upon the pulmonary tissue. We see what advantages belong to both methods of treatment, and some plan, combining a permanent opening for the escape of fluid with the power exerted by the aspirator, suggests itself as reasonable and consistent; and for such a plan I propose the term "continuous aspiration".

The apparatus constructed for this purpose consists of two parts, one of which is attached to the thorax, so as to cover the orifice of the drainage-tube; the second being connected with the first, and used for the purposes of exhaustion. The former may be made of ivory or India-rubber, in the form of a small hemispherical cup, with a broad grooved margin or phlange to obtain adhesion. The second part is a double-valved ball of caoutchouc, of considerable thickness and elasticity, by which the cup may be exhausted and fluid removed.

The amount of atmospheric pressure which may be brought to bear upon the condensed lung will depend upon the expansile power of the exhauster. In the earlier experiments which were made, one of the self-acting elastic cups used for cupping was employed. Subsequently, an exhausting syringe was attached to it; and finally, the arrangement constructed by Mr. Banks for Messrs. Maw, Son, and Thompson.

A suggestion of my friend Mr. Napier, to employ the respiratory movements of the lowest part of the thorax as an exhausting power, I

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

hope will prove successful. In the apparatus which is exhibited by Messrs. Maw and Co. the ball-exhauster is intended to be worked by hand-pressure.

It is almost unnecessary to point out that the pathological condition of the lung must determine the amount of pressure which may be exerted. Practically it will be found that the exhaustion of the pleural cavity may be carried much further than would be supposed possible without producing any sense of tension or discomfort, and, provided that the surface of the thorax is unaffected by the pressure of the cup, the apparatus can be worn without difficulty or constraint.

There are other uses to which this apparatus may be applied, in conjunction with the single drainage-tube: such as large abscesses of the abdomen, etc. I have omitted any reference to the various pathological conditions which are met with in empyema, and have avoided any depreciatory remarks on the ordinary surgical treatment of the disease. A careful consideration of several *post mortem* examinations, and the satisfactory results obtained in the cases of children in which I have used this method of treatment, leads me to introduce it at a meeting of the Association when the subject of paracentesis is to be especially discussed.

ON THE NATURAL HISTORY AND TREATMENT OF PLEURITIC EFFUSION.*

By JAMES F. GOODHART, M.D.,

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THE question of the treatment of pleuritic effusion is so wrapped up in that of the natural history of pleurisy, that no apology is needed for bringing forward some figures bearing upon that point. The time at my disposal will, therefore, be chiefly taken up in so doing. The material is derived from the clinical records of Guy's Hospital for the last ten years; from those of the Evelina Hospital for Children for the last eight years; and from notes of my own out-patients at the latter institution. A total number of cases of pleurisy has been thus collected, amounting to three hundred and fifty-two. This is a large number, though it will be subsequently seen that, in reference to the operation of paracentesis, towards which my observations will be chiefly directed, it is not sufficient by any means for the purpose of settling the question of the treatment of pleurisy. It will, however, form a contribution towards that end, valuable because it is derived from an examination of all the cases admitted into our medical wards as cases of uncomplicated pleurisy. It is often, it hardly needs remark, difficult to say whether pleurisy is dependent upon some primary lung-disease or not, and some cases are of necessity included which were due to such an old-standing disease; but, as far as possible, any cases in which the history gave a fair indication of its presence have been excluded.

Of the whole number of cases,

Those in which there was evidence of lymph only amounted to	73
Those in which there was evidence of fluid	265
Cases of double and diaphragmatic inflammation	14

352

The 73 cases of plastic pleurisy need not detain us long: 39 were on the right side, 34 on the left; and the course of the disease appears to have been much the same on either side. The sex, and longest, shortest, and average duration of illness on the two sides are shown in the following table:

	Right.	Left.
Sex { Males	25	28
{ Females	14	9
Longest period of illness	13½ weeks.	13 weeks.
Shortest	8 days.	8 days.
Average duration	6 weeks.	6½ weeks.

It may not at first sight be apparent what these details of dry pleurisy have to do with pleuritic effusion. They are given to show—a point that will come out better presently—how far the duration of illness, calculated from the onset of the disease to the discharge from the hospital, is lengthened by the absence or presence of effusion, slight, moderate, or extreme in amount. They also show that neither side has much advantage over the other in the duration of pleurisy, and probably not much in fatality.

The ages of attack, represented in decades, stand thus:

	Right.	Left.	Total.
Under 10	3	4	7
10 to 20	1	5	6
20 to 30	11	11	21
30 to 40	8	6	14
40 to 50	7	5	12
50 to 60	2	1	3
60 to 70	2	2	4
70 to 80	1	0	1
Not stated	2	1	3
	37	34	71

The thirty-nine cases on the right side show one death, a female child aged 2½, from extensive pericarditis with the pleurisy. One case, lasting thirteen weeks and a half, left with some falling in of the apex of the thorax—a point of very little significance in the prognosis in children, but perhaps of more serious import at the time of life at which it occurred in this instance, viz., nineteen years; and a man aged 28 was subsequently admitted with phthisis. On the left side, one of the patients was readmitted after eight months, for pain in the side and impaired respiration.

According to these figures, males appear to be attacked more than twice as often as females.

The temperatures recorded do not often show any high elevation. Many of them were normal: those not so, averaged 101 to 102 deg.; two rose to 104 and 105 deg.

In the remaining 265 cases, fluid formed; of these I shall speak in two groups, as serous and purulent. Serous effusion was present in the chest in 188 cases; 99 times on the right side, 89 on the left. Tabulated, they stand as follows:

	Right.	Left.
Sex { Male	82	62
{ Female	17	27
Longest period of illness	32 weeks.	61 weeks.
Shortest	3 weeks.	2 weeks.
Average, with slight effusion	9 weeks.	17 days.*
" moderate effusion	11 weeks.	8½ weeks.
" considerable or extreme effusion.	11½ weeks.	11½ weeks.

Thus contrasted with the former table of cases in which there was no effusion, this shows that the duration of the illness is somewhat in proportion to the amount of fluid present: when none was present, the average duration was six weeks; when a slight amount, nine weeks; when a moderate amount, eight and a half to eleven weeks; when much was present, eleven weeks and a half. Again, there is a great preponderance of males affected:

Age.	Right.	Left.	Total.
Under 10	20	23	43
10 to 20	22	14	39
20 to 30	20	26	46
30 to 40	13	14	27
40 to 50	16	5	21
50 to 60	3	5	8
60 to 70	2	2	4
Not stated	3	2	5
	99	89	188

As to the treatment of these cases and the results which followed, I have to say that paracentesis was performed on seventeen patients. The others were all treated either by counterirritation, the internal administration of iodide of potassium and diuretics, or by the restriction of fluid diet.

Taking the results as a whole first of all, and leaving the special consideration of those cases which were tapped till afterwards, we find that death occurred eleven times; a bad result thirty times. Forty-four disappeared from view in an ameliorated condition, but by no means well. The remainder, 103 cases, left well. Of those which are classed as relieved, it is but fair to state that the majority were far advanced towards recovery, but they left the hospital with some fluid still present.

Contrasting the affection on the two sides of the chest, we find—

	Right.	Left.
Deaths	5	5
Bad results	14	14
Relief	24	20
Well	57	50

This is in favour of disease on the left side. Paracentesis was performed eight times on the right side, nine times on the left.

It will now be necessary to go a little more into detail concerning those that died, those that did badly, and those that were tapped.

Of those that died, the following additional facts may be recorded.

1. A female child, a year and a half old, died after the incision of an empyema, which formed after twice removing serum from the chest by the aspirator. No other disease was found *post mortem*.

* Only two cases.

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

† This excludes one case lasting thirty-four weeks, a time much out of proportion to all the other cases, and due to a previous cough, which could not be distinctly separated in time from the pleuritic attack.

2. A male adult had been very ill for five weeks with pain in the side, the dulness and evidence of fluid only reaching the angle of the scapula. Death took place, after 7½ months' illness, from cerebral abscess associated with two abscesses in the right lung and chronic pleurisy on the left side. The lung on this side was in a peculiar condition. The pleura was not thickened at the apex, but the lung was riddled with smooth thin-walled cavities, communicating with each other and the bronchial tubes. Lower down, the pleura was one-third of an inch thick, the lung dense and broken up into smooth-walled cavities, but nothing that could be called tubercular was present. Now, in this case, two interpretations may be put upon the facts. It may be said that the pleurisy was dependent upon chronic phthisis; and in that case, supposing there had been signs of sufficient fluid, which there were not, it would have been of very little use to tap; or it may be said that the cavities described were dilated tubes dependent upon changes which ensued as the result of compression of part of the lung, and that the abscesses in the other lung were secondary to such compression, while the cerebral abscess followed at still later date. This is the view I myself am inclined to adopt; and, in that case, it may be a question whether early paracentesis might not have averted the ill result.

3. A man aged 20 died after six weeks' illness resulting from an injury to the chest. The fluid extended upwards to the sixth rib. The *post mortem* appearances were—compressed lung, chronic pneumonia, gangrene of the lung, and pneumothorax, with recent pleurisy on the other side.

This also is a case which may have been due to the pneumonia, or vice versa.

4. A girl aged 21, who had been ill three weeks, was admitted with extreme effusion. She was tapped at once; the other lung became oedematous, and she died within two days of her admission. The *post mortem* examination revealed simple pleurisy of the left side, the cavity still containing much fluid, and the lung being collapsed and airless, notwithstanding that fifty-five ounces had been withdrawn only about twenty-four hours before the patient's death. The lungs were in a peculiarly solid state on both sides, not pneumonic, but less bulky and less crepitant than normal. The bronchial tubes were red and velvety in the right lung. This was a case of acute oedema.

5. A boy aged 6 was suddenly taken with sickness and pain in the head. He died from tubercular meningitis and peritonitis, with his left chest full of fluid. Tapping would, of course, have done no good in this case beyond prolonging life for a few hours or days.

The other deaths were—one of extreme pleuritic effusion with chronic Bright's disease; one of double pleurisy with fluid on one side, pericarditis, and peritonitis; two of acute pleurisy with phthisis and peritoneal effusion; one of tubercular pleurisy and pulmonary embolism; and one of bronchitis with effusion.

Thus, of the whole number of deaths, only five are to be attributed directly to the effusion; in other words, only five could possibly have been prevented by tapping. The actual rate of mortality on the whole number of cases, not excluding any, is rather less than 6 per cent.; but the deduction of the six cases dying from other causes reduces this to the very small percentage of 2.6.

It may even be said, by those who are not favourable to paracentesis, that a still further reduction in the death-rate ought to be made, seeing that of the five deaths attributed to the pleurisy, the only two quite uncomplicated cases were tapped. In one, a child a year and a half old, the left pleura was aspirated twice, when the formation of offensive pus necessitated incision. The other died from oedema of the lungs. So much for the deaths. Thirty other cases gave a bad result, and I had drawn out a table giving some details of each, but time forbids my saying more than this, that the bad results include six cases which had, in all probability, some chronic pre-existing lung-disease. Four others were cases of intractable pleurisy in children, a condition which, in my experience, has almost always eventually been found to be purulent. Then, all cases are included which left the hospital with any considerable amount either of fluid in the chest or dulness and deficient respiration. (Dulness alone has not been considered sufficient evidence of the failure of the treatment, provided that the respiratory murmur was good.) It is probable that several of these recovered after they disappeared from view. If we take the whole number, 30, and add to that 11 deaths, we have 41 cases doing badly in a total of 188, or 21.8 per cent. But deducting, as I think we should do, at least the 10 cases just noted, 6 of old lung-disease, and 4 which were probably purulent effusion, and 6 of the 11 deaths for reasons previously given, we get a bad result in 13 per cent.

The paracentesis cases have not been excluded, except in so far as the operation was performed in any of the excepted cases. The recoveries give a percentage of 54.8 per cent. We will tabulate these

results, that they may be the better compared with those which follow the subjoined table of the results of the operation of paracentesis. (We may discard the fractions.)

Deaths	On all cases.	After counter-irritation.
Bad results (including deaths)	21.8	13
Recoveries	54.8	54.8
Relief	33	33

Table of Cases of Paracentesis.

No.	Sex.	Age.	Side.	Duration of Illness.	Operation.	Result.
1	M.	43	R.	20 weeks	Fluid withdrawn at result	Fluid withdrawn
2	M.	45	R.	1	Fluid withdrawn three times, 12, 10, and 10 ozs.	Absolute dulness below 4th rib; respiratory murmur above; lost at base
3	M.	25	R.	11	Aspiration of 12 ozs. on the 26th day of illness	Death from tubercular pleurisy & embolism
4	M.	43	R.	More than 7 weeks; exact duration uncertain	16½ ozs. withdrawn by a fine trocar	Probable phthisis. He died soon after leaving the hospital
5	M.	5	R.	6 or 7 weeks	Aspiration of 12 ozs. on 2nd day after admission	Well
6	M.	11	R.	13 weeks	Aspiration of 22 ozs.	Well; slight dulness
7	F.	11	R.	6	Aspiration of 12½ ozs.	Slight dulness; chest flattening; respiration good
8	F.	24	R.	12	Paracentesis at 12th rib	Left the hospital with all the signs of much fluid present; but now, 3½ years later, she is quite well, and there is no trace of the slightest subclavicular flattening
9	M.	2	L.	7 or more weeks	Aspiration of 13 ozs. on 2nd day	Chest refilled; but he recovered
10	F.	11	L.	7	Aspiration; no result	Fluid present; fluctuation and dulness still present
11	M.	11	L.	7 or more weeks	Trocar used; no result	Very slow subsidence of fluid
12	F.	11	L.	20 weeks	Aspiration of 12 ozs.	Evidence of fluid below
13	F.	14	L.	3	Aspiration of 12 ozs. on 2nd day	Bad resonance; respiration good
14	M.	10	L.	11	Paracentesis twice in 4th week; no fluid reached either time	Slow retraction of the chest
15	F.	11	L.	11	Paracentesis at end of 11th week	Fluid present; but now, 3½ years later, she is quite well, and there is no trace of the slightest subclavicular flattening
16	M.	11	L.	5	Aspiration of 12 ozs. on 10th day	Well
17	F.	11	L.	3	Aspiration twice, the 1st later than 3rd week, 6 ozs.	Effusion became purulent; death in six weeks

Paracentesis was performed in seventeen cases in all with these results. In no fewer than five no fluid was withdrawn. Two of these did badly; the other three ran a rather long course, but recovered. In two, the operation cannot be said to have bettered the patients in any material way, for they left with much fluid in the chest. Six others did well; one of them, however, refilled after paracentesis, and the fluid subsided under the use of counterirritation. Four died: one from the formation of an empyema after the aspiration; two of tubercular disease; one of oedema of the lung. These figures give a percentage of recoveries of 53, a percentage of deaths 24; a death-rate much higher, and a recovery-rate nearly the same as on all cases taken together. The average duration of those that did well was nine weeks. This, with a chest full of fluid, is certainly a quick recovery, for it will be remembered that eleven or twelve weeks is about the average for any case with a considerable amount of fluid in the chest. But it must be borne in mind that the ages of these six patients were as follow—5, 3, 11, 19½, 6; five out of six children, and three of these quite acute cases, without any remarkably urgent symptoms.

I should have preferred to leave these figures as they stand, a contribution towards the natural history of pleurisy, and to have drawn no conclusions from them as to the merits of the treatment by paracentesis. It is obvious that the number of cases, though large, is not sufficient to form any reliable opinion. But the purposes of discussion will best be served by giving, by way of a summary, a provisional opinion; merely, however, as a resting-point for action till further light shall come.

1. It seems that the duration of the illness extends somewhat in proportion to the amount of fluid in the chest. It might at first sight appear that, if this be so, a strong argument is thereby afforded in favour of early paracentesis. But a moment's consideration will show that the amount

of fluid may be important or not, according as it is the index which depicts an intractable or severe form of disease. Trousseau makes this remark, and there is indeed every reason for thinking that this is the case, because these cases show, and the experience of every one will add to them, examples of rapid absorption of even extreme effusions. A quantity of fluid, therefore, *per se*, is no bar to a quick recovery.

2. The cases which gave the most satisfactory results by paracentesis were recent cases, and there is no evidence that I can see which goes to show that they would not have done equally well if they had not been tapped.

3. If, as I suppose, the chronic cases owe their chronicity not altogether or chiefly to the presence of fluid, their treatment may be expected to yield no definitely good results by the withdrawal of the fluid; and this does seem to be the case in several instances.

The late Dr. Anstie thought and wrote that the early evacuation of serous effusions averted a subsequent development of tubercle. I do not doubt that a person otherwise unhealthy, with pleuritic effusion, is, *pro tanto*, in a worse condition, and more likely to go wrong in many ways; but I do not see there is any evidence to show that a tuberculous often originates in the focus of inflammation embraced by a simple pleurisy. There may be, and I think is, some evidence of its starting from an empyema. But, supposing Dr. Anstie to have been right in his assertion, it would not hold with regard to these cases; for it would surely be inverting the probable sequence of things to suppose that, with a history or the changes of old phthisis, the pleurisy was the primary disease. In the only case in which the tubercular disease was in any sense recent, paracentesis was performed on the eighteenth day, comparatively early in the disease; and I do not at all think it likely that the tubercular outbreak was secondary.

As far, then, as one can form an opinion, I do not think there is any sufficient evidence in favour of the necessity or utility of paracentesis as a remedial agent in any large number of cases of simple serous pleuritic effusion; and, if one may venture to differ from so high an authority, I would say that I do not yet feel disposed to agree with Dr. Anstie in his dictum that paracentesis "must become an everyday remedy for cases where an effusion, purulent or not (the italics are my own), lingers for more than a very limited period". The remedies which he almost despises, as counterirritants and diuretics, I still believe in. It was in cases of effusion with great displacement of the viscera, and the patient not improving, or going from bad to worse, that Trousseau obtained such good results by paracentesis; and for such, or for the relief of any urgent symptoms, or to avert impending death, the uses of the operation are so obvious and so imperatively called for as to be quite beyond question.

I must now turn from cases of serous effusion to those in which the chest contained pus. Of these, there are seventy-seven; forty-six males and thirty-one females. Thirty-four of them died. Of the forty-three others, all that can be said of twenty-seven is that they did not die. The result was bad in at least that number; and several of them were still discharging pus daily when last seen. It is true, Dr. Anstie says, that a single fistulous opening is merely to be looked upon as an unpleasant fact which will disappear in a certain number of months or years, but there is a wonderful background of amyloid degeneration and chronic disease of the lung, which supervene sufficiently often, to justify a discharging fistula in ranking as a bad result. The actual mortality of empyema thus reaches 44 per cent., and a bad result occurred in 79 per cent. The cases are apportioned to the different ages as follows:

	Fatal.	Non-Fatal.	Total.
15 and under	17	24	41
15 to 20	3	9	12
20 to 30	9	7	16
30 to 40	5	3	8
	34	43	77

The left side was affected in fifty cases, the right in the remainder: twenty-seven.* Of the fatal cases, seventeen were on the left side, and fifteen on the right side; one was double. The mortality is considerably higher by these figures on the right side, 59 per cent., than on the left, where it is only 36 per cent. Dividing the cases into two groups, of those under and those above twenty, the mortality is 38 per cent. in the former, 58 per cent. in the latter. Children are said to do better than adults, not only because the disease is more often uncomplicated, but from their more favourable age. But I do not think the lessened risk under twenty applies to children under two or three years of age. I have seen ten cases at two years and under, and eight of these have died. The youngest under my own care was four and a half months old. The cause of death, when not due directly to the

empyema or the discharge therefrom, has been tubercle in six cases, or about 18 per cent. of all the deaths; other lung disease in seven cases; double pleurisy in three cases; pericarditis, peritonitis, cerebral abscess, renal disease, or diarrhoea in seven others. The average duration of the illness, dating from its onset to discharge from the hospital, was in thirty-eight cases in which it was possible in some way to fix it, twenty-six weeks. This is sufficient to show how much more severe is *empyema* than *serous* effusion in the pleura, although from the fact that several of the cases left off treatment when the side was still discharging, this period is under the mark. Six cases lasted under ten weeks, fourteen under twenty weeks, and the rest various periods over this. The average duration of the fatal cases was six weeks.

Now with reference to the value of the various forms of treatment in empyema, it will be well to note at the onset the objection that the very existence of pus in the chest is in many cases one of the strongest arguments in favour of early tapping in *serous* effusions. There is no doubt that empyemata seldom come under treatment in hospital practice for some weeks after the onset of the illness, and it is quite possible that a serous effusion may have become in this time converted into a purulent one. But I doubt whether it is often so, because, first, the majority of these cases occur in children in whom there appears to be a liability on the part of the pleura to form pus; secondly, pus can be shown to form very rapidly; in one case I have seen a chest probably filled with pus in four days; and, lastly, the clinical symptoms of its formation, if looked for, are generally distinctive enough. Putting aside this preliminary objection as less generally applicable to empyema than has been supposed, the treatment of pus in the chest may be best considered under the following heads: 1. Cases which do not open externally; 2. Cases treated by aspiration; 3. Cases treated by paracentesis; 4. Cases treated by simple drainage; 5. Cases treated by subaqueous drainage; 6. Cases which open externally spontaneously; 7. Cases which are incised at the seat of election. The seventy-seven cases are apportioned to the various methods thus:

	Recoveries.	Deaths.
1. Not opening externally	4	11
2. Aspiration	0	2
3. Paracentesis	3	0
4. Drainage (simple)	18	1
5. " (subaqueous)	13	7
6. Spontaneously opening	11	7
7. Incision	6	—
	43	34

To take these in order, there is no doubt that an empyema occasionally recovers without any external aperture. This is proved by the clinical symptoms of many cases, notes of some of which are before me, and also by *post mortem* evidence; but it is, I think, very doubtful whether such cases are not local abscesses in a part of the pleura and not general or full effusions. I doubt whether the latter condition recovers unaided, except by opening externally or through the lung. The figures just given do not help much towards a decision of what cases may be left to nature or what is the risk run in so doing, for the fifteen cases (four recoveries and eleven deaths) under the head of cases not opening externally include dissimilars. Two of the four cases which recovered were by no means acute cases. The eleven fatal cases, on the other hand, include five of acute empyema, involving the whole of one pleural cavity, two of lung disease in addition to the pus in the cavity, one of tuberculosis, and one of pyæmia. But did time permit, several of the cases would show that, if empyema do occasionally get well spontaneously, there is, nevertheless, considerable risk, both immediate and remote, in leaving it to take its chance; immediate, because the lung is in considerable risk of undergoing secondary inflammatory changes; remote, because many recent observations go to show that local foci of chronic suppuration are liable to spread tuberculosis. Nor is this all; my cases include some which show that the risk of fever and septicæmia, which attaches to pus in other regions, is not absent here; and two cases, at least, have died, as far as microscopic appearances can decide the question, from no other cause than the presence of a by no means extreme amount of pus in one pleural cavity.

At this point, then, we shift our ground from the consideration, which has occupied us hitherto, both for serous and purulent effusions, of whether an operation is necessary for their cure, to the discussion of what operation is the best. In the case of pus in the chest, I believe that some form or other of surgical interference is generally necessary.

Simple aspiration has been used eight times. Three of the cases ultimately did well; but in one, incision was necessary; in another, a counter-opening and drainage; in a third, syphon-drainage and in-

* This is just the reverse of serous effusions, in which the right side showed a small preponderance. I should doubt whether, in a large number of cases, one side is affected much more often than the other.

These details are abridged from a paper on Empyema in the *Gen. Pract. Rev. Ann.*, 1877.

cision. Five cases died; two without any other measures being adopted, and three after subsequent incision. It is important to add, that of the five deaths two were cases of *serous* effusion at first. In all the cases, therefore, aspiration failed to cure. Aspiration is exceedingly useful in some cases as a means of temporary relief; in others, as a means of permanent benefit by allowing of contraction of the abscess sac and expansion of the lung; in all cases, for purposes of exploration; but I have seen no case of cure through its agency alone. At the same time, one cannot ignore the fact that others have obtained much success and cure by means of it. This has notably been the case with Dr. Bowditch of Boston. Notwithstanding, I wish to say that aspiration is not so successful, or simple, or harmless, as some would have us imagine; at least, this is so in its application to children. The pus is often very thick and will not run; at others, there are loculi formed by adhesions and the chest is not drained; at others, undue suction is exercised upon the lung, and air is drawn into the pleura through the weakened pulmonary wall. It is possible that in the latter way, the operation has helped to convert a serous into a purulent effusion: a matter of no slight importance.

Simple paracentesis was practised in eleven cases. Eight required subsequent drainage by other means; in another, a fistula formed; and one left the hospital with fluid still in the pleura. Four of the cases died; one of tuberculosis, one of diarrhoea (? amyloid disease), one of pneumonia, and the cause of death in one is not stated. This is an operation which ranks with aspiration in its action, and some think highly of it as a curative agent, but I should say the same with regard to it as to the other: it is but seldom that a *cure* results. Now this is one of the points to which I would especially direct the attention of the meeting, and I make this somewhat dogmatic statement because I wish to bring out, if there be such, figures which tend in any way to show that simple tapping cures empyema sufficiently often to allow its use in the face of certain risks. Some say that though not likely to be followed by a cure in adults, simple paracentesis and aspiration are successful in childhood. That statement was made in one of the medical journals the other day. Will any one give us some facts on this point? I must confess to being biassed on this question by a former surgical experience. It has always seemed to me that, putting aside the special case of empyema, a very unfavourable one for a cure, and taking that of acute or chronic abscesses in the extremities or external parts, there is but a small amount of evidence in favour of abscesses disappearing after tapping alone; they require subsequent incision. If this be so with superficial abscesses, where all is in favour of the apposition of the abscess-walls, and many other points can be attended to, *à fortiori* must we expect that the same treatment will fail in the case of empyema.

The aspirator or trocar is also, I believe, useful in coaxing the pus to point spontaneously. Cases which point thus without interference seem to run less risk than others in which it is necessary. Eleven cases are found in our seventy-seven, and no death. It is true that only one cure was effected, a fistula remaining in the others. Still, a certain proportion of these recover after a time, and, any way, a fistula is better than death. It is not easy to say why cases which point of their own accord are less fatal than others, but I believe it is because the pus finds a free exit without admitting air to the pleural cavity. In most cases, treated surgically, the pus becomes offensive sooner or later, and in so doing, adds immensely to the risk. This is a point which is strongly suggestive.

Lastly, we have to examine three methods of treatment which profess to drain the chest completely. These are subaqueous or syphon drainage; drainage without any precautions for excluding air; and free incision of the chest.

The advantages of the *syphon* plan are obvious. It is simple in performance; needs no cutting; the soft India-rubber tube is so well tolerated by the skin and soft tissues that, under favourable conditions inside the chest, pus can be drained away for weeks without any decomposition; while, if it be thought advisable to apply any local stimulant to the pleura or to wash out the chest, either can be done most readily. Then what do figures say upon it?

The number of cases treated was	31
Cases drained thoroughly	17
The drainage failed more or less in	14
A fistula formed subsequently in	2
Deaths from complications shortly after the operation	3
Doubtful	1

The eighteen cases of imperfect drainage include several which ultimately did well; though, as far as can be seen, the result cannot be attributed to the method of syphon drainage. Thirteen died; but of these, three may be deducted as succumbing to causes independent of the present inquiry. Thus there is a mortality of ten in a total of twenty-eight, or 35.7 per cent. This death-rate is not higher than

that given by others as the rate for all cases of empyema taken together. But since the operation in question is not successful in the performance of drainage, it might reasonably be hoped that any plan working better would lead to more favourable results. The reasons of its failure are chiefly those which tell against aspiration, paracentesis, or even incision, viz., that the pus is often curdy and will not run, and that adhesions form and subdivide the cavity to be drained. Under these circumstances, it is difficult to drain the chest by any method.

Incision embraces twenty-four cases; seven recoveries, six with a fistula remaining, three with chronic lung-disease, and eight deaths. This gives a mortality of about 33 per cent. This is no great improvement upon the syphon plan, notwithstanding that there would seem to be more likelihood of its accomplishing complete drainage. That it has not produced better results is, I believe, in large measure due to a want of care in making the aperture in the chest as low as possible, and then, too, one is apt to assume, when the incision has been made, that the aperture is necessarily free enough. The approximation of the ribs, however, reduces even a large external opening to quite small dimensions, and it is generally necessary to have some short drainage-tube placed between the ribs. Then there is the atmospheric difficulty, the barrel requiring a vent-peg before the fluid will flow from the tap. It was to avoid this trouble that the original drainage plan of Dr. Morgan was adopted, that of an opening and counter-opening, a tube being passed in at one point and out at the other. This is still looked upon by many as a good method of treatment, and it is, I believe, from what I have seen, a really effective mode of drainage. Our records give no numerical results sufficient to enable one to say much upon its value. It has only been practised five times, with three recoveries and two deaths; but I think it an objectionable feature of this plan that there must be a tube inside the chest for a long time, and quite as free drainage may be ensured by one incision and the insertion of a short tube. This is the plan that I should now usually adopt; but occasionally no plan seems to be successful, and it becomes necessary, as some foreign writers and my colleagues Dr. Frederick Taylor, Mr. Howse, and Mr. Bryant, have found, to saw across and remove a piece of the rib to secure a sufficient outlet for the pus. In all cases of incision, it is better to operate and to dress the wound antiseptically.

Incision of the chest has one great drawback when practised in large effusions, viz., that it somewhat suddenly disturbs the intrathoracic tension by the withdrawal of the fluid, and may lead to urgent and alarming dyspnoea. This has happened in two or three, not more, of our cases. To obviate this, it will perhaps be better to do as Dr. Frederick Taylor advises, viz., remove the pus gradually by the syphon drainage for a few days, and then incise the chest at the end of that time at the seat of the puncture. In the case of a small or localised empyema, incision, if necessary at all, may be practised at once.

ON THE SKIN-AFFECTION LATELY DESCRIBED AS "DYSIDROSIS".

BY TILBURY FOX, M.D., F.R.C.P.,

Physician to the Department for Skin-Disease in University College Hospital.

DR. THIN contributes to the BRITISH MEDICAL JOURNAL of December 1st a paper on "Dysidrosis"; and as in that paper he seeks, by the aid of certain statements recently published by Dr. Robinson of New York in the American *Archives of Dermatology*, to show that there is no disease exactly such as I have described under the term dysidrosis, I should be glad to point out very briefly wherein both he and Dr. Robinson are in error.

Firstly, my difference with Mr. Hutchinson—the resuscitation of which I much regret—was not so much upon the question of mere priority in observation, or even of publication, as of a complete ignoring by Mr. Hutchinson, in his first publication upon the subject of Dysidrosis, of what I had written *three years previously*; and this notwithstanding the fact that I had been in correspondence with Mr. Hutchinson on the subject some time before the appearance of his first publication about the disease, and that his attention had been otherwise called to my original papers. Mr. Hutchinson in 1876 ignored what I had written in 1873; and he has candidly admitted to me that he never read my papers, though he intended to do so. Besides, if Mr. Hutchinson's account of the disease be true—viz., that it is a pemphigus—there is really no novelty about the matter, for pemphigus of the fingers has been known and described for any number of years past. The novelty consists in my assertion as to

the existence of a special form of disease having its primary anatomical seat in the sweat-follicles.

Secondly: to Dr. Robinson's paper I have replied at length in a communication which is now in the hands of the editor of the *American Archives of Dermatology*; and I will, therefore, only say here that I am not prepared to recognise Dr. Robinson's case, upon which so much reliance is placed, as one of dysidrosis—at all events, as a typical instance of the disease; nor that recorded by Dr. Thin last week in the least degree as typical of the early phases of the affection. Neither gentleman seems inclined to make the least allowance for the fact that there are several instances of vesicular conditions (*ex. sudaminous, pemphigoid, etc.*) of the hand which are quite distinct from dysidrosis, but which are very liable to be mistaken for it.

Thirdly: that there is such a disease as I have described, and which can be proved to begin in the sweat-follicles, the fluid present having the characters and reaction of sweat at the outset of the disease, but subsequently becoming altered by the admixture of serosity, is unquestionable. Only a couple of weeks since, in the cold weather, a case presented itself at University College Hospital of dysidrosis in its earlier stages, in which to a score of persons present the origin of the disease in the sweat-follicles was conclusively evident. Just at the tips of the fingers, on their palmar surface, the skin was somewhat swollen and reddened; the ridges of papillæ and the openings of the sweat-follicles much more distinct than usual; and from the latter, fluid oozed out, which had a distinctly acid reaction. When the fluid was wiped off, a fresh supply oozed out, and was acid in reaction. With a lens, the fluid was actually observed to come from the distended sweat-follicles, and not the papillary layer, which was not vesiculated at all, and had its cuticle intact upon it. Lower down on the fingers and about the palm of the same hand, the parts were more inflamed and swollen, and the secretion was alkaline. Yes, it is a fact that there were two distinct reactions in adjoining parts of the same hand. A number of us carefully examined the case with good lenses, and satisfied ourselves that the disease began as a sweat-flux; that the parts around the sweat-glands and the papillary layer soon became secondarily involved in inflammatory action, which spread farther and wider from the original essential anatomical seat of the disease, the sweat-glands; and that the fluid originally effused was sweat, which became mixed with serum derived from other parts to which the inflammation had spread. This is the account I have consistently held about the disease from the first: that it is a disease of the sweat-apparatus, with secondary results. A condition analogous to ordinary vesiculation does necessarily occur secondarily in dysidrosis; but this is not the primary and essential condition. Both Dr. Thin and Dr. Robinson have signally transgressed one of the elementary rules of dermatology; viz., not to confound secondary with primary phenomena.

Dr. Thin makes the strange statement, that "Dr. Fox has produced no evidence which could affect our judgment one way or the other" as to the seat of the original vesicles. My account of the disease was based upon nothing short of the actual observation of a large number of cases; and in my *Atlas*, Plate 51, I have actually figured the ducts of the sweat-apparatus distended with sweat. Dr. Thin's remarks would lead the reader to suppose that I made a "guess" about the disease, and did not pursue a long series of observations before I wrote upon it.

Fourthly: Dr. Robinson's argument that, because the fluid in dysidrosis is usually found to be alkaline, therefore the disease can have no connection with the sweat-glands, or that the fluid secreted does not come in any part from the latter, is a most fallacious and valueless one. For how long a time has it not been well known that altered sweat is alkaline? Are Dr. Thin and Dr. Robinson really ignorant of this fact? and, if not, why ignore it? Besides, I have shown that the secretion at the outset of the disease is really acid and nothing less than sweat, though it speedily becomes alkaline. At a later stage, the fluid is necessarily serous in chief part. In the face of all that has been said, and upon very incorrect observation, I can only reassert that there is such a disease as I have described under the term dysidrosis, and that time will show that I am quite correct.

Fifthly: There are many others besides myself who can offer abundant testimony to the fact of the commencement of the disease in the sweat-apparatus; and I commend to notice the statements made by one of the most careful observers in America, Dr. Duhring, who in his recent work, p. 237, says: "In the several instances in which I have observed this affection, these symptoms (referring to Dr. Fox's description) are all present in a striking degree. The disorder manifestly has its seat about the sweat-glands, and consists in an undue distension of the sweat-duct throughout its entire course, followed by a collection of fluid within the skin," etc.

THE PATHOLOGY OF CHOREA.

(Being an Abstract of an Address delivered at the Annual Meeting of the Staffordshire Branch.)

By JOHN T. ARLIDGE, M.D., F.R.C.P.,

Physician to the North Staffordshire Infirmary; President of the Branch; etc.

CHOREA is very prevalent among the patients of the North Staffordshire Infirmary, and would appear to be more so among persons engaged in the pottery manufacture than among other inhabitants of the district.

Under the term chorea, many different nervous disorders and lesions have been comprehended; and it remains to be determined what group of symptoms shall be represented by that term.

Notes of one hundred and fifty-six cases, the majority of them occurring in the practice of the North Staffordshire Infirmary, were analysed. The results, as to age and sex, were confirmatory of the general statements that chorea is especially a disease of girls under puberty. There is a rapid rise in the numbers affected after the eighth year is attained, and this reaches its maximum in the course of the tenth year; it then falls as rapidly until the sixteenth, when an increase again, of smaller amount, is met with, and is maintained almost to the same extent in the following year; after which, cases are few.

In connection with these facts, it is noteworthy that the cases among girls of fourteen and upwards comprise a very considerable proportion of relapses, and not a few of them are examples of evident nerve-lesions, accompanied with heart-disease; or else are of reflex origin, from uterine disorders or pregnancy.

The tendency to relapse is a special feature of the disease, and obtains in about one-fourth of the number of cases. The malady, in half the number under observation, affected both sides of the body; of the remainder, one side was affected more seriously than the other in two-thirds; and in the rest was sufficiently one-sided to be called hemichorea. In more than one-half of the cases, the muscles of the face were involved. In one-sixth, the speech was affected. The ophthalmoscope was used in a few instances, but revealed nothing save some pallor of the disc.

No positively general rule exists regarding the urine. It is of higher specific gravity usually when the movements are most energetic; but the variations in this respect are great in different patients, and at different times in the same patient.

Choreic patients are nearly always in low health, very often anæmic, and generally of emotional or excitable nervous temperament, with feeble nerve-power. Hereditary predisposition is very rare. In about one-seventh of the number examined, rheumatism or rheumatic pains, or heart-disease, has been found to have affected one or both parents; consumption also appears to have been as frequently a family inheritance; and the same may be said of nervous disorders among immediate relatives.

Of the number of patients in whose cases the fact was ascertained, rheumatism had occurred previously to the chorea in about one-fifth; but it would seem, as far as inquiry was made, that scarlatina was about as frequent an antecedent.

Distinct evidence of cardiac lesion was found in rather more than one-fourth of ninety-two cases in which it was sought for and noted. In thirty-seven of these, which were the most recently collected, it was discovered only in one-fifth.

As to assigned causes, fright stands as causing one-fifth of the number of cases; and previous rheumatic and choreic attacks, severally, as productive of a like proportion. Of the remaining two-fifths, reflex irritation, antecedent epileptic fits, and injuries to the head, were made accountable for a considerable proportion; the cause being unknown or unassigned in the rest.

A first group of cases comprises such as are met with in children up to the age of puberty, and in most of which the disorder exhibits itself in its simplest and highly curable form. In this simple form, rheumatism, cardiac and cerebral lesion, do not constitute an element; but there are exhaustion, anæmia, a disturbed nervous condition, and defective nutrition. This form best deserves the special name: chorea.

A second group is connected with the occurrence of rheumatism, and with cardiac lesions traceable thereto: not that the chorea is due directly to embola in the great ganglionic centres in the cranium, although it is probably due indirectly to them, and to their paralyzing and inhibitory action upon the controlling power of the cerebral lobes.

Although further investigation be first necessary to establish the relation and its frequency, there appear grounds for believing that there may be a group of scarlatinal cases of chorea, parallel with the rheu-

matic, and probably nearly as often having concomitant cardiac lesion. It is not allowed that chorea is peculiarly of cerebral origin, as some assert; for the arguments in support of such hypothesis are faulty; and experience certainly indicates a not uncommon spinal origin of the disease. To this latter source is attributable a considerable proportion of the fourth group of cases—the reflex, which are best illustrated by the chorea of pregnancy.

In the matter of treatment, experience shows that, in most simple cases, any special treatment by drugs may be dispensed with; and that the chief matter to attend to is the general health and nutrition of the patients, which may be sufficiently dealt with by good diet, the withdrawal from causes of excitement and annoyance, and by discipline and sensible management. Not but that various drugs may prove valuable auxiliaries: as, for instance, the salts of iron when there is anæmia, and in all cases the writer uses the cold douche to the spine, or the shower-bath. In the rheumatic group of cases, much the same course of tonic treatment is generally applicable; any special cardiac symptoms calling for appropriate remedies. In the reflex group, the rule of action is to remove the cause of reflex irritation.

Cases with high temperature and a febrile condition indicate the presence of collateral disease, only indirectly associated with choreic movements, and call for treatment directed to the removal of the organic mischief. In several cases of very severe chorea, tartar-emetac has been found of great service; and in many, of moderate severity, bromide of potassium was apparently useful.

CLINICAL REMARKS ON TUMOURS OF THE ORBIT: WITH CASES.*

By CHARLES HIGGINS, F.R.C.S.E.,

Opera- and Assistant-Surgeon to Guy's Hospital, Lecturer on Ophthalmology at Guy's Hospital Medical School; etc.

As is well known, almost any kind of new growth may be found affecting the structures within and immediately around the orbit. The tumours most commonly met with belong to the class of sarcomata. These, as a rule, commence within the eyeball, affecting primarily the choroid; they subsequently filter through—if such an expression may be used—or burst open the sclerotic, and involve the soft tissues of the orbit. Instances of other tumours, as exostoses, sarcomata commencing in other structures than those of the eyeball, simple and hydatid cysts, all occasionally occur. The last named, however, is of such rarity that, so far as I know, only three cases have been placed on record.

The following cases, examples of all the above mentioned varieties of tumours, have occurred in my practice at Guy's Hospital during the last four years.

CASE I. Cyst in Orbit Tapped: Discharged, but subsequently Re-filled.—R. G., aged 19, a lighterman, was admitted January 22nd, 1875. Four months previously, a finger was thrust into the left orbit between the globe and eyebrow. Considerable swelling of the lids quickly followed. The next day, he could not open the eye on account of the swelling; there was no bruising, but the swelling was of the same colour as the surrounding skin. He was blistered; and in about a week, the swelling subsided a good deal, but never entirely disappeared.

On admission, there was partial ptosis, with paresis of the superior rectus. An ill-defined tumour could be felt in the position of the lacrymal gland (enlargement of gland?). He was ordered 5 grains of iodide of potassium and 15 minims of tincture of cinchona, in water three times a day; and ammonia liniment to be rubbed into the temple at night.

April 1st. There was now a distinctly fluctuating swelling situated below the outer extremity of the upper margin of the left orbit (connected with the lacrymal gland?). The ptosis had disappeared; the eyeball was somewhat displaced downwards; its movements were, however, unimpaired; there was no diplopia. The ophthalmoscope showed engorgement of the retinal veins and hyperæmia of the optic disc; no pulsation of the retinal vessels. No pulsation could be detected in or about the tumour.

April 5th. The tumour was punctured with a small trocar; two drachms of semi-transparent straw-coloured albuminous fluid were drawn off. The tumour disappeared, and the eyeball regained nearly its natural position. In three days, the engorgement of the retinal vessels and disc had subsided. Three weeks later, the tumour was as large as

ever, and its entire removal was advised; the patient, however, did not attend again.

CASE II. Cysticercus in Right Orbit: Removal.—Alice T., aged 14, was admitted February 1st, 1876. She had always been delicate; she had scars of abscesses in the neck, some of which dated back five years. A month before admission, she began to suffer some pain in the right eyeball; and the globe had since begun to protrude.

On admission, the right eyeball was pushed downwards and somewhat protruded; movement upwards was entirely wanting; other movements were perfect. She had diplopia when looking upwards only. The right eye read Snellen x. The ophthalmoscope showed the optic disc to be red and greatly swollen, so as to bulge considerably into the vitreous chamber. The retinal veins were engorged and tortuous; the arteries were of normal calibre. There was no pulsation of the retinal vessels; no pulsation in or about the orbit; no pain. A growth, situated between the globe and superior rectus, extending backwards and pressing on the optic nerve, was diagnosed. The case was advised to be watched, and no treatment adopted.

February 14th. Two days previously, the right eye became suddenly inflamed and painful; there was no shivering. There was much swelling of the upper lid, together with œdema of the conjunctiva, and increased impairment of mobility of the eyeball; no constitutional disturbance. It was thought probable that suppuration had occurred within the orbit. An incision was made through the conjunctiva beneath the upper lid. A director passed into the orbit came into contact with a firm resisting substance. A narrow knife was passed along the groove of the director, and an incision made in the tumour; only blood escaped.

February 28th. The protrusion of the eyeball having increased, it was decided to cut down on the tumour, and, if possible, remove it. An anæsthetic having been administered, an incision was made through the soft parts from near the inner angle of the orbit to beyond the outer angle. The lacrymal gland, pushed forward, was exposed and removed; next came a firm resisting growth, which was separated from its attachments, partly by the knife and partly by tearing away with the finger and the handle of the scalpel. The tumour appeared to be intimately connected with one of the ocular muscles, apparently the superior rectus; the muscle required division. On making a rather strong effort to detach the tumour, it collapsed, but no escape of fluid was noticed; there was, however, free hæmorrhage going on at the time. The collapsed remains of the growth were removed by carefully separating it from the parts around with the finger-nails; it was found to extend quite back to the apex of the orbit, and was closely in contact with the optic nerve. After removal, the growth was found to be an extremely thick walled cyst, which had ruptured at a point wounded by the knife. The wound in the soft parts was closed by a few fine sutures, and the margin of the lids pared and united by sutures, so as to preserve the eyeball (which had escaped uninjured) from any subsequent damage consequent on exposure.

February 29th. The lids were a good deal swollen; the incision was healing by primary union; a suture was removed from near its outer extremity. Some blood and pus escaped. There was a good deal of constitutional disturbance. The wound was poulticed.

March 6th. The incision had firmly healed, except at the outer extremity. The eyeball could be seen through a gap in the union of the lids at the inner canthus; it appeared to be quite sound. She could count fingers.

August 4th. The union between the lids was divided; the upper lid drooped; there appeared to be no power of raising it. When the lids were held open, the eye read Snellen 1½. The ophthalmoscope showed the fundus to be quite healthy, the swelling and engorgement of the optic disc having quite subsided. The eye deviated downwards and slightly outwards.

October 2nd. A portion of skin of the orbicularis muscle was removed from the upper lid, and the inferior rectus was divided.

October 16th. The lid could be raised so as to expose the greater part of the cornea; the eye still squinted downwards and outwards. A further examination of the tumour, shortly after its removal, showed it to be made up of an external extremely thick cyst-ball, composed of inflammatory tissue. A portion of muscle adhered intimately to the cyst, and appeared to be incorporated with it. Within the external envelope was a thin pellucid cyst, which separated easily, and, like the outer wall, had been ruptured during removal. This cyst was found to be formed of a membrane, composed of the peculiar serrated fibres which are said to be characteristic of hydatids; there were no hooklets. The whole cyst was nearly as large as the eyeball, but, owing to the thickness of its external envelope, its cavity was extremely small.

CASE III. Melanotic Sarcoma: Removal; Return; Subsequent Removal and Return.—Mary S., aged 41, was admitted July 19th, 1875.

* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Manchester, August 1877.

Her left eye was lost nine years previously from inflammation, which came on without apparent cause. She had been quite blind with that eye ever since. The globe had lately begun to enlarge.

On admission, the cornea of the left eye was staphylomatous; the tension of the globe was increased (T + 2); the lens was opaque; the cornea and iris were in contact; there were large veins on the surface of the sclerotic; the eyeball was somewhat protruded, and all its movements were greatly impaired. The eyeball was excised. A large tumour was found projecting from the back of the globe, in the removal of which it was cut through, a large mass being left in the orbit. The remains of the tumour were carefully removed, with a considerable amount of the surrounding soft tissues. The growth proved to be a large melanotic sarcoma which had filled the eyeball, burst the sclerotic near the optic nerve, and filled up the back of the orbit. The mass subsequently removed was rather larger than the eyeball itself. The patient made a good recovery, and left the hospital in a fortnight.

On October 10th, 1875, the patient was re-admitted. The growth had returned, and was growing rapidly. It had already formed a considerable mass within the orbit. The frontal nerve appeared to be implicated, as there was loss of sensation on the left side of the forehead.

November 22nd. The greater part of the contents of the orbit were removed with scissors; the walls of the cavity were lined with strips of lint spread with a paste of equal parts of chloride of zinc and starch.

December 13th. The whole of the contents of the orbit had sloughed out, leaving the bone exposed and dead; the eyelids were quite destroyed.

January 3rd, 1876. Several pieces of bone had come away; a vascular mass projected from the floor of the orbit, the roof and walls of which were covered with granulations.

March 14th. A large mass of growth filled the upper part of the orbit and pressed forwards beneath the skin of the brow. Large dilated veins were seen coursing over the forehead. The mass at the floor of the orbit had greatly increased. There was a considerable ulcerated surface near the outer margin of the orbit, which bled easily and discharged profusely. The growth was increasing rapidly. There was no glandular enlargement. The patient's general health had suffered considerably. No further operation was deemed advisable. The patient left the hospital, and did not attend again.

CASE IV. *Melanotic Sarcoma of Eyeball: Removed: No Local Recurrence; Four months later, Symptoms of Visceral Disease.*—John W., aged 45, was admitted October 3rd, 1876. His right eye began to lose sight a little more than two years previously. He had been quite blind for the last two years. The eye gave no trouble till the beginning of July 1876, when he thought he caught cold in it. It became blood-shot and painful; and there was a good deal of pain in the forehead. A fortnight later, he noticed that the eye had become unusually prominent. The eyeball continued to protrude more and more for six weeks, when, he said, it began to recede somewhat. Five weeks ago, the eye began to protrude afresh; the protrusion had gone on increasing up to the time when he was admitted.

On admission, the right eyeball was protruded, but not to such an extent as to prevent the closure of the lids over it. The vessels on the exterior of the globe were much congested; the lens was opaque; the cornea and iris lay in contact. The direction of the protrusion was downwards and inwards. The lacrymal gland could be felt; and behind it a firm nodulated growth extended up to the margin of the orbit near its outer angle. The eyeball was almost immovably fixed. There was no perception of light.

October 23rd. The eyeball, together with a large tumour behind it, was removed. The growth proved to be a large melanotic sarcoma, which had commenced in the choroid, filled the eyeball, and grown through the sclerotic at its posterior part, and filled the greater part of the orbit. The patient made a good recovery, and left the hospital in a month.

February 1877. There was no return of the tumour in the orbit, but the patient's general health had begun to suffer greatly; he had lost his appetite, complained of sickness, looked very ill, and had grown extremely thin. Probably he had some visceral disease. He was advised to consult a physician, and did not attend again.

CASE V. *Sarcoma of Cornea, just commencing to invade the Orbit; Excision; no sign of Return twenty-one months later.*—William D., aged 48, was admitted October 25th, 1875. Ten months previously, he first noticed that the sight of the left eye was failing. Vision became worse and worse until seven months later; he then had a severe attack of pain in the eye, and sight was entirely extinguished. The pain lasted three days; he then came to the hospital, and was

admitted; and sclerotomy was performed by Mr. Bader. The pain was relieved for a time; but no vision was restored.

On admission, the left eye was quite blind, hard (T + 2), and painful. The lens was opaque, and the iris pushed forward nearly in contact with the cornea. There was a bulge marking the position of the sclerotic incision. The movements of the globe were but little impaired. It was looked upon as a blind glaucomatous eye, and no suspicion of tumour was entertained. The eyeball was excised. After removal, the globe was found to be greatly elongated by a bulge from its posterior part, external to the optic nerve. It was looked upon as a case of large posterior staphyloma; but on making a section of the eyeball, the bulge was found to be formed by a firm growth, which had apparently commenced in the choroid, grown for some distance into the vitreous chamber, causing complete displacement of the retina, which was adherent only at the optic nerve and ciliary processes, the space between it and the growth being filled with brown fluid. The growth had also extended through the sclerotic, not by rupture but by spreading out its structure and growing through the interstices. It formed a considerable tumour on the exterior of the globe. The portion of growth within the eyeball appeared to be much more dense than that on its exterior. Sections of the tumour after hardening in Müller's fluid showed a multitude of small nucleated cells, stuffed thickly in the interstices of the tissues it had invaded.

June 1877. There was no sign of return of the growth. The patient wore an artificial eye, and was quite comfortable.

CASE VI. *Ivory Exostosis of Orbit: Removal of greater part.*—Alfred C., aged 17, was admitted December 30th, 1875. Two years before, his father noticed that the patient's right eye was becoming rather more prominent than the left. Shortly afterwards, he found that he saw double, but only at times, and that after reading for some considerable period. Three months later, he himself noticed protrusion of the eyeball. A year before admission, he first noticed a hard lump projecting at the inner angle of the orbit; this gradually increased, and the eyeball became displaced outwards and more and more prominent; the tears were constantly running over the cheek. He suffered no pain, and had no cerebral symptoms.

On admission, the right eyeball was displaced outwards and protruded by a large hard mass which projected from the inner angle of the orbit. The mass appeared to spring from the nasal process of the superior maxilla and the lacrymal bone; it was quite immovable, but seemed to be attached by a pedicle; it did not encroach upon the nasal fossa. The eyelids were stretched by the protruding globe; the tear puncta were displaced; and there was constant epiphora. The movements of the globe were unimpaired, and there was no diplopia except after reading for some time. The sight was fairly good ($V = \frac{20}{30}$ right, $\frac{20}{30}$ left). The ophthalmoscope showed no change. The deficiency of vision of the right eye had probably always existed, or might have come on during the growth of the tumour from non-use of the organ. An anæsthetic having been administered, an incision was made through the skin and other soft parts, extending from the inner canthus to about the middle of the upper margin of the orbit, and the growth thoroughly exposed. It proved to be extremely dense bone, and, instead of growing from a pedicle, was found to be attached along the inner wall and roof of the orbit nearly back to its apex. After an hour and a half of patient work with the chisel and mallet, the greater part of the growth was removed, and the eyeball returned to nearly its natural position. The bone of which the tumour was composed was many times harder than any bone existing naturally in the body. The margins of the eyelids were pared and united with sutures. The wound (in the inner angle of which a strip of oiled lint was placed) was closed, and covered with a small pad of wet lint. The weight of the bone removed was two drachms and a half; there was one large piece, besides a quantity of chips.

January 3rd. There was a good deal of œdema of the upper eyelid, with loss of sensation in the parts supplied by the supraorbital nerve. The wound was healed, except at the inner angle, where a strip of lint was introduced. The eyeball, as far as could be made out through the closed lids, appeared normal. He had no pain, and slept well. The wound was syringed out with warm water; the sutures were removed.

January 17th. There was some slight sensation in the parts supplied by the supraorbital nerve. There was a discharge of pus from the opening at the inner extremity of the incision. The movements of the eyeball, excepting upwards, appeared to be nearly perfect. He could see through a small opening between the lids near the inner canthus.

February 25th. The union between the lids was divided; the eyeball had regained nearly its proper position. He could raise the upper lid to the full extent. The movement of the eyeball upwards was im-

paired; the opening near the inner angle of the orbit was discharging; a quantity of bare bone could be felt with a probe.

March 2nd. The eye read Snellen $6\frac{1}{2}$ at eighteen inches and Snellen 50 at twenty feet. The ophthalmoscope showed nothing to account for the impaired vision. The movement of the globe upwards was much improved. Sensation was quite restored in the parts supplied by the supraorbital nerve.

October 12th. All movements of the eyeball were perfect; the globe was pushed somewhat downwards and outwards, but not protruded. There was a sinus at the inner angle of the orbit discharging pus; two small pieces of bone had come away; there was now a small piece, loose, some distance within the sinus. A quantity of bare bone could be felt upon the inner wall and roof of the orbit. Vision was the same. This patient attends occasionally. At his last visit in June, the condition was the same as at last report.

CASE VII. *Tumour of Lower Eyelid, resembling Epithelioma: Removal: no Return after Eleven Months.*—James F., aged 70, was admitted July 7th, 1876. Five years previously, he first noticed a small pimple upon the skin of the right lower eyelid, close to the inner canthus; the pimple gradually increased in size, and began to ulcerate; it was never painful.

On admission, there was a hard nodulated growth, extending outwards from the right inner canthus, involving the inner two-thirds of the lower eyelid. The growth affected principally the skin, but implicated the conjunctivæ close to the inner canthus. Ulceration had occurred in some part of the cutaneous surface of the growth. The edges of the ulcer were thick and everted. The affected conjunctiva had a warty appearance. The growth was freely movable with the eyelid, but appeared somewhat fixed down at the inner canthus.

July 10th. The growth was excised, together with the greater portion of the eyelid. The gap was filled with skin from the cheek; the margin of the upper lid was pared and united to the flap of skin taken from the cheek; the wound in the cheek was closed with hare-lip pins and sutures.

July 13th. The wounds had healed by primary union.

July 31st. Firm union had taken place between the upper lid and the flap of skin replacing the lower lid. The growth, after hardening in Müller's fluid, was found to be made up chiefly of gland-tissue. It contained many spaces filled with cylindrical epithelium, and others in which the epithelium had broken down. It did not infiltrate the skin or deeper tissues, but was intimately connected with the former around the margin of the ulcerated area.

October 19th. The union between the lids was divided. There was some dragging upon the lower one, which had a tendency to become everted.

June 1st, 1877. There was no return of the growth.

REMARKS.—Case I was probably a simple serous cyst, formed by degeneration of a blood-clot. It quickly refilled after simple tapping, but would no doubt have been easily cured by removal of a portion of the cyst-wall, or even by a free incision. The case is interesting as explaining the cause of congestion of the optic disc: "choked disc or ischemia of the disc", as it is called. The condition was here evidently due to obstruction of the venous circulation by pressure, upon removing which the ischemia disappeared.

Case II is an example of a very rare form of orbital tumour. It is published in the present volume of the *Transactions of the Clinical Society*. There were no points in the history or progress of the case which could in any way lead to a correct diagnosis. The symptoms seemed to point to some deposit in the orbit, which became inflamed, and eventually suppurated. Puncture of the tumour gave only negative evidence, that it was not an abscess. Its nature could hardly have been ascertained until it was removed.

Cases III and IV are instances of a not uncommon form of orbital tumour, which, however, almost invariably commences in the eyeball. It has been said that the sarcomata often affect eyes which have been lost for some time. It would appear, however, that in many cases the growth causes the loss of sight; it commences in the choroid, grows slowly, presently causes detachment of the retina, and with it total loss of sight. As time goes on, the eyeball becomes more or less filled with the growth; at length the tumour bursts, or grows through the sclerotic; it immediately begins to increase rapidly, infiltrating the tissues of the orbit, and causing rapid protrusion and impairment of mobility of the eyeball.

Case V has been introduced to show how sight may be destroyed by a sarcomatous tumour without the presence of any such growth being suspected. This case was looked upon as one of lost, glaucomatous, and painful eyeball; and an operation was accordingly performed, in order to reduce the tension and relieve the pain. Had it succeeded in

its objects, the tumour would have continued to grow until its existence became evident, and it might have then been said to be an instance of sarcoma affecting an old lost eyeball. But as it was, the operation was unsuccessful; the eyeball was excised, and it was found to have been blinded by a tumour the existence of which was not suspected.

Case VI presents no features of peculiar interest. It is an instance of what is known as ivory exostosis, and shows the difficulty to be encountered in the removal of such a tumour, especially if it exist in the orbit. The great danger to be feared was that, on account of the extensive connection of the growth to the roof of the orbit, fracture might occur during its removal. Such an accident would be followed by no untoward results, should it occur in the walls or floor of the orbit; but, in its roof, would very probably lead to most disastrous consequences.

Case VII is an example of follicular sarcoma. It is chiefly interesting on account of its resemblance to epithelioma. Such growths are said to spring from the lacrymal sac; in the case reported, there was a deep attachment in the position of the sac.

MALPOSITION OF TESTIS.*

By A. W. STOCKS, M.R.C.S. Eng., Salford.

THIS interesting case is brought forward rather on account of its rarity than for its being of any great or special practical value. The subject of the peculiarity is a young man aged 24, a policeman, the father of three children. He always fancied that he had only one testicle, and it was only some months ago, when he received an injury to the abdomen in the execution of his duty, and became troubled with symptoms of hernia, that the true nature of his condition was discovered.

The left testicle, which is fully developed, occupies the whole of the normal scrotum, the raphe being placed exactly in the middle line of the testicle, as if it were the natural condition that it (the scrotum) should be occupied by a single testicle only, whereas the raphe usually occupies a position midway between the two testicles. The right testicle, which is only partially developed, occupies (as is shown in the photographs which I have the honour to pass around) a pouch or additional scrotum, separate and distinct from the scrotum proper, situated between the scrotum and the right thigh, and lies upon the descending ramus of the right pubes. The right spermatic cord leaves the abdomen by the usual route through the external abdominal ring, and can be traced down to the abortive gland. A hernia, at the time of the injury above referred to, was protruded from the abdomen and followed the course of the misplaced spermatic cord. This is completely relieved by the application of a truss.

Four cases of irregularity in the progress of the testicle have lately come under my observation.

In the *first*, no testicle ever descended into the scrotum of a youth, aged 19, who died of a large lympho-sarcomatous tumour in the abdomen. Both testicles, which were only partially developed, were found after death resting on the brim of the true pelvis near the bifurcation of the common iliac artery. In this case, both inguinal canals were pervious throughout the whole course.

In the *second* and *third* cases, the testicles, one on the right and one on the left side, were retained within the abdomen, and in both instances a hernia had descended through the patent canal.

The *fourth* case is the one before us.

It would appear, from a consideration of these abnormalities, that the changes which occur during the development of the body have a distinct relation to, and a mutual dependence upon, each other, even where there seems to be little, if any, connection, vascular or otherwise, in the parts implicated in those processes. Thus, in the second and third instances mentioned, the closure of the inguinal canals seems to have been interfered with by the non-transmission of the testes through them.

In the present case, the remarkable irregularity in the course which the testis took in its endeavour to reach its proper destination seems to have depended upon the arrest in the development of the testis itself, and, in the other instances, the patency of both inguinal canals does not seem to have a more rational explanation than that it depended upon the non-descent of the testicles into the scrotum, and their retention in the abdomen was influenced by the non-development of the glands themselves.

* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Manchester, August 1877.

SURGICAL MEMORANDA.

ENTIRE REMOVAL OF TONGUE BY SCISSORS.

THE following patient was a woman aged 64, who had been suffering for about two months from an epithelial cancer, which had commenced on the right half of the tongue, and subsequently invaded the septum, and was admitted under my care at the Royal Infirmary, Manchester. Under the influence of chloroform, the tongue was drawn well forwards and upwards by means of a cord passed through the tip. I then took a strong pair of ordinary scissors and freely separated the tongue from its attachments to the gums in front and at each side, and then the muscles were deliberately snipped from before backwards at a plane well below the substance of the tongue. I adopted the plan of snipping from one side to the other in order, if possible, not to divide two arteries at one time: a plan which succeeded admirably, as the right ranine was cut and secured before the left was wounded. When the left ranine artery was severed, the bleeding ceased before there was time to secure it. The remainder of the snipping was concluded, and the tongue removed well behind the foramen cæcum. There was no hæmorrhage, and the patient was removed to bed, not having lost more than an ounce of blood during the operation. Hæmorrhage, however, took place within the hour; and Mr. Richmond, the house-surgeon, had to make use of the thermo-cautery for its control: a lesson which would induce me on another occasion to make secure all the vessels before concluding the operation. The patient has since progressed most favourably. Her temperature has remained normal; and she expresses herself, in a voice distinctly to be understood, as feeling very well and very comfortable.

The advantages I would claim for this operation are: 1. Extreme simplicity; 2. The prospect of quick convalescence; 3. The control obtained by scissors in the direction of the cut and the amount removed; 4. The absence of any sloughing, affording immunity from septic dangers, and lessening the risk of secondary hæmorrhage.

WALTER WHITEHEAD, F.R.C.S.,

Senior Assistant-Surgeon, Manchester Royal Infirmary.

LIGATURES FOR ARTERIES.

AT several of our medical societies lately, tendon ligatures amongst other kinds have been alluded to; and, as it is probable that little is generally known respecting them, it may be excusable to give the following account.

The tendons of the stag, ox, or horse are available for procuring these ligatures; especial care, of course, being taken in the case of the last animal as to the cause of death. The best tendon for splitting easily and regularly is the flexor perforatus in its course below the heel (os calcis), giving, in the horse, ligatures more than a foot in length. They will be somewhat shorter if the ox-tendon be used; but, I think, finer ligatures may be obtained from this animal, the tendons of which are easily procured. A hundred ligatures may be got from one tendon. The perforans tendon is long, and might be supposed well adapted for the purpose; but it is more compound in its formation, and, therefore, difficult to split. The tendon, before splitting, should be cleared of the surrounding cellular tissue, and the inner or front surface of the perforans is best stripped off, as it is a cause of resistance in the splitting and of irregularity in the ligatures.

When split to the required thickness, the ligatures may be sorted and kept in proof spirit containing some carbolic acid. They are applied best in this moist state, simply rendered a little drier by wiping; or they may be used dry, which they soon become when left exposed; they may also be twisted a little and stretched by pinning down at the ends. When they are used somewhat moist, but not too much so, as they are then slippery to handle, their advantages are: first, great strength; secondly, that a vessel may be tied with them in a knot as easy to form, and as little likely to slip, as with hemp or silk, the tendons being equally supple; and, thirdly, that they will, when cut close, certainly in a short time dissolve and disappear.

I have found that a medium sized ligature, placed on a suppurating surface, dissolves in seven or eight days; probably the knot requires a longer time. This may be thought too rapid a solution, but they have been applied to my knowledge in half a score of cases, and two or three times to the main arteries, and have never been followed by hæmorrhage or other bad effects. So much I may honestly say; but, whether they are worthy of further attention, or whether silk, or hemp, or catgut—any one of three—is all that operators can desire, I leave to be decided.

R. GARNER, F.R.C.S., Stoke-upon-Trent.

CLINICAL MEMORANDA.

DYSIDROSIS OR CHEIRO-POMPHOLYX.

WHATEVER designation may be agreed upon in the future for the so-called dysidrosis or cheiro-pompholyx, from repeated observation, I can bear testimony to the fact, which Dr. Tilbury Fox first pointed out to me, that when the disease is examined in its early stage, *i.e.*, when there is only sufficient fluid to make a dark circle without sensibly elevating the cuticle, the orifice of the sweat-duct might be seen with a lens to occupy the centre of that circle, and hence it seems a probable induction that it begins in the sweat-glands. I do not believe, nor, I think, does Dr. Fox consider, that it is simply a retention of sweat, and, therefore, the chemistry of the fluid would scarcely decide as to where the disease began. If, as I think, it be inflammatory in its nature, the reaction of the fluid might be alkaline and albumen present, although the origin of it might be in the sweat-glands. Not unfrequently it is associated with different lesions in other parts—of these, lichen agrius and eczema were the most common. I have also notes of two cases, in which it appeared in conjunction with ordinary pemphigus on the arms and legs; and, as one of them bears on the question of nervous origin, I subjoin an abstract of it.

The patient, a widow aged 45, of nervous temperament, but of otherwise good previous history, had a fright from her house being on fire; and the same evening had a "severe nervous attack", with great heat of skin, and objects seemed larger than natural. Two days after, a large bulla appeared on the right thigh, and subsequently on the calf of the leg; and three weeks after this the arms were affected. When first seen, five weeks after the fright, there was a bulla the size of a hazelnut at the back of one leg just above the ankle; and on the opposite calf and over the external malleolus were two others, but smaller. There were crusted patches on the right thigh, the site of previous bullæ, and several bullæ and the remains of bullæ over the back of the forearm and hand. Along the sides of the fingers and on the back of some of them were numerous sago-grainlike vesicles, in the least developed of which the orifice of the sweat-ducts could be distinctly seen in the centre. The eruption was, for the most part, on the sides of the fingers and the extensor surface of the second and third phalanges, and to a less degree on the palms.

This case I showed to Dr. Tilbury Fox, who assented to the diagnosis. While, therefore, agreeing with Dr. Fox as to the place of origin of this affection, I believe that the exact pathological condition has yet to be demonstrated.

H. RADCLIFFE CROCKER, M.D., Assistant Medical Officer
to the Skin Department, University College Hospital.

PLEURISY OF THE APEX.

IN an article on this subject, in the BRITISH MEDICAL JOURNAL for November 24th, Dr. Burney Yeo expresses his belief that, when it becomes better known, "pleurisy of the apex will be recognised as a distinct form of pleuritis, with a characteristic clinical aspect". In the following case, the acute symptoms had all passed off some time before the date of examination; but adhesion of the pleural surfaces—the result of the inflammation—remained, and its presence was denoted by certain distinctive signs.

John C., aged 22, a puddler, was admitted into the North Staffordshire Infirmary on March 6th, 1877, under the care of Mr. Ashwell. The patient stated that he had been exposed to cold and wet about four months before, and had suffered from severe cough, with profuse frothy expectoration; but that he had been quite free from cough for several weeks previous to admission. There was no family history of phthisis. On admission, he complained only of great debility. He was very weak, pale, and emaciated; and was suffering from large scrofulous abscesses and ulcerations on the left side of the neck and in both submaxillary regions. He had no cough. Respirations were normal; the pulse was rapid and weak; the temperature normal; he had no night-sweats. The appetite was bad. The percussion-note was quite clear over both lungs. The respiratory sounds were normal over the left lung; feeble, with the expiration rather prolonged, over the right apex. The vocal fremitus was markedly intensified over the front of the right apex. The vocal resonance was thought to be slightly increased over the same region. No friction-sound could be detected. The patient died from asthenia about a fortnight after admission. At the *post mortem* examination, the anterior and external aspects of the apex of the right lung were united to the costal pleura by a firm circumscribed adhesion. There was no consolidation of the subjacent lung-tissue, and both lungs were otherwise quite healthy.

Notwithstanding the great frequency with which circumscribed pleuritic adhesions are found after death, I have not been able to find increased vocal fremitus mentioned as a sign of their presence during life. Intensified vocal fremitus is one of the principal signs of pleuritis; but it is found chiefly in pleurisy with effusion, above the limit of the fluid, and is caused by the compressed lung coming in contact with the chest-wall. In the above case, it was produced by the adhesion of the lung to the thoracic parietes, so that the vibrations of the former were not interrupted by any solution of continuity between it and the walls of the chest. The common seat of these circumscribed adhesions being over the anterior lobes of the lungs, or the portion of pleura from the mamma to the axilla (Aitken), their detection during life is, therefore, in most cases, difficult or impossible; but, in the case narrated, the adhesion was situated over the apex, which is usually more carefully examined than the other parts of the lung, and where a slight lesion is more readily detected. It is of importance, moreover, to be able to interpret correctly any sign of deviation from the normal condition of the apex, considering the grave nature of most of the affections of this part, especially when unilateral in their occurrence.

Dr. Burney Yeo mentions (Case IV) diminution of inspiratory movement about the upper part of the chest existing after the inflammation had passed off, due to adhesion of the pleura to the chest-wall. In the record of this case, the expansion of the chest is not noted, although the breath-sounds are mentioned as being feeble, and the expiration somewhat prolonged over the affected part.

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REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

LONDON HOSPITAL.

SPONTANEOUS ANEURISM OF THE ARTERIA DORSALIS PEDIS.

(Under the care of Mr. ADAMS.)

A LABOURER, aged 29, was admitted to the hospital, under the care of Mr. Adams, during the absence of Mr. Couper, on account of a swelling, about the size of a small nut, situated over the outer side of the astragalo-scapoid articulation. He had first noticed this a month before his admission, his attention being called to it by finding his boots tighter than usual. He was then in good health, and he could not account for the swelling in any way. As the swelling gradually became larger and painful, he was induced to come to the hospital. On admission, the tumour was as large as a full sized walnut; its outline was hemispherical, resting on its flattened base; the skin over it was red, tense, and shining, looking like an acute abscess on the point of bursting. On careful examination, it was found to present every important symptom of an aneurism. There was œdema of the foot and ankle, and of the lower part of the leg. There were no indications of any other changes in his vascular system, and no indications of syphilis. The leg was placed on an inclined plane, and lead-lotion was applied to the foot. The œdema and pain quickly subsided, but the skin over the tumour became thinner. A tourniquet was applied to the femoral artery to diminish the force of the blood current, and the limb was bandaged.

On the fourth day of treatment, the tumour was found to be about the same size, but the skin over it was thinner, with superficial vesication. Under these circumstances, it appeared necessary to operate, and three methods presented themselves for consideration: 1. To cut into the sac and tie both ends of the vessel, as in a case of traumatic aneurism; 2. To tie the anterior tibial just above the annular ligament; 3. To tie it in the upper part of the leg. Against the first method was the probability of suppuration amongst the tendons on the dorsum of the foot, combined with the difficulty of finding the two ends of so small a vessel, and the risk of the vessel being diseased at the seat of ligature. Against the second method was the risk of suppuration among the tendons. The artery was, therefore, cut down upon in the upper part of the leg and a catgut ligature was placed around it without difficulty; on tightening this, all pulsation in the tumour ceased, and its size sensibly diminished. The wound was closed with wire sutures, and the limb wrapped in cotton-wool. The day after the operation, the skin became black over the tumour, suggesting suppuration, though

the man's general condition gave no confirmation of this opinion. In the evening, his temperature rose to 104.2 deg. Fahr., with a pulse of 102; and there was a slight return of pulsation in the tumour perceptible to the eye as well as to the finger. Mr. Hutchinson saw the case in consultation, and agreed that, though the appearances were in favour of secondary suppuration, it would be better to leave the tumour untouched.

A fortnight after the operation, pulsation was entirely absent from the tumour; its centre was covered with a leathery scale, from the edges of which a serous fluid was escaping; fluctuation was distinct; there was no suppuration, and there appeared no chance of consolidation occurring. There was a varying amount of pain in the foot, and the discharge from the wound, where the ligature had been applied, was profuse. The patient's general health remained good. It was now determined to open the sac; this was done by Mr. Rygate, house-surgeon, with antiseptic precautions, and nothing but currant jelly-like clots were found. The leg was kept on a McIntyre splint. Suppuration soon followed, and free irrigation was used, under which treatment the wound presented a healthy appearance for some days. A week after the tumour was opened, the wound was explored with the finger, and the hollow on the outer side of the astragalo-scapoid joint was found to communicate with that articulation; this had probably been brought about by the aneurism. From this time, the patient's condition progressed adversely; the discharge was profuse both from the upper wound and from the foot; suppuration extended all round the foot and into the ankle-joint, and no alternative was left but amputation; this was performed three months after admission to the hospital; the patient then progressed satisfactorily, and left the hospital two months later.

The subsequent examination of the limb was unsatisfactory, the protracted suppuration having so altered the various structures as to render it impossible to trace them. The astragalo-scapoid and anterior astragalo-calcanean articulations were the seat of suppuration, the articular cartilages being quite destroyed and the bony surfaces rough. No other joints were involved; but all the tissues of the sole appeared as an almost homogeneous mass of inflammatory deposit.

Mr. Adams remarked that he had been unable to find any recorded case of a spontaneous aneurism in this situation; and that, even if other cases have been or should be seen, this case will probably remain unique as to many of its features, especially the thinness of the sac and the early occurrence of appearances of suppuration. Notwithstanding the unfavourable result, the line of treatment adopted appeared to be the most appropriate. There could be no doubt that the aneurism had made its way into the astragalo-scapoid joint at the time when the man was first seen (although this did not so appear at first), and, had the sac been cut into and the ends of the vessels tied, in addition to the difficulty of finding the vessel, there would have been the chance of its being diseased, and the complication of a direct opening into the joint. Again, if the ligature had been applied immediately above the annular ligament, there is no reason to suppose that the result would have been any better as regards the amount of suppuration, and there would have been an additional chance of the vessel being diseased.

SUBCUTANEOUS OSTEOTOMY OF THE FEMUR.

(Under the care of Mr. MAUNDER.)

A married woman, aged 21, came under treatment for an extreme degree of contraction and deformity of both lower extremities. Her second confinement, a year and a half previously, had been followed by a severe illness, during which time abscesses had formed in the neighbourhood of both hip-joints, the legs and thighs became gradually contracted, and her health suffered much. After two years, her health improved, so that, when admitted to hospital, she appeared well nourished and in good general condition, but completely crippled in both legs, so that she lay "all of a heap", with the thighs flexed upon the abdomen and the legs flexed on the thighs. When examined under chloroform, it was found that the ankle-joints, knees, and left hip-joint were sound, though rigid, and it appeared probable that these might be rendered again useful. The movements of the left hip were somewhat hampered by the very rigid contraction of the adductor longus and gracilis muscles; but, these being relaxed (by the exercise of some degree of force), the thigh was brought down to its normal position. The right hip-joint was totally disorganised, a condition which had resulted in very strong unyielding fibrous ankylosis, with a great amount of local thickening.

Mr. Maunder here performed subcutaneous osteotomy, dividing the femur with the chisel just below the lesser trochanter, after which the thigh fell into position parallel with its fellow. The woman was

then placed in a bed so prepared that, while the trunk and thighs reclined upon it in their natural relative position, the legs, which could only be extended to a right angle, hung over its foot. The divided femur was kept in position by a long side-splint from the axilla to the knee; at the same time, extension of the leg upon the thigh was attempted by means of a seven-pound weight and a cord passing over a pulley, while the tension produced by a ten-pound weight made traction upon the thigh. Extension was likewise applied to the left leg; the weights were increased from time to time, and the supports to the legs were altered as occasion required. In five weeks, the extension was removed, the limbs being perfectly straight. Throughout the treatment, there was but little disturbance; the patient complained only of a dragging sensation in the left groin, resulting apparently from the tenotomy and forcible extension here used; there were no complaints of pain at the seat of osteotomy, and the wound over the divided femur healed by first intention. Before leaving the hospital, the patient was able to walk with the help of crutches, and to bear some weight on both feet.

CASES OF STRICTURE OF THE PYLORUS TREATED BY
WITHHOLDING FOOD.

(Under the care of Dr. SUTTON.)

A dock-labourer, aged 41, was admitted to the hospital, complaining of inability to take solid food, as it always produced great distress; he also complained of heartburn and frequent vomiting. Upon inquiry, it appeared that he had suffered at intervals from severe dyspeptic symptoms during two years, the attacks having become more severe and more frequent of late, so that he was at last unable to take meat or solid food of any kind. He had also often been much distressed by a feeling of tightness across the abdomen, increased by food and relieved only by vomiting, so that he frequently put his finger to the back of his mouth to cause regurgitation. His habits were temperate. Dr. Sutton remarked that the order of symptoms was not indicative of chronic ulcer or of gastric catarrh. The sensation of tightness in the abdomen, the oozing of mucus, and frequent sour rising into the mouth, rather pointed to incipient stricture of the pylorus; and the constant vomiting strengthened that idea, although no distinct thickening could be felt through the abdominal walls. The emaciation might be attributed to the constant vomiting and inability to take food.

While under observation, he frequently vomited yeast-like acid matter containing sarcinae, which, when kept, rapidly underwent fermentation; he was much troubled by flatulence and headache. Food was given in small quantities, consisting of mince-meat, with very little bread and eggs beaten up with milk arrowroot. The stomach was washed out every day with warm water by means of the œsophageal tube. Under this method of treatment and rest in bed, he improved much in general condition; the vomited matter became less fermentable and the sarcinae disappeared.

Relapses, however, occurred, and, at two periods of the treatment, he was fed for three days by nutrient enemata only, no food being taken by the mouth, except a little brandy and water. This plan did not greatly try the patient, and produced a marked relief of the symptoms. The man was under treatment for three months; during that time, he improved much in general appearance, and gained seven pounds in weight.

A second case was that of a man aged 55, who, on admission, complained of "windy spasms" and inability to keep down food. He was a blacksmith, and, during adult life, had enjoyed good health, but his habits had not been temperate. He said that, for four or five years before coming to the hospital, he had suffered from distension after food, otherwise his health had not failed till the last three or four months, when vomiting of food became frequent and troublesome. Food caused distress, which was relieved only by vomiting. Formerly, he had been stout, but lately he had become emaciated, and his weight reduced from ten stones to seven stones and a half; his appetite had continued good, but he was afraid to eat. There was neither cough, heartburn, nor jaundice, and, on physical examination, the stomach appeared enlarged, and a distinct thickening was felt in the neighbourhood of the pylorus. It appeared probable that the man was suffering from a slowly growing scirrhus infiltration of the pylorus, causing stricture. Other treatment failing to arrest the vomiting, he was ordered to take no food by the mouth for three days, except a little brandy, and was fed by nutrient enemata. Great relief of the symptoms was thus afforded; the vomiting and feeling of distress subsided, and he was again able to take light food, while the stomach was washed out daily.

He was thus kept in comparative comfort, though the disease slowly advanced, and he died three months after his admission to the hospital.

REVIEWS AND NOTICES.

CLINICAL LECTURES ON DISEASES OF THE LIVER, JAUNDICE, AND ABDOMINAL DROPSY, INCLUDING THE CROONIAN LECTURES ON FUNCTIONAL DISARRANGEMENT OF THE LIVER, DELIVERED AT THE ROYAL COLLEGE OF PHYSICIANS IN 1874. By CHARLES MURCHISON, M.D., LL.D., F.R.S., Fellow of the Royal College of Physicians; Physician and Lecturer on the Principles and Practice of Medicine at St. Thomas's Hospital, etc. Second Edition. Pp. 644. London: Longmans, Green, and Co., 1877.

A SECOND and enlarged edition of Dr. MURCHISON'S well known *Lectures on Diseases of the Liver* has appeared this year, and is highly welcome to the profession. The edition before us has not only increased in size, it has grown; for, while some of the cases given in the edition of 1868 have been omitted, they are replaced by a much larger number of cases of more modern observation, and many of these are of great interest. The work is a museum of cases, well arranged and highly instructive; short descriptions of diseases are given as assistance to study, and the special features of each case are indicated in its heading, so that the practitioner and student will be able to find examples analogous to almost every case of liver-disease that can come before them.

Those who possess the older edition will likewise value the present work, for many of the chapters have been rewritten as well as enlarged, and other additions have been made which we shall presently notice, besides the incorporation of the Croonian Lectures on the Functional Diseases of the Liver. The large experience of the author, and his well-known accuracy and fairness in observing and recording clinical facts, place this volume of lectures among the standard works of medical literature.

Passing by the chapters treating of the more common forms of disease causing enlargement of the liver, we come to an exceedingly interesting account of Hydatids of that organ, in which the various questions of diagnosis and treatment of the disease are dealt with, and the details of the operative method recommended by the author will be appreciated by every medical practitioner called upon to treat such cases. Dr. Murchison recommends that, in all cases where the tumour is increasing in size, the fluid be drawn off with a fine trocar without waiting for the formation of adhesions. His method appears the least likely to be followed by bad results, and the removal of a small portion of fluid from the cyst is all that is necessary to kill the parent hydatid and its offspring. Local anæsthesia by ether-spray is recommended in place of the administration of chloroform, which may be followed by troublesome and dangerous vomiting. Injection of fluids into the cyst, such as solution of iodine, oil of male-fern, etc., are deprecated as not only unnecessary, but dangerous. Of 103 cases operated upon, 80 appear to have been perfectly successful; 16 were followed by suppuration, but recovered; and 7 were fatal; while in four of these cases death resulted from causes independent of the operation. The advisability of puncture by a fine trocar in suitable cases may now be considered as fairly established in medical practice. Other methods of treatment, as by acupuncture and electrolysis, are discussed.

In describing the Pyæmic and Tropical Abscess of the Liver, the pathological differences of the two diseases are strongly and clearly contrasted. The tropical abscess is a local disease, and in many cases may be treated as such; while the pyæmic abscess is but a local manifestation of a general disease. After carefully weighing the evidence for and against operation in tropical abscess, and citing cases from his own experience and that of other authors, Dr. Murchison recommends evacuation of the pus in cases where there is a visible fluctuating tumour, or where local œdema with other signs indicate an approach of pus to the surface. When operation is decided on, the necessity for antiseptic precautions, after Mr. Lister's method, is strongly insisted upon; and in some cases a counter opening may be required, with a drainage-tube passing through both apertures.

A new chapter has been added to the present edition of this work, containing a description of some of the rarer forms of Enlargement of the Liver, with cases of great clinical and pathological value. A case of spindle-celled sarcoma of the liver, which was communicated to the Pathological Society in 1873, is narrated at length; and the author justly remarks that, without special care, such a case might be easily passed over as one of ordinary cancer. The case was characterised by absence of the so called "cancerous cachexia", or rapid emaciation, and there was an almost total absence of pain; there was neither jaundice nor ascites. The growth appeared to be secondary to a similar disease affecting the eyeball, which had been enucleated nine years before. A woodcut illustrates the microscopical appearances of the

tumour. Cases of myxoma, epithelioma, and cystosarcoma of the liver are also briefly referred to. The rare condition of multilocular or alveolar hydatid of the liver is here well described.

In the same chapter, a fatal case of interstitial hepatitis with xanthelasma is recorded. After premonitory symptoms of dyspepsia, jaundice set in, and later cream-coloured patches appeared on the lids of both eyes, the chest, and arms. The liver and spleen became greatly enlarged, emaciation followed, with great exhaustion and diarrhoea. At the necropsy, the liver weighed eighty ounces, and, on microscopical examination, a large growth of nuclear and fibroid tissue was found between the lobules and portal canals. The spleen weighed twenty-three ounces, and presented many embolic patches. The discoloured patches of skin were examined, and numerous oily granules were found, both isolated and aggregated in masses, deposited in the meshes of the cutis.

The Croonian Lectures having been previously noticed, we pass over other additions to the present edition, strongly recommending their perusal to our readers.

ON THE WEATHER AT CANNES 1875-6. By W. MARCET, M.D., F.R.S. London: Longmans. 1877.

As the temperature at seaside places depends materially on the nearness to the sea of the station at which it is taken, as well as the amount of protection afforded by the neighbouring hills and the elevation of the instruments above the ground, we are the better able to judge of the value of the observations taken by Dr. MARCET relatively to the town itself. It appears from his statement that the house was situated on the west bay, at about seventy-five yards from the sea, thirty feet above it, and sheltered on the north side by a hill which was immediately contiguous, "so that the house is rather warmer than others at a further distance from the water". The instruments were placed under a deal screen, and affixed to two upright rods connecting the roof and floor of the screen, and attached to the railing of a first floor balcony having a northern aspect. The hours at which the observations were taken are somewhat unusual, viz., at 9 A.M., which is the usual time in England, and at night between eleven and twelve; but, as the means are based on the first mentioned observations, and on the maximum and minimum, they are probably nearly correct, although perhaps a little too low.

In the introductory remarks, we find a table of the state of the weather at Nice for 1872-4, and Cannes for 1874-6, during the six months in each year from November to April, which shows that there were 248 fine days at Nice and 230 at Cannes, and 81 rainy days at Nice against 109 at Cannes; but, as Dr. Marcet states that the winter of 1873-4 at Nice was the finest he ever experienced, it is probable that the number of rainy days does not vary much at either place. There is, however, a difficulty as regards the definition of a rainy day; as Dr. Marcet says, if a slight shower fell, it was considered rainy, which is much less definite than the 0.01 inch of rain above, and which constitutes a rainy day amongst English meteorologists. The largest number of rainy days at Cannes occurs in April and December, and the smallest in February and March. The effects of the moisture and temperature of the air are, however, much modified by the mistral (a strong west and north-west wind), which blows occasionally at these and other health-resorts of the Mediterranean, and acts injuriously on rheumatic patients, and, as most think, on phthisical patients also, although Dr. Marcet doubts it, being of opinion that it is more unpleasant than noxious, and is not so uncomfortable as the easterly wind. In the season of 1874-5, there were 38 days on which the wind was strong to a gale, and 63 in 1875-6, its prevailing direction being north and north-west. The approximative mean temperature for the season 1875-6 was 50.8 deg. Fahr., and for 1874-5, 50.5 deg., so that the difference was very small; but the mean of the 9 A.M. observations differed more, as it was 50.1 deg. in 1874-5, and 51.1 for the season of 1875-6. This mean of 50.6 deg. was 9.2 deg. above the temperature of London for the same hour; the greatest excess at Cannes being in the months of March, November, and January, and the smallest in February and December. The mean monthly maxima for the seasons varied between 52.3 deg. and 61.3 deg., the mean of the whole being 57.2 deg. The mean of the minima readings was 44.2 deg.; so that the range was greater than in London for the corresponding months by nearly 3.0 deg., as might have been expected from the higher mean temperature. As regards the extreme minimum temperatures recorded, which are far more important to invalids, the difference is much in favour of Cannes, as the lowest temperature recorded was 30.2 deg. on one occasion against less than 22.0 deg. in three corresponding months at Kew. In the season 1874-5, the mean temperature between eleven and twelve at night, from October 21st to April 28th, was 48.4 deg.,

and in 1875-6 it was 48.9 deg.; the lowest weekly mean temperature at this hour was 39.2 deg. for the week ending December 16th, 1874, and 39.0 deg. in that ending December 1st, 1875, the highest means having occurred in each season during April. The difference in the dryness of the atmosphere at Cannes and Kew explains much of the beneficial effects of the French climate, as it is moist cold rather than dry cold which acts so injuriously on health during the winter months. At Cannes, the mean humidity (degree of hygrometric saturation) for the six months in the season 1875-6 was only 71.0, saturation being 100, against 81.7 at Kew. The mean humidity for 1874-5 was somewhat higher, having been 74.4. For details on this part of the subject, we must refer to the tables for each week in both years. Dr. Marcet also took, what is very important, the temperature of the sea, and found that the mean for the season 1874-5 was 56.8 deg., and for 1875-6 it was 57.2 deg., the highest monthly mean having occurred in November, viz., 61.0 deg. in 1875-6 and 60.4 in 1874-5; whilst the lowest was observed in February 1876, when it was 54.6 deg., and 54.5 deg. in 1875. This small range of the sea temperature accounts for much of the equable climate of the Mediterranean health-resorts, and points out the necessity of selecting a house near to the sea, which is also protected from the land-breezes. There is also a table of the lowest readings on the grass for three months, which, if shown by more extended observations to be usual for this climate, certainly indicates that one of the great causes for the marked depression in the winter temperature of this country—viz., radiation from the surface of the earth—does not act with anything like so much energy at Cannes as at Kew.

ON THE USE OF OZONIC ETHER AND LARD IN SCARLATINA. By JOHN DAY, M.D. Geelong: 1875.

DR. DAY has used, in a considerable number of scarlatinal cases, a solution of peroxide of hydrogen in ether, mixed with lard in the proportion of one of the former to eight of the latter. He has also used, when throat-affections were at all severe, a gargle consisting of two drachms of the ethereal solution of peroxide of hydrogen to eight ounces of water. He alleges regarding his plan of treatment—first, that the peroxide, being a powerful oxidiser, and therefore disinfectant, in a concentrated form, destroys the poison-germs before they are thrown off from the body, so that the patient "is enabled to breathe a pure atmosphere, instead of, as under ordinary circumstances, an atmosphere contaminated by the poisonous emanations from his own body"; secondly, that, in consequence of the rapidity with which the scarlatinal poison is destroyed, desquamation of the cuticle seldom occurs; thirdly, that it places in the hands of the practitioner a positive means of arresting the spreading of the disease.

The notes of fifty-five cases treated on this plan by Dr. Day between April 1873 and April 1875 were laid before the Council of the City of Melbourne, and the Local Board of Health, when they were ordered to be printed, and copies forwarded to the several Local Boards of Health in the colony. The notes show that fifty-three of these cases recovered; but the result was not mentioned in two cases, and we can, therefore, only speak as to fifty-three. This of itself, although good *prima facie* evidence of its utility, as no other treatment was adopted, is not sufficient, as it is well known that the disease prevails in a very mild character for lengthened periods, and then assumes, for a longer or shorter time, a malignant, form. That the cases were very mild, is rendered probable by the comparative rarity of sore-throat. The most important part of the evidence is the extreme rarity with which other children living in the same houses became affected with the disease; indeed, with the exception of two instances in which the inoculation was imperfectly carried out, it was confined to the person first affected. Instances are mentioned of children being attacked in the one school where there were ten boarders and twenty-five day-scholars, in another where there were ten other boarders and about sixty day-scholars, without any infection of the other children. The exceptions almost prove as much, because in one case the inoculations were continued for five days only, and four other children became infected a few days after they were left off; and, in another, two servants had a slight attack, and did not use the peroxide, when two children and an adult contracted the disease.

These statements are such as to render a trial of the plan advisable, not only for the sake of the patients, but of the public. There is no doubt that peroxide of hydrogen is a very unstable compound, which readily parts with one atom of its oxygen, and also liberates with some degree of violence the oxygen in the oxides of certain metals, and thus reduces them to a metallic state. The ethereal solution has a certain amount of stability, owing to the affinity of ether for the peroxide; but nevertheless we are not prepared to admit all the powers and virtues

claimed for it by Dr. Day. He has also, as he believes, extended its usefulness to the prevention of pyæmia, erysipelas, and puerperal fever, in hospital practice, by having the walls painted and the floors coated with paraffin, and then polished with turpentine; thus preventing the use of soap, an alkaline compound, for cleaning the floors and walls.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 4TH, 1877.

CHARLES MURCHISON, M.D., LL.D., F.R.S., President, in the Chair.

Multiple Sarcoma in a Boy.—Mr. BUTLIN exhibited a specimen of this disease in a boy aged 12. Two years and a half ago, he had a tumour of the size of a small walnut in the left parotid region, which was removed satisfactorily. Then two tumours formed in the forehead, and were removed. They presented the same microscopic characters as the first one. After that, both testicles became enlarged; their surface was smooth generally, but there were a few nodules. They enlarged slowly. A consultation was held as to whether the testicular growth was tumour or gummata; and some mercury with iodide of potassium was given, but without any effect. Several tumours next appeared; one in the back; another in the back of the thigh, which became inflamed, and then sloughed out, leaving a healthy scar; a third on the chest; a fourth in the left trochanter; and a small one in the back. They grew gradually, and infiltrated all tissues near them and with which they came into contact. The right testis, however, rather decreased in size. There was no recurrence at the site of the growth which had been removed. There was no visceral disease. The tumours removed were round-celled sarcoma. There was no dyscrasia; no history of syphilis. There had never been anything inflammatory about them, except the one which sloughed out. Their relations were not brought about by infection by the blood; and they had no lymphatic relations. There was no lung-infection. They were all separate outbreaks. It seemed that the slightest irritation would produce fresh tumours. What the end of the case would be, it was totally impossible to say.—The PRESIDENT said the case was one of great interest. He had at present under his care a lad aged 20, who had all the signs of a mediastinal tumour. Fifteen months ago, he had his thigh removed for a round-celled sarcomatous tumour.

Multiple Tumours of the Brain.—Dr. PEARSON IRVINE exhibited a brain from a boy aged 7, containing a number of small tumours. He had been ill two months, and came of a delicate family, in which there were phthisis and chronic Bright's disease, of which his father died. He had measles, and recovered; then he began to feel unwell, with pain in the head over the left frontal region, and to have vomiting after food, which gave relief, followed by some failure of vision and a squint. He was a strong child. The loss of vision increased, but the vomiting ceased. Then he had more pain. After breakfast one morning, he vomited, then became convulsed, the convulsions extending from the right side of the face to the right side generally. There was unconsciousness. Next day, he was well again; there being some right hemiplegia, with anæsthesia. The hemiplegia improved, but the symptoms continued. A second attack came on; the symptoms increased; and finally the boy died suddenly. He answered questions well, even when the blindness was complete. There was ptosis all through. The speech, though slow and hesitating, was distinct. He walked well. On ophthalmoscopic examination, the discs were found blurred and the veins enlarged, the arteries being lost over a considerable area. On *post mortem* examination, the bronchial glands were found enlarged, and some even cheesy. There was a tumourlike mass in the trachea, containing green yellow pus, which looked like a diseased gland. Grey granulations were found throughout the lungs, in the lower lobes chiefly, with pneumonia around them. Such granulations were also found in the kidneys. The brain was flattened, and the convolutions were shallow. The tumours were scattered about, and many fell off, so that their site could not be determined. They were mostly pedunculated tumours of the pia mater. Some were on the under surface of the brain. Of those left *in situ*, two were in the right lateral ventricle, three in the left, three large ones in the right half of the cerebellum, and one large one in the velum interpositum. Under the microscope, they could not be distinguished from tubercular growths. They were enucleated with ease. The sixth nerve was affected; but the nerve-supply to the face was uninjured. There was pressure on the eighth pair, yet he swallowed;

but at last only very slowly. The diagnosis made in life was corroborated by the *post mortem* examination.

Chylous Urine.—Dr. DICKINSON exhibited some specimens of chylous urine from a case still in progress. They came from a girl aged 21, who had never been out of England. For two years she had passed chylous urine. She was very emaciated, weighing only five stones and some pounds. She could not walk without help. She was very emotional. She was taken into hospital, and put on iron and cod-liver oil. The urine at that time was very chylous, being like rich milk, like that of an Alderney cow. It formed a coagulum, red at the bottom. There were no casts. The amount of blood was considerable. The urine was most milky in the day and after food. It was very albuminous. It once formed a solid mass like a jelly-fish, which was preserved in spirit. He could find no granules, even with an object-glass of high power. It was a mere regurgitation of chyle. Dr. Bence Jones had once attempted to use pressure by a bandage applied round the kidneys. This had not been successful. Dr. Dickinson fastened a tourniquet over the lowest lumbar vertebra, and the immediate effect was striking. The urine was scarcely at all chylous, and was of an urinous colour. There was never full chylosity again; indeed, now the urine was not a bad specimen of chylous urine. The proportion was now only 1.75 grammes of chyle to 20 grammes at one time. The patient now weighed over nine stones. Dr. Vandyke Carter had shown that the condition was due to a mechanical admixture of chyle with the urine. The proportion of fat and other constituents were the same as in chyle, and there was the same molecular base. Chyluria was found with superficial discharges of lymph. In accounts of four *post mortem* examinations in cases of chyluria, in one (Proust) the kidneys were quite healthy; in a second (Isaacs) they were also healthy; in a third (Priestley) the kidneys were fatty, in early Bright's disease, other organs also being fatty; and in a fourth (Lewis, in Bengal) there were in the kidneys certain fatty-looking channels, which ran alongside the uriniferous tubules. Filariae were present in the last case. The kidneys were then not always affected. Neither blood-casts nor fibrine-casts had ever been found. If the chyle came from high up, such casts must be present. It was not a renal secretion.

Case of Chyluria.—Dr. MORISON read notes of a case of chyluria where the urine was most chylous in the evening. It occurred in an Algerine Jewess, who had been twenty-eight years in Europe—fifteen in France and thirteen in England. She came of a healthy family, was a large stout woman who had had many children, and was fond of fatty food. Her health commenced to fail at the change of life. She became emaciated, and her urine was chylous. There was great thirst. Now she was a tall gaunt woman, complaining of languor, with lumbar pain, constipation, and of clots which formed in the urine. There was debility, and her legs were œdematous. The bulk of urine had at one time fallen to a normal amount; then it rose again to three pints and a half in the day, and the thirst returned. The urine was opalescent and densely opaque. It was best in the morning and worst in the evening. After a fast day, it was much clearer. Its specific gravity varied from 1040 to 1017, averaging 1028. After a clot had formed, it fell to 1013. It was acid. The coagulum broke up into shreddy material. On holding the bottle to the light, a cone-shaped coagulum could be seen in an opaline fluid. The bottle had to be broken to get at the coagulum. Heat and nitric acid produced distinct coagulation. Sugar was not always present. The urine passed quickly through filter-paper. On microscopic examination, there were found torulae, leucocytes, and small round bodies with refracting centres. In the coagulum were seen meshes with round cells. Sugar crystals and margaric acid crystals could be obtained. There were no filariæ. Extreme debility was the most prominent symptom. Was the sugar an accidental occurrence, or did it come from the chyle? There was probably a leak in the lymphatics.—Dr. ORD gave some further details respecting the case described by Dr. Dickinson. He (Dr. Ord) had seen her when she was aged 20: she was then of healthy appearance, but was stated to have lost flesh of late. She brought some clots which had been passed with the urine. Up to a year previously, she had been perfectly healthy. Then, without any known cause, she suddenly became so weak that she could hardly stand. She had no pain or any local symptom at first; but presently found the urine to be white, like milk, and sometimes bloody. Later on, she passed clots with it, and for five months she had much pain in the loins. The catamenia had been regular throughout. Her father died early of phthisis, her mother of heart-disease. Four brothers and four sisters were living; none of whom suffered, as far as she knew, from any trouble similar to her own. The clots brought were rather like bunches of currants, pinkish, semitransparent, and suggesting the idea of uterine hydatids. But the microscope showed them to consist of fibrine, enclosing a few blood-corpuscles and many nucleated protoplasmic masses, about four or five times the size of white blood-cor-

puscles. Some urine passed at the time was examined, and found to be of an opaque red colour, rather like that of strawberry-cream, and smelt exactly like milk. Its specific gravity was 1010, and it was feebly alkaline. On boiling, it lost its red colour, and the addition of nitric acid produced a voluminous precipitate. On long boiling, a pellicle formed on the surface, as in milk, and a strong urinous odour was developed as concentration proceeded. After boiling, the addition of a little acetic acid, and filtration, the fluid gave no reduction with Fehling's test. On the addition of an equal bulk of ether to the urine, the milky appearance was at once removed. After the two liquids had been shaken together and left to rest in a tall cylinder, the ether slightly tinged with yellow floated on the top; under this was a layer of reddish granular matter, like the grounds of beef-tea, and beneath this a red fluid. The ether on evaporation yielded fat, of which the urine contained by weight .47 per cent. of volume. The microscope showed the milky appearance to be due to the molecular base of chyle. The molecules exhibited incessant Brownian movement, and disappeared on the addition of ether. There were a few fatty granules. The blood was examined on three occasions and appeared perfectly normal. There was no appearance of any external lymphangiectasis, and no parasitic forms or ova of any kind could be found in the urine, although such were sought very carefully. Some urine and some of the fat were sent to Dr. Thudichum for examination. He found neither lecithin nor other phosphorised principle; he found the matter to be chiefly composed of neutral fats, viz., of olein in greater quantity, with palmitine, and little stearine. There were no free fatty acids belonging to these fats, but a small quantity of a fatty acid in the free state analogous either to palmitic or stearic. Like these acids, it emulsified a solution of neutral phosphate (Marcet's test), but was anomalous in its baryta salt and melting point. The fatty residue from the ether contained a good deal of sodium and potassium albumen. All this pointed clearly enough to chyle as the actual metamorphosing ingredient of the urine. The presence of blood indicated the probability of ulcerative communications between lacteals and urinary passages, the absence of forms intermediate between molecular base of chyle and blood-corpuscles being complete.—Dr. LEARED said he had seen the Jewess of whom Dr. Morison spoke. Chyluria was frequently hereditary in Morocco, and was common with stout Jews, possibly connected with the large amount of olive-oil they consumed. He had seen a man who had chyluria after a railway accident, where the urine became solid like blanchange, forming a perfect cast of the receptacle. It had somewhat improved during the fifteen years which had elapsed from the time of the accident. He thought shock had something to do with the production of the change in this case.—The PRESIDENT asked if chyluria was found along with external discharges of chylous fluid.—Dr. DICKINSON, in reply, said that they frequently alternated. Chyluria was not invariably due to the presence of filariæ, though commonly so produced. As to whence the chyle came, he must wait for further evidence. He hoped to know more some day.—Dr. PYE-SMITH said that it might not be chylous regurgitation, but some direct communication between blood-vessels and chyle-ducts on the further side of the mesenteric glands. Such communications were probably opened up by the filariæ.—Dr. DICKINSON said Proul's view was that chyluria was related to albuminuria. He would go so far with Dr. Pye-Smith that he thought the chyle came from the receptaculum chyli. When the thoracic duct was blocked, the lacteals and lymphatics might become stretched until the valves became insufficient, and then the chyle might regurgitate. The pathology was not yet certain.

Chylous Syphiloma of Liver.—Dr. WILKS related a case of this disease in a female aged 35, who had had no children and no miscarriages. There was no previous illness. She complained of pain over the liver, was jaundiced, and lost flesh. The abdomen was enlarged. The patient wasted, had a yellow skin, and had acites. Then followed an attack of peritonitis. The right lobe of the liver could be felt altered. On *post mortem* examination, there was found chronic peritonitis. On cutting into the liver, a large cyst was found, filled with yellow bilious fluid. There were hard masses around it. There was no history of syphilis. These growths may caseate or dry up. It was once thought they never softened. They were not usually described. Virchow had spoken of dry caries associated with syphilis. It was not absolutely correct that syphilitic gummata never softened. One he knew softened and opened into the hepatic duct. In a case of syphiloma of the liver, the mass grew smaller, and there was an abscess in the liver; this was tapped, and a curdy fluid, the softened syphiloma, flowed out. In another syphiloma in a brain, the fluid was like cream. Softening of syphilitic nodes was common in the experience of all; they were found in the sternum and tibiae. Or acute lung-disease might be a syphiloma. He had seen one lately with Dr. Goodhart. The question was, whether this was a decay of an old

gumma, or an acute change. He inclined to the latter view. It was an active growth decaying in the middle, a liquefaction of a syphilitic gumma.

OBSTETRICAL SOCIETY OF LONDON.

WEDNESDAY, NOVEMBER 7TH, 1877.

CHARLES WEST, M.D., President, in the Chair.

Tarnier's Forceps.—Dr. WILTSHIRE showed Tarnier's forceps, and explained the latest modifications made in it.—Dr. FANCOURT BARNES applied the forceps to the foetal head on a model invented by MM. Budin and Pinard.—Dr. PLAYFAIR asked if the instrument would permit rotation in occipito-posterior presentations. The greater the curve of the instrument, the more difficult was its application in such presentations.—Dr. BRAXTON HICKS said that the great desideratum in instruments was simplicity. There were two or three advantages claimed for Tarnier's forceps. One was that it indicated the rotation of the head; but the English forceps also did this. Traction was made with the new instrument by means of handles attached to the back of the blades; but it appeared to him that they did no more than the long straight forceps. The perineum presented a difficulty in the use of both instruments. The blades of Tarnier's forceps were less curved than those of the French forceps generally, so that they might not injure the foetal head. The instrument was too complicated to come into general use.—Dr. MATTHEWS DUNCAN observed with satisfaction that no provision was made in Tarnier's forceps for the use of the pendulum movement. He did not like the fixing of the blades by a screw-nut, for it exercised a constant pressure on the child's head. In the ordinary English forceps there was a great deal of latent ingenuity. The instrument permitted relaxation of the pressure on the head.—Dr. GALABIN said there were two imperfections in the instrument; the indicators were too heavy, and it did not permit free extension of the traction-handles. They would endanger the perineum.—Dr. FANCOURT BARNES observed that, when Tarnier's forceps was applied to the head above the pelvic brim, the head was drawn backwards into the hollow of the sacrum, and did not exert pressure on the symphysis as the ordinary long forceps did.—Dr. AVELING said that the sigmoid form of these forceps was correct. Dr. Johnson first introduced the perineal curve; the idea was further developed by Hermann, Hubert, Morales, Tarnier, and ten years since by himself.—Dr. WILTSHIRE said the compression could readily be intermitted by unscrewing the handles, which, he thought, could be made lighter.—Dr. GALABIN showed his forceps, and pointed out that the instrument was similar in principle to several named by Dr. Aveling. It had straight handles, a large perineal curve, and an English lock, and permitted traction to be made in the axis of the brim of the pelvis.—Dr. BRAXTON HICKS said that there was danger of displacing the blades backwards when making traction with this forceps.—Dr. AVELING said that it was identical in form with those of Morales. He thought the long straight handles were unnecessary.

Obstetric Model.—Dr. FANCOURT BARNES described the model of Drs. Budin and Pinard.—Dr. BRAXTON HICKS showed and described the phantom he had used for years.—Dr. ROUTH said that the dead body would be much better than phantoms. It was used in Vienna.—Mr. BROWN asked if the uterus was natural as well as the rest of the body.—Dr. EDIS objected to operation on the dead body, because it would unfit the physician for practice.—Dr. GERVIS thought that the pelvis in Dr. Hicks's phantom was placed too far from the edge of its stand.—Dr. HICKS said it was placed so in order that students might be taught to apply the forceps without moving the patient to the edge of the bed.

A Diagnostic Sign of Vaginal Hemorrhage during Parturition.—Dr. PAUL BUDIN (Paris) pointed out that when, during the birth of the child, a stream of blood ran over the neck and back (the presentation being occipito-anterior) such hæmorrhage was not from the uterus but from the anterior wall of the vagina a little behind the uterus.—Dr. EDIS had met with a case of this kind. He found a rent near the clitoris, applied perchloride of iron and a T-bandage with success.—Dr. WILTSHIRE asked if sloughing followed the application.—Dr. EDIS said it was a question of saving life.

Cancer.—Mr. WERSHIP showed a cancerous growth involving the ovaries.

On the Choice of the Leg which should be seized in Version for Presentation of the Upper Extremities.—Dr. A. L. GALABIN read a paper on this subject. The case referred to was that in which the liquor amnii had escaped, and bipolar version was no longer possible. The doctrine commonly taught in England was that, in such cases, it was necessary or desirable to seize the upper knee, or that opposite the presenting

shoulder. This was recommended on the ground that in this way the child was rotated on its longitudinal as well as on its transverse axis, and by that means the presenting shoulder was more effectually carried away from the os uteri. By taking the lower leg, the fœtus was rotated on its bilateral plane. By taking the upper leg, it was intended to rotate it in the antero-posterior plane, which passed through the presenting shoulder and the opposite hip—a movement which was equivalent to rotation on its transverse and its longitudinal axes at the same moment. In dorso-posterior positions, however, this rotation often failed, as was proved by the back being found still directed backwards immediately after version. In such case, the same kind of rotation was produced as by taking the lower leg, but at a less mechanical advantage. By two figures drawn to the same scale representing sections of the fœtus, first in the bilateral plane, secondly in the antero-posterior plane, through the presenting shoulder and opposite hip, it was shown that traction on the lower leg acted at a greater mechanical advantage in effecting rotation on an antero-posterior axis than traction on the upper leg in effecting the combined rotation on a transverse and longitudinal axis. A more important advantage in seizing the lower leg was that, if a noose were placed on the prolapsed arm, the operator would have, in the after-extraction, complete command of the anterior arm, which was always the one which gave trouble in liberation, and often thereby caused the death of the fœtus. Moreover, if the lower leg were seized, the more usual dorso-anterior position was not converted by the version into a dorso-posterior; a point of very minor importance, but one which might sometimes be worthy of consideration. The author had practised this method in eight consecutive cases without being obliged in any one of them to bring down afterwards the opposite leg. In some cases, however, if the fœtus were dead and flaccid, the shoulder failed to rise if version were performed in this way. In these instances, the upper leg might be brought down afterwards with as much advantage as if it had been seized in the first instance. In such difficult cases of version there was an actual benefit in bringing down both legs; for, not only was there a means thereby afforded for more powerful traction, but more room was furnished within the uterus. Moreover, if the breech were first drawn down as low as to a transverse position by traction upon the lower leg, traction upon the upper leg would afterwards act at greater mechanical advantage in rotating the fœtus on its longitudinal axis, and so aiding the elevation of the shoulder. The conclusion drawn by the author was that, in the majority of cases, it was preferable to seize, in the first instance, the nearer and lower knee, or that on the same side as the presenting shoulder.—Dr. MATTHEWS DUNCAN said that he had for many years taught the preference of the leg homonymous with the presenting arm, according to the views which Dr. Galabin had so elaborately and successfully advocated.—Dr. HOLMAN had for many years followed the practice of bringing down the nearer or more dependent knee, and had always succeeded in effecting version.

MANCHESTER MEDICAL SOCIETY.

WEDNESDAY, OCTOBER 3RD, 1877.

DANIEL J. LEECH, M.D., Vice-President, in the Chair.

Sclerosis.—Dr. DRESCHFELD showed two brothers, aged seven and eight years respectively, affected with sclerosis in patches. The elder showed the characteristic symptoms of the disease in a very marked form. They began, when he was fourteen months old, with convulsions, followed soon by nystagmus, by trembling and weakness of the limbs. From this sudden onset, the disease gradually progressed up to the present time. He was a very well nourished boy, fairly developed. The expression of the face was vacant, and there was marked nystagmus; the intelligence was blunt; there was no headache, no vertigo; his speech was very much affected, he was only able to pronounce certain letters, and spoke very slowly, without changing the pitch of his voice. There was marked glosso-labial pharyngeal paralysis; the saliva was continually running from the mouth; the mobility of the tongue was impaired; and there was difficulty of swallowing fluids. When any movements were attempted, the head jerked violently to and fro; the tongue trembled. He was unable to walk or stand; but was able to move the upper extremities. When, however, he attempted to do so, the movement was accompanied by trembling. The lower extremities were quite paralysed. There was no atrophy of the muscles. The feet showed beginning contractions. The sensibility was intact; electro-muscular irritability and electro-muscular contractility were normal. The bladder and rectum were not affected. The younger brother (aged 7) showed the disease equally well marked, but in a less advanced form. He seemed perfectly well up to his fourth year, when it was noticed that he had the tendency to fall forward when walking, his

walk became unsteady, and was accompanied by trembling. He was a well nourished, fairly developed boy, able to stand, but walked with great difficulty. His walk resembled that of an atonic person, with this difference, that he placed his toes and not the heels first on the ground. His expression showed a vacant stare; his intelligence was good; he had emotional disturbances (immoderate laughing and crying); nystagmus appeared only when his attention was drawn to something; his lower lip was very dependent; his speech slow and drawing; glosso-labio-pharyngeal paralysis was beginning. He had marked shaking of the head when he attempted to drink. The upper extremities were paretic, but not contracted; they trembled when movements were attempted. The lower extremities were slightly paretic. He walked with great difficulty; his walk was very unsteady; the movements were incoördinate and accompanied by trembling of the whole body; the sensibility of both upper and lower extremities were not affected. The bladder and rectum were intact. Dr. Dreschfeld drew attention to the rarity of this affection in children, and to the hereditary nature of the disease in this case. Similar cases seemed to have been observed by Friedreich (Virchow's *Archiv*, Band lxviii, p. 146), but were called by him locomotor ataxy with nystagmus. Medicinal treatment did not seem to be of much avail in these cases, except that the frequent use of cold shower-baths appeared to do much good.

Disseminated Sclerosis of the Brain and Spinal Cord.—Dr. HUMPHREYS exhibited this case. The patient was a girl, aged 3½, who had been healthy and intelligent until ten months ago, when she was knocked down by a horse, and bled at the nose, but did not lose her senses. She appeared to recover completely from the accident; but two months afterwards had a fit. After this fit, it was stated that her limbs began to shake on exertion. A second fit occurred five months after the first. After this, her limbs shook much more, and her speech became affected. A third fit had occurred fourteen days before admission. The child was very well grown, but looked dazed, and her lower lip was hanging down. Whilst sitting in bed, no tremors of the muscles were noticeable; but, directly she attempted any voluntary movements, her limbs and head began to shake. She could not stand. Supported on both sides, she made an attempt to walk, but there was much incoördination in the movements of her legs. She protruded her tongue with much difficulty, and with tremulousness. There was no nystagmus. The optic discs were pale; the arteries threadlike; the veins small. Some improvement resulted under the use of iodide of potassium in five-grain doses three times a-day.

Gliomatous Tumour of the Cerebellum and of the Spinal Cord.—Dr. ROSS exhibited the tumour, taken from a boy aged 14. When first examined, the boy suffered from almost complete blindness of the left eye and amblyopia of the right, passing on to amaurosis from right to left, and temporarily inducing a condition simulating nasal hemiopia. There was also double optic neuritis. His gait was staggering; and, when unsupported, the upper part of the body shot forwards, as if the patient were to revolve round a horizontal axis. He saw objects revolving past him from right to left. These symptoms enabled Dr. Ross to diagnose a tumour of the anterior part of the middle lobe of the cerebellum, inclining to the right and pressing forwards on the corpora quadrigemina from right to left. This diagnosis was fully verified at the necropsy. During the progress of the case, paraplegia, paræsthesia, and trophic changes appeared, which showed that there was an independent affection of the cord. The mode of appearance of these symptoms showed that they could not have been caused by the pressure of a localised tumour, and they were consequently attributed to softening. At the *post mortem* examination, a tumour was found extending the whole length of the cord. In the cervical region, it occupied the posterior aspect of the cord, and was only a line in thickness; in the middle dorsal region, it replaced the posterior two-thirds of the cord; while, in the lumbar region, the cord was completely surrounded by the tumour. In this region, a central cone rather larger than a goose-quill, consisting of softened nervous tissue, was all that represented the cord. The tumour of the cerebellum was a soft glioma, but that of the cord was hard.

Popliteal Tumour of the Knee-joint.—Mr. BOULANGER showed this tumour, which had been situated on the inner side of the left knee. It gave a marked pulsation and loud *bruit*. The popliteal artery was easily felt in the popliteal space, and the posterior tibial artery at the ankle. No œdema was present, nor were there any enlarged femoral glands, nor cancerous cachexia. Amputation of the thigh was performed, and the tumour proved to be a case of the firmer variety of medullary cancer, with a thin casing of bone. There was no blood in the tumour. Two large nutrient arteries came from the lower third of the femur; and the articular arteries were much enlarged. The cause of the pulsation was probably an anastomosis of the arteries round the outside of the tumour, cased in by the periosteum.

Abscess of the Ovary.—Mr. CULLINGWORTH briefly narrated two cases of abscess of both ovaries, pathological preparations from each of which were shown. The first case occurred in an ill-nourished, strumous, unmarried girl aged 26, who was under observation more or less constantly for upwards of twelve months. The enlarged left ovary was perceptible during life as a smooth, hard, oblong tumour in the iliac region, tender to the touch, and slightly bulging forwards the abdominal wall. There were all the signs of adhesive peritonitis in the pelvis, with complete fixation of the uterus. The peritonitis became general, and the patient died in a state of extreme emaciation. Both ovaries had become converted into thick fibrous sacs containing purulent fluid of highly offensive odour. The right ovary, smaller than the left (which measured three inches and a half by two inches and a half), was flexed backwards upon itself, and was firmly adherent to the back of the uterus. The second case was that of a woman forty-five years of age, who was admitted on account of a large abdominal swelling, from which a quantity of pus was withdrawn by the aspirator. The physical signs were those of a large cyst, and an exploratory incision was made with a view to its removal, if practicable. No cyst, however, was discovered, and the operation was not pursued further. The patient died shortly afterwards. It was then found that an enlarged suppurating right ovary had burst, discharging its contents between the peritoneal and muscular layers of the abdominal wall. These layers were separated laterally as far as the anterior spine of the ilium on each side, and upwards to a line on a level with the last rib. At the right upper corner, there was an opening in the peritoneum, through which the pus had made its way into a transverse channel, bounded by the liver, stomach, and transverse colon, and shut off from the general peritoneal cavity by adhesions. The posterior wall of the large pus-containing cavity was very thick, and consisted of peritoneum, thickened omentum, and several coils of small intestine all matted together. The left ovary was slightly enlarged, and its contents were also in a state of supuration.

Piliferous Cyst of the Ovary.—Mr. CULLINGWORTH exhibited a large compound ovarian cyst, containing a quantity of hair, partly floating and partly attached to the walls.

Diffuse Aneurism of the Deep Femoral Artery.—Mr. BRADLEY communicated the history of this case. The patient, a man aged 37, previously healthy, was admitted into the Manchester Infirmary under his care on July 16th, with an aneurism, which was clearly circumscribed at the inner side of Scarpa's triangle. After a few days' rest, Esmarch's bandage was applied, and retained for an hour; the tumour was so high in the thigh that the upper encircling bands pressed upon the tumour, and to this Mr. Bradley attributed the fact that the aneurism from this date became diffuse. On removing the bandage, pulsation ceased, and the tumour felt harder; the following day, however, pulsation was detected, but only along the outer margin of this mass; along this track, a *bruit* was audible; and the tumour had increased in size. The next day, the increase was so marked and the skin so tense, that Mr. Bradley tied the common femoral immediately below Poupart's ligament. On tightening the ligature, which was of catgut, pulsation ceased. The following day, however, there was a return of pulsation; and, presuming that the ligature had slipped, Mr. Bradley proceeded to secure the vessel with a silken ligature. On exposing the previous ligature, the artery could be seen beating on both sides of it, clearly showing how imperfect was the hold of the catgut. A silk ligature was on this occasion passed round the vessel above and below the points of the previous deligation; and, on tying the silk tightly, once more pulsation ceased in the aneurism. In spite of this, however, the tumour still increased in size; and, two days afterwards, pulsation was once more noticed following the same isolated track along the outer side. The aneurism being clearly diffused, Mr. Bradley amputated the limb just above the origin of the profunda. It was now found that the aneurism sprang from the internal circumflex branch of the profunda, and was diffuse; the superficial femoral, quite healthy, coursed along the external wall of the sac. This explained the return pulsation, which, in the first instance, was due to yielding of the catgut; in the second, to a free collateral circulation flowing through the circumflex iliac artery into the ascending branch of the external circumflex, thence into the profunda, and so on into the superficial femoral. After a favourable progress for several days, secondary hæmorrhage ensued; and the man eventually died with symptoms of pyæmia. Mr. Bradley remarked that this case went to prove three things: 1. That applying Esmarch's bandage to a limb is dangerous when the encircling folds impinge upon the aneurism; 2. That catgut is at best a doubtful material for ligaturing a vessel in its continuity; and 3. That the isolation of pulsation and *bruit* along a narrow and definite track justifies the diagnosis of a vessel, perhaps deflected, but distinct from the aneurism; and that the existence of such a circumstance, combined with steady increase in

the size of the aneurism, which does not pulsate, should lead to the conclusion that we have to deal with a diffuse aneurism, and for this the proper treatment would be amputation, and not deligation of the feeding trunk.

A Method of Shortening the First and Second Stages in Certain Normal Labours.—Mr. BISHOP read a paper on this subject. After alluding to the two classes of cases in which his method was applicable, he described the method, which consisted in exciting reflex uterine contractions by pressing two fingers, slightly divergent, upon the posterior wall of the vagina and passing slowly downwards during a pain. The cases in which he had seen benefit from this mode of treatment agreed in one indispensable point, viz., there was no mechanical obstacle to the birth of the child.

Gibb's Snare for the Removal of Laryngeal Growths.—Dr. SIMPSON showed this instrument, and related a case of successful removal of a papillomatous growth from the right vocal cord.

NORTHUMBERLAND AND DURHAM MEDICAL SOCIETY.

NOVEMBER 8TH, 1877.

G. B. MORGAN, Esq., President, in the Chair.

Prevalent Diseases of the District.—Mr. H. E. ARMSTONG presented a report of the cases admitted to the Newcastle-on-Tyne Fever Hospital during the month of October; and reported the occurrence of a case of small-pox in Newcastle.—Dr. ADAM WILSON said there were some cases of small-pox at Walker, a village three miles from Newcastle.

Anencephalous Fetus.—Dr. MURPHY showed a specimen.

Tracheal Retractor.—Dr. MURPHY showed an ingenious instrument which he had invented for the purpose of keeping the trachea open after tracheotomy, while a tube is being introduced or a foreign body removed.

Fracture of the Odontoid Process.—Dr. PAGE showed this specimen. The patient had fallen several feet on top of his head. Death was instantaneous. The ligaments were unruptured.

Ovarian Tumour: Antiseptics.—Dr. PAGE showed a large specimen, which he had successfully removed antiseptically.—Dr. HEATH alluded to his case, published in the BRITISH MEDICAL JOURNAL of June 30th, 1877, and said that was, so far as he knew, the first case in which the operation was performed strictly antiseptically. In late operations, he had divided the pedicle into several parts. Each part was ligatured antiseptically. The pedicle was then left in the peritoneal cavity. Dr. Heath showed a specimen of ovarian tumour.

The Catgut Ligature.—Dr. HEATH showed a carotid artery which had been ligatured by antiseptic catgut. The patient, who was suffering from malignant disease in the parotid region, died eight days after the operation. The ligature had disappeared. The internal and middle coats were undivided. The external coat was constricted. The vessel was filled with a firm clot.

Foreign Body Removed from the Bladder of a Female.—Mr. FIELDEN showed this specimen, which he had removed through the dilated urethra. The foreign body was two inches long by an inch and a quarter broad. The urine was retained, and passed naturally on the eighth day.

Tumour of the Kidney.—Mr. FIELDEN showed a specimen weighing four pounds and a half, removed from a boy aged 6. The tumour was of five months' growth. There was no history of hæmaturia.—Dr. BYROM BRAMWELL had examined the tumour, and stated that it was a small-celled sarcoma.—Mr. FIELDEN also showed photographs of the case.

Fatty Tumour of the Axilla.—Mr. FIELDEN showed this specimen.

Hepatic Abscess.—Dr. GIBSON showed a specimen removed from the body of a Russian sailor aged 29. No history could be obtained. There was also a large collection of pus in contact with the spleen. Purulent peritonitis, pericarditis, and pleuritis were found *post mortem*.

Contraction of Knee after Excision.—Mr. MORGAN showed a patient, in whom contraction of the knee had taken place after excision of the joint and after bony union had apparently been firmly established. The knee was firmly ankylosed at an angle.

Supernumerary Fingers and Toes.—Dr. BARRON showed an individual with six toes on each foot and five fingers on each hand. There was no hereditary history.

Conical Cornea benefited by Iodide of Potassium.—Dr. HEATH showed this patient, and stated that the convexity of the cornea had greatly diminished under the use of the drug.

Hypertrophy of the Leg: Ligature of External Iliac.—Dr. HEATH showed the patient, a boy aged 6. Before the operation, the left leg

was two inches and a half longer than the right, and measured at the thickest part of the thigh twelve inches and a quarter, the right being eight inches and a half. Some months after the operation, the left leg was only one inch and a half longer than the right; and the measurements of the thigh were: left, twelve inches; right, eleven inches. Since the operation, the right limb had been stimulated by the constant current. The hypertrophy was not congenital.

Intussusception in an Adult Treated by Opium: Recovery.—The PRESIDENT (Mr. MORGAN) read the notes of this case. The invagination could just be reached *per rectum*, and felt like the os uteri.

Pyloric Obstruction, with Abnormal Position of the Right End of the Transverse Colon.—Dr. EMBLETON reported this case. The diagnosis was for some time obscure, as no tumour or other apparent cause of obstruction could be detected. At the *post mortem* examination, the right end of the transverse colon was found between the diaphragm and the convex surface of the liver.

Intracranial Tumour.—Dr. BYROM BRAMWELL commenced a paper on this subject. He referred to his case of unilateral convulsions, reported in the BRITISH MEDICAL JOURNAL of September 1st, 1877, adding to the comments there made upon the case. He then detailed the history of a case of acute tuberculosis, in which the lesion was confined to the ascending frontal and ascending parietal convolutions.

SOUTHERN BRANCH: SOUTH-EAST HANTS DISTRICT.

OCTOBER 31ST, 1877.

WILLIAM CASE, L.R.C.P.Ed., President, in the Chair.

Fracture of Femur.—Mr. H. B. NORMAN read a paper on this subject, in which he passed in review the various methods of treating simple fractures of the thigh in adults, noticing particularly, and as well deserving of the attention of hospital surgeons, Hodge's splint, as recommended by Mr. Farrant Fry in a late number of the JOURNAL, on the experience of Guy's Hospital, recorded in the *Guy's Hospital Reports* by Mr. Cooper Forster. Questioning, at the same time, whether either this or the method now in use at the Portsmouth Hospital of a system consisting of an inclined plane, short splints, and pulleys, well contrived, did possess such great pre-eminence over the long outside splint when rightly applied: he urged the general applicability of the latter in private practice, especially in the country, as the apparatus could be extemporised almost anywhere, was manageable by the surgeon himself without other skilled assistance, and, when properly applied, afforded very good results. There were several ways in which this was not done; firstly, through omitting to secure the first roller to the upper end of the splint; secondly, through not properly protecting the heel and ankle by some soft material; thirdly, through making extension before enough of the limb was bandaged to the splint—the latter two omissions ending in sloughing of the instep or heel and consequent abandonment of the treatment; fourthly, inadequate protection of the groin from pressure, whereby sores were formed there, compelling the disuse of the perineal band; fifthly, omitting the perineal band altogether; or sixthly, not using the band with sufficient vigour and purpose. To obtain the full advantages of the long splint, the first roller must be attached to the upper end of the splint in order to carry out one of its first objects—complete union of the splint and limb below the fracture. Next, the heel and instep must be carefully padded, and the limb and splint be very carefully bandaged together at this part. Thirdly, an extension should be attempted before bandaging up to the seat of fracture. Lastly, the perineal band should be stout, strong, and unyielding; the groin should be protected by cotton-wool from the effects of pressure of the band; and the band, in the early part of the treatment, should be tightened daily whilst extension was made from the ankle. By carefully attending to these details, very unpromising cases could, in the author's experience, be brought to a happy termination, even when complicated by traumatic delirium and other difficulty, and, he thought, with no great amount of discomfort to the patient as compared with the other means.

Self-Inflicted Fracture of the Skull by an Insane Patient.—Dr. MANLEY exhibited a skull with two fractures, which had been caused by the patient having beaten his head with a hammer for the purpose of suicide previously to his admission into the asylum. Another case had, many years ago, come under his observation, where suicide had been attempted, but unsuccessfully, by the same means. The subject of the fatal attempt was sixty years of age; of the unsuccessful attempt, thirty-four. The skull in the preparation before them was one of the thinnest he had seen in a male adult; and diploë was almost entirely absent. The patient lived for three weeks after the injury, passed through an attack of erysipelas of the head, progressed in the most favourable manner, and was conscious until within a few hours of his death, which

took place after two epileptic paroxysms. He was of opinion that the suicidal intention was equally strong in each case, but that the result was different from the different physical conditions in the bones of the two would-be suicides. *Post mortem* examination showed extensive disease of the bladder, though there had been neither signs nor symptoms of such disease during life. In the insane, particularly in melancholics, one set of diseases, which assumed in the patient's mind a greater prominence than it deserved, often masked the presence of another set. He thought it not improbable that the exciting cause of the melancholia from which the patient suffered, and which was not accounted for on admission, was the result of the bodily disease discovered after death, and that the mental sufferings became so great, the patient lost sight of his bodily disease and failed to mention it. These two were the only instances in which attempts at suicide by the means described had come under his notice.

Cystic Tumour of the Mamma.—Dr. WARD COUSINS exhibited a large cystic tumour of the mamma, recently removed from a patient in the Royal Portsmouth Hospital. The tumour had existed for eight years. During the last twelve months, it had considerably enlarged; but a recent fall had been followed by pain, swelling, and considerable tension. On section, a large portion of the tumour was found to have undergone inflammation, and some of the cysts contained softened clots.—Dr. HOLLIS exhibited microscopical sections of the tumour. It was a spindle-celled sarcoma.

GLASGOW PATHOLOGICAL AND CLINICAL SOCIETY.

TUESDAY, NOVEMBER 13TH, 1877.

ALEXANDER ROBERTSON, M.D., Vice-President, in the Chair.

Excision of Larynx, and Use of Artificial Vocal Apparatus.—Dr. DAVID FOULIS showed the parts removed by him in the operation of excision of the larynx, viz.: the cricoid and thyroid cartilages. The patient came under his care, in the Throat Dispensary, in May 1876. At that time, there was a small growth on the under side of the anterior end of the left vocal cord. The symptoms were hoarseness, inability to shout, and occasional sudden interruption of the voice in the middle of a word. Dr. George Buchanan kindly admitted the patient into his wards, and removed the growth by cricotomy, a small vertical incision in the skin, one inch and a half in length, exposing the region sufficiently for the purpose. A year after the operation, the tumour had reappeared, and had assumed such a size as to again necessitate removal. Dr. Foulis, therefore, had the patient admitted into the Training Home for Nurses and performed thyrotomy, splitting the thyroid cartilage vertically in the middle line, holding the two halves apart with hooks, and clipping out the tumour, the seat of which was then touched with the actual cautery. The patient made a good recovery; but, six months later, the growth had reappeared in a more rapidly growing form. It was decided not to again attempt mere excision of the growth, and Dr. Foulis proposed the removal of the whole larynx with the tumour, to which the patient agreed. On September 10th, 1877, Dr. Foulis excised the larynx. He made a single vertical incision from the hyoid bone to the second ring of the trachea. The soft tissues were then carefully dissected off from the thyroid cartilage, first on one side and then on the other, leaving the larynx attached behind and at the lower and upper ends only. The lower end was then cut across; a large curved tube was put into the trachea, and the laryngeal box was dissected cleanly away from its attachments behind and above. The patient made a good recovery, being able to swallow porridge and milk on the twelfth day after the operation, and to dispense with artificial feeding on the fifteenth day. As soon as the wound contracted sufficiently, a vulcanite laryngeal tube was fitted in, and, by means of a simple arrangement, a vibrating reed was introduced, which took the place of the vocal cord. Dr. Foulis showed the patient, and the method of applying and removing the tubes. The patient spoke in a resonant, loud, and clear but monotonous voice, repeating the names of the members of the Society, fragments of the English church-service, and finally all the vowel-sounds, with the greatest clearness and ease. The reed was then removed, and the patient whispered the vowel-sounds in a voice which was audible all over the room, proving that the vowel-sounds are produced by the modification of the oral and pharyngeal cavity, and not by variations in the vocal cords. Dr. Foulis also called attention to the fact, that the pitch of the note sounded by the reed was a half, or even a whole, tone lower when the air-current was sent through the mouth than it was when the air was allowed to emerge at the point of the tube just above the reed, showing the effect of the oral cavity in altering the laryngeal note. Narrowing the upper end of the tube caused the voice to seem muffled and even hoarse.—Dr. ANDREW BUCHANAN expressed the interest which he felt in seeing the case. It was an operation which in his day had never been con-

templated, and which he would not have believed to be practicable. The result as shown was highly satisfactory.—Dr. HULLAH (Government Inspector of Music) asked if no variation in the pitch of the voice could be effected. Of course, such a variation could only be produced by alteration of the tension of the reed.—Dr. McVAIL said the case raised the question of the influence which the oral cavity had in accentuating the different "sound-waves" in the formation of the various vowels. It was held that the glottis, which might be said to be the floor or lower end of the oral cavity, was raised or lowered in phonating the different vowels, and thus the shape of the cavity was altered. But here the glottis, as represented by the reed, was stationary, and yet the vowels were perfectly sounded.—Mr. W. J. FLEMING held that the tongue was the chief agent in the alterations of the oral cavity in sounding the vowels, and that the point alluded to by Dr. McVail was of minor importance.—Dr. McVAIL said that the tongue had been wholly excised in several instances by Dr. George Buchanan, and that in his cases the vowels were still clearly sounded.—Dr. MACEWEN related a case of cut-throat which had been under his care, in which the incision permitted an inspection of the upper surface of the vocal cords to be made through it. On closely watching the cords as the patient tried to sound the vowels, no alteration in the shape of the glottis could be detected, except a very doubtful widening of the aperture in sounding O.—On a motion by Dr. McVail, the investigation of the physiological aspects of the case was remitted to a committee, composed of Drs. McKendrick, McVail, Fleming, and Foulis.

Pityriasis Rubra.—Dr. MCCALL ANDERSON showed a case of pityriasis rubra in a clerk aged 28. The first onset of the disease occurred eleven and a half years ago; and, from the description given by the patient, it would seem that it then took the form of patches of psoriasis, chiefly affecting the extensor surfaces of the knees and elbows. Since this first attack, he had been subject to recurrences of this patchy eruption, with intervals of perfect immunity. The general health had always been good. Two years ago, the eruption assumed a greater area, extending over the whole surface of the body in the short space of three weeks, leaving a few small spaces of sound skin on the chin, feet, and hands. The epidermis came off the feet like slippers, and the whole skin, which was dry and tense, became deep red in colour. The itchiness of the eruption diminished as it extended. The skin felt hot, there was great thirst, and the urine was muddy. The patient said the eruption began as a red blush, then scales formed on the skin, and later on the epidermis could be torn off like ribbons, leaving the subjacent skin moist for a short time, after which fresh scales formed over it. The attack just described lasted for six months; the skin resuming its natural quality under the use of tepid-baths and inunction with olive-oil. The skin continued clean for six months, when, twelve months before admission (on September 12th, 1877), a fresh attack began, and this had lasted to the date of this report. The whole skin was red, dry, covered with fine scales; and the patient noticed that heat deepened the red tint, and that the affected skin never perspired. He had lost flesh during the last two years, was very sensitive to changes of temperature, and was troubled with gnawing pains in the knees and hands, aggravated at night. There was no history of syphilis, but a history of psoriasis in the family. Since admission, the morning temperature had averaged 99 deg. and the evening temperature 101 deg. In the treatment, most relief was got by smearing the skin with olive-oil and closely investing it with gutta-percha tissue. Dr. Anderson called attention to the relation of the disease to psoriasis, which in this case seemed to have led up to the pityriasis rubra.—Dr. ALEX. ROBERTSON said that the analogy between psoriasis and pityriasis rubra was like that between measles and scarlet fever, the diseases being, however, quite distinct and easily distinguished.

Scleroderma.—Dr. MCCALL ANDERSON showed a case of scleroderma in a mason aged 50. The disease was of fifteen months' duration, and consisted of hardening and stiffening of the skin in various parts of the body. The patient ascribed the onset of the disease to a severe wetting. The first symptoms were morning sickness, and numbness and coldness in the left hand, which assumed a bloodless appearance, the skin of the fingers becoming yellowish or blue in patches, especially at the joints. Thereafter the skin thickened, impeding the motion of the fingers. This change in the skin extended up the arm, and the other hand became affected. Then the clavicular regions were attacked, and the disease has spread down the trunk and thighs. A trace of it was noticed in the legs and cheeks. The affected parts were dry, rough, hard, and could not be pinched up; the function of the skin was otherwise normal. Some emaciation had taken place, but the appetite had been good. The bowels had been regular. The tightness of the skin over the clavicles and chest was accompanied by itchiness and dyspnoea. Dr. Anderson said he had seen only three cases of scleroderma in eleven thousand cases of skin-disease which had been

before him. He had not seen any case in childhood; he looked on the disease as related to rheumatism. The anatomical lesion was a small celled growth in the skin and subcutaneous tissue, passing into fibrosis, and a pigmentation of the deeper layers, which gave the yellow tint. The cutaneous glands were not involved in the changes.

Splenic Leucocythæmia.—Dr. MCCALL ANDERSON showed a case of splenic leucocythæmia in a coal-salesman aged 36, who was admitted to the Western Infirmary in October 1877, suffering from weakness, cough, shortness of breath, and emaciation of twelve months, and swelling of the abdomen of four months' duration. This swelling was caused by the enlarged spleen, which extended over the whole of the left side and part of the right side of the abdomen, the notch being felt to the right of the umbilicus. The patient's father died of disease of the bowels; his mother of an affection of the chest; a sister of a growth of some sort; and the other members of his family in infancy. The patient himself, though never very strong, enjoyed fair health up to the end of 1876, when a slight cough set in, which had gradually grown worse, and was followed by dyspnoea and loss of strength. The dyspnoea had always been worse after dinner. In March 1877, thirst was added to the symptoms, the appetite failed, and emaciation and occasional palpitation appeared. The thirst had now left him. An uneasy heavy feeling in the left side and a progressive hard enlargement of the abdomen attracted his attention about four months ago. He had never been troubled with hæmorrhage or diarrhoea; and he had never been out of this country, or in any malarious district. The treatment was by Bland's pills; the study of the discussion in the London Pathological Society having prevented Dr. Anderson from administering phosphorus. A specimen of the blood of the patient was placed under the microscope at the meeting, and was seen to contain as many white corpuscles as red, or even more.—In reply to remarks by Drs. ROBERTSON and FINLAYSON as to the difference between splenic and lymphatic leucocythæmia, Dr. MCCALL ANDERSON said that, in the splenic form, the white corpuscles were all of a normal character, though increased in numbers; while in the lymphatic form, free nuclei were found in the blood as well as leucocytes. Different from both these forms of disease was the lymphadenoma or Hodgkin's disease, in which the white cells of the blood were not necessarily increased in number, although there were masses of enlarged glands in the body.—Dr. McVAIL alluded to the views of Bædeker in Germany, who held that he had, by certain modes of examination, discovered cell-forms intermediate between the red and white corpuscles floating in normal blood, which had hitherto been overlooked.

Osteotomy for Genu Valgum.—Dr. WILLIAM MACEWEN showed a boy on whom he had performed osteotomy for an extreme degree of genu valgum. The patient, when admitted into the Royal Infirmary, could not stand for more than five minutes without severe pain. Dr. Macewen operated on the right femur first, making an incision down to the bone over the inner condyle, and chiselling out a wedge-shaped piece of bone. The femur was then straightened, and the wound, under antiseptic dressings, healed well. The leg was now quite straight, and there was perfect motion at the knee-joint. The other leg was about to be operated on. Dr. Macewen pointed out that this operation was quite different from that of Dr. Ogston, who sawed off a part of the condyle.—Dr. JAMES MORTON remarked that he thought the operation done in this case superior to that of Dr. Ogston.

Excision of the Hip-joint.—Dr. WILLIAM MACEWEN showed a girl, aged 9, on whom he had performed excision of the hip-joint one year ago. When she was admitted into the Royal Infirmary, there were five sinuses leading down to the hip-joint. The head of the femur was dislocated on to the dorsum, and was denuded of its layer of cartilage, and much eroded. Prior to the excision, the sinuses were injected with watery solution of carbolic acid (1 in 20); the operation was done under the spray; and the sinuses were scraped out with Volkman's spoons, and afterwards touched with solution of chloride of zinc. The periosteum was raised and saved as much as possible; the trochanter major and head and neck of the femur were removed; and then a necrosed portion of the acetabulum was detached. The limb was put up in plaster of Paris; the wound treated antiseptically; and in three months the sinuses were closed. The patient was sent home; and four days before the meeting she returned to have a thick-soled boot fitted on. She could walk easily on her tiptoes, with a limp caused by the shortening, which amounted to nearly four inches—due partly to loss of bone and partly to previous disuse of the limb. When provided with a light cork sole, she could walk very easily; the motions at the hip were free; the scar was white and sound.—Dr. JAMES MORTON said that many of these cases of excision of the hip had eventually but little shortening; but he had no faith in the statement made in an American publication, that as much as six inches of the bone had been removed without subsequent shortening.

SELECTIONS FROM JOURNALS.

SURGERY.

SYPHILIS OF THE TESTIS IN YOUNG CHILDREN.—Dr. Henoch (*Deutsche Zeitschrift für Prakt. Med.*, 1877, No. 11) observed seven cases of disease of the testis in syphilitic children. In one case, where death took place from cholera, there was an extensive interstitial hypertrophy of the cellular tissue, especially in the corpus Highmorianum. Henoch concludes from this case and from one described by Deprés, that in the earlier stages of interstitial orchitis a cure by mercury is possible; but, when fibroid new growth has taken place, no further change is to be expected. The ages of the children varied from three months to two years and a half; both testes were affected in four cases, and the left in three. Tuberculosis of the testis, of which Henoch saw four cases, always presented a hard nodular swelling confined to the epididymis, and was always accompanied by pulmonary tuberculosis or cheesy inflammation of the bones, while symptoms of syphilis were always absent.

DISLOCATION OF THE APPENDIX VERMIFORMIS DURING PREGNANCY.—M. Polaillon relates in the *Union Médicale* (No. 24 for 1877) the case of a woman aged 35, a primipara, who, in order to hide her pregnancy, wore a narrow corset up to the seventh month, when she was one day seized with pain in the epigastrium, which was so violent that she was obliged to remove the corset. From this time, the patient perceived a small movable body at the painful part. The pain returned whenever the part was touched; also during eating and digestion. It returned during labour, which was completed with the aid of the forceps. Careful examination of the painful part showed that the xiphoid process was dislocated with its base inwards, the apex causing a projection of the skin. It was very movable; but movement caused severe pain. An attempt at replacement was unsuccessful. After a rather long stay in bed, the mobility and tenderness had diminished. At the end of three months, the xiphoid process was almost fixed in its normal position; the part was no longer painful when touched, and the pain during digestion had disappeared.

PATHOLOGY.

FAT-EMBOLISM.—In an essay, of which an abstract is given in the *Wiener Medicinische Wochenschrift*, No. 37 for 1877, A. Hahn, of the Pathological Institute at Munich, gives the results of clinical observations and of experiments on animals. In the experiments, various injuries were inflicted on the bones, from simple fracture to complete smashing; previous experience having taught that injuries of bones most frequently gave occasion to fatty embolism. In every case of injury where the marrow was implicated, Hahn found fatty embolism; and the amount and extent of the latter was in direct proportion to the extent of lesion of the marrow. The time which elapsed between the receipt of the injury and the occurrence of the embolism had already been described by Busch as very short. In an animal killed by chloroform asphyxia immediately after fracture of a bone, Hahn found fatty embolism of the lungs, heart, liver, and kidneys. The taking up of the fat into the vascular system, therefore, begins immediately after the injury, and may soon reach a high degree; on the other hand, there are clinical observations, in which symptoms of fatty embolism have not appeared until several days after the injury, during which time the patients have been doing comparatively well. In no case were there hæmorrhagic infarcts, evidences of inflammation, or metastatic abscesses; the embolism was often, however, followed by punctiform ecchymoses. The most important effect of fat-embolism is the obstruction of a number of the capillary regions in the lungs, in which organs the embola were most frequently found; in consequence, some parts of the lungs were anæmic and others hyperæmic, and there was acute œdema, sometimes even softening, of the pulmonary tissue. The elimination of the fat from the vessels takes place partly through the kidneys—fat having been found in the urine two or three days after the injury; and partly by exudation through the walls of the capillaries into the surrounding tissue, from which, as already stated by Bergmann, it is gradually absorbed. The clinical symptoms of fatty embolism, which may appear either at once or some time after the injury, are, general collapse, paleness of the skin and mucous membranes, cyanosis of the face, weakness, diminished sensibility, apathy, feeling of want of breath, œdema of the lungs, quickening of the pulse and respiration, lessening of the energy of the heart, coldness of the extremities, reduction of the body-heat. Hæmorrhages in the retina, observed by Czerny after injections of fat, were not found by Hahn in

two analogous experiments, and are, therefore, not constant. He could not produce fatty embolism by breaking up the subcutaneous fat or that of the mesentery. In any case, the conditions for absorption of fat into the blood-vessels and lymphatics are most favourable in the marrow of bones.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

COLLINS'S HISTOLOGICAL MICROSCOPE.

In reference to one or two queries which have been addressed to the JOURNAL concerning students' microscopes, Mr. Charles Collins, of 157, Great Portland Street, has submitted to us a specimen of a students' microscope which appears to us to have great merits. It has only a ten-inch body, so as to be comfortable for prolonged observation, and a draw-tube with which the length of body and power can be increased when needed. The diameter of the tube is of full English size, and the field afforded is large. The fittings for objectives and accessory apparatus are all of standard size, and can, therefore, be applied to any of the larger and more elaborate instruments of English model which the investigator may choose to employ for home purposes. The fine adjustment is very ingeniously modified, so as to be at the same time very delicate and quite free from lateral oscillation. Not only is the field of the objective excellent, but its penetration is also of a very high standard. At the price of £5:10, it is supplied with an inch and a quarter-inch objective; the standard only is supplied at a lower price with eye-piece and case. On the whole, this instrument appears to us to have all the advantages and convenience which belong to the continental instruments of Hartnack, Nacet, and others, and to be of better workmanship, more convenient model, and at least equal optical performance.

ALLEN & SON'S HOT AIR AND VAPOUR BATH.

THE hot air and vapour bath, of which Messrs. J. Allen and Son, of 64 and 65, Marylebone Lane, are the patentees and manufacturers, possesses in an eminent degree the very desirable qualities of efficiency, portability, and cheapness, thus meeting every requirement. In its application, there can be obtained, at the will of the user, baths both of hot air and of vapour, either separately or combined, and a medicated bath of any kind that may be considered necessary. By the simple process of removing the boiler and substituting a vaporiser, supplied at a small extra cost, it will give a mercurial bath. It can be applied to any bed, a wicker frame being placed over the patient, under the outer covering, having at the foot a metal disperser, which prevents the heated air from rendering the position painful or unpleasant by striking directly on the patient's feet, but forces it freely up the sides and over the whole surface of the body. To obtain the required elevation, the box in which the apparatus is kept is used as a stand. It can also be placed under a chair, where, with the three burners lighted with which the apparatus is supplied, and a blanket secured over the whole, in fifteen minutes a bath of hot air or vapour, at a temperature of 140 deg. Fahr. is obtained. By removing the boiler and applying hot air only, in a further space of ten minutes the temperature stands at 170 deg. Fahr. The triple burners have a further advantage, besides complete efficiency in extreme cases, in the fact that the heat can be modified to any requirement to permit the adoption of the bath to the cases of infants as well as adults. Every precaution has been taken to secure perfect safety in its use. To prevent the lamp from being overfilled, a measure is provided which, if used, will only half fill it. Should the lamp by any means be filled, and the spirit percolate out at the burner (sometimes the cause of accidents in other lamps), danger is averted by a channel, which is fitted round each lamp, to be filled with cold water, thereby keeping the spirit in the lamp cool. If the spirit do by chance ooze out and catch light, the flame cannot spread, by reason of this precautionary measure. It is extremely portable, as, with all appliances, it may be packed in a box not more than twelve inches square, and may easily be moved from one position to another, its weight being only twelve pounds. Among its merits, are smallness of price (£1 10s.) and the fact that a quarter of a pint of spirit will suffice to feed the apparatus for the period of half-an-hour. Possessing the many points of excellence which we have pointed out, Messrs. Allen's appliance is likely to attract the attention of those to whom such an apparatus would be of service.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 8TH, 1877.

IRREGULAR *POST MORTEM* EXAMINATIONS FOR
CORONERS' INQUESTS.

AT a recent meeting of the Middlesex magistrates, the subject of *post mortem* examinations at coroners' inquests drew from the Chairman, the Marquis of Salisbury, some severe remarks on the conduct of a member of the medical profession. A gentleman, aged 81, died suddenly at Heston. There appears to have been no good reason for holding an inquest in this case, or for making a *post mortem* examination, and strict injunctions had, it is stated, been given by the son of the deceased that, except upon the production of an order from the coroner, no examination of the body should be made. In complete violation of the law, Dr. Ernest Tyler Smith, a practitioner in the neighbourhood, made a *post mortem* examination of the body without the order of the coroner. It seems, as if to cover this illegal conduct, he received the coroner's order on the day on which the inquest was held, and after the examination had been made—a proceeding which one of the magistrates properly described as entirely at variance with the law.

But for the fact that the medical man claimed the usual fee under the Medical Witnesses Act, this case might have escaped public notice. The extra fee of one guinea for the *post mortem* examination was disallowed by the magistrates, and a strong opinion was expressed that there was really no necessity for an inquest. It was simply a case of sudden death at an advanced age from natural causes, and it took place under circumstances in which there could be no suspicion of its having been caused by violence or poison. The committee of magistrates appointed to make a report on the case state that the coroner, Dr. Diplock, appeared to doubt whether, under all the circumstances, an inquest was really necessary; while his letter stating the facts, "could not for a moment be looked upon as a justification of the irregularity, or excuse for the pain inflicted on the relatives of the deceased by this vexatious and unnecessary proceeding".

The loss of the fee in this case will probably fall upon the coroner. What would be a serious assault on the living, is at present no offence on the dead body. There would, however, be no reason for complaint if, under a new Act regulating coroners' inquests, a medical man who forcibly intrudes himself into a private house without a coroner's order, for the purpose of making a *post mortem* examination, should be made liable to punishment. In this case, the son of the deceased, whose consent was not asked and who had actually forbidden the inspection, laid a complaint before the magistrates. He was not aware of the legal power he actually possessed, or he would have acted upon the advice given by the Marquis of Salisbury. Without attributing blame to the coroner for the conduct of the surgeon, he said of the latter: "He had committed an act wholly illegal—as illegal as if he had forcibly entered the house; and he trusted that in all cases where medical men attempted to act as this gentleman appeared to have done, the relatives would not scruple to turn them out of doors with the least ceremony possible."

Certainly, this case shows how many defects and deficiencies there are which require consideration in reference to coroners' inquests. In the first place, it demonstrates a necessity for defining in what cases inquests should be held. All vexatious and unnecessary inquests must

be put down, and these are, it is stated, more frequent than the profession are aware of. Secondly, *post mortem* examinations should be placed under proper rules. None should be permitted except by a legal order of the coroner, and these officers should not only withhold the fee when this rule is transgressed, a power which they now possess, but they should have the authority to commit the medical man for contempt of court.

We regret to find that some coroners have in a measure sanctioned the irregularity on which we have here commented. Instead of issuing printed forms, according to the schedule of the Act, they have merely given verbal directions, or sent a letter requesting that a *post mortem* examination should be made in a particular case. It appears from the statement of Dr. Smith, that a sort of general order had been given by the coroner in this case; but a coroner has no legal power to issue an order of this kind. It is his special duty to consider in each case whether the circumstances are such as to render a *post mortem* examination necessary; and, if so, to furnish an order according to the terms of the Act. The Act does not justify him in delegating this power to others; and the issuing of an order after the examination does not relieve a medical man from an action for trespass.

We lately published a note from a correspondent, in which he complained of having thus acted on a written request from a coroner, and, after the *post mortem* examination had been illegally made, the coroner thought an inquest unnecessary, and declined to pay the surgeon his fee. Medical men have thus been encouraged to make *post mortem* examinations on credit, contrary to the statute. This irregularity on the part of the coroner always exposes them to the loss of the fee, and they have no right to complain if they have acted illegally. One thing is plain: a medical man, in cases of this nature, should never examine a body without a regular legal order signed by the coroner, and a coroner should be prohibited from issuing an order for a *post mortem* examination in any other form than that prescribed by the schedule of the Act.

SHAM SANITATION IN RURAL SANITARY DISTRICTS.

THE periodical reports of the Registrar-General afford abundant evidence that, whereas real sanitary progress is being made in the majority of our large towns, death-rates are stationary, if not increasing, in most of the rural and the mining and manufacturing aggregations not included in large urban sanitary districts. Under these circumstances, it is not surprising that the national death-rate continues almost stationary: a fact which is often used by what has been aptly styled the "dirty party" as supplying an argument against the value of sanitation. The reports of the medical inspectors to the Local Government Board afford the strongest corroborative evidence that the sanitary organisation called into existence by the Public Health Act of 1872 is allowed to degenerate in some places into an utter farce, which is more mischievous than the state of affairs prior to that date, as the sham sanitation now receives a certain form of sanction from the central health authority. A recently issued report by Dr. R. T. Thorne, "On some of the Circumstances attending an extensive Diffusion of Scarlet Fever in Great Massingham and other Villages in the Freebridge Lynn Rural Sanitary District", contains much instructive information, throwing a clear light upon the cause of stationary, if not increasing, death-rates in many rural sanitary districts.

It appears that, in June 1873, the rural sanitary authority of Freebridge Lynn appointed a medical officer of health and an inspector of nuisances, each for one year, and each at a salary of £100 *per annum*. A month before the expiration of the year, the authority in question informed the Local Government Board by letter that "comparatively few nuisances remained in existence after the active measures taken and the work completed during the past eleven months"; and in the following month (June 1874), the authority (it may be presumed, on the pretext of this satisfactory state of things) determined not to renew either of the appointments. The medical officer of health was induced

to retain that title, but on the condition of receiving no salary. He was only to act when "specially called in", and for each such separate service he was to receive a special fee. At the same time, the two relieving officers were appointed to act as inspectors of nuisances. The result of this arrangement was, that three official visits to Great Massingham, with reference to renewed outbreaks of scarlet fever, constituted the work of the nominal medical officer of health for the Freebridge Lynn Sanitary District during three years. The duties performed by the inspectors of nuisances were almost equally nominal. That these officers, however, were not individually so much to blame as their authority may be inferred from the fact reported, that many of the nuisances existing at the time of the inspection had been reported to the authority from six to eighteen months previously.

It will be interesting to note what was the actual sanitary condition of Great Massingham, forming part of the district under the control of this rural authority, at the time of Dr. Thorne's inspection in June last. The houses in the village are scattered around numerous open spaces, which are to a great extent occupied by shallow sheets of water; this water not only adds considerably to the natural dampness of the site, but at times causes considerable nuisance, owing to the sewage it receives. What little drainage-provision exists in the village almost invariably, indeed, conveys the liquid refuse to these pools. The water-supply is partly derived from deep wells in the chalk, which are not entirely free from the suspicion of receiving surface-soakage; and also partly from shallow wells in the sand and gravel, often so situated as to run constant risk of such contamination. One of the surface-wells, "which is largely resorted to, is situated in dangerous proximity to one of the sheets or pools of water which receive sewage". In many parts of the village, owing to the want of drainage-provision, the yards of the cottages were in "an indescribably filthy condition, being in parts quite flooded with filth". The privy accommodation was very deficient, "as many as from three to six cottages having in several instances but one privy between them". The pits attached to these privies are for the most part sunk in the porous surface-soil, into which their contents soak. It is easy to imagine that such privies are not unfrequently sources of dangerous nuisance, especially when, as was found to be the case, they are filthy and dilapidated, and when the contents soak into the cottages against which the privies are built. Dr. Thorne says: "More than one privy was quite unapproachable, owing to the filth surrounding them; and from this cause several households have been for months past compelled to do without any form of closet whatever."

The possibility of such a state of things existing five years after the passing of the Public Health Act of 1872 is the best proof that merely permissive legislation will not secure satisfactory sanitary condition. An efficient central health-authority and State-appointed medical officers of health throughout the country appear to be necessary to prevent such a scandal as that caused by the condition of Great Massingham in June last, soon after the district was stated to constitute "a source of contagion to the whole of the western division of the county". We wish we could think that Great Massingham affords a rare exception of insanitary condition in a rural village.

CONFLICT OF OPHTHALMIC EVIDENCE.

MEDICAL evidence has seldom been in such glaring conflict as in a case tried last week at Westminster before Lord Coleridge.

The plaintiff, a Primitive Methodist minister, sued the Midland Railway Company for damages in satisfaction of injuries which he had received by their admitted negligence. He alleged that, as a result of these injuries, he was suffering from epileptiform fits, from paralysis of the left side, and from atrophy of one optic nerve, which must eventuate in total blindness of one eye. Messrs. Erichsen, Brudenell Carter, and Bowater Vernon supported these allegations. Messrs. Wheelhouse, Haynes Walton, and another medical witness opposed them. It would appear from the *Times* report that the position, which was most

stoutly contested, was the amount of injury to the eye. Lord Coleridge, in his summing-up, first reviewed the evidence with regard to the general injuries sustained by the plaintiff. The principal medical witness for the plaintiff was Mr. Erichsen, and his lordship drew the attention of the jury to the particulars in which his evidence, as to the severity of the symptoms of the maladies under which the plaintiff was suffering, differed from the evidence, not only of the medical witnesses called by the company, but from the evidence of some of the plaintiff's medical witnesses. With reference to the statements of the plaintiff himself, the learned judge pointed out that it was difficult to acquit him of misrepresentation. If at the time the plaintiff misrepresented he was in a responsible state of mind, then his statements were deliberately untrue, and the jury would be dealing with evidence as to subjective symptoms resting on statements, some of which were wilfully false. If, on the other hand, at the time the statements were made, the plaintiff were not responsible, then the jury would be dealing with subjective symptoms resting on the statements of a person confessedly irresponsible.

It is not often that a plaintiff is placed in such a very awkward dilemma as this; but we invariably notice that the bench now always directs the jury to scrutinise very closely, and to be wary about accepting statements of subjective symptoms and inferences based solely upon them. As to the general condition of the plaintiff, his lordship told the jury that, if they adopted one view, they would think it a very bad case indeed; but, if they followed the other medical testimony, they would at least think the case one of a very mitigated description. So far, the evidence on either side was not much more antagonistic than it commonly is where opinions are based on the existence or non-existence of symptoms which are purely subjective. The witnesses on one side consider themselves entitled to assume that all alleged symptoms are real and veritable so long as their existence cannot be disproved. Conversely, the opposing witnesses consider themselves entitled to disbelieve in the existence of all symptoms which cannot be demonstrated, or, at all events, corroborated by something outside the statements of the party chiefly interested.

The next part of this remarkable case was the question as to the state of the eye. Here, as the learned judge pointed out, the evidence was hopelessly contradictory. On the one side, Mr. Brudenell Carter, and those of the plaintiff's witnesses who supported him, said that the optic nerve was attacked by atrophy, and that the plaintiff must necessarily become hopelessly blind. On the other side, Mr. Haynes Walton and others said that they had never seen a more healthy eye. The evidence of Mr. Haynes Walton was, in the opinion of the learned judge, open to the objection, that he appeared to be too anxious that his side should win. We confess that, if we believed an eye to be perfectly sound, we could scarcely refrain from stating that opinion with some warmth, in opposition to one that held the eye to be irretrievably ruined. The judgment of Solomon was based upon the warmth of one witness, and it has not yet been appealed against. The learned judge in the present case pointed out that Mr. Haynes Walton was not unsupported by his *confidés*, who, though not specialists, were well qualified to give an opinion. He further drew attention to the important fact that the symptoms, which, it was alleged, pointed to atrophy, showed themselves in all their severity in March 1876, and were very little worse in November 1877 than they were just after the accident. This is contrary to what was admitted to be the result of scientific opinion; viz., that atrophy of the optic nerve is not only progressive, but rapidly progressive. In spite of the learned judge's summing-up, the jury brought in a verdict for £2,300 damages. The counsel for the company naturally moved his lordship to stay execution, and this was equally naturally granted.

On Saturday last, the company moved for a new trial, on the ground that the damages were excessive. This application was granted by Lord Coleridge and Mr. Justice Lindley, the former suggesting that the parties should consult together, and that the plaintiff's eye should be

examined by an independent person, and that, upon his report as to the prospect of the plaintiff losing his eyesight, the amount of damages should depend.

We must express our regret that Lord Coleridge and Mr. Justice Lindley did not exercise their powers under the Railway Regulation Act (1868), and themselves appoint an expert before granting a new trial. The practical difficulties which confessedly beset their course under ordinary circumstances would not have arisen at such a stage of the proceedings. A few such orders would cause this plan to be more frequently adopted voluntarily, to the great advantage of suitors as well as of the medical profession and the general public. At the same time, we know enough of the way in which litigation of this kind is usually managed, to say that it now rests with the oculists on either side whether this wise suggestion of the bench is carried out or not. We earnestly counsel them to offer no obstacle to so prudent and seemly a course.

MILITARY HYGIENE.

THE unsanitary condition of the Italian army is just now exciting much the same attention as that of our own army did twenty years ago in England, and there is a rumour of a commission of inquiry being about to be organised in Italy on the subject. The same defects as those to which attention was particularly called in our military service, are now pointed to as the causes of the unsatisfactory sanitary condition of the Italian. Badly constructed barracks, careless recruiting, ill-assorted and insufficient rations, overburdening soldiers before their frames are fully formed and able to withstand the effects of the weight and pressure of their kits and accoutrements, together with the exertions to which they are subjected in drills and marches while carrying them, are mentioned as the chief factors in the deleterious influences exerted upon the men. There is no need for any fresh commission to consider the topics which the headings just quoted embrace. The Italian Government cannot adopt a better course than to take advantage of the ample stores of information that have been collected in this country on them. In the year 1855, a Committee composed of Lord Monck, then a Lord of the Treasury, as Chairman, six military officers, two of whom were Royal Engineers, Dr. Burrell, and Sir Joseph Paxton, was appointed by the War Office of this country to examine into the construction and arrangements of barracks; and this Committee presented a valuable report, which was published and can still be referred to, on the subject. Subsequently, a Barrack Improvement Commission was organised, and in 1861 appeared a "General Report on the Sanitary Condition and Improvement of Barracks and Hospitals", in the form of a folio blue-book of three hundred and forty pages. In this report, which is largely illustrated by explanatory drawings, rules are laid down for the construction, ventilation, interior fittings, and sewerage of barracks and hospitals; and nearly all the improvements that have since taken place in the habitation of British soldiers have been based on the observations put forth in this work. Then there is the voluminous Report of the Royal Commission appointed to inquire into the regulations affecting the sanitary condition of the army, over which Sidney Herbert presided. In this blue-book, the whole subject of recruiting, rationing, clothing, drilling, and general service of soldiers is most fully discussed, while guiding principles are laid down which are applicable to all armies. With these reports available, and, we may add, with the invaluable *Manual of Practical Army Hygiene* of the late Professor Parkes, full and definite information is ready to hand on all that is necessary for lessening the death-rate and improving the health and efficiency of the Italian army. Very slight modifications, if any, would be necessary to adapt the principles taught in the works above mentioned to the climate and special circumstances of the Italian kingdom.

The necessity for some steps being taken to improve the sanitary state of the Italian army has been chiefly brought to notice by the publication of *Statistics of the Diseases, Mortality, and Reforms of the Italian Army from the years 1860 to 1875, compared with those of other*

European Armies. The author of these statistics, Surgeon Sormani, of the Italian Army Medical Staff, has shown that the mortality in the Italian army, which was 10.7 per 1,000 in 1871, had risen to 13.3 per 1,000 in 1875. He has compared this ratio with the ratio of mortality in that portion of the British army which was quartered in the United Kingdom during the year 1874, the statistics of which were published in 1876. The deaths during this year were at the rate of 8.79 per 1,000 of the strength; and it must be recollected that in many instances the deaths that then took place among the British troops had their origin in diseases which had been contracted during service in the tropical climate of India. It appears that during this same year the ratios of deaths were considerably less in the Prussian army, viz., 6.5 per 1,000, and in that of Saxony, viz., 6.4 per 1,000, than they were in the British service. With these serious differences brought to general notice, it is obvious that the Italian Government will have to adopt some course for improving the health of their army, and for reducing the death-rate in it, which by the latest statistics had amounted to double that in the armies of their allies in North Germany.

PAUPER LUNATICS.

ACCORDING to the recently published Report of the Lunacy Commissioners, 11,454 pauper lunatics were chargeable to the various Metropolitan unions on the 1st of January last; and if to this number be added 682, representing the due proportion of those chargeable to the three metropolitan counties of Middlesex, Surrey, and Kent, the total number of pauper lunatics which were then attributable to registration London may be set down at 12,136. The care of insane paupers in different parts of the country may to a considerable extent be estimated by the proportions under treatment in asylums, in workhouses, and residing on outdoor relief with relatives and others. The 12,136 metropolitan insane paupers on the 1st of January last included 6,705, or 55.3 per cent., in lunatic asylums; 4,519, or 37.2 per cent., in the Metropolitan Asylums for Imbeciles at Leavesden, Caterham, and Clapton; 513, or 4.2 per cent., in workhouses; and 399, or 3.3 per cent., residing with relatives and others. The Metropolitan Asylums for Imbeciles were erected in pursuance of the Metropolitan Poor Act of 1867, which provided (in Section 30) that "every such asylum shall be considered as a workhouse within the meaning of the Lunacy Acts". The Lunacy Commissioners, therefore, in their statistical tables, class the inmates of these Metropolitan Asylums with those pauper lunatics retained in workhouses, which gives a very incorrect basis for comparison of the proportions of lunatics under treatment in asylums, in and out of London. In London, on the 1st of January last, no less than 92.5 per cent. of all the metropolitan paupers classed as insane were under treatment either in the county lunatic asylums or in the Metropolitan Asylums for Imbeciles; in the rest of England and Wales, only 63.9 per cent. of the pauper lunatics were under asylum treatment. Whereas in London only 4.2 per cent. of the pauper insane were retained in workhouses, the proportion in the rest of England and Wales was 23.5 per cent. Again, while but 3.3 per cent. of the metropolitan insane were residing with relatives, the proportion in the rest of England and Wales was equal to 12.6 per cent. Assuming that asylum treatment is necessary to secure proper care and attention of the pauper insane, only 7.5 per cent. of those in the metropolis were not thus cared for at the beginning of this year; while out of London the proportion was so high as 36.1, or nearly five times as great. Those who are acquainted with the mortality statistics of the Metropolitan Asylums for Imbeciles, and with the marked decline in the death-rate among the inmates in recent years, are in a position to estimate the benefit which the pauper imbeciles within the metropolis have already derived from residence and treatment in these institutions, and the need which exists for similar asylums for paupers of this class outside the Metropolis. The extent of this need may be measured by these facts: on the 1st of January last, out of London, 11,006 insane paupers were

retained in workhouses, and 5,913 were residing with relatives and others in receipt of outdoor relief.

The proportion of pauper lunatics in the metropolis was equal on the 1st of January last to 3.5 per 1,000 of the estimated population, whereas in the remainder of England and Wales the proportion did not exceed 2.2 per 1,000. Thus the proportion in the metropolis was more than 50 per cent. higher than that which prevailed outside the metropolis. In other words, if the proportion in London had not exceeded that out of London, the number of pauper lunatics in the metropolis would have been 7,886, instead of 12,136, the number actually recorded. It may be asserted that the liberal provision of asylums in the metropolis has led to a much more complete return of pauper lunatics, and that the above mentioned figures do not necessarily infer a corresponding excess of lunacy in London. Inasmuch, however, as it cannot be said that any of the metropolitan asylums contain inmates who are not properly there retained, it follows that the number of imbecile and insane paupers out of asylums in England and Wales, exclusive of London, is much understated by the figures furnished by the Lunacy Commissioners, which would still further magnify the undoubtedly pressing need for further provision of asylums for the treatment of insane and imbecile paupers in the extra-metropolitan counties, where the pauper insane do not yet receive the same care and consideration they now do in the metropolis.

THE Council of University College, London, have awarded the Sharpey Physiological Scholarship to Mr. Patrick Geddes.

WE regret to hear that Dr. Trench, Medical Officer of Health for Liverpool, died on Wednesday night, at the age of sixty-eight.

THE German papers report the death, at Stehlitz, of Hirsch Guttman, formerly Rabbi of Pless, at the age of 108.

THE annual Microscopical *Soirée* of the Medical and Physical Society of St. Thomas's Hospital will be held in the library at 8 P.M. on the 12th instant.

THE Watch Committee of the Preston Town Council take a very serious view of the dog nuisance. They have resolved to endeavour to procure legislation on the subject, and with this object to seek the co-operation of the municipal corporations of the kingdom.

A CORONER's jury at Bradford has returned a verdict of manslaughter against Mary Thompson, a young single woman, and Ann Thompson, her mother, in respect of the death of the illegitimate child of the first-named woman. The deceased child was three months old, and in the opinion of a medical man insufficient and improper food had accelerated its death.

A VERY interesting demonstration was given by Mr. Kingzett on Wednesday last, at the works of the Sanitas Company, of his method of manufacturing the solution of peroxide of hydrogen and camphoric acid, which he has introduced under the name of "Sanitas", of which we have on previous occasions commented on the character and qualities, and which has been recently the subject of a correspondence in these columns between Mr. Kingzett and Dr. Bond.

A RETURN was submitted to the Metropolitan Asylums Board, on Saturday, of the number of small-pox and fever cases in the several hospitals under the control of the Board, which showed that 131 small-pox cases had been admitted, that 24 had died, and that 58 had been discharged, leaving 253 under treatment. At the end of the preceding fortnight, 194 patients were under treatment. With regard to fever patients, it appeared that, during the past fortnight, 76 had been admitted, that 12 had died, and that 65 had been discharged, leaving 275 remaining under treatment. At the end of the preceding fortnight, 270 patients remained under treatment.

A SERIOUS epidemic of scarlet fever is reported to have broken out at Hampton Lucy, near Stratford-on-Avon. The disease is said to have been brought from Birmingham, and has spread to an alarming extent.

THE dignity of *Hofrath* (Aulic Councillor) has been conferred on Professors Arlt and Braun-Fernwald of Vienna, in consideration of their distinguished position as teachers and practitioners. The fees usually required from the recipients of the honour have been remitted.

THE PATHOLOGICAL SOCIETY.

AT the next meeting of the Pathological Society, Professor Lister will make a communication on Lactic Fermentation and its bearings on Pathology. We have already published a report of the history of these important researches, up to a certain point, in the address delivered by Professor Lister at the opening of the session at King's College. In the forthcoming communication, Professor Lister will further illustrate the pathological bearings of his remarkable results.

ST. THOMAS'S HOSPITAL.

THE new administration of St. Thomas's Hospital has been inaugurated by characteristic proceedings not altogether promising of the anticipated reform in the hospital expenditure and management. We have already pointed out that, until now, the wasteful expenditure at this hospital has been such that here each in-patient costs £12, and at Guy's Hospital only £5; and that, in 1876, St. Thomas's Hospital maintained 460 beds, and relieved 3,245 in-patients and 73,000 out-patients, at a cost of £37,918; whereas at Guy's, in the same year, 710 beds were maintained, and 5,722 in-patients and 76,061 out-patients were relieved for an expenditure of less than £30,000. The first act of the new administration since the installation of Mr. Alderman Stone has been to postpone the consideration of internal reforms and the appointment of a skilled superintendent, and to order an expenditure of £2,000 for furnishing the Treasurer's house, about six years' salary for a skilled superintendent, who would probably, by the economies which he could effect, fill all the vacant beds with patients without adding one penny to the annual expenditure of the hospital.

THE INFECTIVE PROCESSES OF DISEASE.

DR. BURDON SANDERSON announces that the first of his annual course of lectures on Pathology, in connection with the Brown Institution, will be delivered in the theatre of the University of London on Saturday, December 15th. The subject of the course is "The Infective Processes of Disease". The lectures will be in continuation of those published in this Journal three years ago, and we shall have the pleasure of publishing these valuable lectures also from the author's manuscript at an early date. The subjects will be as follows:—December 15th. Introduction: Infective Processes in general.—December 17th. Phenomena, Ætiology, and Pathology of Septicæmia.—December 19th. The Germ Theory, and its relation to the results of the antiseptic and colytic treatment of wounds.—December 21st. Specific Infections, and the Theory of *Contagium Vivum*.—December 22nd. Demonstration of Microscopical Preparations and of Methods referred to in the preceding lectures. Each lecture will begin at half-past five o'clock precisely.

THE SCHIPKA TASS.

A CORRESPONDENT with the army of Raouf Pacha at Schipka writes to us, under date November 17th:—"Ruin is everywhere around. How the women and children on this and on the other side of the Balkans are to live through the winter, I cannot imagine. Mr. Blunt, our Consul at Adrianople, has been distributing relief in these parts, and has charged me with its continuance for a short time longer; but I doubt if such measures are likely to be on a scale commensurate with the necessities of the case. The great want is clothing for the women and children. It is of little use to give money. Dark-coloured flannel for jackets and drawers, rugs and blankets, sent from England in

large quantities, would be of immense use; the remaining necessities, shoes, stockings, flour, sugar, and meat are best purchased on the spot. It is useless to offer to the people anything to which they are not accustomed. I have found them refuse Liebig's food and tinned provisions when quite without other food; they will, however, make use of condensed milk for their children."

PROVIDENT DISPENSARIES IN BIRMINGHAM.

A COMMITTEE, on which we do not recognise the name of any physician or general practitioner, has drawn up and printed a scheme for the establishment of provident dispensaries in Birmingham. The document has been forwarded to the Committees of the General and Queen's Hospitals for their opinion; but we have not yet heard of its having been submitted to the local Branch of our Association. This Branch now numbers three hundred and seventy-six members, including the great majority of medical practitioners in Birmingham and the immediate district. The co-operation of such a body is essential to the successful working of the scheme, and it would be interesting to know why its framers have not yet submitted their proposals for professional opinion.

PHYSICAL AND MORAL TRAINING IN PRIMARY SCHOOLS.

IN A Report presented by Dr. Clutterbuck to the Local Government Board on the education of pauper children, attention is drawn to their physical development as a distinct object to be attained in training. The habit adopted by many boards of guardians, in handing over the children for whom they are responsible to the teaching of the ordinary State-aided schools, is deprecated on the ground that the training they there receive is not such as to fit them for a position as independent men and women in after-life. This statement is supported by the opinion of Mr. Edwin Chadwick, who has thus emphasised the absence of physical training from our primary schools: "According to the returns, twelve out of thirteen of all State-aided schools are destitute of the provisions required to ensure the strength of mind and body needed to maintain properly the productive force of the country." It is, indeed, to be feared that in too many schools, even those which pass with credit before the Government examiner, the quickness and brightness of children resemble the sharpness and knowingness of the street Arab, rather than the effects of prudential and moral restraints, and such as should secure them against relapses to vice and poverty. The principle to be maintained in the education of these children is to fit them for their after-life by producing in them as high a physical and moral tone as possible. "Give the people knowledge," says Smiles, "give them better education, and their crime will be abated; drunkenness, improvidence, lawlessness, and all the powers of evil, will to a certain extent disappear." Inasmuch as many of these children are the offspring of vicious or weak parents, they require a more careful education of both the physical and moral powers to enable them to withstand those forces which degraded their parents. Again to quote from Mr. Smiles, "the principal causes of anxiety in this country are the social suffering and disease which proceed from ignorance. To mitigate these, we form associations, organise societies, spend money and labour in committees; but the power of ignorance is too great for us." It is in connection with this subject of moral and physical training of children that we welcome the formation of public playgrounds and other recreation-spaces. In some schools, the flat roof affords a playground of limited extent; in other parishes, the long disused churchyard has been converted into a recreation-garden. The movement of the National Health Society that has lately urged the opening of the School Board playgrounds at all times, excepting during school-hours and under proper supervision, manifestly tends to provide the kind of training urged by Dr. Clutterbuck. Industrial schools, where a trade is taught at the same time that elementary education is given, seem to fulfil some of the indications; and no one can see the bright healthy-looking boys on board the training ships without feeling that this form of education eminently tends to fit the lads to make their way in after-life. The value of

training ships to the country is recognised in a regulation of the Royal Navy, by which a sum of £25 is paid to the School Committee for every boy entering the navy who fulfils certain conditions as to physical development, school education, and technical knowledge. Here is a hint by which the success of our preliminary schools may be estimated.

DEATH OF DR. BOUVIER.

OUR Paris correspondent writes: I regret to have to announce the death of Dr. Bouvier, one of the oldest practitioners of Paris, which took place on Wednesday, November 21st, at a very advanced age. A few days before his death, Dr. Bouvier was taking a walk in the Tuileries Gardens, but being almost blind, fell into a pond, and was not drowned, as was reported by some of the daily papers, but the accident was followed by congestion of the lungs, which carried him off. The deceased gentleman took his degree in 1825, and was elected Member of the Academy of Medicine in 1839. He was also Officer of the Legion of Honour, and as such his funeral took place with the honours due to his rank.

DEATH OF DR. BARTH.

OUR Paris correspondent writes, under date December 3rd: I have learned with deep regret of the death of Dr. Barth, which has just taken place at his residence in Paris, at an advanced age. The deceased gentleman was a Member of the Academy of Medicine in the section of Morbid Anatomy, Honorary Hospital Physician, and Officer of the Legion of Honour. He was also physician to the late M. Thiers, to whom he remained a friend to the last.

DEATH FROM FOREIGN BODY IN THE EAR.

AN inquest was held in the West of England on November 13th upon the death of a girl aged 6½ years, who died during an operation undertaken for the extraction of a foreign body from her right ear. The father, having been told that the child had passed a bead into her ear, took her to a surgeon for the purpose of having it extracted. The surgeon by means of a probe assured himself that there was a "substance much like glass or bone, he could not say which", in the ear; and he therefore made an effort to extract this substance. "He thought, after thirty minutes' effort, that he had succeeded in partially getting it out; and he thought he had got the right thing, when he found that it was only a small piece of bone. He afterwards got hold of something which he thought ought to come out." After operating for the removal of this supposed foreign body, the child having been nearly one hour and three-quarters in the consulting-room, during which there had been considerable effusion of blood, the "child fainted, never recovered consciousness, and died". The surgeon who made the *post mortem* examination found a laceration of the lining membrane of the meatus, a laceration of the blood-vessel close to the external part of the bone of the skull beyond the drum of the ear, and two or three loose minute portions of bone in the passage leading to the ear; but he could find no foreign body. "In answer to the jury, witness said he would not swear that the piece of bone abstracted was a foreign substance, or part of the child's head. He found a portion of the skull broken, and the piece of bone might have been a part of it. He could not fit it anywhere. The abstraction of such pieces of bone would not have caused danger to the child's life." The jury returned a verdict of death from loss of blood "in consequence of the accidental laceration of a blood-vessel close to the internal part of the bone of the skull beyond the drum of the ear". There are a few broad rules which ought to be remembered by any one attempting to extract a foreign body from the ear. They are as follows. 1. See the body; make sure that there is a foreign body present. This, as a rule, is easily done where there has been no previous inflammation. 2. Determine what the body is, if possible. Obtain a sample of the body which has been placed in the ear, if one is to be found. 3. Remember that a body which will not swell and has no cutting edge will generally

remain without causing any urgent symptoms. 4. Seeing the body, determine by a probe if it be movable. If easily movable, concussion with a downward position of the ear will often remove it. 5. Warm water injection is the best of all methods of removing foreign bodies. 6. If it be a vegetable substance, do not inject fluid unless you have time to extract the body either at the one operation or shortly afterwards. 7. Injection failing, which is very exceptional, a surgeon with the necessary appliances ought to be at once consulted, as, should urgent symptoms arise from the irritation in the attempted extraction, the extraction by incisions, galvano-cautery, boring out the centre of the substance and so causing it to collapse, or even detachment of the posterior attachment of the auricle, may be necessary. 8. To attempt to extract a substance without seeing it is highly dangerous. The unfortunate result which occurred in this instance has within our knowledge occurred more than once under somewhat similar circumstances in the hands of hospital surgeons and house-surgeons, as well as in private practice. Hence the utility of reciting the general principles here summarised.

DEATH OF THE GORILLA IN BERLIN.

THE gorilla "Pongo", who has for some time been a resident in Berlin, and who paid a visit to London last summer, died rather suddenly on November 13th. A *post mortem* examination was made by Professors Virchow and Hartmann; plaster casts of the head, body, and limbs having been first taken. On opening the abdomen, the omentum was found to be very fat, and to be adherent to the parietal peritoneum at several points in front and laterally; indicating that Pongo had had one or more attacks of peritonitis. The intestines were found to be the seat of catarrh; the cause of death, in fact, was diarrhoea. The cæcum contained a bent pin and a glove-button. The liver, spleen, and other abdominal organs, were perfectly healthy. Not a trace of tubercle was to be found in the lungs, which were quite sound. (Tubercle of the lungs, it is well known, is the common cause of death to quadrupeds in Europe.) There were firm adhesions between the heart and pericardium, indicating that pericarditis had been present at some time. Dr. Falkenstein, who was called professionally to the gorilla two months after his arrival in Europe, stated that he found him suffering from considerable difficulty of breathing, which might have been caused by the pericardial inflammation.

BURIED ALIVE.

A CORRESPONDENT at Naples states that the Appeal Court has had before it a case not likely to inspire confidence in the minds of those who look forward with horror to the possibility of being buried alive. It appeared from the evidence that some time ago a woman was interred with all the usual formalities, it being believed that she was dead, while she was only in a trance. Some days afterwards, the grave in which she had been placed being opened for the reception of another body, it was found that the clothes which covered the unfortunate woman were torn to pieces, and that she had even broken her limbs in attempting to extricate herself from her living tomb. The Court, after hearing the case, sentenced the doctor who had signed the certificate of decease, and the Mayor who had authorised the interment, each to three months' imprisonment for involuntary manslaughter.

MURDER OF A MEDICAL EDITOR BY A PRINTER.

OUR German contemporaries report the murder, last month, of Dr. Girsztowt, Professor of Surgery in the University of Warsaw. Being the editor of a medical journal (the *Gazeta lekarska*) and of other works, he had a private printing office. One of his compositors, being dismissed on account of misconduct, determined on revenge, and, having gone to Dr. Girsztowt's house, entered his room and stabbed him with a cook's knife in the left thigh, just below Poupart's ligament. Violent bleeding followed, which Dr. Girsztowt himself and two medical men (one of whom resided in the house) endeavoured to arrest by pressure on the external iliac artery and on the abdominal aorta. Two surgeons having soon afterwards arrived, the femoral

artery was tied. The quantity of blood lost was supposed to be five pounds. The assault was committed on November 5th. For the two following days, the patient appeared to be doing well; but on the third day gangrene of the limb set in and rapidly extended, causing death on November 13th. At the *post mortem* examination, the deep artery of the thigh and the crural nerves were found to be divided; the femoral artery itself was uninjured. Dr. Girsztowt, who was fifty years of age, was much esteemed as a teacher and practitioner. He founded the journal of which he was editor, and was also the author of a history of hospitals in Poland, of a Polish dictionary of medical terms, and the editor of a library of medical science, consisting of a collection of selected lectures, partly original and partly translated.

PUBLIC PARKS.

AT a special meeting of the Heywood Local Board on Saturday, it was announced that the Queen had presented to the town twenty acres of land for the purposes of a public park. The sum required for the purchase of the land has been set apart by the Queen out of a sum exceeding £10,000 which fell to her, as Duchess of Lancaster, through the death without heirs of Mr. C. M. Newhouse of Heywood. Mr. Newhouse was killed in a railway accident at Miles Platting in 1873.—At the Lancaster Town Council recently, a letter was read from Alderman Williamson, asking the Council to sell him forty acres of Lancaster Moor, and promising to spend £10,000 in converting it into a public park. The offer was accepted.

COLOUR-BLINDNESS.

AN interesting case of colour-blindness is said to have been recently observed in a town in Prussia. A young assistant in the post-office was frequently getting into trouble on account of the increasing confusion among the stamps. Sometimes there was much more money than could be accounted for by the stamps; sometimes the cash account did not amount to the stamps issued. There were also loud complaints on the part of the public that, when they sent their children for stamps, they got some of less value than was required. At length, it was found on investigation that the individual who made the confusion was colour-blind; he could not distinguish red from green, and consequently confused the red and green stamps.

HOSPITAL SATURDAY FUND IN LONDON.

AT the final meeting of the board of delegates, in the board-room of the London Hospital, Mr. John Hughes, Chairman of the Council, congratulated the meeting on three important facts: viz., that the fund had collected £275 more than last year; that it had spent £350 less; and that it had made its awards three months earlier than after the last collection. More would have been divided amongst hospitals (this year's division being £4,500, against £4,250 last year) but that there had been £150 to pay of last year's accounts; and a balance had been carried forward, instead of, as heretofore, dividing the entire sum. The reports of the council and distribution committee, and list of awards, were approved, and votes of thanks awarded to the various officials.

SMALL-POX.

THE *Times* says: The local authorities at the east-end of the metropolis are just now very much exercised in regard to a return of the epidemic of small-pox in a very severe form. At the Limehouse Board of Works, Dr. Rogers reported that the disease was seriously on the increase in the district under his charge; and instructions were given him to take every precaution for the isolation of the disease, in order to prevent its spread in contagious form. The question came before the Stepney Board of Guardians, and they had been in communication with the Local Government Board, Dr. Stevens recommending house-to-house visitation, in order to quarantine the houses where the disease raged. This recommendation was not adopted, but it was determined to wait and see whether or not the disease increased in virulence. The Mile-End Old Town Board of Guardians have had the same subject under

discussion. In this district, special exertions have been made to carry out the Vaccination Laws, and, with but few exceptions, the orders of the Board have been complied with. In Poplar, Bow, and Bromley—the three parishes forming Poplar Union—said a few years ago to be the best-vaccinated locality in the metropolis, small-pox has again appeared; and the Board of Works, being cognisant of this, are pushing on the erection of their own asylum, the first in London for the treatment of non-pauper cases of infectious disease. In all the districts where there has been the greatest number of patients affected, it has been found that the persons were immigrants who had probably evaded the law by moving from one district to another.

SALT-WATER DRINKERS.

THE *Journal de la Société de Médecine de Caen et de Calvados* publishes the following account of salt-water drinkers, taken from an account of a voyage to the Oceanic Islands by M. Jouan, a ship's captain, and sent by him to a medical man of Caen. These remarkable people are met with on the madreporic atolls of the Pacific, such as the Paumoton Islands, where there are neither brooks nor springs, and where the wells which have been dug yield only brackish water. The vegetation is limited to a few cocoa-nut trees, of which the milk with sea-water constitutes the only drink of the natives. It is a question how men can live when constantly using a liquid of which all bathers, who have perforce swallowed a few drops, know the disagreeable qualities. Is it an effect of habit, or a natural disposition, or characteristic of race? It is inexplicable; the fact, however, is affirmed by the majority of navigators who have visited those distant shores. Cook and Lapérouse both mention it, and more recently Dupetit-Thouars has described the inhabitants of Easter Island as true amphibia, drinking sea-water without feeling any inconveniences from it. M. Jouan concludes his observations on the drinking of sea-water by a fact which he asserts to have seen at the beginning of his seafaring career, in 1838, whilst going to Mexico. At that time, he writes, steam navigation had not yet freed ships from the influences of calms and head winds. There were no distilling apparatus, so that in long voyages it was necessary to be careful with the water; and in his ship, with the number on board nearly doubled by some troops they had to convey, and the prospect of not finding any water on the way, since they were only going to blockade the coast without communicating with the shore, they were specially parsimonious in its use. Some sailors consequently began to drink sea-water, but were soon obliged to leave it off. One man only persevered until the ship arrived at Mexico, when it was revictualled with fresh water brought at great expense from Havanna. This man never complained of the sea-water; the only difference remarked in him was, that he became more and more yellow.

THE NEW PHYSIOLOGICAL LABORATORY IN BERLIN.

THE new physiological laboratory of the University of Berlin was opened on November 6th, when Professor Du Bois-Reymond commenced his course of lectures on Experimental Physiology. He began by saying "that the occasion compelled him to take a retrospective view of past times. He stood," he said, "at the goal of twenty years' labours, and looked with satisfaction on the palace dedicated to science. He thanked most sincerely all who had directly or indirectly contributed to the building of the institution. To the right and left of the entrance were the statues of two men who had laid down the path of physiology in Germany—Haller and Johannes Müller. Haller made physiology independent, but yet not so independent as anatomy, physics, chemistry, astronomy, etc., were. When Helmholtz, Ludwig, Brücke, Donders, and Claude Bernard sat at Müller's feet, there were no physiological laboratories; nor were they necessary, for physiology was based only on the teaching of subjective perceptions, and microscopic preparations were rarely seen. Liebig created chemical laboratories thirty years ago; forty years ago, Purkinje opened the first physiological institution in Breslau. And then other universities followed the example. But, while the methods of research in physics, che-

mistry, etc., are of a like kind, physiology has various requirements. It demands a physical, a chemical, a vivisectional, a microscopic department... To the vivisection department, special attention has been devoted; for one only requires to meet the opponents of vivisection with the words, 'For every dog's life that is sacrificed, mankind has to count a human life saved.'" The new laboratory is one of the most important public buildings in Berlin. The principal entrance, in the Uferstrasse, leads to a spacious vestibule, from which iron stairs lead to the large lecture-theatre. Not far from this, on the first storey, are a smaller lecture-room and several rooms for instruments, preparations, etc. In the second floor are the laboratories for electricity, acoustics, optics, etc.; and in the attic are a photographic room and several rooms for optical purposes. The apartments of the assistants, the library, and various laboratories, are on the ground-floor. The large auditorium is lighted by means of large windows, which can be darkened at any moment, when desired, by means of Venetian blinds. The rooms in general are warmed by heated air; but in some there is an arrangement for heating with water, so as to maintain an equal temperature. The ventilation is effected by means of a steam-engine on the ground-floor.

THE PUBLIC HEALTH.

DURING the week ending Saturday, December 1st, 5,934 births and 3,748 deaths were registered in London and twenty-two other large towns of the United Kingdom. The annual death-rate was 24 per 1,000 in Edinburgh, 25 in Glasgow, and 31 in Dublin. The annual rates of mortality per 1,000 last week in the twenty English towns, ranged in order from the lowest, were as follow: Portsmouth 14, Leicester 16, Bristol 18, Norwich 18, Nottingham 18, Hull 21, Plymouth 23, Salford 23, Brighton 23, London 23, Sunderland 24, Sheffield 24, Manchester 24, Liverpool 24, Bradford 25, Newcastle 25, Birmingham 27, Leeds 27, Oldham 31, and the highest rate, 33, in Wolverhampton. The annual death-rate from the seven principal zymotic diseases averaged 3.6 per 1,000 in the twenty towns, and ranged from 0.4 and 1.6 in Hull and Portsmouth to 6.4 and 7.5 in Wolverhampton and Norwich. The high zymotic rate was due to scarlet fever, both in Wolverhampton and Norwich, and this disease also showed fatal prevalence in Sheffield. Small-pox caused 31 deaths in London, one in Liverpool, and one in Birmingham, whereas no death resulted from this disease in any of the seventeen other towns. In London, 2,636 births and 1,579 deaths were registered. The annual death-rate from all causes, which in the two preceding weeks had been equal to 21.2 and 23.2 per 1,000, further rose last week to 23.3. The 1,579 deaths included 31 from small-pox, 81 from measles, 52 from scarlet fever, 5 from diphtheria, 27 from whooping-cough, 36 from different forms of fever, and 16 from diarrhoea; thus to the seven principal diseases of the zymotic class 248 deaths were referred, against 223 and 258 in the two preceding weeks. The 81 fatal cases of measles were within one of those returned in the previous week, and exceeded the corrected weekly average by 29. The 52 deaths from scarlet fever showed a further decline from the numbers in recent weeks, and were 36 below the corrected average. The fatality of whooping-cough continues below the average. The deaths referred to fever, which had been 28 and 38 in the two previous weeks, were 36 last week, and 8 below the corrected weekly average; they included one fatal case of typhus, 30 of enteric or typhoid, and 5 of simple fever. The fever (typhus and enteric) patients in the Metropolitan Asylum and London Fever Hospitals, which had been 148 and 153 at the end of the two previous weeks, were 155 on Saturday last. The deaths from small-pox, which had been 14 and 27 in the two preceding weeks, further rose to 31 last week, a higher number than in any week since the middle of July last; 12 occurred in the Metropolitan Asylum Hospitals, 4 in the Highgate Small-pox Hospital, and 15 in private dwellings. Of the 31 fatal cases, 10 were certified as unvaccinated and 9 as vaccinated, while in 12 cases the medical certificates gave no information as to vaccination. The number of small-pox patients in the Metropolitan Asylum Hospitals, which had increased

the eight preceding weeks from 137 to 232, further rose during last week to 256; 54 new cases were admitted during the week, against 58 and 78 in the two previous weeks. The deaths referred to diseases of the respiratory organs, which had been 313 and 409 in the two previous weeks, rose to 417 last week, but were 64 below the corrected average; 261 resulted from bronchitis and 116 from pneumonia. In Greater London, 3,143 births and 1,879 deaths were registered, equal to annual rates of 37.5 and 22.4 per 1,000 of the population. At the Royal Observatory, Greenwich, the duration of registered sunshine in the week was 12.3 hours, the sun being above the horizon during 57.4 hours; the recorded duration of sunshine was, therefore, equal to 21.4 per cent. of its possible duration.

THE MANCHESTER AND SALFORD HOSPITAL SUNDAY AND SATURDAY FUND.

THE eighth annual meeting, in connection with the Manchester and Salford Hospital Sunday and Saturday Fund, was held on the 12th ultimo; the Mayor presiding. From the report, which was read by the Secretary, it appeared that the total amount contributed during the year (together with bank interest) was £7,531 4s. 3d. Of this sum, £5,477 os. 10d. was collected in places of public worship, or paid in from other sources to the credit of the Hospital Sunday Fund; while the amount collected in mills, workshops, etc., was £2,224 8s. 8d. When compared with 1876, the amount contributed to the Hospital Sunday Fund shews a decrease of £18 11s., and that collected on Hospital Saturday a decrease of £26 11s. 2d.; making a total decrease of £45 2s. 2d. But the Committee, having regard to the continued depression of trade, considers this result as in no way discouraging.

PUBLIC GRANTS TO GERMAN UNIVERSITIES.

THE following grants have recently been made by the German Government towards the payment of salaries, defraying the expenses of new buildings, etc., in the universities: Berlin—Additional ordinary professors of medicine and midwifery, extraordinary professors of medicine, surgical and obstetric, ophthalmic, and children's clinics, physiological, State medicine, pharmacological, and physical institutes, and zoological museum, 77,334 marks; together with 2,850 marks for salaries of assistants in the children's department of the Charité Hospital: Bonn—Surgical clinic, physiological and physical institutes, etc., 1,093,270 marks: Breslau—Anatomical institute, zoological museum, medical clinic, etc., 1,200,327 marks: Göttingen—Enlargement of library and of institute of vegetable physiology, etc., 910,550 marks: Greifswald—Rebuilding of library and of the physiological and physical institute, pharmacological and anatomical institutes, obstetric clinic, 722,715 marks: Halle—Anatomical buildings, library, physiological and pathological institutes, medical clinic, 1,316,750 marks: Kiel—Enlargement of the medico-chirurgical hospital, zoological museum, pathological and physiological institutes, chemical laboratory, etc., 669,876 marks: Königsberg—Professor of experimental physics, surgical clinic, anatomical, physiological, botanical, chemical, and physical institutes, etc., 1,393,440 marks: Marburg—A new chemical laboratory, pathological and physiological institute, medical clinic, etc., 1,310,900 marks. (The German mark is about equal to an English shilling in value.)

ATMOSPHERIC GERMS.

AT the meeting of the Royal Society, on November 29th, a discussion took place on the subject of Professor Tyndall's well-known discoveries as to the influence of the invisible particles of the atmosphere, as exciters of putrefaction. Professor Tyndall has established by his experiments the following remarkable facts: 1. That the air is at all times, even when free from microscopically visible particles, beset with much smaller ultramicroscopical particles which communicate to it, when illuminated by the sunbeam or the beam of the electric light, a peculiar opalescence; 2. That this opalescence disappears when the air is allowed to remain absolutely tranquil; 3. That air which has undergone this change, *i. e.*, air from which the ultramicroscopical

particles have subsided, is no longer capable of contaminating liquids. From these facts, Dr. Tyndall concludes that the particles in question are organisms—the germs of septic bacteria. Dr. Burdon Sanderson, admitting the fact that the particles have the influence assigned to them, regards the evidence that they are organisms as insufficient; holding that, in respect of morphological entities, the only evidence that can be taken is that of observation. The present discussion has arisen out of a paper communicated to the Royal Society last summer, entitled "Note on Dr. Burdon Sanderson's Latest Views of Ferments and Germs", in which Dr. Tyndall criticised certain parts of a lecture delivered in January last on *Contagium Vivum*. In this paper, after referring to certain writers who, he thinks, have wrongly invoked the microscope in deciding the question of ultimate structure, Dr. Tyndall proceeds: "It is not without concern that I see the habit of thought and expression against which I thus reasoned revived by so excellent a worker as Dr. Sanderson. My position is, and I think the uniformity of nature is on my side, that a particle, whether great or small, which when sown produces a plant, is proved thereby to be the germ of that plant; Dr. Sanderson's position is, that a particle, however fruitful it may be, ceases to be a germ, and dwindles to a molecular aggregate when it becomes ultramicroscopical. It may be fairly asked, Have all microscopes, or only some, the right to define the germ-limit? Has a pocket-lens the right? If not, and assuredly it has not, what power of enlargement confers the right?" etc. In the introduction to his paper, Dr. Sanderson remarks that the difference between himself and Professor Tyndall appears to him to arise mainly from the difference of meaning attached to the words germ and structure.

SCOTLAND.

DR. ALLEYNE NICHOLSON, Professor of Natural History in the University of St. Andrew's, has been appointed by the Trustees of the British Museum to the Swiney Lectureship on Geology.

EXCISION OF THE LARYNX.

IN the report of the Glasgow Pathological and Clinical Society which we publish this week, will be found a remarkably interesting case of excision of the larynx by Dr. Foulis. This is, we believe, the first time that the operation has been performed, and that any one has spoken with an artificial larynx, in this country. The case has been so far successful. The operation must be regarded as one of the most remarkable and daring achievements of modern surgery. It was first performed by Billroth of Vienna, in the end of 1873; and has subsequently been performed several times by him and other Continental surgeons.

A PLEASANT CLIMATE.

FROM November 15th until the 28th at noon, the rainfall registered in Lochalsh, Ross-shire, was 12.60 inches. From October 9th till November 29th, there was only one dry day—namely, October 24th. There were several heavy storms, and a gale, reaching the height of a hurricane, in the same period, and the days on which outdoor work could be gone on with were remarkably few.

REGISTRATION OF DISEASE.

THE following is a draft clause which it is proposed to insert in the new Edinburgh Police Bill, to be brought before Parliament next session, relative to the compulsory reporting of all cases of infectious diseases by medical men. "In order to secure more prompt action in dealing with infectious diseases, every medical practitioner practising within the burgh shall, within twenty-four hours of the same coming to his knowledge, report to the medical officer of health every case of typhus fever, typhoid fever, diphtheria, small-pox, scarlatina, and measles occurring in his practice within the burgh, under a penalty not exceeding forty shillings for each failure, provided that such practitioner shall be paid the sum of two shillings and sixpence for each case so reported by him; and, in order to facilitate the making of such reports, every practitioner

as aforesaid shall from time to time be furnished with printed forms, addressed to the medical officer of health, and stamps for postal transmission." We believe the matter is shortly to be brought under the consideration of the Royal Colleges of Physicians and Surgeons, and it remains to be seen what course they will take in regard to it.

GLASGOW UNIVERSITY COURT.

AT a recent meeting of this Court, at which all the members were present except the Lord Rector and the Assessor of the Senate, the approval of the Court was given to a proposed course of lectures on Public Health, to be given this session, and conducted by Professor Simpson, in conjunction with Professor James Thomson and Professor Ferguson.

AYR FEVER HOSPITAL.

THE annual meeting of the subscribers to this hospital was held on Monday. The reports read showed that the income for the past year from all sources amounted to £1,022, and the expenditure to £1,108: while 250 cases had been treated in the hospital (of whom 17 died), and 1,824 cases outside. It was agreed to accept a piece of ground given on liberal terms by Major Campbell of Cragie, on which to erect a new hospital, as the present one is too small and is badly situated. To meet the expense of the new building, the directors had £2,000 on hand; they expected £2,000 more for the present hospital and grounds, and the rest would require to be raised. The local authority was to be invited to co-operate.

EDINBURGH OBSTETRICAL SOCIETY.

AT a recent meeting of the Edinburgh Obstetrical Society, Dr. David Wilson was elected President for the ensuing two years, in place of Professor A. R. Simpson, whose term of office had expired. *Vice-Presidents:* Dr. R. Peel Ritchie and Dr. Angus Macdonald. *Members of the Council:* Dr. James Cattie, Dr. A. Simpson, and Dr. Thomas Balfour. *Treasurer:* Dr. William Craig. *Librarian:* Mr. J. Jamieson. *Secretaries:* Dr. C. E. Underhill and Dr. James Carmichael.

UNIVERSITY OF ST. ANDREW'S.

AT the half-yearly meeting of the General Council of St. Andrew's University, held on November 30th, it was decided, after a long discussion, by nineteen votes to four, to petition Parliament "for the continuance of a board of education, but with extended powers, especially with a view to the improvement of secondary education". At the same meeting, a debate was held as to the advisability of removing the lectures on Chemistry, which come at present into the curriculum of the arts course, into that of medicine. It was argued that the retention of Chemistry in the arts curriculum, which was not done either in Edinburgh or Glasgow Universities, had been the means of preventing students from attending St. Andrew's University. The other side contended that other students might be attracted to St. Andrew's for the very reason that Chemistry was included among the arts classes. Ultimately, it was agreed that, as the Universities Commission had at present the whole question of graduation under consideration, no action should be taken in the matter till the report of the Commission was issued.

WESTERN INFIRMARY, GLASGOW.

THE third annual general meeting of the contributors to the Western Infirmary of Glasgow was held on Thursday, November 29th, the Lord Provost presiding. Among those present were Dr. Cameron, M.P., and Mr. Holms, M.P. The Secretary read the annual report, which showed that the number of patients treated during the year was 11,004. Of the indoor patients, there were dismissed cured 1,005; relieved, 316; incapable of further benefit, 295; there died in hospital, 155; and there were remaining in the hospital on October 31st, 1877, 179. The average daily number of patients in the hospital during the year was 191, and the average period of residence of each was thirty-five days. The number of deaths during the year was 155, or 8.75 per

cent. of all cases treated to a termination. The ordinary income for the past year amounted to £10,722, while the ordinary expenditure was £11,718, showing a deficiency of £996. This deficiency was paid out of the supplementary fund established in 1875. The increase on ordinary subscriptions was nearly £450. The report was adopted, as were also motions recommending the institution to the continued support and liberality of the public.

EDINBURGH UNIVERSITY BUILDING FUND.

IN accordance with the intimation which we reported last week, a numerously attended and influential meeting was held on Thursday, November 30th, in the Freemasons' Hall, Edinburgh, to "consider the means to be adopted to avert so great a disaster as the loss of the Government grant of £80,000 to the University". The Lord Provost presided, and pointed out that, to secure the whole of the promised grant, it was necessary to raise £10,000, in addition to the £82,000 already collected, before the end of the present year, and £15,000 more before the end of next year; £25,000 in all. The Town Council had agreed to give a second donation of £1,000. Principal Sir A. Grant announced a second subscription of £2,000 from the Duke of Buccleuch, and a second subscription of £1,000 from Mr. C. Aitchison of Edinburgh. The Secretary read a further long list of subscriptions, mostly second donations, which had been intimated to the Committee within the past few weeks. These amounted, in the aggregate, to more than the £10,000 required to secure the first instalment (£20,000) of the promised grant. In speaking of the need of additional accommodation for the medical classes, Professor Turner pointed out that not only the great increase in the number of students which had taken place in the last few years, but still more the complete revolution in the methods of teaching many of the branches of medical science, made their present premises far too small for their satisfactory accommodation. He referred especially to the necessity for practical classes in connection with the various Chairs; and for the teaching of these, far more room was required than in an ordinary lecture-room for apparatus of various kinds, as well as for the special objects that were to be studied: Botany, Chemistry, Physiology, Surgery, Anatomy, Pathology, Medical Jurisprudence, and Materia Medica, were now all taught in this way; and at present these class-rooms were not only overflowing, but actually bursting, with students. In the matriculation books for the present session were enrolled 926 medical students, and if there were added to that number those who would, judging from past years, matriculate in the summer, it brought the number of medical students during the year to near 1,100, and the total number of students in all the Faculties to about 2,400. He instanced what had been recently done in France, by the Government and the several municipalities, in the way of providing university buildings; and showed that the municipalities of six towns, viz., Lille, Lyons, Bordeaux, Toulouse, Marseilles, and Nancy, had, in addition to providing valuable building sites for medical schools, authorised the expenditure of more than half a million of pounds sterling on buildings, besides voting annual grants for endowments and the working expenses of the Faculties. It was clear that the French, at all events, were fully alive to the necessity of improving and extending their system of medical and scientific education. Surely the University of Edinburgh would strive to maintain its ancient renown. Sir Robert Christison, in an energetic and vigorous speech, urged the active prosecution of a canvass for further subscriptions, and supplemented the remarks of Professor Turner by some further details. A Committee was appointed to take such steps as may be advisable to raise the £14,000 still required to be raised before the end of next year.

AT a recent meeting of the guardians of the Rathdown Union, a communication was received from the dispensary medical officer at Dundrum, complaining of the water supplied by a well in his district. It appears that the sewage of several houses passed into the well, thus contaminating the water. The matter was referred to a committee for examination and a report on the subject.

IRELAND.

DR. J. G. JEFFERSON has been elected House-Surgeon to the Belfast Royal Hospital. There were two applicants for the post.

HOSPITAL Sunday in Belfast will be held the last Sunday in this month, and we trust that on this occasion the collections will show an improvement over those of previous years.

A WOMAN named O'Dea died recently at Ballyvaughan, County Clare, at the advanced age of 106 years.

FOURTEEN deaths from measles were registered in Cork last week, and eighteen in Dublin from the same disease.

AT a meeting of the Galway Board of Guardians last week, Dr. Clayton of the Galway Dispensary was appointed medical officer to the workhouse. Dr. Pye was the other candidate for the appointment.

THE vacancy in the Tallaght Dispensary caused by the death of Dr. Noble Seward was filled up last week by the appointment of Dr. J. S. Lawlor. There were five candidates for the post, the emoluments of which are £155 *per annum*, exclusive of registration fees.

NURSES' HOME AND TRAINING SCHOOL, BELFAST.

THE annual meeting of the committee of this institution was held in Belfast last week, and, from the report read, we learn that, during the past year, one hundred and thirty-two cases were attended, the receipts amounting to £681, or double of what was obtained the previous year. The institution, which is only in its infancy, has supplied a want long felt; and, although the Home was established as an auxiliary to the Royal Hospital, the work of the nurses is not confined to that institution, they being sent out to private families, where they have been found to be of the greatest possible use. The Bishop of Down, in seconding the adoption of the report, remarked that he could not conceive any public hospital worthy of the name which had not the assistance and benefit of a staff of trained nurses. There are altogether forty nurses connected with the Home, which includes twelve employed in the Royal Hospital, and the skill, intelligence, and experience possessed by these nurses must be of considerable benefit to the community in cases of sickness requiring their services. A vote of thanks to the medical staff of the Belfast Royal Hospital for their valuable services, to which the institution were much indebted, and the appointment of a committee for the ensuing year, terminated the proceedings.

QUEEN'S COLLEGE, CORK: CLINICAL LECTURES ON INSANITY.

DR. EAMES, Resident-Physician of the Cork Lunatic Asylum, delivered, on the 1st instant, the first of a course of clinical lectures on insanity. The inaugural lecture was given in the Medical Hall of the Queen's College, there being a large attendance of students and several practitioners present. The President of the College, in introducing the lecturer, said that, by an order of council, the Lunatic Asylum was opened to the students of the College, and Dr. Eames had undertaken to give a course of lectures on the causes and treatment of insanity. Dr. Eames, in the course of his address, remarked that insanity was progressively increasing in Ireland, and gave for example the Cork Asylum, which was originally constructed to accommodate five hundred patients, but had now upwards of seven hundred inmates, and further enlargements were contemplated, so as to give room for one thousand inmates. In referring to the causes of insanity, Dr. Eames observed that fruitful sources of the disease were intemperance and the excitement consequent on the high pressure at which people are now living, one of the penalties paid for increased civilisation. He pointed out the absence of medical training for this dreadful disease, and to the want of knowledge displayed by medical practitioners in the treatment of the malady in its earlier stage he attributed a large increase in the number of lunatics, and considered that, until it formed part of the College

curriculum of medicine, the study of mental disease could not be earnestly pursued. A vote of thanks to the lecturer terminated the proceedings.

BRAY.

AT the monthly meeting of the Commissioners of Bray township held last Monday, it was resolved to apply to the Board of Works for £7,050 for sanitary purposes. Of this sum it is intended to expend £3,200 in sewerage, £250 in sanitary appliances, and £2,000 for baths and washhouses.

ENTRIES AT THE DUBLIN MEDICAL SCHOOLS.

NOTWITHSTANDING the increase made this session in the fees of the Dublin clinical hospitals (*vide* JOURNAL, August 4th), the aggregate number of students returned as having entered their names at the various Dublin schools of medicine exceeds considerably that of last year. The return we are enabled to give below is a semi-official, but not in all cases a strictly reliable, one made by the registrars or secretaries of the several schools to the inspector under the Anatomy Act (Dr. Brady), and is the one upon which he bases the distribution of subjects to the schools for the purposes of dissection:—Lewdich School of Medicine, 213; Royal College of Surgeons' School, 189; School of Physic (University of Dublin), 176; Catholic University School, 83; Carmichael School, 63; Steevens's Hospital School, 60: making a total of 784 students, which is an increase of thirty-three over the number returned for last year. The School of Physic has twenty-four more students, and the Ledwich School shows fifteen more than in the return for 1876.

OVARIOTOMY.

THE patient who was operated upon in the Rotunda Hospital last week (*vide* JOURNAL, December 1st), died on the sixth day after the operation from peritonitis. The kidneys were in a state of advanced cystic degeneration. Mr. Wheeler, Surgeon to the City of Dublin Hospital, was to have performed the operation yesterday (Friday). Mr. Stokes's and Dr. Fitzgibbon's patients are both quite convalescent.

DUBLIN BRANCH OF THE BRITISH MEDICAL ASSOCIATION.

A MEETING of the Council of this Branch, which now numbers one hundred and four members, was held on Tuesday last in the College of Physicians; Mr. Porter, Surgeon-in-Ordinary to the Queen in Ireland, in the chair. Several new members of the Association were elected members of the Branch, and arrangements were made for holding its first annual meeting and dinner on Wednesday, January 30th. The address on this occasion is to be delivered by Dr. Hudson, President of the Branch, and, we doubt not, will fully come up to the reputation of this distinguished physician and scholar. We trust that those members of the Association, and of the profession generally, residing in the province of Leinster, especially in Dublin, who have not as yet joined this Branch, will lose no time in doing so before the commencement of the new year. Dr. George F. Duffey, 30, Fitzwilliam Place, Dublin, is the honorary secretary of the Branch.

THE ADELAIDE HOSPITAL.

THE corner-stone of the new wing about to be erected to this hospital was laid by the Marquis of Headfort on Tuesday last, in the presence of a large number of the friends and supporters of the hospital. This wing is to be called the Madeline Wing, in memory of the late Hon. Lady Madeline Crichton, a daughter of the noble lord who performed the ceremony. The addition will include a new operation-theatre and operation-wards on the ground-floor; on the first-floor, a children's medical ward; and, on the second and top-floors, pay-wards; besides lavatories, water-closets, kitchen, etc. Considerable alterations have also been made in other portions of the hospital; and a well planned Fever Hospital, apart from the main building, and capable of accommodating twenty patients, has replaced the wooden shed in which cases of contagious disease were formerly treated.

HYDROPHOBIA AND RABIES.

THE Committee recently appointed by the Scientific Grants Committee of the British Medical Association "to organise an inquiry into the Causation, Pathology, and Treatment of Rabies and Hydrophobia", consisting of Mr. Callender, F.R.S., Dr. Burdon Sanderson, F.R.S., Dr. T. Lauder Brunton, F.R.S., and Mr. Ernest Hart, desire to announce that they will feel favoured if any medical gentleman having under his care a case of hydrophobia will kindly communicate with them. In any cases of hydrophobia or of rabies in which a *post mortem* examination is made, they will be glad to receive for investigation the following parts; namely, the brain, the spinal cord, the nerves leading to the part bitten, and the scar. These should be at once placed in a mixture of equal parts of spirit and water, and forwarded with as little delay as possible, together with a report of the *post mortem* appearances, to the Office of the British Medical Association, 36, Great Queen Street, London, W.C.

The members of the Committee are also anxious to have the opportunity of visiting cases of hydrophobia under treatment, or of attending any *post mortem* examinations in fatal cases.

A preliminary meeting of the Committee was held on November 12th, at which, after the consideration of various letters and communications, the following memorandum, prepared by Mr. Ernest Hart, was read and approved.

PREVALENCE OF HYDROPHOBIA IN ENGLAND.

The last five published annual reports of the Registrar-General show that during the five years 1871-75, the deaths referred to hydrophobia in England and Wales were 231; the smallest annual number of fatal cases was 28 in 1873, and the largest 61 in 1874. The detailed report for 1876 is not yet published.

It is important to note that a considerable number of the deaths recorded from hydrophobia occur amongst children under five years of age, as the statement is current that only persons likely to suffer from imaginary symptoms have during the recent epidemic been attacked by hydrophobia. The 231 fatal cases in the above mentioned five years included 173 of males and 58 of females; thus the mortality from this disease among males was just three times as great as that which prevailed among females. As regards the ages of the persons whose deaths were referred to hydrophobia, 23 were of children under five years of age, 78 children and young persons aged between five and twenty years of age, 87 persons aged between twenty and forty-five years, 32 between forty-five and sixty-five years, and 11 were persons aged upwards of sixty-five years. It thus appears that persons at all ages are equally liable to the disease, although the mortality at the different groups of ages varies with the proportional exposure to risk of infection. Taking into account the numbers of persons living at these groups of ages, the mortality from hydrophobia is considerably highest between the ages of five to twenty years, a result probably in some measure due to the fact that children and young persons are more likely to provoke attack from a diseased dog than adults.

METROPOLITAN MORTALITY FROM RABIES.

The Registrar-General, on October 26th, recorded the fourteenth fatal case of this disease registered in London since the beginning of this year, whereas the corrected average number of fatal cases in London during the last ten years has not exceeded four. Of these fourteen fatal cases, one was of a child aged under five years, four occurred between five and twenty years, six between twenty and forty, two between forty and sixty, and one was of a person aged upwards of sixty years. The age distribution of these recent metropolitan cases does not materially differ from that of the cases registered in the whole of England and Wales during the five years 1871-75, excepting that in London the rate of mortality between twenty and forty years is greater than in the preceding group of years—five to twenty.

SYMPTOMS OF RABIES.

During the past twelve months, fourteen cases of canine rabies have presented themselves at the Brown Institution, in only two of which the animals were in the excited state often supposed to be characteristic of the affection. In each instance, the dog was brought by its owner, who, in general, had no idea of the serious nature of its ailment, but imagined that it was suffering from indigestion or constipation, or that it had "swallowed a bone". The following notes, which embody the experience of Mr. Duguid, the Veterinary Surgeon to the Institu-

tion, as to the peculiarities by which a rabid dog may be most easily recognised, may not be without their use. The risk which arises from the presence of rabies is dependent in great measure on the circumstance that the symptoms of the early stage are little known and not of such a nature as to attract attention. Mr. Duguid, however, testifies that, to any one who has seen many cases, there is no disease more characteristic. The moment that a rabid dog is brought into the yard, the nature of its malady is recognised by the attendants.

Persons are liable to be bitten by mad dogs under two sets of circumstances; first, when a rabid animal escapes from home, and is at large; and, secondly, when a dog, not supposed to be infected, is caressed by its master or those who have to do with it at home. Consequently, it is quite as important that the public should be aware of those slight indications which afford ground for suspicion that the disease is impending, as that they should know the characteristic signs by which it may be recognised when it has declared itself.

The premonitory indications of rabies in the dog are derived entirely from the observation of changes in its demeanour; consequently, although they may be too trifling to be noticed by a casual observer, they are, fortunately, sufficiently striking to arrest the attention of any one who is about a dog and is sufficiently familiar with its habits and individual peculiarities.

A dog about to become rabid loses its natural liveliness. It mopes about, as if preoccupied or apprehensive, and seeks to withdraw into dark corners. From the first, there is usually a foreshadowing of that most constant symptom of the disease, perverted appetite. Mad dogs not only devour filth and rubbish of every kind with avidity, but even their own excrement, often immediately after it is passed. Indications of this tendency appear early, and are more than suspicious. Along with this peculiarity of behaviour, it is of equal importance to notice that an infected dog from the first snaps at other dogs without provocation. This snappishness is in most dogs very striking. If a dog not previously known to have such a habit snap indiscriminately at the first dog it meets in the yard or in the street, it is probably not safe.

Dogs which are at large are also to be recognised as in a dangerous state by their demeanour. A healthy dog, in its progress along a street, or elsewhere, shows at every step that its attention is awake to the sights and sounds which it encounters. The rabid dog, on the contrary, goes sullenly and unobservantly forwards and is not diverted by objects obviously likely to attract it. That this is not due to impairment of perception or of sensual impressions, but to preoccupation, is evident from the fact already referred to, that it is excited by the sight or sound of an animal of its own species.

Of the symptoms which accompany the final stages of the disease, the most important and characteristic are those which relate to the organs in which it localises itself: the mouth and throat. Attention is often drawn to the condition of the mouth in an animal supposed to be healthy, by the observation that it tries to scratch the corners of its mouth, as if attempting to get rid of theropy mucus which is seen to be discharged from it. In dogs that are tied up, it is noticeable that the bark has entirely lost its ring, and acquired a peculiar hoarseness which can be recognised even by the most unobservant. As the disease progresses, the discharge increases; the lower jaw hangs as if paralysed; and the animal has evident difficulty in swallowing. Along with this, there is often loss of power of the hind limbs. If now the dog be watched, the peculiarities of behaviour which have been already noticed seem to present themselves in a much more marked degree than before. It is observed, first, that it is subject to paroxysms of excitement, in which it makes often repeated efforts to bite or gnaw all objects (such as woodwork, straw, etc.) within its reach, while at the same time it continues to exhibit the tendency already mentioned to devour its own excrement; and, secondly, even during the remissions, its excitement is at once renewed by the sight or sound of another dog.

It may be well to note that the mad dog continues to recognise its master, and to manifest pleasure when kindly spoken to; that it does not shun water; and that in many cases, from first to last, that wild fury which is commonly supposed to belong to the disease is conspicuously absent.

LEGISLATIVE MEASURES.

There is reason to believe that, so far as relates to the metropolis, what is chiefly necessary is that the existing police regulations should be enforced, particularly those which relate to the detention of all ownerless dogs, it being certain that it is by means of the curs kept in hundreds by persons of the lower class without licences that the disease is enabled to hold its ground in the metropolis. The law relating to this subject is not, however, uniform throughout the country, and there appears to be room for improving it and for applying to the whole

of England the more stringent provisions of the metropolitan statutes. The following summary of the existing law is furnished in a recent number of the *Solicitors' Journal*. It is comprised in four statutes, two applying to the metropolis only. By 2 and 3 Vict., c. 47, s. 61, it is enacted that any constable in the metropolitan police district may "destroy any dog reasonably suspected to be in a rabid state, or which has been bitten by any dog reasonably suspected to be in a rabid state", the owner allowing such dog to be at large with knowledge of its state, or that it has been bitten, being liable to a penalty of £5. By 30 and 31 Vict., c. 134, s. 18, the police may take possession of any dog found in any street within the metropolis, and not under the control of any person, and may detain such dog until claimed by the owner, the dog being liable to be sold or destroyed if not claimed within three days. The same statute gives power to a magistrate to order any dog to be destroyed on complaint that it has bitten, or attempted to bite, any person within the metropolis. The Dogs Act, 1871 (34 and 35 Vict., c. 56), is of general application. This statute allows any constable to take possession of any dog that he has reason to suppose to be savage or dangerous straying on any highway, and not under the control of any person. If the owner be known, he must be apprised of the taking possession of the dog; and, if he do not claim the dog in five days, the dog may be sold or destroyed. If the owner be not known, the dog has only three clear days of absolute right to life. The same statute provides that "any court of summary jurisdiction may take cognisance of a complaint that a dog is dangerous, and not kept under proper control, and may make an order directing the dog to be kept by the owner under proper control or destroyed". Under this statute, it was held in *Pickering v. Marsh* (22 W. R. 798) that the justices may order a "dangerous" dog to be destroyed without giving the owner the option of keeping it under proper control. The third section provides that "local authorities may, if a mad dog, or a dog suspected of being mad, be found within their jurisdiction", make an order "placing under such restrictions as they think expedient all dogs not being under the control of any person during such period as may be prescribed in such order. Apart from the fiscal Acts, 16 and 17 Vict. c. 90, by which the assessed tax on dogs was fixed at twelve shillings, 30 and 31 Vict., c. 5, by which this tax was superseded by a licence duty of five shillings, and 32 and 33 Vict., c. 14, by section 38 of which the employer of a shepherd, and not the shepherd himself, is liable to duty, the only other English Dog Act appears to be 23 and 29 Vic., c. 60, by which the "owner of every dog shall be liable in damages for injury done to any cattle or sheep by his dog; and it shall not be necessary for the party seeking such damages to show a previous mischievous propensity in such dog, or the owner's knowledge of such previous propensity, or that the injury was attributable to neglect on the part of such owner". This statute is founded on the corresponding Irish one, 25 and 26 Vict. c. 59, which also applies to injury done to animals only. Looking to the spread of hydrophobia, it is worthy of consideration whether the more stringent powers and penalties of the metropolitan statutes ought not to be extended to the whole of England.

At the same meeting, it was agreed that, in all cases in which the opportunity offers itself of treating persons bitten by a dog or any other animal supposed to be rabid, the following rules of treatment ought to be followed:—1. No time should be lost in excising the part; but, in cases where limbs are bitten, a ligature should, even before excision can be practised, be at once tied tightly above the bitten part, between it and the rest of the body, so as to stop the circulation; 2. After excision, the surface-wound should be cauterised by hot iron, nitric acid, or, if neither be available, by *potassa fusa* nitrate of silver (stick-caustic).

SIR THOMAS WATSON, in an article published in the *Nineteenth Century*, on Hydrophobia and Rabies, summarily disposes of the hypothesis that the disease has in any instance resulted from fright and anxiety, or that it has no existence in the human subject. As to the first case, he has seen the disease in infants and idiots, in whom the imagination could have had no influence in producing it; and, with regard to the hypothesis that the instances quoted were in reality cases of tetanus, he says that he has seen no fewer than four cases of hydrophobia, and is sure that no one who had ever watched its actual symptoms could fail to recognise it again, or could mistake any other malady for it. Speaking of the increase of the disease, he states that the Registrar-General reports three hundred and thirty-four deaths in the ten years from 1865 to 1875 in England, and, in the present year, there have been thirteen deaths in London alone. Upon these facts, Sir Thomas Watson urges the adoption of stringent measures, and says he is not aware of any authentic case in which a hydrophobic patient has re-

covered. Discussing popular and mischievous delusions on the subject, he points out that any one who has been bitten by a mad dog, in whose case no preventive measures have been taken, is not to be on that account considered doomed, because few who are so bitten become affected with hydrophobia; although abstaining from giving an opinion on the proportion of escapes, he assumes that the chances are on the side of an escape. Seeing that there is some reason to believe that the virus of hydrophobia is capable of absorption by the mucous membrane of the tongue, mouth, and throat, and there is further risk that the lips or tongue might be chapped or abraded, Sir Thomas says: "I dare not counsel the expedient of suction." He recommends most strongly that a bandage, tight enough to restrain the venous circulation, should be applied just above the wound, between it and the heart; and next, that without any delay a stream of cold or tepid water should be poured from a height, and therefore with a certain degree of force, upon and into the wound. In this way, the implanted poison would in all likelihood be thoroughly washed away, and the safety of the sufferer secured. Nevertheless, this process need not exclude subsequent excision or cauterisation, should one or the other be feasible or thought desirable to make assurance doubly sure. The early and complete excision of the bitten part is, he believes, the only means of prevention in which confidence can be placed. The use of anæsthetics, whether general or local, he further reminds us, divests the process of excision or cauterisation of its pain, and therefore of its terrors, while he significantly adds: "If I, for my own part, had received a bite from a decidedly rabid animal upon my arm or leg, and the bite was such that the whole wound could not be cut out or thoroughly cauterised, my reason would teach me to desire, and I hope I should have fortitude enough to endure, amputation of the limb above the place of the injury." To procure anæsthesia, he specially recommends the use of hydrate of chloral. To check the malady, all that is necessary, he holds, is the establishment of an universal quarantine for dogs within the kingdom, the importation of dogs being totally prohibited while it is in force. "The efficacy", he writes, "of this preventive scheme rests upon the validity of the following propositions: first, that the disease always originates in the canine species; secondly, that it never arises in them spontaneously; thirdly, that the contagion, when received by them, never remains latent more than a few months." He says that vigorous police measures should be taken for the suppression of houseless and uncared for curs, considering the existence of ownerless dogs to be a national nuisance and a growing source of national peril. As to the so-called specifics, Sir Thomas denounces the possessors of them as "ignorant and knavish", and deploras the fact that, "by trusting to their pretences, only too many persons have been led to neglect the one trustworthy mode of obtaining safety".

A REPORT OF MASSACRE AND MUTILATION BY BULGARIANS.

WE have received from our correspondent with the army of Raouf Pacha at Schipka, under date November 17th, the following ghastly report, authenticated by the signatures of four medical men. A copy of it has been officially forwarded to the British Embassy at Constantinople.

On October 24th, at the request of J. E. Blunt, Esq., Her Britannic Majesty's Consul, and with the permission of the Muchir Raouf Pacha, we accompanied Major Campbell, an officer on the staff of His Excellency charged with the duty of making a reconnaissance, to Kopat, within the line of the Russian outposts, the scene of a massacre, in which a number of Turkish women and children were said to have perished at the hands of the Bulgarian inhabitants of Mufliiss and other neighbouring villages during the retreat of the Russians under General Gourko.

We arrived at Mufliiss, a Turko-Bulgarian village situated at the foot of the Balkans, ten miles distant from the camp, towards evening. Major Campbell instructed the Arab officer in charge to have ready shortly after midnight the men at his disposal, seventy cavalry and one hundred and thirty infantry. At 2 A.M., we started up the pass of Tipuriska. Leaving on the right hand the monastery of St. Nicholas, and crossing the river Tzimniska, we approached the enemy's country at daybreak. No outposts were visible. A few shots were exchanged with Bulgars on neighbouring hills, but otherwise our journey was undisturbed. After five and a half hours' march along narrow rugged paths cut in the sides of the mountains, we arrived at our destination. We found ourselves in a beech forest on the north-west slope of a

mountain. Among the trees were scattered a quantity of human remains covering an area of about forty yards square. There was considerable scattering of the remains, due to the visits of dogs, and extensive disintegration, the result of lapse of time and the influence of weather. In numerous cases, however, it was but too easy to observe what had taken place. Some of the bodies and clothes had been burnt; but whether before or after death, it is impossible to say. We had been informed that the victims of the massacre numbered over one hundred and thirty, all Turkish women and children. We counted one hundred and twenty-two skulls, of which from twenty to twenty-five were those of young children. All the clothing to be seen was such as is worn by Turkish women and children. None of the clothing and none of the remains, in such a state as to allow conclusions to be drawn from them, were those of men. Many of the skulls had been extensively fractured by blows from blunt instruments. In three cases, it was clear that the throats had been cut. In several other cases, the appearances led towards the same conclusion; but, with regard to these, we were unable to pronounce positively. In one case, the abdomen had been opened in such a manner as to bear out the assertion of a sergeant present, who stated that, shortly after the massacre, he had seen the body of a woman, from which had been taken the child she was bearing. Close by were small remains, which may have been those of an unborn child. Some of the women had their arms outstretched, clutching their clothes, which had been drawn over their heads. In several cases, it was evident that mutilation had been practised, the private parts having been cut away before and behind. In two cases certainly, and seemingly in others, the breasts had been removed. At one spot was found the body of a woman, encircling with her arms that of a young child, the skulls of both being fractured. At another was the body of a woman in the prone position, the hands stretched downwards in the evident attempt to protect herself from outrage, the thighs abducted, the legs flexed, the abdomen and other parts horribly mutilated.

We were satisfied, as the result of our inspection, that, at the spot in question, over a hundred and twenty individuals, adults and children, had been massacred; and that in numerous cases violation and mutilation had been practised. From the character of the clothes left undestroyed, and all the circumstances of the case, it may be held beyond doubt that the remains seen by us were those of Turkish women and children.—F. L. ATTWOOD, M.R.C.S., F. N. HUME, M.R.C.S., F. M. SANDWITH, M.R.C.S., Stafford House Ambulance; RALPH LESLIE, M.D., National Aid Society's Ambulance.

THE LONDON HOSPITAL MEDICAL SCHOOL.

WE lately recorded the loss sustained by the London Hospital Medical School in the sudden death of Mr. Kershaw, its able medical secretary. This important office still remains vacant, and it is understood that some difficulty has been met with in finding a gentleman with the necessary qualifications to act as executive to the school. This school is still in a transitional state, for, till 1875, there was no thoroughly efficient organisation; but in that year, a Governing Board was formed of the lecturers and some members of the Hospital Committee, and Mr. Kershaw was appointed secretary to act as an executive.

The present occasion affords a good opportunity for the authorities of the College to give a fresh impetus to the organisation initiated in 1875, by the appointment of an able and experienced administrator, who will establish the thorough organisation which this school has always wanted.

The hospital, founded in 1740, has now grown to be one of the largest in the kingdom. The present medical college was inaugurated in 1854, and was erected at the expense of the Governors of the hospital. Two years ago, the College Board was formed, and by this authority the school has since been managed, Mr. Kershaw, till the time of his death, acting as executive. During these two years, much progress has been made in the educational department, and now a thoroughly able executive is absolutely essential to the school. This appointment is of the more importance as the hospital has no medical superintendent, or general medical officer, the conduct of the medical work during the absence of the honorary staff being in the hands of six house-physicians and four house-surgeons. This number of resident

medical officers is very large when compared with the size of the school, and we suspect that this sometimes leads to the appointment of young men who would not be placed in such responsible posts at other schools without further medical supervision. It is evident, therefore, that a firm and wise control is a matter of the utmost importance, and in this matter the school and hospital appear to require strengthening. The general administration of the hospital is conducted and supervised by the Resident House Governor (not a medical man), whose whole time and energies are given to this work; such an authority works well for the general administration, but is manifestly not sufficient to direct and govern the large medical department within the walls of the hospital. Some degree of supervision and cohesion in the clinical and medical work is preserved by medical and surgical registrars, but still there remains the want of a permanent and strong executive to unite the working of the College with the clinical work of the hospital, and to superintend the whole of the educational system. The lecturers of the college and staff of the hospital cannot be expected to conduct the work of medical education by isolated individual efforts, and the Hospital Committee and College Board can deal only with general principles and such details as are brought under their cognisance; these considerations point to the necessity for a strong and complete executive in the college, having control over the school work conducted in the hospital. This matter is one which the Hospital Committee, in the interests of the Governors, cannot afford to neglect.

In every metropolitan medical institution, the interests of the hospital are intimately connected with those of the school. The public who support our hospitals demand with increasing urgency that the medical work shall be done well, that scientific investigation shall be encouraged, that the education given to the students and the opportunities afforded to them for study be improved as the clinical methods advance; for by such means only can the practitioners of the future be properly trained, and the science and art of medicine be advanced.

The wealthy supporters of medical charities and intending donors will be found to bestow their money where they believe it will be best expended in meeting the public wants of thorough medical education, as well as in simply relieving individual cases of sickness.

It is to be hoped that the London Hospital Committee will use their influence with the College authorities to assist in further establishing such an efficient organisation in the School as may render its work both sound and successful, remembering that it is only by such means that they can raise the status of the hospital to a level with its magnitude, and thereby command the confidence of the public. The capacity of the London Hospital as a medical school has not yet been developed; its ample opportunities of affording practical work for students, and the advantage of increased facilities of access from various parts of London, render it a duty on the part of the staff and committee of the hospital to raise the tone of their work in all its departments.

STATED RETIREMENT OF THE DIRECTOR-GENERAL OF THE ARMY MEDICAL DEPARTMENT.

AN announcement appeared a few days ago in an evening paper, to the effect that the present Director-General of the Army Medical Department, Sir William Muir, had determined to resign his appointment on account of continued ill-health; and that it had been arranged for Surgeon-General Dr. Munro, C.B., to be his successor. We are informed, on inquiry, that there is no ground whatever for these statements. Sir William Muir has for some weeks past sufficiently recovered from the effects of his late illness to be able to transact the business of his office at Whitehall Yard, and has now nearly regained his former state of health. As Surgeon-General Munro holds the position of head of the medical branch, and since he has necessarily in consequence been closely associated with the Director-General in carrying out all the recent changes in the medical department of the army, it is possible the Secretary of State for War might select him, in case of a vacancy, to fill the post of chief of the army medical department; but, to do this, several distinguished officers of his own rank, holding important charges on foreign stations, would have to be passed over, and this would be a most unusual proceeding. However, there is no need for discussing this question, as no vacancy has occurred, nor, there is good ground for believing, is at present likely to occur.

HOSPITAL AND DISPENSARY MANAGEMENT.

BIRMINGHAM PROVIDENT DISPENSARY.

We have from time to time alluded to the movement in favour of a general system of provident dispensaries, which has arisen at Birmingham in consequence of the admirable address which Mr. Sampson Gamgee delivered as President of the Birmingham and Midland Counties Branch of the British Medical Association. Our friends in Birmingham are celebrated for their energy, and certainly in this matter they have not allowed the grass to grow under their feet. The Birmingham Charity Organisation Society has taken up the matter: a special subcommittee has been appointed; and their report is now before us. It has evidently been drawn up with great care. It first deals with the question of medical relief over the whole area of which Birmingham may be considered the centre; then it proceeds to develop a plan for dividing Birmingham into districts and establishing a provident dispensary in each, as has been done in Manchester. The proposals made by the Charity Organisation Society seem to us wise, and well calculated to enlist the sympathy of the medical practitioners in the town. But matters have not stopped here. A general committee has been formed for the purpose of carrying out these proposals, and detailed rules have been drawn up for the management of the Birmingham Provident Dispensary. We have no doubt that the energy and practical wisdom which have carried the movement thus far will soon enable Birmingham to co-operate with Manchester, in showing how to adapt our system of medical relief to the improved condition of the working classes at the present day.

OUT-PATIENT REFORM.

THE *Guy's Hospital Gazette* announces that an important reform has been introduced into the surgical out-patient department. When the great endowed hospitals enter on the path of reform, it may be taken for granted that the movement has acquired a momentum which cannot long be resisted; and we heartily congratulate the Treasurer of Guy's Hospital upon having initiated the means of diminishing the abuse of the out-patients' department which so extensively prevails in the voluntary hospitals in this and other great cities. The report is to the effect that up to the present, all patients who applied were attended to, the minor cases being subscribed for by the assistant-surgeons' dressers, whilst all the more difficult and important cases were seen by the surgeons. By the present arrangement, a limited number of cases only will be seen. Twenty cards will be given out to the graver cases, who will then be prescribed for by the surgeon; while fifteen cards will be given out by each of the two dressers to the minor cases, who will afterwards be attended to by these dressers.

THE TORBAY HOSPITAL AND PROVIDENT DISPENSARY.

AT Torquay, an important move has just been made in the right direction of out-patient reform. The Torbay Infirmary and Dispensary, which has been conducted many years as an eleemosynary institution, has been converted into the Torbay Hospital and Provident Dispensary. The plan adopted for carrying on the out-patient department of the hospital is, purely and simply, *mutata mutandis*, that by which the Provident Dispensaries of Coventry, of Northampton, and of Leicester have been conducted to such great success; and which has stood the test and had the experience of more than forty years. The rate of provident payments is the same as in all these three institutions, which has been found to act well by enabling and inducing large numbers of the very poor to avail themselves of their advantages; whilst the greater number of their smaller payments has raised larger sums than would probably have been obtained by a less number of subscriptions at a higher rate. The "honorary" and the "provident" funds will be kept more distinct from one another than in many provident dispensaries: the one discharging the general expenses of the establishment; the other the more direct costs of medical provision. The payment of the medical officers is fairly arranged to be in proportion to the number of provident members enrolled respectively under each officer; and the number of medical officers is to be in the ratio, as far as possible, of one to every thousand of provident members.

C. P. D.—1. In theory, the consulting physician to a provident dispensary ought certainly to be paid a consulting fee when he is called upon for professional services; but, as a matter of fact, we do not remember a case in point.—2. For guidance in establishing a provident dispensary, consult the "Suggested Rules" published by the Charity Organisation Society, 15, Buckingham Street, Adelphi, London; or the tract on the subject, published by the Provident Knowledge Society, 112, Brompton Road, London; or the latest reports of well managed provident dispensaries.

SPECIAL CORRESPONDENCE.

BIRMINGHAM.

[FROM OUR OWN CORRESPONDENT.]

The Obstetric Medical Officer to the General Hospital.—Coroners' Inquests.—Report of the Sewage Committee.—Orthopaedic Hospital.—Provident Dispensaries.

DR. EDWARD MALINS has been elected as the first honorary obstetric officer attached to the staff of the General Hospital, Birmingham, after a close contest with a worthy rival. Dr. Malins was an earnest pupil of Sir James Simpson, has been for some time Surgeon to the Lying-in Charity and to the Women's Hospital, and has already distinguished himself in the literature and practice of his special branch. The hospital may, therefore, be congratulated on having found the right man for the right place.

At an inquest held last week, it was given in evidence that a child named Cutler had died after a few days' illness of diphtheria, without medical assistance until the moment of death; and that three other children of the same family had died young and without attendance. The jury desired to know whether the child's life had been insured, and ascertained that it was so for £3. There was a verdict of death from natural causes, with a strong censure on the parents. The coroner seems determined to help in creating a healthy public feeling on this matter, for he holds inquests in all cases where attendance has been insufficient.

A memorial has been presented to the Town Council praying for a central coroner's court, to avoid the sittings in public-houses. All the hospital cases are already conducted within the hospital precincts.

The report of the Corporation Sewage Committee gives very satisfactory results from the process of intermittent downward filtration, sewage-farming, Scott's process, etc.; and the Health Committee report a very decided diminution in the death-rate, attributable mainly to lessened mortality amongst infants from diarrhoea. Of deaths from this cause, however, 77 per cent. are still under one year, and 94 per cent. under five years. The Corporation have lately closed many wells in the town, and in all cases of death from zymotic disease the water of the house is analysed. New baths and a fresh park are also in process of construction, and a Parliamentary Bill has been drafted to secure control over the unused burial-grounds of the town. When we add that plans are prepared for a very large new asylum at Rubeny Hill, near Bromsgrove, and that the chairman and others have travelled to Banstead for suggestions, we have given ample evidence of the activity of this borough in health-matters.

The Hospital Sunday Committee report, on closing their lists, a total of £5,200 for the year, which is a good average amount, and will be formally presented to the General Hospital with the new year.

The Orthopaedic Hospital has lately secured eligible premises in Newhall Street, where a home is to be found for other "minor charities"; and a special appeal on the subject has been well supported.

The provident dispensary movement here will shortly enter on a fresh and, we believe, satisfactory phase.

ASSOCIATION INTELLIGENCE.

BIRMINGHAM AND MIDLAND COUNTIES BRANCH.

The next meeting will be held in the Examination Hall of the Queen's College, on Thursday, December 13th, 1877. The Chair will be taken by the President, SAMPSON GAMGEE, Esq., at 3 o'clock P.M.

Mr. H. M. Morgan will propose the following motion: "That it is desirable that a Local Reception Committee be formed in the town where each annual meeting of the Association is to be held, so as to provide, so far as possible, private hospitality for the members."

The following papers are promised.

1. Mr. Bartleet: Notes on the Treatment of Wounds.
2. Dr. H. L. Browne: Stricture of the Urethra.
3. Dr. Carter: New Method for the Quantitative Estimation of Sugar in Urine.

Members are invited to exhibit Pathological Specimens at the commencement of the meeting.

JAMES SAWYER, M.D.,
EDWARD MALINS, M.D., } *Hon. Secretaries.*

Birmingham, December 1877.

BATH AND BRISTOL BRANCH.

THE second ordinary meeting of the Session will be held at the Royal Hotel, College Green, Bristol, on Wednesday evening, December 12th, at half-past Seven o'clock: H. MARSHALL, M.D., President.

EDMUND C. BOARD, *Honorary Secretary*.

7, Caledonian Place, Clifton, November 21st, 1877.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT MEETINGS.

THE next meeting will be held at the Greyhound Hotel, Croydon, on Thursday, December 13th, 1877, at 4 P.M.; Dr. C. W. PHILPOT in the Chair.

Dinner will be provided at 6 P.M. Charge, 6s., exclusive of wine.

The following communications are promised.

1. Dr. Goodhart: Some Cases of Enlargement or Inflammation of the Mediastinal Glands.
2. Mr. Howard Marsh will show Sayre's Apparatus and mode of applying Plaster-of-Paris for Curvature of the Spine.
3. Dr. Duncan will show Sections of Diphtheritic Tonsils.
4. Dr. Lanchester: Some Remarks on Calomel as a Medicine.
5. Dr. Philpot: On an Outbreak of Diarrhoea in Upper Norwood.
6. Mr. Richardson: On Croydon Hospital Cases.

JOHN H. GALTON, M.D. Lond., *Honorary Secretary*.

Woodside, Anerley Road, S.E., November 27th, 1877.

THAMES VALLEY BRANCH.

THE next meeting of the above Branch will be held at the Spread Eagle Hotel, Wandsworth, on December 18th, at 5 o'clock.

Those members who may be willing to read papers are requested to communicate with the Honorary Secretary as soon as possible.

There will be a dinner at the above hotel at 7 o'clock. Charge, 7s. 6d., exclusive of wine.

F. P. ATKINSON, M.D., *Honorary Secretary*.

Kingston-on-Thames, November 1877.

SOUTH EASTERN BRANCH: WEST KENT DISTRICT.

THE first meeting of the twenty-first session was held at Maidstone on November 20th; ADOLPHUS HALLOWES, Esq., in the Chair.

New Member.—Mr. Arthur Alexander Blakiston, of Benenden, near Staplehurst, was elected.

The next Place of Meeting is to be Rochester, in March 1878, with Dr. Burns as Chairman.

Papers.—The following were read:

1. Two Cases of Acute Chorea. By Charles E. Hoar, Esq., M.B.
2. A Case of Ruptured Perinæum and Recto-vaginal Septum, operated on at once with Successful Results. By John M. Burton, F.R.C.S.

Dinner.—The members and visitors (nineteen in all) dined at the Star Hotel.

GLOUCESTERSHIRE BRANCH: ANNUAL MEETING.

THE annual meeting was held at Gloucester on Thursday, November 20th; Dr. ROOKE of Cheltenham, the President, in the Chair.

Election of President.—Dr. F. T. Bond was elected President for the coming year.

Communications.—1. Mr. T. S. ELLIS of Gloucester read a paper on the Position of Rest in Fatigue and in Pain.

2. Dr. BOND exhibited the Telephone, describing its construction, the theories of its action, and the various uses to which it seemingly may be applied.

Dinner.—The members afterwards supped together at the Bell Hotel.

KENSINGTON.—The annual death-rate for the month ending October 13th was returned by the medical officer as being so low as 15 per 1,000 living, against 18.2 for the whole metropolis. There were 358 births registered, against 176 deaths. Dr. Dudfield expresses his regret that a number of small-pox cases had occurred in the district after he thought the epidemic was practically at an end, and states that, out of 19 cases, 14 were said to have been previously vaccinated, and that 12 were sent to a hospital. There was only 1 death out of the 19 cases, but many are still under treatment. The slaughter-houses and cowsheds have been examined, and the licences renewed to all the former; but the applications for ten of the latter were adjourned.

CORRESPONDENCE.

LUNATIC ASYLUM MANAGEMENT.

SIR,—With reference to an article in the BRITISH MEDICAL JOURNAL of September 29th, headed "Lunatic Asylum Reports", I may be permitted to correct what appear to me to be inaccuracies, and to point out fallacies, which are calculated to mislead as well as to cast reflections upon former medical officers of Hanwell. Having had nearly eight years' experience of the working of Hanwell, as Superintendent of the Female Department, from 1864 to 1872, I may be presumed to have some practical knowledge of the subject upon which I am writing.

1. *Amusements*.—The reviewer, speaking of Hanwell, says there are "more amusements". The Committee, in their report for 1876, speak of "a liberal supply of amusements"; and, in their report for 1875, it is said "there has been a greater addition to, and variety in, the entertainments in this than in preceding years". This statement I cannot accept, without more proof than mere assertion; and if the reviewer will be good enough to furnish a list of the entertainments at Hanwell of late years, distinguishing those asked for and organised by the medical officers, I am prepared to produce a list of entertainments "in preceding years", when it may perhaps be found that, instead of the amusements having been more varied and more numerous of late years, the very reverse has been the case. Such a list of entertainments as I suggest would, I believe, bring out this fact at least: that the entertainments asked for and organised by the medical officers "in preceding years" have actually been more numerous and more varied than the entertainments asked for and organised by the medical officers of late years. Such a list would probably also show the power and influence exercised by the lay element, or what may be designated the lay triumvirate, at Hanwell, in arranging entertainments; and that the lay officers have taken a much more active part in getting up entertainments than the medical officers. If the facts are as I state, the question may well be asked: Why is this?

The importance of amusements, including dramatic entertainments, is dwelt upon by the Hanwell Committee in their report for 1875, and the "Lunatic Commissioner", in the report of his visit to Hanwell, speaks of the value of theatrical entertainments in the treatment of the insane, and suggests their introduction at Hanwell, apparently under the impression that he is making an original suggestion; but probably he was not aware, and may possibly not have been informed, that theatrical entertainments had actually been in operation years previously; that one of the medical officers organised them in 1864, and continued them successfully with the asylum staff for several years, amidst much discouragement and many difficulties; and that the theatre then erected was taken down in 1872, and, I believe, has not been replaced since, there being, so far as I am aware, no fixed theatre at Hanwell now.

2. *The Medical Staff*.—The reviewer says: "It looks more as if, on the appointment of new superintendents, and on the introduction of better hygiene, more amusements, and better facilities for medical treatment, owing to the appointment of a larger medical staff, better attention has been given to persons for whom there was simply no opportunity or time for treatment before." With regard to "the appointment of a larger medical staff", I believe this statement to be inaccurate, and the inferences therefrom fallacious. A reference to the Hanwell Reports for 1870 and 1876 will show that there has been no permanent increase in the medical staff since the appointment of the "new superintendents"; the medical staff remaining the same as in 1870, before the appointment of the "new superintendents", viz.: on the male side, a superintendent and one assistant medical officer; on the female side, a superintendent and two assistant medical officers; and an apothecary. The last permanent addition to the medical staff was in June 1870, when a second assistant medical officer was appointed to the female side on my urgent and repeated application, and after the repeated suggestions of the Lunacy Commissioners.

3. *The Medical Element*.—A few words about "the medical element", which, the reviewer says, the Committees "declare themselves always willing to support". In respect of Hanwell, I am disposed to think that, even at the present time, the support of the medical element is more apparent than real; the actual power and influence, I believe, being centered in the lay officers, or lay triumvirate as I designate it, and not in the medical officers. If the present medical officers had to urge and contend for improvements and reform as the former medical officers of Hanwell had to do, and had occasion to complain of overcrowding, deficient cubic space, inadequate day space, inadequate

water-closet accommodation—*v. g.*, one water-closet to sixty-eight female patients—insufficient staff of day and night attendants, brick and stone floors in bedrooms, *inferior dietary made still less by deficient weight and disregard of the printed diet-scale*, vegetables and meat being deficient in quantity (on the female side the weight of bone was not allowed for, but was included in the allowance of “cooked meat free from bone”, whereas, on the male side, the weight of bone was deducted), the great deficiency of milk in the actual diet of the patients, although fairly liberal in the printed diet-scale, which, however, was not adhered to, the quantity of milk in the cocoa being at one time as low as one-twenty-second part of a pint of milk to a pint of cocoa, and at another time one-eighteenth part of a pint of milk to the pint of cocoa, in place of one-eighth of a pint of milk according to the printed dietary—they would probably find good reason for doubting the “support of the medical element”, and would meet with the same opposition. Owing to the hard and protracted struggle on the part of former medical officers of Hanwell, and the persistent recommendations of the Commissioners in Lunacy, many of the above defects have been remedied, and the Committee have so far yielded to the pressure brought to bear upon them. There is, therefore, less need for exertion on the part of the present medical officers, who are reaping the benefit of improvements effected by the arduous labours of their predecessors, who have received little or none of the credit. There is still, I fear, great room for improvement at Hanwell, and ample scope for the exercise of the talents, patience, and perseverance of the medical officers, although we are led to believe that it is so rapidly approaching perfection that we may soon expect to see a model asylum. Notwithstanding the pretentious and self-laudatory reports of the Committee of Hanwell, and the declaration about always supporting the medical element, I venture to assert that a closer inquiry than has yet been made, into the past and present history and working of Hanwell, would probably show that many defects still exist; that it is still far from approaching perfection; and that in reality the medical element has never asserted itself less, or exerted less direct influence, upon the patients and staff, in the management of Hanwell, than of late years. The fact is that the lay element (the triumvirate) was probably never more powerful than at the present time.

The great evils of Hanwell, and no unprejudiced and competent authority can maintain that they are not great evils, are these:

1. *The Multiple Form of Government*, by a Committee, and numerous heads of departments independent of the medical officers and responsible only to the Committee.
2. *The Dual Medical Superintendence*, with the limited powers and want of authority of the two medical chiefs, who cannot engage or dismiss attendants and servants. This is well known to have a most pernicious influence upon the staff, which is reflected upon the patients. Under this system, no asylum can be so efficiently and satisfactorily conducted as when under the direction and control of one medical chief. A grand illustration of the successful management of a large asylum, under the direction and control of one medical chief, was presented at Wakefield, under Dr. Crichton Browne, who was one of the most successful, if not the most successful, of those superintendents who have practically in various asylums already solved the question of combining the full powers of the physician with those of the governor. Place a gentleman of Dr. Crichton Browne's high medical attainments and administrative ability at the head of Hanwell, with the same powers and authority as were exercised by him at Wakefield, and I venture to predict that Hanwell would then become in point of management, what it certainly is not, a model asylum. I say in point of management; for it is structurally so defective that it never can become a model asylum for the treatment of acute, recent, and curable cases; a great portion of the accommodation being only fitted for the reception of the chronic and imbecile class.

3. *The Separate Diary and Report-Book System* is a monster evil, and is productive of more harm than any one practically unacquainted with the system can imagine. At Hanwell, each head of a department, medical and lay, keeps a diary or report-book, which is only submitted to and seen by the Committee, and can thus secretly make all sorts of suggestions and even complaints affecting the management and conduct of the medical officers, who are not permitted to read these reports, and who may know nothing of the contents until summoned before the Committee to render an account of themselves! The medical superintendents are not permitted to be present during the whole sitting of the Committee, but have to cool their heels in the adjoining waiting-room, where the officers, medical and lay, are assembled, until their turn comes and the bell summons them before the Committee. It may be asked: Is this a dignified position for the medical superintendents of a vast asylum, and is this the way to “support the medical element”? These separate report-books are a mine of mischief, which

may explode at any moment, and tend to keep the officers to a greater or less extent in a constant state of suspicion and dread.

4. *The “Matron” System*.—This is, and I believe always has been, one of the great evils of Hanwell. Such an office in a pauper asylum, according to the opinion of the majority of competent authorities, is by no means the most efficient and the most satisfactory arrangement. It is an “unnecessary luxury”, as has been remarked by a high authority; and in the case of Hanwell (where the emoluments of the office are £420 *per annum*, with furnished apartments, attendance, coals, gas, washing, milk, vegetables, and butter), it is simply a needless and lavish expenditure of the county funds. I well remember the remarks of a distinguished writer (who, by the way, took good care to have no matron at his asylum), who, in speaking of asylum “matrons”, stated that he had never seen one worth more than £50 a-year. I am not prepared to endorse this, as it would be very ungalant and illiberal towards the opposite sex. Instances can be quoted from Hanwell of the interference by the “matron” with the powers and duties of the medical officers and the treatment of the patients, showing the evils of this system.

Lord Shaftesbury, who has done so much to improve the condition of the insane and to promote the interests of the officials in attendance upon them, in his evidence before the Select Committee on Lunacy Laws, in speaking of patients' letters, expresses a strong opinion that they should be subject to medical inspection. It will hardly be believed that, on the female side at Hanwell in 1869, I had occasion to complain that letters to patients, with few exceptions, were not seen by the medical superintendent, but were received and distributed by the matron or by other female officers.

These are a few of the evils of the system of management at Hanwell, which, I hope, will some day be reformed; but it will require strong medical influence to effect these much-needed reforms, and considerable pressure on the part of the press and the public will, I fear, be necessary to accomplish them. Hitherto, the real reformers of Hanwell have been the Lunacy Commissioners and the former medical superintendents, including such men as Sir William Ellis, Drs. Begley, Conolly, Hitchman, Sankey, and others.

It is a great fallacy, showing a wonderful amount of innocence and want of knowledge of the actual working of Hanwell, to suppose, as the reviewer states, that “the superintendents of Hanwell and Colney Hatch have more opportunities for real medical treatment than are found in most asylums, for they are relieved of all the responsibilities concerning the finance, stewardship, etc., of the asylum”. I maintain that the very reverse is the case; for their attention is distracted from their strictly medical duties, and their time frittered away by the system of reports and counter-reports, as well as by the evils and difficulties connected with the departmental system as carried out at Hanwell, where each head of department is responsible only to the Committee, and where the medical officers cannot move many steps without consulting this one and that one, and being under the necessity of using an extent of red tape and official caution unknown in other differently and better conducted asylums.—I am, sir, yours, etc.,

J. MURRAY LINDSAY.

Mickleover, Derby, October 17th, 1877.

CORONERS' MEDICAL WITNESSES AND THE IRISH MEDICAL ASSOCIATION.

SIR,—In the BRITISH MEDICAL JOURNAL of November 24th (page 740) appeared a report of the proceedings in the Court of Queen's Bench (Ireland) *in re* Dublin Coroners and Medical Witnesses. The account is a perfectly correct one so far as the legal bearings of the case are concerned; but the remarks contained in the report may (I believe quite unintentionally) produce an erroneous impression relative to the real intentions of the Council of the Irish Medical Association in bringing the case of Jacob *v.* Finlay into court. The Council of the Irish Medical Association had three objects in view:

1. To obtain the best medical evidence available at coroners' inquests, or at least the best available under the present defective state of coroners' law;
2. To insist that the provision of the present law—that a medical practitioner “at or near the place” should be called to give evidence at inquests—should be complied with and not systematically violated;
3. That a stop should be put to the system pursued by certain coroners of making bargains with particular medical men to attend and give evidence at inquests, on terms arranged between the coroner and the witness, inasmuch as it led to abuses of the most flagrant kind.

What I complain of in the report alluded to, is the construction likely to be put upon the phrases “We suppose the Irish Medical

Association may be congratulated on the result", and "One of the most important bearings of the case, viz., the procural of reliable medico-legal evidence at inquests, seems to have been altogether lost sight of". In the legal discussion, the question of the procural of the evidence of "a highly qualified and well paid expert" could not have been raised. The Council of the Association are of opinion that, in the present state of the law, the best qualified witness will usually be found "at or near the place", in accordance with the Act of Parliament. A person brought from a distance, without any special preparation, as an "expert", cannot be considered to be as good as a medical practitioner "at or near the place". The practice of a large number of Irish coroners is, and has been, to employ their own friends as medical witnesses; and thus the least qualified, instead of the best qualified, are and have been frequently employed. In some cases, medical practitioners fully acquainted with all the circumstances attending the death have been put aside, and a coroner's friend brought twenty miles to give the required evidence. Such proceedings are a great scandal to coroners' law; and it is with the object of putting a stop to such manifestly improper proceedings that the Council of the Irish Medical Association have adopted the rather unpopular course of impeaching the proceedings of the coroner for the city of Dublin. It is not a mere scramble for fees, as some have characterised the proceedings, but an important and necessary step towards the reform of coroners' law. The report in the columns of the BRITISH MEDICAL JOURNAL has, I regret to say, been interpreted to mean that the Council of the Irish Medical Association are opposed to the employment of fully qualified experts as medical witnesses. Such is by no means the true interpretation. The Council are anxious to obtain the best evidence, but the present practice is not calculated to carry out that object.

I have delayed writing this letter until I had consulted the members of the Committee of Council of the Association who conducted the proceedings. I now write with their full concurrence, and would add from myself that I believe that, until specially qualified experts are regularly appointed as assessors to coroners' courts, inquests will continue to be a disgrace to the jurisprudence of these countries. I believe that the Irish Medical Association will heartily take part in any movement for the reform of coroners' law.—I remain yours obediently,

THOMAS W. GRIMSHAW, M.A., M.D.,

Chairman of the Council of the Irish Medical Association.

13, Molesworth Street, Dublin, December 4th, 1877.

THE BRISTOL MEDICAL SCHOOL.

SIR,—The Faculty of the Bristol Royal Infirmary, in their statement published in the JOURNAL of November 24th, seem to express surprise that their conduct in appealing to the Council of the College of Surgeons to institute an inquiry into the teaching efficiency of the Bristol Medical School should be thought to "need defence". To many persons it will rather appear strange that the defence should have been so long delayed. But, letting that pass, I propose, with your permission, to inquire into the accuracy of the several statements composing the defence.

I will first point out some errors of fact, which, although irrelevant to the main issue, are calculated to prejudice the reader; and I will then proceed to examine the more important statements upon which the defence is based.

1. It was in 1858, not in 1863 (as stated), that the enlargement of the General Hospital took place, which entitled it to recognition.

2. In March 1863, when a resolution was adopted with the object of insuring an equal distribution of lectureships between the Infirmary and Hospital, the majority of the Faculty did not (as stated) belong to the Infirmary staff. The majority belonged to the Hospital staff. The full Faculty at that time consisted of eleven members. One chair was vacant, and the Lecturer on Chemistry was neutral. Of the remaining nine members, four belonged to the Infirmary and five to the Hospital. The Infirmary staff, therefore, cannot (as seems to be implied in their statement) claim the credit of a graceful concession to a minority, although it is fair to add that the resolution, which was proposed by a Hospital member, was seconded by an Infirmary member and carried unanimously.

3. A more important error is involved in the statement that, "in 1869, the Hospital members, having, through fortuitous circumstances, obtained a working majority, so far rescinded the rule that they have ever since retained a large majority". This statement conveys an impression which is entirely at variance with the truth. The resolution was certainly modified in 1869; but the intention of the modified resolution was nearly identical with that of the original resolution, and its

effect has been precisely identical; that is to say, there has not been a single appointment of a lecturer under the law of 1869 which would not have been the same under the law of 1863. There is, therefore, no foundation for the statement that the existing majority of the Hospital members upon the Faculty is due to any alteration of the resolution of 1863. A very little inquiry would have shown the Infirmary gentlemen that this majority is solely due to the fact that several of the Hospital members have remained long at their posts, while the changes on the Infirmary side have been much more frequent.

4. The Infirmary Faculty say that, "in July 1876, a discussion arose as to an alteration in the scale of fees, one essential feature in which alteration of fees was the provision of a stipend for a paid demonstrator". The proposed alteration of fees was the abolition of the general perpetual fee and the substitution of a composition fee. It is not easy to see how the provision of a stipend could be involved as an "essential" in this alteration, unless by the arbitrary determination of those who had resolved that, if they could not have their way in a matter in which opinions differed, they would obstruct a measure of reform upon which all were agreed. That there was no "essential" connection between the two propositions is shown (if it were needful to show anything so self-evident) by the fact that the alteration of fees has not been made, while a paid demonstrator has been appointed and his stipend provided.

5. The Infirmary Faculty say that "they were informed by their colleagues on the school staff that, as in the question of a paid demonstrator, they found that, in any proposal for alteration or reform, they were met with such persistent opposition", etc. There are two statements involved in this sentence, both of which deviate from the truth. It is not true that the efforts of the Infirmary lecturers to procure the appointment of a paid demonstrator were opposed by the other members of the Faculty. The truth of the matter is simply this: that, for some years past, the expediency of appointing a paid demonstrator has been recognised more or less distinctly by Infirmary and Hospital members alike; that, in July 1876, a formal resolution was passed, without a dissentient voice, in favour of such an appointment; and that such an appointment would, in all probability, have been actually made prior to the then ensuing session, had it not been for the expressed wish of the newly appointed Infirmary Lecturer on Anatomy to continue the superintendence of the dissecting-room which he had conducted before his appointment as lecturer.

6. The other statement included in the sentence now under discussion, namely, that the Infirmary lecturers, "in any proposal for alteration or reform", were met with persistent opposition, is equally unfounded with the first. The records of our proceedings are full of instances in which Infirmary and Hospital members have united in effecting "alterations" and "reforms". They do not furnish a single example of any serious difference of opinion during many years past, down to the time when the alteration of fees already referred to was proposed.

Having thus exposed a remarkable number of misstatements in the manifesto of the Infirmary Faculty, I must add that the whole tenour of that document is calculated to convey a most erroneous impression as to the condition of the Bristol Medical School.

From the phrases used, the reader would infer that the School was in a state of chaos: no regularity of lectures, no registration of attendance, no discipline, no order. Those members of the Infirmary staff who are also lecturers at the School know well how false such an inference would be. They know with what conscientious care the rules of the School have been framed, and what pains have been taken to devise the best means of enforcing their observance. The Infirmary Faculty talk of disorder in the class-rooms. There have been lately occasional disorders, and it is not difficult to account for them. When certain of the lecturers set themselves to the task of vilifying in every possible way the institution to which they belong, it is not surprising if their pupils should feel encouraged in a course of insubordination. I am assured by the lecturer in whose class the disturbances have chiefly occurred that they have been confined to Infirmary pupils.

In the preceding remarks, I have referred as little as possible to the part taken in this matter by those members of the Infirmary staff who are not connected with the Medical School; but I must be allowed to express, on behalf of the majority of the Faculty of the School, our deep regret that these gentlemen, before resorting to the extreme measure of an appeal to the College of Surgeons, did not think it their duty to institute some independent inquiries into the accuracy of the *ex parte* statements with which they had been furnished. Such a course would seem to have been demanded not less by common professional courtesy than by the obligations of private friendship. Had they taken such a course, they would have found that the evils complained of had been already recognised by the Faculty of the Medical

School, and that the causes, so far as they lay within the province of the Faculty to remove them, were even then in course of removal. They would have learned, further, that, in the opinion of most of us, they themselves, by their custom of allowing, if not encouraging, first year's students to take clinical appointments at the Infirmary, were largely responsible for the failures at the primary examination. They would have found that the condition of the School, as regards regularity and discipline, had been grossly misrepresented to them, and that the stories of "persistent opposition" to reform were baseless myths. With their knowledge thus corrected, they would scarcely have lent themselves to a proceeding which, considering the relation of the two institutions, is little less than a public scandal.—I am, sir, your obedient servant,

GEORGE F. BURDER, Hon. Sec.

Bristol, December 1st, 1877.

POST MORTEM EXAMINATIONS IN LUNATIC ASYLUMS.

SIR,—It will not have escaped your notice that the Marquis of Salisbury, at a meeting of the Middlesex magistrates on the 29th ultimo, denounced in very strong terms a medical man for making a *post mortem* examination without leave of the relatives of the deceased; and though his remarks arose out of a case in which a surgeon is said to have made the examination in spite of their opposition and without producing an order from the coroner, there is little doubt that they may be taken to include all cases in which consent has not been actually given. About the same time, Dr. W. P. Phillimore, the Superintendent of the Nottingham County Asylum, sent, on the suggestion of the Commissioners in Lunacy, a circular to the superintendents of the English asylums, inquiring the practice in different institutions respecting the steps taken to obtain permission for these examinations. Being myself of the opinion that the subject should be discussed by the officers of all medical institutions, I venture to trouble you with some remarks; and I shall consider, first, the present state of matters with reference to lunatic asylums, and endeavour to show how unsatisfactory it is; and I shall, secondly, offer my own suggestions for a remedy.

It may be said, in general terms, that the practice in asylums in which *cadaveric necropsies* are made at all is, in the case of death, to inform the persons named in the "Statement" which accompanies a patient on his admission to the asylum, as the person to whom notice of death shall be sent, that a *post mortem* examination will be made on such a day, at such an hour, unless an objection be made; and I may add this course is suggested by the Commissioners in Lunacy. This looks reasonable and simple enough, but in fact it is otherwise. The superintendents of all asylums have to deal with patients' kinsmen, in many of whom the insane neurosis is evident, and these are neither people of business habits to answer letters, nor people inclined to be reasonable or forbearing whether they are in the right or in the wrong. Besides, the superintendents of the pauper asylums, who are chiefly concerned in the matter as regards lunatic asylums, have to deal with persons some of whom, even if they have not the insane taint, are uneducated, of dissolute habits, and of the lowest associations. The reception by one of these latter of an official letter announcing the death of his wife does not excite much emotion, and he comes at his leisure to the asylum to forbid a *post mortem* examination which took place, according to notice, some hours previously.

Dr. Phillimore, in his circular, forcibly alludes to two cases; one in which the Local Government Board first suspended from the performance of his duties and then censured the "Medical officer of a workhouse for performing an unauthorised *post mortem* examination"; and another in which a "Surgeon to an Hospital in the North is awaiting his trial for an alleged infringement of the Anatomy Act", etc. As, however, the facts of these cases are not before us, it is not prudent to argue on them; and I prefer to lay before you two cases which happened to myself, in one of which, as I have reason to believe, a man endeavoured to find a cause of action to prosecute me for making an examination of his deceased wife without first obtaining my permission; and in the other of which I was censured by a coroner's jury for making such an examination without first getting the express consent of the relatives of the deceased.

The first case happened in 1874, and the circumstances were as follows. A female patient died on a Monday, and the husband, who resided at a long distance from the Asylum, was informed by letter on the same day that a *post mortem* examination would be made on the following Thursday, at 10 A.M.; and no objection being received from him, it was accordingly proceeded with. Just after it was finished, the man came and peremptorily forbade it. You may judge of the scene which ensued when I told him that he was too late; and it was

to no purpose that I urged that he had had plenty of time to telegraph, to write, and even to come himself, for he admitted having received the letter on the Tuesday evening. He showed me a note which he had procured from the coroner, saying that an inquest was not necessary, and in answer to my explanation that a *post mortem* examination was not the same thing as an inquest, he replied that he thought it was. Having heard that he had called on at least one solicitor in Newcastle, I wrote to the Commissioners in Lunacy, giving them an account of the circumstances, and requesting them to say if, in their opinion, these necropsies are illegal unless the positive consent of a relative were obtained. To this they replied that they were "not aware that it has ever been decided in a court of law, that it is either a public crime or a private wrong to perform a *post mortem* examination for the purpose of ascertaining the cause of death upon the body of a person dying in a lunatic asylum without the express consent of the husband, or wife, or near relative of the deceased". The secretary added, as illustrative of the practice in other asylums, that some superintendents "refused to certify the cause of death without a *post mortem* examination, and apply in every instance to the coroner for authority to undertake such examination. At other asylums, it is the practice, on admission of a patient, to inform his relative named in the 'Statement' that, in the event of death in the asylum, a *post mortem* examination will be made unless such relative states, in reply, that he objects to such examination". The latter practice seemed to me to be quite as open to objection as to approval; and, indeed, the passage about the coroner, which I have underlined myself, appeared to give so easy a solution of the difficulty that I wrote to the coroner within whose jurisdiction this asylum is situated, enclosing a copy of the secretary's letter, and asking if he would at any time give me authority to make a *post mortem* examination of patients deceased. He replied that, in his opinion, "there is no power vested in a coroner to order a *post mortem* examination unless he holds an inquest". And he added, with reference to the refusal to certify noted above, that were he "to receive a notice of death without the cause being stated, he would consider it his duty to hold an inquest".

The circumstances of the second case were as follows. A man died in the spring of this year, on a Wednesday at 8.30 A.M., and the ordinary notice was sent with all practicable speed, by a special messenger, to his wife, stating that the "usual examination would be made at 10 A.M." on the following day. A relative arrived in the afternoon of the day of the death, and the assistant medical officer of the asylum, who saw him, quite understood that there was no objection to the examination. At an inquest, however, which the borough coroner deemed it necessary subsequently to hold, he stated that he did not give permission, and the jury added a rider to their verdict that, in their opinion, "no internal examination of deceased persons should be made without the express consent of their relatives".

It may be asked, why then do superintendents make themselves liable to worry, odium, and censure, by making *post mortem* examinations at all? Leaving out of sight the scientific interest which is attached to pathological investigation, there is a very potent reason why they do. In the Blue Book for 1870, the Commissioners in Lunacy commended the practice so strongly as virtually to amount to an order with many superintendents; and in 1871, after alluding to the necessity for observing the rule that "such examinations should not be made contrary to the wish of the relatives of the patients, or without giving them an opportunity of objecting thereto", they added "we desire again, for the reasons and objects then stated, strongly to repeat the opinion already expressed, that, subject to the consent already referred to, *post mortem* examinations should be made in all cases". To these remarks was appended a table showing the number of deaths and the number of *post mortem* examinations in the various county and borough asylums, in which certain asylums where *post mortem* examinations were very rarely held were said to stand out in unfavourable contrast. Superintendents did not like being thus gibbeted in what may be termed the "Black list", and so *post mortem* examinations became the rule. There is no use, however, in attempting to disguise the fact any longer, that the desire to comply with this suggestion of the Lunacy Commissioners has kept many superintendents in constant hot water, and it is becoming a serious question whether the game is worth the candle.

I proceed now to suggest a remedy. I take it for granted that the desire to make *post mortem* examinations of persons who have been supported by the public rates or by voluntary charity is *primâ facie* not unreasonable, and I would advise that a short Act of Parliament should be passed, either to empower the Committee of Visitors of an asylum, or the Directors of an infirmary, as the case may be, to authorise *post mortem* examinations; or to order that a coroner's inquest shall be held in all cases of patients dying in asylums, work-

houses, infirmaries, etc., as is already the practice in gaols. I recommended the latter course some years ago in one of my annual reports, and experience has not tended to alter my views.—I am, sir, your obedient servant,
R. H. B. WICKHAM, Medical Superintendent.
Borough Asylum, Newcastle-upon-Tyne, December 4th, 1877.

THE PENGE CASE.

SIR,—In his letter to the Journal of last week, Dr. Payne covers his retreat with the well-worn quotation: "Errare malo cum Platone." Permit me to remind him of another and wiser adage, which better befits the medical philosopher: "Amicus Plato, sed magis amica veritas."

A careful perusal of the abovementioned letter, taken in connection with Dr. Payne's previous statements, must lead to the conviction that we have much to learn from the German school of pathology beside their exact method of conducting *post mortem* examinations; our professors need to imitate the habits of close reasoning and cautious induction, as well as the temperate expression of opinion, that distinguish their most eminent teachers. If any proof were wanting of the truth of this assertion, it will be found in the assumption, now so persistently maintained, that Harriet Staunton was the subject of "dementia", when there is not one tittle of evidence nor the slightest presumption upon which to found it. The woman was known to be weak-minded; her body was found after death to be dirty and emaciated to the last degree; *ergo*, she died in a state of dementia. This "science of discernment", as Casper aptly calls it, contrasts most unfavourably with the cautious summing-up of Professor Virchow on this question. Referring to the assumption that the woman was of unsound mind and suffered from general paralysis, he says, "All this is, doubtless, possible, but cannot be inferred from a necropsy. Such facts could only be ascertained from witnesses who could report as to her condition while living; and in the absence of such evidence—for that which was forthcoming was quite insufficient—there always remains the possibility that she was not supplied with food."—I am, sir, your obedient servant,
HENRY TAYLOR.

Guildford, December 5th, 1877.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

POST MORTEM EXAMINATIONS IN WORKHOUSES.

IN our issue of November 24th, we published a lucid and temperate letter sent by the Council of the Poor-law Medical Officers' Association to the Local Government Board on the question of *post mortem* examinations in workhouses. Shortly after the introduction of the new Poor Law in 1834, an instructional letter was issued by the department, informing boards of guardians that no *post mortem* examination of a pauper would be permitted in a workhouse unless the assent of the friends of the deceased had been previously obtained. Practically, what has resulted therefrom has been as follows. A. or B., having been sent into the workhouse infirmary either incurable from a hospital or under the advice of the district medical officer, dies, the case presenting evidences of great pathological interest. Prior to the medical officer doing what would have been almost certainly done had the patient been retained in the hospital, he has to make inquiries whether the deceased has any friends; and frequently he may be informed by the master or nurse that there is a brother, or sister, or other relative, but it is not known where to find them. The medical officer does not, under these circumstances, make any *post mortem* examination until he has found them; and this may take such a length of time, that, in warm weather, the delay may be such as practically to prohibit these examinations. Again, it has happened that, when the friends have been communicated with, one of the first questions put by them to the medical officer has been, "Well, what are you going to give me?" That there can be no practical difficulty in carrying out *post mortem* examinations in workhouses, is proved by what was done in the Marylebone Workhouse Infirmary while it was officered by honorary physicians and surgeons, and while it had Dr. Boyd for its resident medical officer. At that time, we believe we are correct in stating, nearly every person who died in that huge workhouse was examined *post mortem*; in fact, necropsies to the amount of two or three a day went on continually, resulting in the fact that Dr. Boyd succeeded in forming a very large collection of pathological specimens, and many points of considerable pathological interest were de-

termined by the united labours of that gentleman and the late Drs. Harrison, Macreight, and Clendinning. This was at once changed when this workhouse passed under the control of the Poor-law Board, for the medical officers who succeeded them were fettered by the order of the Board in this respect. We hope that the advisers of the Local Government Board will see the reasonableness of the request of the Poor-law Medical Officers' Association, and issue a minute modifying the existing regulation so as to enable zealous students of medicine, as many workhouse medical officers have proved themselves to be, to avail themselves of the large field for pathological research which their establishments afford, undeterred by the vexatious and practically prohibitory arrangements which now exist.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BETHNAL GREEN.—This report is made for the four quarters ending March 30th, 1877, instead of, as is customary, for the calendar year; so that it is more difficult to make a comparison between it and others, or to correct the death-rate for the proportion of deaths in hospitals of inhabitants of the parish. Dr. Bate bases his calculation of the death-rate on the number of deaths registered in the parish, and has not added on even the twenty-two inhabitants who died in the Small-pox Hospital. Now, as the proportionate number of deaths in hospitals, exclusive of the Small-pox Hospital, belonging to Bethnal Green, would be 185, and as, from the poverty of the parish, it would contribute at least its quota to the hospital deaths, it is only fair that these numbers of 22 and 185 should be added on to the 2,713 deaths registered in the parish. This addition would make the total 2,920, instead of 2,713, and raise the death-rate from 20.9, as stated by Dr. Bate, to 22.6 per 1,000 population, against 21.9 for all London in the corresponding period. Now, this is an error that is commonly made by medical officers of health, some of whom are not content with this, but cast out all the deaths of non-inhabitants in institutions situated within their districts, and retain the inhabitants of the institutions to swell their population, and thus still further reduce their death-rate. The population is returned at 129,300, against 120,104, which seems too large, especially when we compare the number of births for the two or three preceding years. Dr. Bate also calculates his zymotic death-rate (3.0 per 1,000) on the deaths registered in the parish, and does not include the 22 deaths of small-pox patients in the Small-pox Hospital. The report contains a copy of his report on small-pox, dated October 20th; of Dr. Iliffe's report to the Vestry of St. Mary, Newington, on vaccination; of the by-laws on slaughter-houses and offensive trades issued by the Metropolitan Board of Works; and the resolutions of the Society of Medical Officers of Health on infectious diseases. He also reports on the state of the cowsheds, slaughter-houses, and the wells in the parish. The return of houses inspected shows that the sanitary staff is actively engaged, as 5,449 houses were inspected, 4,489 notices were served, 134 summonses issued, and 159 infected premises fumigated. Considering the class and density of the population, the corrected death-rate of 22.6 is small; indeed, it is much below the corrected average for 1861-70, when it was 27 per 1,000. The regular inspections and vigorous subsequent action of the inspectors partly account for this, but there can be no doubt that it was chiefly due to the peculiarly favourable weather; so that it is probable that some years will elapse before so satisfactory a return will be again presented, especially as the death rate for the whole of London was lower in these four quarters, with the exception of 1872, than in any year since 1850.

LEEDS.—Dr. Goldie estimated the population of the borough on June 30th, 1876, at 291,580 persons. The births registered in 1876 were 12,134, and the deaths 7,303, so that the birth-rate was 41.6 and the death-rate 25.0 per 1,000 inhabitants, against 27.5 in 1875, and an average of 28.3 for the preceding ten years. As in other large manufacturing towns, the death-rate varied enormously in different districts, having been as low as 13.7 in Chapelton, and as high as 30.8 in Leeds Township North. The deaths from the seven chief zymotic diseases were 4.3 per 1,000, which is very high, although below the average for the borough. There were only four deaths from small-pox; and, as regards the first case, Dr. Goldie says that he could not trace any cause, unless the contagion was conveyed through the cloth out of which the man made caps. The deaths from scarlet fever were unusually numerous, viz., 322; the known cases being 978, of which 731 were traced to infection, and 161 of these to "school infection". The drainage was imperfect at the houses of 167 cases. As regards the prevention of infection, Dr. Goldie observes that "the public must be educated more and more to assist themselves to shun infection and to minimise infectious diseases". There is a

street-list given of the residences of the scarlatinal, fever, and diarrhoea cases; and a meteorological table for July, August, and September in 1868, 1870, 1872, and 1876, for comparison with the diarrhoeal deaths. The mortality of infants was enormous, as 30.1 per cent. (stated in error to have been 43.8 per cent.) of all the deaths occurred amongst children under one year old, which Dr. Goldie attributes partly to neglect and bad feeding, but chiefly to the drink obtained at the grocers' shops. Diarrhoea is returned as having caused 31.2 per 1,000 births, convulsions 23, marasmus 15.5, and bronchitis and pneumonia 32.1, or more than 10 per cent. of the total births. The sanitary work was actively carried out, as 13,061 houses were inspected, and 14,267 nuisances abated on notices served by the inspectors.

WILLESDEN.—Dr. Thomas returns the population of this district in 1876 to have been 18,443; the number of births 805, and of deaths 401, which would give a death-rate of 21.7 per 1,000 population. There were 120 deaths of children under one year, which is equal to 29.9 per cent. of the total deaths and 14.9 per cent. of the total births, the deaths being chiefly attributed to premature birth, dropsy, and debility; whooping-cough, diarrhoea, scrofulous diseases, and convulsions having caused the largest proportion of deaths at one to five years of age. The overcrowding of the houses in some of the streets of Kilburn, and their insanitary condition, are credited with much of this large mortality. Deaths from fever were fewer than in previous years, whilst whooping-cough was unusually fatal. The cases and deaths from small-pox are entered in a list which we suppose must include many for 1877, as four deaths only are given in the table of deaths for the year, and nine in this list. There is no hospital for cases of infectious diseases, but arrangements are made with the authorities of the Fever and Small-pox Hospitals in Islington. Dr. Thomas refers to the way in which children suffering from whooping-cough are allowed to run about in cold weather only half clothed, and also to the production of fever by breathing vitiated air. He also notices the offensive ditches in some parts of his district, many of which were cleaned out and disinfected during the year. There were 610 houses "systematically inspected" during the year, in which 308 nuisances were found; and complaints of 203 other premises were forwarded to the sanitary officer, all of which received due attention.

KENSINGTON.—The population of this important district is estimated at 148,000; and the death-rate is returned at 19.5 per 1,000, after allowing for 145 deaths of non-parishioners in the Brompton and Notting Hill Hospitals. This rate is about the same as for last year, so that the district has not partaken with the rest of London in the general reduction of mortality that happened in 1876, as we might have expected, considering the increase of the better class of houses. Dr. Dudfield refers at considerable length to the small-pox epidemic; the provision of hospital accommodation for non-pauper cases, to which we some time since referred; and the possibility of infection through laundresses. He also relates the history of a local outbreak of the disease, caused by a person lending his coat to a friend to attend the funeral of a child who was said to have died from bronchitis, but in reality from small-pox. The statistics show that there were 421 cases reported, of which 295 were sent to the hospital and 126 treated at home between November 15th, 1876, and September 30th, 1877. The houses and clothing were disinfected, and Dr. Dudfield states that he could not trace any case of the disease to these rooms or clothes. The death-rate from the seven chief zymotic diseases was 2.3 per 1,000, which is less than in the adjoining districts of Paddington and Fulham. The census showed that there was an enormous preponderance of females in the district, especially between fifteen and fifty-five years of age; so that it is to be regretted that the normal death-rate has not been calculated. There were 4,500 births, which give 32.9 per 1,000 population. Dr. Dudfield refers to twenty-three uncertified deaths which occurred in one man's "practice", and considers that the offender should be prosecuted. If, however, the registrars were instructed not to register such deaths, the practice would soon come to an end. The vestry have not procured a mortuary or disinfecting chamber, but in other respects the sanitary work appears to have been well provided for and satisfactorily carried out.

REGISTRATION OF SICKNESS.

So far as the medical authority of this district has been enabled to ascertain, the Registrar of Births, Marriages, and Deaths, in the Metropolitan District, has not yet agreed to receive, and has not agreed to register, any certificates of sickness, without the consent of our private patients we do not feel justified in doing so. Would you kindly inform me through the JOURNAL whether the authority has any power by law to compel such a return to be made, and if so, whether it must be done without a fee; and if not, what fee is usually paid for such service?—Yours truly,

A. M. C.

The sanitary authority has not the legal power to require such information, when furnished, it is supplied without fee, and voluntarily.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—Second M.B. Examination, 1877. Examination for Honours.—Medicine.

First Class.

Smith, Herbert Urmson (Scholarship and Gold Medal), St. Thomas's Hospital
Horrocks, Peter (Gold Medal), Guy's Hospital
Symonds, Charters James, Guy's Hospital

Second Class.

Tirard, Nestor Isidore Charles, King's College

Obstetric Medicine.

First Class.

Tirard, Nestor Isidore Charles (Scholarship and Gold Medal), King's College
Symonds, Charters James (Gold Medal), Guy's Hospital
Smith, Herbert Urmson, St. Thomas's Hospital
Gristock, William, University College

Second Class.

Barrow, Albert Boyce, King's College
Sedgefield, Arthur Robert Wyatt, King's College
Stevenson, Leader Henry, Guy's Hospital
Horrocks, Peter, Guy's Hospital
Giles, George Michael James, St. Mary's Hospital
Goodchild, Francis, St. George's Hospital

Forensic Medicine.

First Class.

Tirard, Nestor Isidore Charles (Scholarship and Gold Medal), King's College
Symonds, Charters James (Gold Medal), Guy's Hospital

Second Class.

Sedgefield, Arthur Robert Wyatt, King's College

Third Class.

Smith, Herbert Urmson, St. Thomas's Hospital } equal
Stevenson, Leader Henry, Guy's Hospital }
Joll, Boyd Burnett, University College }

* Obtained the number of marks qualifying for the above honours.

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, November 29th, 1877.

Blackburn, Herbert Belaysse, Selham, Sussex
Couzens, Charles, London Hospital
Gamble, Ernest Langwith Gompertz, Grantham
Landon, Arthur Jermyn, 25, Margaret Street, W.

The following gentlemen also on the same day passed their primary professional examination.

Ellison, Frederick William, St. Bartholomew's Hospital
Hoets, Alton Kingsley, London Hospital
Phillips, William Alfred, Guy's Hospital
Warren, Edwin Charles, London Hospital

MEDICAL VACANCIES.

THE following vacancies are announced:—

ADDENBROOKE'S HOSPITAL, Cambridge—House-Surgeon. Salary, £65 per annum, with board and fuel. Applications to the Registrar of Births, Marriages, and Deaths, 17th instant.

ALNWICK UNION—Medical Officer for the Embleton District.

BAKEWELL UNION—Medical Officer for the Matlock District.

BRADFORD UNION, Yorkshire—Medical Officer for the Horton West District.

CHINA—Medical Missionary for the Church of Scotland Mission. Salary, £350 per annum, and residence. Applications to the Rev. Dr. Cumming, Sandyford Church, Glasgow.

EAST SUFFOLK and IPSWICH HOSPITAL—Honorary Physician. Applications to be made on or before the 12th instant.

GUEST HOSPITAL, Dudley—Resident Medical Officer. Salary, £120 per annum, with board and fuel. Applications to the Registrar of Births, Marriages, and Deaths, 17th instant.

INVERNESS DISTRICT ASYLUM—Assistant Medical Officer. Salary to committee. Applications to the Registrar of Births, Marriages, and Deaths, 17th instant.

KIDDERMINSTER UNION—Medical Officer for the Workhouse.

POOLE UNION—Medical Officer for the Workhouse.
PORTLAND TOWN FREE DISPENSARY—Resident Surgeon and Dispenser. Salary, £100 per annum, apartments, fire, gas, and attendance.

RAVENSHEAD UNION—Medical Officer for the Workhouse.

WESTERN GENERAL DISPENSARY, Marylebone Road—Honorary Physician.

WEST SUSSEX FREE DISPENSARY, Brighton—Resident Medical Officer.

WINTERBURN ACADEMY, WINTERBURN, WILTSHIRE—Resident Medical Officer.

BIRTHS, MARRIAGES, AND DEATHS.

The Registrar of Births, Marriages, and Deaths, in the Metropolitan District, has not yet agreed to receive, and has not agreed to register, any certificates of birth, marriage, or death, without the consent of our private patients we do not feel justified in doing so. Would you kindly inform me through the JOURNAL whether the authority has any power by law to compel such a return to be made, and if so, whether it must be done without a fee; and if not, what fee is usually paid for such service?—Yours truly,

BIRTH.

On December 6th, at the Wilts County Lunatic Asylum, Devon, the wife of J. Wilkie Barnard, M.D., Medical Superintendent, had a daughter.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Erompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.

THURSDAY... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.

FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

TUESDAY.—Royal Medical and Surgical Society, 8.30 P.M. Dr. Joseph Coats (Glasgow), "On the Pathology of Tetanus and Hydrophobia".

WEDNESDAY.—Hunterian Society, 7.30 P.M.: Council Meeting, 8 P.M.: Adjourned discussion on Mr. C. H. Golding-Bird's paper.

FRIDAY.—Clinical Society of London, 8.30 P.M. Dr. Broadbent, "A Case of Convulsions treated by Venesection"; Mr. Maunder, "Two Cases of true Subcutaneous Treatment of Exostosis" (the patients will be exhibited); Mr. Barwell, "Cases showing the results of Excision of the Ankle; of Operation for Ricketty Bent Sinus; of Operation for Bowed Legs" (the patients will be exhibited).

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

- CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.
- AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.
- PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.
- WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.
- COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.
- CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

A RENEWED PLEA FOR BREVITY.

WITH the continued increase of the number of readers of the BRITISH MEDICAL JOURNAL (which has now a circulation of eight thousand copies weekly), the pressure on space by correspondents naturally grows apace, and we must once more remind our contributors of all classes of the necessity of cultivating brevity to the utmost degree. Of many communications of great interest which we publish from time to time, it is difficult to suppose that the same amount of information could not be conveyed in fewer words.

A MEMBER (S. C.).—The question is one which only a lawyer can answer.

UNCERTIFIED DEATHS.

SIR,—My attention has been called to successive paragraphs which have appeared in the last two JOURNALS relative to "uncertified deaths in Yorkshire", and I feel that the present affords an excellent opportunity of pointing out to you, as Editor of the JOURNAL, the utter futility of prosecuting unqualified practitioners so long as men holding hospital and Poor-law appointments are permitted by the profession to ally themselves with such by partnership or otherwise, and be countenanced by consultation with members of our Council. Lately I had occasion to bring this fact before the legal adviser of a neighbouring bench of magistrates, who expressed his extreme surprise that the profession should permit such a state of matters to continue, and declared his opinion that the suppression of unqualified practitioners lay entirely in the hands of the medical men themselves.—I am, etc.,
December 3rd, 1877. A YORKSHIRE PRACTITIONER.

WHAT IS THE EFFECT OF MARRIAGE UPON EPILEPTICS?

SIR,—A gentleman epileptic in his youth married when over thirty. Very frequent intercourse took place on the first two days of his marriage, followed by a succession of epileptic seizures. After this the marital duties were seldom performed, but these even were occasionally followed by an epileptic attack. Two hours after the last coition an epileptic fit occurred, of which he died, after being married seven years.—Your obedient servant,
Anerley, S.E., December 1st, 1877. W. H. TAYLER, M.D.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

PRISON DISCIPLINE.

A book, entitled *Five Years' Penal Servitude by One who has Endured it*, recently published, is just now being freely read and commented on. As a rule, we do not notice in this JOURNAL publications not of a professional nature, but as in prisons the medical element holds a prominent place, any treatise on such—the more especially where, as in the present instance, the doctors are directly touched upon—comes within the scope of our criticism.

On reading over this little volume, the first thought that occurred to us was, What is the object in view? The writer—who, by the way, scarcely endeavours to hide his identity—evidently means it as an incentive to prison reform, for he says so, but he could have said so without writing a book; for, granting for the sake of argument that reform in prison discipline is needed, there is nothing from the first to the last page in this book that could be adduced as evidence in support. In fact, it seems to us to be simply a recital of the petty incidents in prison that form the life of a convict. Related of an individual not in prison, it would be laid aside as a tale fit for children; but, as the writer observes, trifles assume a vast importance to a prisoner, which the outsider can in no way conceive. Yet, whilst laying down this axiom, he expects that the public should attach the same importance to the prisoner's trifles that he himself does. On the whole, trifles form the sum total of his grievances; for he acknowledges the substantial benefits of food, clothes, cleanliness, easy work, plenty of mental pabulum, and, with one or two trifling exceptions, kind treatment.

He accuses the doctors generally of harshness; but he only gives one instance, that of having to wait two hours before the prison-surgeon saw him. Considering the multifarious work of a prison-doctor—that he (the writer) was retained in hospital during the time, that after all his ailment was of such a trifling nature that he was relieved by a single dose of medicine—we do not think he had much to complain of. We doubt that he could now always have a West-End physician at two hours' notice; or, if he were an applicant for relief at a public dispensary, whether he would have been so promptly attended to, and his comforts meanwhile so carefully ministered to.

The whole volume is apparently a compendium of sensational anecdotes of a puerile character, tinged by individual prejudice, formed on imaginary grounds; as, for instance, the dislike the writer conceived to the late governor of Newgate, simply because Nature had supplied him with good teeth, and he made daily use of a tooth-brush. As to any solid advantage to be gained by any one from the perusal of the book, we fail to see it; and on again asking ourselves the object of the writer, we can only find one reply:

"rem facias; rem,
Si possis recte; si non, quocunque modo rem."

WARBURG'S TINCTURE.

SIR,—Could you tell me where I could get information respecting the action of Warburg's tincture? I think Dr. Maclean has written somewhere of it.—Your obedient servant,
CHAS. WOTTON, M.D.

* See Professor Maclean's articles on malarial fevers in Dr. Russell Reynolds's *System of Medicine*; also the *Practitioner* for February and May 1877. Dr. Maclean advises that the remedy should be procured from Warburg himself, or one of his authorised agents. There is a spurious Warburg's tincture sold as Madame Warburg's. Warburg's address is Church Street, Stoke Newington, N.

CROWING INSPIRATION IN A CHILD.

SIR,—In reference to the case that formed the subject of Dr. H. Miller's paper, published in the JOURNAL of November 27th, the brief notes I possess of the following case may be interesting.

On September 24th, 1876, Mrs. B., a young and healthy woman, was delivered of her sixth child. There was nothing peculiar about the family history of the mother; her five previous children were all born healthy and well developed. She had never had a miscarriage, and during her sixth pregnancy she continued in good health and went the full term. The child proved to be a plump well formed boy, but from the first exhibited a peculiar crowing noise during each inspiration, somewhat resembling croup. This was much increased when the child cried; and at times he became slightly cyanotic. Examination of the fauces revealed nothing to account for it. Hot fomentations to the throat seemed to give a little relief. The little patient took nourishment well, and his general health remained unaffected. The crowing inspiration continued for two months, and then gradually disappeared, showing itself only when the child cried, became excited, or had a slight cold. He is now a fine healthy boy, and exhibits nothing peculiar about his respiration.—I am, etc.,
H. HARGOOD.

REMOVAL OF TATOO-MARKS.

SIR,—A patient of mine fell from a bicycle, striking his face on the cinder-path, at Lillie Bridge. The grazed and lacerated parts on the lips, nose, and round the right orbit, were cleaned as thoroughly as possible; but there was a good deal of impalpable cinder-powder, too imbedded and diffused in the bruised and swollen surfaces to be removed. The places have now healed, but have left very undesirable tatoo-marks. Can any of your readers suggest a method for their removal? I have been informed on good authority that tatoo-marks are removed by convicts and deserters from the army, otherwise than by cutting or burning. Perhaps some army or prison surgeon among our Associates could supply me with details of the method of which I am in search, for which I shall be truly obliged.—Yours faithfully,
The Red House, Wandsworth, Nov. 27th, 1877. HORACE JEAFFRESON.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

TREATMENT OF PSORIASIS BY PHOSPHORUS.

SIR,—I am pleased to find that the report of my case has elicited a brotherly commentary from two such able contributors to the improvement of therapeutics as Dr. Broadbent and Dr. Ashburton Thompson. Dr. Broadbent's theory is certainly of the best kind as a suggestive basis of therapeutical research; but although I am naturally disposed to argue out therapeutics on a plan of harmony with the exact sciences, I think that our knowledge of the action of medicines is—at present at least—such as permits very imperfect argument of this kind. Scientific theory may sometimes suggest a possible clue for a new attempt, but repeated and well observed facts are the only sure criterion. No one could venture to recommend phosphorus because it belongs to a certain chemical group, the other members of which have been found to do this or that, until he has first settled the question by actually trying phosphorus.

In reply to Dr. Thompson's inquiry, I am not, I must confess, "in a position to show that such doses as I have employed are necessary"; but Dr. Thompson himself seems to infer that at the least the result of treatment with small doses is apt to be fallacious. I pushed my use of the remedy, because I think the maximum dose is always the proper dose; and by maximum dose I mean that dose which will effect quite fully what is aimed at, provided always that no baneful effect of any kind be produced by the augmentation of the dose. Thus, for instance, in curing psoriasis, I would prefer to find the limit of the action of the remedy attained, as I fancy I found it, within a month, rather than plan matters "for a six weeks' course of phosphorus, to be followed by a course of arsenic; even if the arsenic will then be found to operate with unusual rapidity"; for even "unusual rapidity", in the case of arsenic as employed against psoriasis, still means, as I fear, a very leisurely pace indeed.

I am glad to find that so excellent an observer as Dr. Whipham has made clear what to me at least appeared perhaps a little obscure, yet I regret that he has not been able to offer any explanation as to why that became undone in May which had been done in April; but I must remind him that I qualified my remark, "it undid in May what it had done in April", by immediately adding, "or at the least would not do in May what it had done in April". Dr. Whipham's account, as he quite frankly admits, comes simply to this—that the phosphorus, after all, was continued throughout April and May; and that through April the remedy improved the disease considerably, but nevertheless by the end of May "the disease was nearly as bad as ever".—I am, etc.,

BALMANNO SQUIRE.

November 23rd, 1877.

ITCHING OVER THE TENDO ACHILLIS.

J. F. B. (Brighton), in reply to "Sufferer", suggests what Sir J. Paget says in one of his lectures: "That spontaneous pain in the tendo Achillis arises from gout or lithic acid diathesis." Let "Sufferer" try a line of treatment directed towards gout, and pay particular attention to diet and alcoholic beverages.

Mr. B. JUMEAUX (Oystermouth) suggests local hypodermic injection of ergotin in small doses every day for a week. At bedtime each night he should wash the foot, and immediately afterwards apply some cotton-wool, well sprinkled with iodoform, to the spot, and bandage the foot lightly. He would be glad to hear of the success of this treatment, if "Sufferer" would kindly communicate with him.

Dr. J. C. MURRAY (Newcastle-on-Tyne) suggests the use of bromide of potassium in fifteen-grain doses three or four times a day, and painting tincture of iodine on the heel as far as the uneasy sensation extends. If "Sufferer" be stout and his urine acid, the bromide is worth trying; if the contrary, nitro-muriatic acid in a bitter infusion after meals would be indicated.

PREVENTIVE TREATMENT OF HYDROPHOBIA.

SIR,—In connection with the subject of hydrophobia, may I be allowed to suggest the following treatment of bites, causing anxiety, as they come under the notice of the general practitioner. Let the track of the wound or wounds be at once most carefully explored to the very bottom, by means of a silver blunt-pointed probe, and the course of the wound brought as much as possible into a straight line. It must be apparent that the tooth or teeth at the instant of the "snap", like the old spherical bullet, are deflected in their course, according to the tissues—bone, tendons, or aponeuroses—with which they meet, and so the poisoned route is a crooked one on the parts recovering themselves; in fact, often a closed valvular opening to the subjacent structures. It is clear that ordinary lunar caustic will not reach the depths of such a wound, even should the caustic undergo more or less dilution by the discharges at the surface. I have for years adopted the plan of straightening, when necessary, the wound, and dropping nitric acid into it, stirring with the silver probe in the whole length of the wound, so as to insure that the fluid shall destroy the tissues all round and at the bottom, poulticing afterwards in bad cases till the sloughs come away. A silver director might, in large wounds, take the place of the probe.—I am, sir, yours truly,

December 1st, 1877.

D. MANSON, M.D., M.A.

STIMULANTS BEFORE ANÆSTHESIA.

SIR,—I am quite of Mr. Clover's opinion, and agree with his practice, of never giving a stimulant before producing anaesthesia. The cases which give us most anxiety are those in which a stimulant has been taken. The rule should be absolute. One word as to resuscitation: the only agent of any real value is the rapid use of the "Silvester method" on the slightest approach of danger.—I am, yours faithfully,

Geo. H. BAILEY.

9, Cavendish Place, Cavendish Square, November 29th, 1877.

SIR,—With reference to Mr. Clover's letter on this subject in the JOURNAL of November 24th, p. 745, permit me to give the results of my experience while resident in one of the largest provincial infirmaries. I was led to abandon the practice of giving brandy before the anaesthetic, by observing that vomiting almost invariably followed its use; hence, when the patient was very low, I always followed the plan of giving ether first, and afterwards resorting to chloroform. With regard to the condition of alcoholism remaining after natural breathing has been restored, most house-surgeons will agree that cases which have been brought from a distance, as railway servants and persons hurt on the railway, and who have been repeatedly dosed with brandy on the way, are the most anxious cases for the chloroformist; and I remember one case of death after chloroform, apparently due rather to brandy administered in large doses before the chloroform.—I am, etc.,

December 1st, 1877.

EDWIN JACKSON.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

P. FEBRAL SEPTICÆMIA.

SIR,—I have read with much interest your report of a lecture on so-called septicaemia, delivered by Dr. Playfair at King's College. The case is related in so fair and candid a manner, that any one is put in almost as good a position to judge of its nature as the lecturer himself. That it was not a case of septicaemia appears pretty evident, from only four or five hours having elapsed from the termination of the labour to the rigor which ushered in the symptoms, as well as from the remarkable absence of uterine symptoms from the beginning to the end of the case. Neither does there appear anything in the history or symptoms to associate it with scarlatina, as, in the absence of the scarlatinal rash, the subsequent desquamation of the cuticle may, I think, be disregarded, or possibly be attributed to what I shall presently point out. My theory is, that the patient was, previously to confinement, exposed to the poison of typhus fever. Except in the absence of cerebral complication, all the phenomena of the case appear to be explained by such a supposition. There was a rigor followed by rapid elevation of temperature, which practically resisted all the means used to lower it; on the fourth day there was a livid rash on the face, which continued more or less during the progress of the case. It would be interesting to know whether this rash existed on the chest or abdomen. On the thirteenth day, the patient was apparently moribund; but, about the end of that day, a critical perspiration took place, the pulse rallied, the temperature became lowered, and convalescence was almost at once established. Was the rash that of typhus, and was the subsequent desquamation due to it? I know that the typhus eruption is not usually followed by desquamation; but this explanation appears to be at least as likely as to connect the rash with scarlatina, in the absence of any of the phenomena characteristic of that disease. I scarcely can regard the crisis which followed the administration of Warburg's tincture as other than a coincidence, after so many other means had been tried and failed.

My idea of treating such a case as that described, is to conserve the power of the patient by avoiding every thing which would induce fatigue, to keep up the strength by mild and nutritious food, and to administer medicine where there is some special indication for its use; but in this case, where the temperature appears never to have been more than 105 deg.—a not uncommon one in grave cases of typhus, the patient is drenched with ice-cold applications all over the body, a thermometer is thrust into her mouth every fifteen minutes, and, in the absence of any uterine symptoms, the uterus and its owner are worried by injections.

The application of cold to the surface of the body with the object of reducing its general temperature appears to be open to the objection that in the great majority of cases, notably in those of the specific fevers, it is merely treating one important link in the series of phenomena set up by Nature for the elimination of a poison. This of course would be no reason for not employing it if it were proved that it cured any given disease; but the case related by Dr. Playfair is certainly not an instance of the kind. Its power to reduce the temperature appears to have been of a very limited nature, and to have had absolutely no effect in arresting or curing the disease. The serious disadvantages attendant upon its continued use, in the discomfort which it must necessarily cause to the patient, must always be a serious objection to its general application. There are, no doubt, some few cases where advantage may be derived from it, where a high temperature becomes the principal feature in the disease; and such a case is given by Dr. Allbut in the previous number of the JOURNAL, but in that case the remedy was thoroughly applied by immersing the patient, and it was not necessary to continue the treatment. Had that been continued for a period of eight days, the world would probably never have heard of the case. It appears to me that it would be well to relegate this remedy to those heroic relics of a past age—general blood-letting and tartar emetic in two-grain doses, for both of which, indeed, a good deal more might be said than for the continuous application of cold.—I am, sir, yours truly,

November, 1877.

JAMES SEATON, F.R.C.S. Edin.

SIR,—Any contribution to the literature of our profession coming from such an eminent authority as Dr. Playfair commands attention, and is read with avidity. In his lecture he says: "There was in this case a well marked eruption, very analogous to that of scarlet fever; but such rashes are common in septicaemia, quite independent of the origin of the disease." I am glad to have the endorsement of such a pre-eminent gynaecologist to my statement made during the great debate which took place at the Obstetrical Society on puerperal fever—that statement being, to use the words of the President of the Society in his summing up: "There is a fallacy in reference to the occurrence of scarlatina in the puerperal patient which must not be overlooked. As stated by Dr. G. de Gorrequer Griffith, there may be a rash closely resembling the scarlet fever eruption, which is due to toxicæmia poisoning of another kind, and which may be mistaken for scarlatina." I believe I was the only Fellow or speaker in the debate who directed attention to this most important fact; and I would refer your readers to pages 26r and following of the *Obstetrical Transactions*, vol. xvii, 1875. I also alluded to the fact, that in some of these cases of "bastard or simulative scarlatina" there may be even desquamation, owing to the height to which the fever may run; but this is not at all, in my mind, pathognomonic or diagnostic of true scarlatina. With this latter view Dr. Playfair is at issue, judging by these words of his admirable lecture: "The fact, however, that, subsequently to recovery, there was distinct desquamation about the fingers, and, to a less extent, in other parts of the body, makes me think it likely that the scarlatinal poison was the origin of the illness."

I am sure, when Dr. Playfair passes in mental review certain surgical and medical affections, he will bear me out in the statement that scarlatinal poison is *not* necessary to desquamation, but that greatly exalted temperature, especially if long continued, will occasion this process.—I am, sir, yours truly,

G. DE GORREQUER GRIFFITH, Senior Physician to the Hospital for Women and Children.

November 1877.

A CORRESPONDENT forwards us the following newspaper cutting:—Mr. Fred. Bellaby, M.R.C.S. and L.S.A., son of Mr. Bellaby, dentist, Park Row, passed his examination and obtained his diploma as Licentiate in Dental Surgery of the Royal College of Surgeons on the 30th ult. Mr. F. B. has been tolerably successful as a student in medicine, the following certificates, prizes, etc., having been gained by him: Certificates of Honour for proficiency in Comparative Anatomy, Practical Chemistry, Medicine, Surgery, Midwifery; first prize for *Materia Medica*, Botany, Anatomy, Physiology, Psychological Medicine, Practical Surgery, Pathological Anatomy, Forensic Medicine; appointed Prosecutor at the Royal College of Surgeons for twelve months, Broderick Scholarship tenable for two years; Governors' Prize for general proficiency; the Murray Scholarship and Gold Medal; appointed Physicians' Assistant for nine months.—[We understand the above young gentleman intends practising the science and art of Dentistry in connection with the firm of Bellaby and Sons, of 2, Park Row, Nottingham.]—Advt.

MEDICAL ETIQUETTE.

SIR, Will you kindly publish the following case, and give your comments upon it? On September 6th, I was called to see a man named Robert Morris, who had been hurt in the shaft of the Moreton Colliery; and, upon examining him, I found that he had fracture of the radius (at about the junction of the middle and lower third) of the left arm, the ulna being uninjured. Upon inquiry into the cause of the accident, I was told that a stone or a bolt had fallen upon the arm just as Morris reached out his hand to take hold of the chain; but he had not grasped the chain, so there was nothing to prevent the arm from being depressed by the blow. The site of the blow was marked by a slight wound of the skin, showing that it was received directly on the radius, when the arm was midway between pronation and supination, and the radius directly upwards. The fracture corresponded to the skin-wound. The man was about thirty-five years of age, and looked strong and healthy. The fracture was placed in splints on the same day; two ordinary flat splints being used, reaching from the elbow-joint to the ends of the fingers; and at the end of five weeks the man was dismissed, the fractured bone having united thoroughly. Before dismissal, the wrist was bent and rotated, and the fingers closed, and the man was directed to use the hand.

To my great surprise, I heard about a fortnight after this that Morris had been taken into the Oswestry Cottage Hospital, and his arm refractured, because of its bad shape. I immediately inquired into the matter, and found that the man had been sent into the Cottage Hospital by Dr. Beresford of Oswestry, who told him that the arm must be broken, that he had been in the hospital twelve days, but was then at home. Upon this, I asked my friend Mr. J. Sides Davies of Oswestry to accompany me to the man's house to inquire into the case. We went there on Thursday, November 1st, thirteen days after the arm was supposed to be refractured, and asked Morris to allow us to see the arm, but were told by him that Dr. Beresford had said that it was not set right at first, but that it was all right now, and that he was not to allow any one to touch it. Seeing at once there was some mystery in this, and knowing that perfect union of the radius had taken place before the man was dismissed from my care, and knowing also that the ulna had not been broken, I was anxious for further information. I therefore on the next day (November 2nd) addressed a letter to Dr. Beresford, which was as follows.

"Sir, I was greatly surprised on Tuesday last to hear that you had taken a patient of mine into the Cottage Hospital, and that you were reported to have broken and reset his injured arm. Upon inquiry into the matter, and finding at least the report of his having been in the Hospital correct, I at once asked my friend Mr. Davies to see the man with me and to examine his arm. We consequently went to the house last evening and preferred our request; but we were met with a refusal, and were told that Dr. Beresford had ordered that no one should touch the arm. But I am quite sure you are ready with me to court all inquiry, and I wish, therefore, to take the man to Shrewsbury for examination by Mr. Samuel Wood and Mr. Humphreys of Shrewsbury, and Mr. Davies of Oswestry, and this I propose to do to-morrow. Of course, I hope to meet you there with any friend you may wish to bring. Will you oblige me by answering this note by letter? and will you also give me a note for the man, telling him it is your wish he should go? The expenses of Morris's journey will be borne by me; and undoubtedly you would not think of undertaking so grave an operation, and one that reflected so much upon another practitioner, without consulting one of your colleagues; and as you would naturally like that colleague to be there, I shall be pleased to place a first class return ticket at the disposal of either Dr. Fuller or Mr. Blaikie. Mr. Davies, I know, was not consulted.—I am, sir, yours obediently, W. H. Box."

To this I obtained the following reply.

"Dear Sir,—Your patient, who was sent to me by the manager of his colliery (at least so he told me) to be treated for a fracture of the radius, gave me no information as to what he had left your care. I found the arm very much deformed and its utility impaired. Dr. Rees saw it with me, and will tell you what it looked like, as also can the matron at the Hospital; in fact, it was so angular that the most unskilful observer would have pronounced it a very crooked fracture. I straightened it under chloroform, aided by Dr. Rees, and kept the man in hospital for some time, to keep him quiet and set sure union, as I feared, should it bend again in any way, he would seek, as many of his comrades do, the advice of a bone-setter. I never blamed you; I never mentioned your name. Dr. Rees heard me blame the man for his own carelessness. There was no splint or bandage on when he came to me. I did not think it worth troubling a colleague for so trivial a case, and I certainly would never visit a case of yours, though formerly mine, without the wish of the patient or your leave, even though accompanied by Mr. Davies of Oswestry. The man can do as he likes. I certainly may have told him not to have his arm meddled with, and to be careful of it. I never thought you would have troubled about it. The arm is now straight and uniting, and does not bear the slightest resemblance to its former contour, so that the medical board before which you would cite me as a case of failure, would find it difficult to find fault with me."

"I decline most emphatically to waste a day at Salop, which I can employ more usefully at home, so you can state your own case to the medical trio, regardless of me in any way. It will do you more real harm making a fuss over it, as the man may impute it to your incompetence, when it was most probably his own neglect."

In conclusion, I may say that I have no wish to injure you in any way, and am sorry, as it has annoyed you, the man did not seek the advice of some bone-setter; it would have saved me this trouble.—I am, yours truly, R. BERESFORD."

Upon this I waited upon the managers of the colliery, and asked them to insist upon the man going to Shrewsbury. My professional character had been assailed, and I considered I had a perfect right to seek out the truth. The managers agreed with me, and the man Morris had to go.

On November 3rd, Morris was examined by Mr. Samuel Wood and Mr. Harris of Shrewsbury, and Mr. J. Sides Davies of Oswestry, and myself. We found that the fracture of the radius had been thoroughly united for weeks, that there was most perfect apposition, not the slightest overlapping or unevenness, and that the bone was as firm as bone could be. The ulna was also found to be perfectly united after Dr. Beresford's straightening. We also found that the ulna opposite the fracture of the radius was free from any suspicion of past or present injury, but about two inches higher up there was some recent injury. We were unanimously of opinion that this was not from fracture.

It felt more like a small node, and seemed probably to have been caused by pressure of the bone against some sharp edge injuring the periosteum. Upon further inquiry, I found the man had been placed under chloroform, and the manipulations, whatever they were, had been carried on in the large ward of the Hospital and in the presence of every male patient of the Hospital, but in the absence of every person officially connected with the Hospital. Two rules of the Hospital had been broken, namely, "That no person in receipt of parish pay be received as

a patient at the Hospital"; "That no person suffering from injury to the arm only be allowed as an in-patient."

I have given you an exact epitome of the facts, and it only remains to me to explain that Dr. Rees is a very young practitioner, who has passed his early pupilage with Messrs. Blaikie and Beresford, and who is now an assistant with them. I now leave all readers to judge the case on its merits, and also to judge what Dr. Beresford means by straightening a fracture after six weeks, and when complete osseous union had taken place. I do not wish to add any words of my own; I simply invite a reply from Dr. Beresford and a comment from yourself.—I am, sir, yours most obediently, W. H. Box.

Chirk, North Wales, November 14th, 1877.

M.D. asks for an opinion on the following case. A. B., a duly qualified medical practitioner of many years' standing, had been for about two months in daily and anxious attendance upon an old and valued friend, who was in the last stage of an incurable disease, when one morning the friends expressed a desire to try the effect of homœopathy. To this proposal A. B. assented, with the distinct understanding that he must be released from attendance the while, as he could not countenance homœopathy, or sanction by his presence any such treatment; neither could he consent to act dishonourably towards the homœopathic gentleman who had been called in, by visiting his patient in his absence (as he lived many miles away), or otherwise interfering with him in any way. The day but one after A. B.'s last professional visit, C. D., a medical practitioner residing in the same town, was called in, and he visited the patient while he was under the care of the homœopath, and wrote to A. B. to inform him of the circumstance, saying that as he had retired from the case, he (C. D.) was willing to undertake the charge of it, and did so. I wish to know whether such conduct is in accordance with strict professional etiquette and becoming a qualified medical practitioner and a gentleman. I must not omit to mention that the patient died in about twelve hours after C. D. made his first visit.

* * In this case, assuming the facts to be as stated, C. D. was blamable for accepting a position from which A. B. had retired from conscientious motives, and in accordance with an important ethical doctrine generally accepted in this Association and in the profession.

We are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Scotsman; The Cork Constitution; The Freeman's Journal; The Hampshire Post; The Somersetshire Herald; The Isle of Man Times; The Sussex Advertiser; The Herts Advertiser; The Manchester Guardian; The Evesham Journal; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; The Derby Mercury; The Preston Guardian; The Scarborough Express; The Jewish World; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Yorkshire Post; The Coventry Herald; The Wisbech Advertiser; The West-Bruton and Cornwall Advertiser; etc.

We should be greatly obliged if our correspondents forwarding news, reports, &c., kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Grimshaw, Dublin; Mr. T. Spencer Wells, London; Dr. J. Marion Sims, Paris; Dr. Tilbury Fox, London; Dr. Wade, Birmingham; Dr. G. F. Burder, Bristol; Dr. A. S. Taylor, London; Mr. F. Alford, London; Dr. Hayden, Dublin; Dr. Wm. Fairlie Clarke, Southborough; Dr. Tayler, Anerley; Mr. Edwin Jackson, Manchester; Mr. R. H. B. Wickham, Newcastle-upon-Tyne; Bishop Gregg, D.D. and M.D., Southend; The Registrar of the University of London; Dr. J. W. Moore, Dublin; The Secretary of the Hunterian Society; Mr. G. H. Bailey, London; Dr. A. McAldowie, Stoke-on-Trent; Dr. Reid, Newbiggin-by-Sea; The Secretary of Apothecaries' Hall; Dr. J. Milner Fothergill, London; Mr. Furneaux Jordan, Birmingham; Mr. H. de Styrac, Isle of Man; Dr. J. R. Wardell, Tunbridge Wells; Dr. J. Claud Cormack, Liverpool; The Registrar-General of Ireland; Mr. G. R. Gilruth, Edinburgh; Dr. Alexander, Bradford; Dr. J. C. Murray, Newcastle-upon-Tyne; Dr. Scott, Ilkley; The Registrar-General of England; Mr. Edward Williams, Wrexham; Mr. Eastes, London; Dr. J. H. Galton, Anerley; Dr. Edis, London; Dr. Durrant, Ipswich; Dr. J. Burdon Sanderson, London; Mr. Alban Doran, London; M.R.C.S. Eng.; Dr. Joseph Rogers, London; W.; Our Edinburgh Correspondent; Dr. Willie Burman, Devizes; Dr. Crocker, London; Dr. Sheen, Cardiff; Dr. W. A. Hollis, Brighton; Dr. Atkinson, Kew Green; M.D.; Dr. O'Neill, Lincoln; Mr. T. F. Chavasse, Birmingham; Dr. Samuel Calcott, Nottingham; Our Paris Correspondent; Mr. Sampson Gamgee, Birmingham; Dr. W. O. Markham, London; Dr. Gervis, London; X.; The Secretary of the Royal Medical and Chirurgical Society; Dr. F. Warner, London; Dr. Cayley, London; M.R.C.S. Eng.; Our Dublin Correspondent; Our Birmingham Correspondent; Mr. Simeon Snell, Sheffield; Dr. Sawyer, Birmingham; Mr. Jones, Manchester; Dr. Joseph Bell, Edinburgh; Mr. W. R. Jordan, Birmingham; Mr. W. A. Budd, Exeter; Mr. B. Jumeaux, Oystermouth; A. W. E., Skibbereen; Our Own Correspondent, Kars; Mr. W. H. Algar, Plymouth; The Registrar of the University of London; Dr. Urquhart, Aberdeen; Mr. Samuel Mills, London; Dr. Levinge, Stapleton, Bristol; Dr. Grabham, Pontefract; Dr. J. F. Boyes, Brighton; Dr. Atkinson, Kingston-on-Tames; etc.

BOOKS, ETC., RECEIVED.

On Defects of Vision, which are Remediable by Optical Appliances. By Robert Brudenell Carter, F.R.C.S. London: Macmillan and Co. 1877.

TWENTY YEARS' WORK

THE SAMARITAN HOSPITAL, 1857-1877:

Shortly Reviewed, Dec. 12th, 1877.

By T. SPENCER WELLS, F.R.C.S.,
Consulting-Surgeon to the Hospital.

GENTLEMEN,—The operation I have just performed is the last I shall undertake in this Hospital, unless I do another next Wednesday, the 19th. There have been a few parietal and omental adhesions; but you have seen that a very few minutes—hardly more than a quarter of an hour—have been enough to complete the whole process, in complete silence, and without any hurry. Dr. Tweedie, one of our oldest physicians, but as young and active, apparently, as ever, has watched this proceeding with as much interest as a boy. The two cases I did last week you will see presently; one done the week before, two others by Dr. Bantock and Mr. Thornton, and a patient in process of recovery after draining a renal cyst—all encouraging results of less than a month's work.

It is exactly twenty years since I made my first attempt to perform ovariectomy. It was in this hospital, but not in this building. At that time (1857), we had hardly undergone the process of evolution from the dispensary into the hospital. We had a small house in Orchard Street, which was pulled down several years ago. On the ground floor were an office and a waiting-room, and a dispensary downstairs; on the first floor, the patients waited in the front room, and were attended to in the back. On the second floor, there was a room for a matron, and another for a resident house-surgeon, whose chief occupation was in bandaging the ulcerated legs of a crowd of out-patients. On the third floor, there were attics, one of which was occasionally made use of for an in-patient. I believe that up to 1855 or 1856 there had scarcely ever been an in-patient.

I began work in London in 1853, and in the following year joined the hospital. Dr. Savage, now our senior consulting physician, is the only one of the present staff who was then connected with it. I did nothing but out-patient work in 1854, and in January 1855 went off to the Crimea. After my return in 1856, I resumed the out-patient work. Snow Beck, Graily Hewitt, and Priestley had joined the staff, so had Routh and Wright; and we began to hope for something more than dispensary work. By arrangement with the matron, a bed could be occasionally obtained in an attic. Snow Beck, to the surprise of all of us, cured a vesico-vaginal fistula by the actual cautery; and he tapped an ovarian cyst and tried to inject it with iodine, with a terrible result to the poor girl and (as he often told me afterwards) with deep distress to himself. We did not often see cases of ovarian disease at that time, but they did appear occasionally. I had, in 1854, once assisted Baker Brown to perform ovariectomy, and had not been encouraged by the result. He himself, in 1857, was very desponding about it. He had not operated since March 1856. He used to say "peritonitis would beat us", and he was returning to the treatment by tapping and pressure, iodine injections and bichloride of mercury. Of his first nine cases of ovariectomy, seven had died. His colleagues at St. Mary's Hospital strongly opposed him. He was even threatened with an inquest on his next fatal case. And it now appears, by his own book on *Ovarian Dropsy*, that, between March 1856 and October 1858 (after my second successful case), he did not operate once.

During the autumn of 1857, a young woman was under treatment for what appeared to be an ovarian tumour on the left side. Various opinions were very confidently expressed that this could not be an ovarian tumour, because intestines could be felt in front of it. But I determined to see what it was, and in December 1857, exactly twenty years ago, I prepared for my first ovariectomy. We cleared out the waiting-room, got a bed there, and secured a nurse. Quite a crowd of visitors came. As soon as I opened the peritoneum, and it was proved beyond all doubt that the tumour was behind the intestines, I was induced to close the wound and do nothing more. The patient recovered without any bad symptom, but died four months afterwards in St. Bartholomew's Hospital, when it was found that it was a tumour of the left ovary, which might have been removed quite easily. This was not encouraging for a beginner; but it attracted the notice of Mr. Bullen of the Lambeth Workhouse, and he offered me a patient then

in his infirmary, who had been tapped three times in Guy's Hospital and four times in the Lambeth Workhouse, iodine having been injected twice. As she was willing to face any risk, I did ovariectomy for her in February 1858. The pedicle was treated by whipcord ligature, the ends hanging out at the lower end of the wound, after the fashion of Clay, Bird, Brown, and the earlier ovariectomists. At that time we had a house-surgeon, Mr. Cooke, afterwards of Clovelly; and, greatly owing to his constant care, the poor girl recovered. She became a nurse in the hospital, went into service, then emigrated, and I heard of her several years afterwards married to the German over-looker of a large estate in Queensland, whose salary was £240 a year. Had ovariectomy not been performed, she must have died in 1858 a pauper in a workhouse.

Between this first case in February 1858 and the second in August of the same year, we had left the old house and removed here, and the second operation was done precisely where so many have been done since, and where I operated just now. The third case was in the following November, and happily all the three women recovered. Had they died, such was the state of professional opinion at that time, the progress of ovariectomy might have been sadly retarded, if not stopped.

I could occupy far more time than you could spare if I were to go over in detail the cases of successive years, tell you how each step of the operation has been gradually modified, how all the details of the nursing and after-treatment have been gradually brought to their present stage, and how, the confidence of the profession having been obtained, cases have multiplied faster than our means of treating them have been provided. But I may just show you in a table the results of the twenty years' work, which, with varying fortune from year to year, taken in a series of five years or of ten years, show a gradually increasing success and a diminishing mortality.

Years.	Cases.	Recoveries.	Deaths.
1858	3	3	0
1859	2	4	2
1860	2	1	1
1861	6	3	3
1862	13	10	3
1863	16	11	5
1864	14	11	3
1865	17	11	6
1866	14	9	5
1867	21	17	4
1868	31	24	7
1869	21	14	7
1870	24	17	7
1871	28	18	10
1872	30	21	9
1873	24	25	7
1874	21	20	1
1875	20	20	0
1876	47	35	12
1877	22	25	3
Total..	433	304	129

Now let us see how far increasing experience has affected the proportion between recoveries and deaths in successive years. A glance at the table will show you how this varies in the several years; but we want larger numbers for anything like accurate statistical conclusions. This we may, perhaps, gain by grouping the cases together in series of five years. I have done this, and here is the result.

	Cases.	Recoveries.	Deaths.
First five years	30	21	9
Second five years	82	61	21
Third five years	132	76	56
Fourth five years	117	120	3

If we take the last two years only (1876 and 1877), we find sixty-eight cases, with sixty-one recoveries and only seven deaths: a mortality barely exceeding 10 per cent.

Or, putting the facts in another form, we may say, in the first five years about one in three died; in the second and third five years, about one in four died; in the fourth five years, about one in five died; but in the last two years only about one in ten died. It scarcely requires a moment's consideration of these facts—indeed, I think the question may be considered as settled—to establish the conclusion that increasing experience has been accompanied by diminishing mortality.

In 1872, I attempted to trace the progress of ovariectomy in its range through almost every civilised country, from its cradle in America to its adoption in Spain and Italy. A glance over our list of visitors, with their places of residence, in our visitors' book, gives us a curious insight into the wide-spread interest which the subject has aroused, and some notion of the advanced intelligence and surgical enthusiasm of the present time. Every man who visits this hospital

on operation-day must be more or less guided there not only by curiosity, but by some serious intention to acquire information which may be practically useful to him; and it is gratifying to think to what extent that information may be disseminated, and the amount of good it may be the means of enabling surgeons to do. The advantages of this hospital are far from being confined to its inmates, and the experience gained through them rapidly benefits their remotest sisters in suffering. It passes to them through the hands of men who have been attracted into this little cosmopolitan chamber from the widest points of surgical industry, where, in seeing for themselves, they can compare notes with their antipodean *confrères*, stimulate their ambition by contact, and fortify their memories with the materials of valuable and pleasant reminiscences. The strongest contrasts of physiognomy and temperament cluster round us; and, with the rarest exceptions, even the most susceptible and excited yield to the influence of British calm, and carry away not only a lesson on surgery, but on the advantages of method and silence. The man from Chili or Buenos Ayres is side by side with another from Stockholm or St. Petersburg; one from Texas or the Cape with another from Vienna or Paris. Hong Kong and Jeddo are seen on the stools mutually supporting themselves between Rome and New York; a quartet from Berlin, Santa Cruz, Naples, and Moscow crowd together; and sometimes may be witnessed a motley group from Malta and Munich, Venice and Vienna, Naples and New York, Copenhagen and Chicago, Singapore and Seville. Natives, colonists, and foreigners, all seek a place and find an equal welcome, and are free to carry away all the impressions and knowledge they can pick up. We admit any qualified man from any part of the world. All we stipulate is, that they shall not poison the patients, as we used to fear they occasionally did before January 1873, when we established the rule that every visitor should sign the following declaration: "We, the undersigned, have not been to any *post mortem* examination nor any dissecting-room, nor attended any case of infectious disease, within the last seven days." I believe this precaution has been one of the means by which mortality has been lessened.

Since the earliest operations, when Baker Brown and Tyler Smith were among the visitors, many others who have since distinguished themselves in this operation, or who have used their influence in extending it, have visited us. We have had from France Nélaton, Ricord, Demarquay, Worms, Labbé, Pean, and many others; from Germany, Stromeyer, Nussbaum, Olshausen, Grenser, Leopold; from Belgium, De Roubaix; Howitz, Nicolaysen, and Sköldberg from Denmark, Norway, and Sweden; Tracy of Melbourne, who was the first to do the operation in Australia; Russians and Italians; De Toca from Madrid; and a host of our American brethren, from Marion Sims and Kimball to the last arrivals from Chicago and San Francisco who are here to-day, have all alike seen what we do and how we do it.

In speaking of ovariotomy in this hospital, and in preparing these tables, I have spoken of my own work alone. For many years, with an occasional rare exception, I did all these operations. Latterly, as the numbers have increased, and I have become consulting surgeon since the death of Sir William Ferguson, I have gradually made way for the two present surgeons, Bantock and Thornton; and, after the end of this year, they will do all the surgery, aided by two good men—Meredith and Doran—who are in training for the work they may hereafter be called upon to do. Already the two surgeons have done sixty-five cases with only twelve deaths—a result of which any surgeon living might be proud; and we may reasonably hope for still better results. The antiseptic system is on its trial. We have not seen enough of it as yet in ovariotomy to warrant us in saying more than that the evident objection of operating in a chilly mist may be partially avoided; that no great harm is done by peritoneal absorption of carbolic acid; that dressings are simplified; and that hyperpyrexia is less to be feared. If further experience confirm all this, it will certainly be our duty to give our patients every advantage, even if it be but fractional. A lowering of mortality of one per cent. would reward us for any amount of trouble; and I am more hopeful of late, since the introduction of thymol as a substitute for the offensive and objectionable carbolic acid. Thymol has a very pleasant odour, and has no poisonous property. Dr. Burdon Sanderson tells me it is a hundred times more effective as a germicide than carbolic acid; and our former colleague Dr. Junker writes me from Berlin that Volkmann's results of trials with it, even in such weak solution as one part in two thousand of water, encourage us to hope that we shall soon be able to dispense altogether with our disagreeable but useful servant carbolic acid.

I must not let you suppose that ovariotomy has been the only surgical work done here. Putting aside such things as uterine polyp, epithelioma of the cervix uteri, and various diseases of the external genital organs, we have had a great many cases of vesico-vaginal fistula and of

ruptured perinæum, and have, I think, greatly improved the operative procedures. Many mammary and other tumours have been removed; and several years ago, before the rules were very rigidly enforced which limit us to the admission of diseases peculiar to women, I had two interesting cases of the cure of amenorrhœa by surgical operation. One of the patients had a malignant tumour of her thigh, and I amputated at the hip-joint. She got quite well, and so did another patient after I removed half her lower jaw with a tumour of the bone. These, however, were mere episodes; but they did serve some useful purpose by showing that the same care bestowed upon patients during and after other great operations is rewarded by the same encouraging results as in ovariotomy. An amputation of the thigh for hyperostosis of the tibia I did for one of my official patients in the Queen's household. She was a favourite old housemaid, who had made the beds of the princesses for several years, and the Queen was graciously pleased to express her desire that I should operate myself on her old servant. So I operated in this room, and the old pensioner seems likely to enjoy her retirement for many years to come. I pass over, as too large a subject for to-day, what we have done by the removal by gastrotomy of large uterine tumours, by draining ovarian cysts which could not be removed, by nephrotomy very lately, and, in a very interesting case now in the house, by draining a renal cyst under strict antiseptic precautions.

I have now only to add that, although my duty to my private patients prevents me any longer from acting here as one of the surgeons, neither my colleagues nor I wish that my position as consulting surgeon shall be purely honorary. We hope to arrange one day weekly—probably Friday, at two o'clock—when we propose to hold public consultations upon patients in the hospital, upon selected cases from the out-patients, and upon patients whom any of our professional brethren may bring for an opinion or may recommend for admission. A somewhat similar plan of public consultation has been carried on for some time at St. Bartholomew's Hospital on Thursdays, and I am assured these meetings are most instructive. The surgeons express their opinions freely and openly in the presence of the students, explaining the grounds of any difference of opinion. Here, of course, we have no young students, and the feelings of the patients must be carefully considered; but I hope, after a few trials, we may agree upon some plan which will be useful and interesting as well to our friends as to ourselves.

DORSAL DISLOCATION OF THE HIP.

The patient in this case, a boy nearly ten years of age, was riding on a threshing-machine in motion, and fell between the engine and the water-barrel, the latter being some nine or ten inches from the ground. The boy was, it appears, rolled under the water-barrel in such a manner as to wrench his right thigh-bone out of its socket. On my being called to the patient, there was found to be considerable deformity of the back and outer part of the right thigh, which was nearly immovable and directed towards the lower third of the opposite thigh, the whole limb being inverted. Altogether, it was a typical case of dorsal dislocation. The right knee was rather bruised, but otherwise there were no external marks of injury. An attempt at reduction was made at the time, about three hours after the accident, but without the use of an anæsthetic. The method by extension and counterextension was first tried, but without success. Manipulation by Bigelow's method was then attempted, and with partial success, the head of the femur being got into the ischiatic notch, as evinced by the position of the limb, which was considerably improved, there being but slight inversion and a less amount of shortening, viz., about an inch. As the lad had suffered great pain from the attempts at reduction, it was not thought advisable to proceed further at the time; but, at a subsequent visit forty-eight hours after the accident, chloroform was administered, and the dislocation reduced almost instantaneously by simply manipulating after Bigelow's method; viz., by first flexing the thigh, then abducting it and rotating it outwards, when the head of the bone was heard to fall into its socket by a distinct snap.

This case is simple and uncomplicated, but it seems worthy of record from the fact that dislocations of the hip at an early age are comparatively unfrequent, and also from the fact that the dislocation was readily reduced by the method of manipulation, which is far easier and more manageable than the old method by extension and counter-extension, no apparatus of any kind being necessary for its accomplishment. Doubtless reduction would have been complete at the first attempt by that method, had chloroform been at hand. It may be added that the patient is progressing favourably, without a single bad symptom.

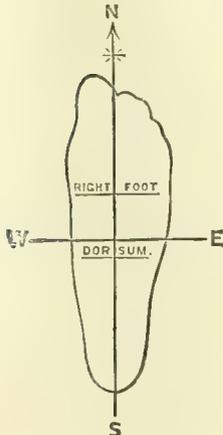
R. L. BATTERBURY, M.B.Lond., Berkhamsted.

ABSTRACT OF A LECTURE

CASES OF TALIPES.

By RICHARD DAVY, F.R.C.S.,
Surgeon to the Westminster Hospital.

GENTLEMEN.—During the winter session (1876-77), I have had the opportunity of showing the students typical cases of the four recognised forms of talipes, viz., varus, valgus, equinus, and calcaneus. The vulgar name for talipes, in any of its varieties, is club-foot; the surgical word is derived from talipedo, I walk on the ankles (talus=ankle, and pes=foot); varus=bow-legged; valgus=knock-kneed; equinus=belonging to horses; calcaneus=belonging to the heel. Confusion constantly arises at the onset between the distortions *varus* and *valgus*. Practically, if you put your knees in the position of "*genu valgum*", knock-kneed, your feet will as a consequence assume the distortion of *talipes valgus*. By attitudinising, you can readily impress the four cardinal points of the club-foot compass on memory. I have illustrated them on the diagram. (Fig. 1.)



Now as we suffer from a north-west or north-east wind, so do we also from talipes equino-varus or valgus: opposite extremes in club-foot do not meet: talipes varus and valgus are antithetical terms, and as far removed the one from the other as the east is from the west. The utmost aim of orthopaedic surgery is to render each case a plantigrade. The casts of each deformity are set out on the operating-table. Club-foot depends pathologically on a variety of causes, e.g., mechanical, from the result of burns, removal of bone; mal-innervation, both intra-uterine and extra-uterine; malformation of parts; rachitis, &c.; but the more I study these inaccuracies, the more I am convinced that the nervous system plays an important primary rôle in their origin and persistence; and that the muscular and tendinous structures are secondary exhibitors. Study, for example, this case.

M. F., aged 8, was admitted under my care on March 26th, 1877, the subject of talipes varus of the left foot. On May 29th, 1876, while he was running away, another boy in spite threw a glass bottle at his leg, which severed his peroneal nerve. The result of this accident was that gradually talipes varus has developed itself; flaccidity over the fibula; and inability to walk. Here is the scar; and we can eliminate the anterior tibial and cutaneous nerves, because the sensibility of the dorsum of his foot is unimpaired.

Let me next show you this boy; an exaggerated case of talipes varus of both feet, and congenital. This case is the third instance in which I have accurately removed a wedge-shaped portion of the tarsal arch for relapsed talipes varus. I have not yet received much support from the profession in performing this operation, Mr. Davies-Colley of Guy's Hospital, being (so far as I know) the only surgeon who has as yet practised a somewhat similar operation with success. And here let me state, once for all, that I am in no way indebted to any surgeon for the line of practice I have pursued, with the exception of the late Mr. Solly of St. Thomas' Hospital, who, in my opinion, was right in

performing ablation of the cuboid, as a step in the right direction for the treatment of confirmed varus.

F. E., aged 12, Clapham, was admitted under my care on November 7th, 1876. On November 14th, 1876, I operated on the right foot, and he was convalescent on December 30th. On January 16th, 1877, I operated on his left foot, and he was convalescent on March 1st, 1877. He shall to-day (May 18th, 1877), walk, hop, run, and jump without any inconvenience and without any mechanical appliance, in the presence of you all. [After these evolutions had been gone through, the boy left the hospital.]

I will now state the line of argument that has led me to advise and practise this operation; and finish up by minutely describing the details of procedure. In a clinical lecture delivered in this theatre, March 1876, and printed in the BRITISH MEDICAL JOURNAL, April 29th, 1876, I gave my reasons for practising ablation of the cuboid, and illustrated practically its results in four cases. My dissatisfaction at the ordinary treatment of talipes varus by division of tendons and manipulation was based upon five years' experience at the Surgical Aid Society; where constantly relapsed cases were brought before my notice, which had been treated by our best orthopaedic surgeons.

In January, 1874, I commenced attacking the tarsal arch by excising the cuboid bone; and to-day I am ready to defend not only ablation of the cuboid, but an accurate removal of a wedge-shaped block of the tarsal arch. I have performed this operation three times in hospital practice with most excellent results; and I will now show you my original instruments, and the method of procedure. In the first place, you must fix most securely the foot on which you operate, and no dresser I have ever yet met with can hold a foot sufficiently steady for the precise use of the chisel. For this reason, I have introduced an ordinary portable vice into our operating theatre, with its jaws defended by the common cork clamps (as used by gunsmiths).

You must prepare yourselves in England to encounter opposition to any new project; and this vice in this theatre was severely criticised before it was finally purchased. I have no hesitation in stating that a good vice for this operation is a *sine quâ non* (Fig. 2). Having put on Es-march's bandage, accurately fix the leg and ankle in the vice; make an H-shaped incision over the enlarged bursa overlying the cuboid; dissect back double door flaps; and insert stout silver wires to act as

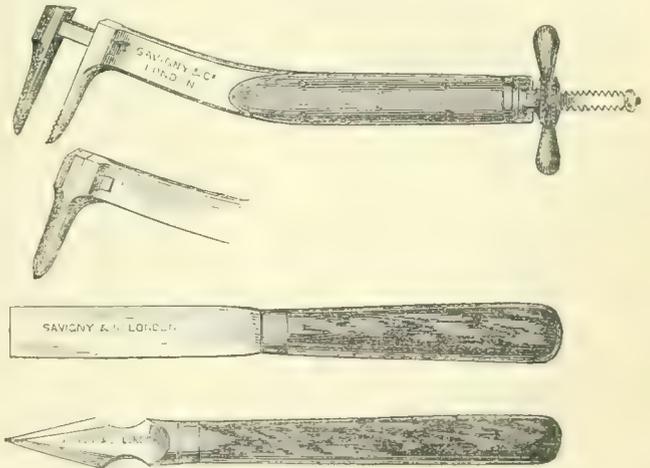


Fig. 3.

retractors: keep close to the bones, above and below, and clear a V-shaped space on the dorsum and sole of the foot, taking for the apex of the triangle the semilunar crease of skin that invariably exists on the inner side of the foot, the stereotyped line at which inversion acts on the soft parts, as it were on a hinge; then use these chisels—painters' knives (Fig. 3)—and accurately excise the wedge of the tarsus; this will embrace the cuboid, the head of the astragalus, part of the scaphoid, the base of the little metatarsal, and a chip of the external cuneiform bone; use the bone-forceps shown above for extracting the wedge. Approximate the gap, and chisel off right and left laminae of bone until symmetry is restored; rotation of the phalangeal portion of the foot is also now performed, until the foot becomes plantigrade; close the wound by tying the retracting wires together; then fix the foot in this splint (Fig. 4), and put up leg in a gum and chalk bandage over waterproof splintage or flannel roller; swing the foot so that the wound outside is dependent; evert foot-piece until contour of

foot is natural. The subsequent bleeding is not alarming; the pain is by no means urgent; swelling results; synovial discharge follows; and, so far as experience demonstrates, the wound is healed and the

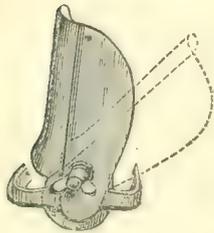
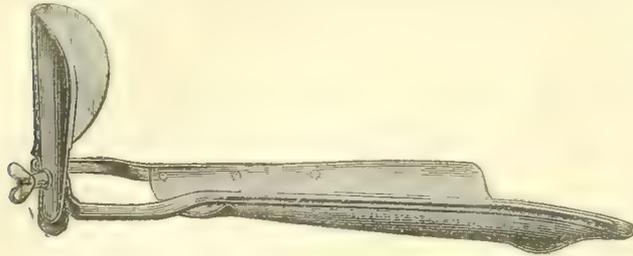


Fig. 4

patient convalescent and able to stand in from six weeks to two months.

Now be good enough not to go away with the idea that every case of talipes varus is to be treated in this heroic fashion; this operation is a *dernier ressort* for obstinacy; an ordinary outside splint suffices for babies, with a gum and chalk bandage. In pedestrians, I have used the splint here engraved with admirable results (Fig. 5). The boot with

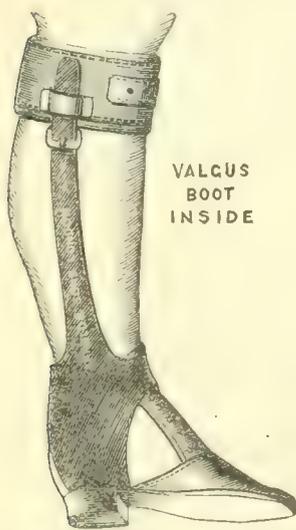
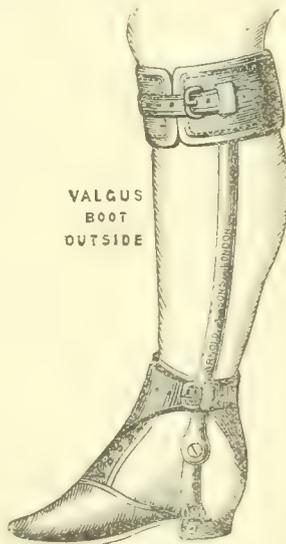
VALGUS
BOOT
INSIDEVALGUS
BOOT
OUTSIDE

Fig. 5

plantar hinge is in this instance applied to a valgus left foot; the crucial strap of elastic or leather inverts the foot; for varus the steel rod is to the inner side, and the crucial band to the outer; supplying an evertive force. No strap arrangement maintains discipline of natural contour more efficiently. This boot is by no means inelegant, and is made by Messrs. Arnold and Sons. The instruments are supplied by Savigny and Co.

The consideration of tenotomy, and the special treatment for talipes calcaneus and equinus, I will enter upon at a future date.

I will, lastly, read to you an extract from a letter received from the boy's father:

"I beg to take the liberty of offering you, in the name of my wife and myself, sincere thanks for the great benefits my son F. E. has received in the Westminster Hospital. All previous attempts to effect a

cure having failed, we are delighted to know that he is now able to run about with ease and comfort."

[Since the delivery of this lecture, I have treated a case of talipes equinus (nineteen years' duration) by an accurate excision of the key-stone of the tarsal arch.]

REMARKS

BATTEY'S OPERATION.

By J. MARION SIMS, M.D.,*

Honorary Fellow of the Obstetrical Societies of London and Dublin; Ex-President of the American Medical Association.

HAVING now given a synopsis of the twelve operations performed by Dr. Battey, I propose to add the seven by myself, and then to analyse the whole, with the hope of deducing more exact rules for our future guidance.

II.—DR. SIMS'S CASES.

CASE I.—Mrs. C., aged 35, the widow of a physician, came from Chofoo, in China, to place herself under my care in 1874. She had been in bad health for a long time. She had had dysmenorrhœa for many years, and menorrhagia for the last two years. She had retroflexion, with hypertrophy of the posterior wall of the uterus; and the left ovary, about the size of an English walnut, was excessively tender to the touch and the seat of constant pain. She was never free from ovarian pain at any time, and it was greatly aggravated during the menstrual flow. She had worn different sorts and sizes of Hodge's pessary, never with benefit, but always with increase of ovarian pain. She suffered much more with an instrument than she did without one. The uterus could be easily replaced and retained in proper position with Hodge's pessary. But it was impossible to adjust one that would not make pressure on the ovary. Nearly a month was spent in fruitless efforts in this direction. At last, I concluded to confine my efforts to the relief of the dysmenorrhœa and the profuse menstruation.

To ascertain the cause of the profuse flow, I introduced a small sponge-tent. When it was removed next morning, it was found to be distended to its fullest extent everywhere, except where it lay in contact with the os internum. Here, for the third of an inch, it was of the same size as when introduced, showing that, at the os internum, there was a circular band of undilatable gristly tissue that did not yield to the force of the expanding sponge. After this, I incised the cervix, and treated it in my usual way after incision. After the next menstruation, the sponge-tent was again tried. This produced sufficient dilatation of the cervical canal to pass the finger to the cavity of the uterus, when I ascertained that there was no polypus and no fibroid tumour, but merely fungoid granulations (hypertrophied utricular glands) to account for the profuse menstruation. These were removed with the curette, and menstruation was restored to its normal state. This was all that I expected to do for my patient, and I was about to dismiss her to return to China (for she was a missionary), relieved of her painful and profuse menstruation, but without any amelioration of the ovarian neuralgia and uterine displacement. As she really felt no better than when she left China, she did not wish to return still an invalid. Indeed, the Board of Foreign Missions would not permit her to return unless her health were restored. I then told her she could be positively cured by an operation, which unfortunately would be attended with some risk to life. I explained to her that the diseased ovary could be removed by abdominal section, and that its pedicle could be secured in the lower angle of the incision in such a way as to hold the uterus in its normal position. She willingly assumed all the responsibility of the operation, and begged for its performance at once. With the assistance of Dr. Harry Sims, Dr. Nicoll, and Dr. W. T. Walker, the operation was performed by abdominal section on February 18th, 1875. The ovary, having undergone cystic degeneration, collapsed in the effort to remove it. The pedicle was secured in the lower angle of the abdominal incision, and the remains of the ovary were clipped off. The operation was followed by an attack of pelvic cellulitis, terminating in abscess of the left broad ligament, which opened by the side of the pedicle at the lower edge of the abdominal incision. But, in the course of a month, she recovered entirely from the abscess and other ill-effects of the operation. Fortunately, the abscess did not break up the adhesion between the pedicle and the abdominal parietes. The uterus seemed to be held up in its

* Continued from page 741 of last number.

proper place by the ligament, and, in a few weeks, Mrs. C. returned home perfectly cured.

Dr. Scott of San Francisco saw Mrs. C. on her way from China to New York, and found her condition as I have described it before operation. He also saw her again in San Francisco three months after the operation, on her return to China, and he wrote to me that the uterus was in its normal position, and that the cure was perfect. I have lately heard from Mrs. C. since her arrival in China, and she remains permanently cured. When I did this operation, I supposed I was the first to perform it for the cure of retroversion; but I was mistaken. Dr. Koberle of Strasburg was the first to suggest it and the first to perform it.

CASE II.—Miss L., aged 40, enjoyed excellent health all her life till about ten years ago, when she was taken suddenly with dysenteric diarrhoea, which was thought to be of malarious origin. The diarrhoea, which lasted off and on for three months, was regularly intermittent, and was followed by neuralgia in various parts of the body. It left her with an irritable rectum, and she had suffered pain ever since whenever the bowels are moved. She had all the symptoms of *fissura ani*, or of ulcer just within the sphincter muscle. She had been repeatedly treated for ulcer, and she had been twice operated on for fissure, and yet her sufferings had never been relieved by any of these operations. Her bowels were moved regularly and spontaneously every morning. Before the movement of the bowels, she was free from pain; but, the moment they were evacuated, she was seized with violent pain, radiating from the rectum down the lower extremities and up through the abdominal viscera. This enteralgia would continue without abatement all day, and often even till bedtime. Indeed, from the time it seized her, she was never clear of it while awake, for every night she fell asleep conscious of suffering. She usually slept soundly all night from the exhaustion of the daily pain. On waking, she found herself free from pain; but it invariably returned with the morning movement of the bowels, and ran the same course as the day before, to pass away when she fell asleep again at night. On some days, the pain was worse than on others. It did not seem to be influenced by fasting or eating. Miss L. had consulted distinguished physicians at home and abroad. One said she had an ulcer, and made local applications to cure it; another, a fissure, and operated; another, malarial neuralgia, and gave quinine, iron, arsenic, etc.; another, dyspepsia, and treated her accordingly; another, retroversion; and another said there was nothing wrong with the uterus; another, that it was all nervousness, and gave bromides, antispasmodics, tonics, strychnine, iron, and phosphorus; another said she had chronic pelvic cellulitis, and treated her eight months for it, but the ever-recurring pain came daily. In 1872, the rectum was again treated by nitrate of silver for ulcer. In December 1872, she sailed for Europe, and went at once to the south of France, where she was treated with local applications for ulcer of the rectum. In February 1873, while etherised, another operation was made on the rectum; but the pain persisted. She consulted an eminent professor in Switzerland, who said there was no ulcer in the rectum, but that the neuralgic pains depended on misplacement and fibroid of the uterus, and she was sent to Kreuznach, where she underwent a course of treatment for six weeks, but with no relief. She then went to Paris, where an eminent physician said she had no tumour, but merely a displacement, with some inflammation of the uterus. Two other distinguished physicians were called in consultation, who thought that all her sufferings were evidently due to fissure, and she was chloroformed and operated upon for this. The bowels were then constipated for ten days; but when they were moved, the pain returned with increased violence. Then, on consultation, they concluded that there was no organic disease to account for the pain, and that it was hysterical neuralgia. After this, she consulted a very distinguished French surgeon, who said he could find no cause for the pain. He recommended fresh air, exercise, and amusement. She then went to Rome for three or four months; returned to Paris in June 1874; spent the summer in England and Scotland; and returned home in September 1874. But wherever she went, or whatever she did, the rectal pain returned daily always under the same circumstances. But it was not always of the same intensity or duration. During her European tour, as at home, she had occasional attacks of diarrhoea, and now and then attacks of neuralgic headache, all coming on without any apparent exciting cause.

On her return home, after nearly ten years of severe and unrelieved suffering, she determined never to consult another physician; but, during a visit to Brooklyn in January 1875, she was in such agony that her friends induced her to send for one of the most eminent physicians of that city, who investigated her case minutely, and told her frankly that he could find no rectal ulcer or fissure and no other organic cause for the pain. In February, she consulted a distinguished New York physician, who thought the pain might be due to retroversion. But, as

he was about to leave the city, he had no time to investigate the case. She then returned to her Brooklyn physician, who advised her to see me. I saw her on March 20th, 1875. She was suffering intensely, as already described. Like many others who had seen Miss L. before me, I thought there must be a fissure or an ulcer within the sphincter. The first thing I did was to etherise her, dilate the sphincter, and explore the rectum with a Sims's speculum, looking up to the very beginning of the sigmoid flexure; but, to my great surprise, I found nothing to account for her severe suffering. I then turned my attention to the uterine system. The uterus was retroverted. The fundus was hypertrophied, and its posterior wall, along the cervix and body, was very sensitive to pressure. The left ovary seemed to be a little enlarged, and was tender on pressure. One great trouble in the way of investigation was vaginismus, the gentlest touch producing intense agony. For a whole month, I made strenuous efforts to rectify the malposition, but I failed utterly to fit an instrument that would hold the uterus in its normal position. The narrow, short, virgin vagina appeared to be the chief obstacle. I tried the intrauterine stem, and failed. After these fruitless efforts, I suspended the treatment during the summer, and saw Miss L. again in the fall. I then etherised her to make a more minute examination of the uterus and its surroundings. I wished to determine whether there were adhesions, and to ascertain more precisely the size and relations of the ovaries. The vaginismus pain had always caused a spasmodic contraction of the abdominal muscles, which had rendered all previous examinations unsatisfactory. But, under the anæsthetic, these muscles were relaxed, and the examination revealed the fact that the uterus could be easily anteverted, that there were no adhesions, and that the left ovary was twice as large as it should be. Having now located the exact position and relations of the ovary when the uterus was elevated into its proper place with the uterine repository, I desired to repeat this examination when my patient was not anæsthetised, for the purpose of ascertaining the degree of ovarian sensitiveness. I wished to see if, by bimanual pressure, the ovary was possibly the starting-point of the ever-recurring recto-enteralgia. Accordingly, about a week after the investigation under the anæsthetic, I repeated the examination without an anæsthetic. Notwithstanding the vaginismus pain, which was always severe, the uterus was placed in its proper position with the uterine repository. The left index finger was then passed behind the cervix up to the region of the ovary to the left side of the Douglas' *cul-de-sac*, the repository, *in situ*, still holding the uterus in its normal position. Then forcible pressure was made with the fingers of the right hand from above, pressing the abdominal parietes down in the direction of the index finger in the vagina. The ovary was then suddenly compressed between the two opposing forces, with the effect of producing instantaneously the peculiar pain that followed the movement of the bowels every morning. The pain from digital pressure radiated from the ovary all over the abdomen, precisely as it did from defæcation. I had for a long time been talking to Miss L. about Battey's operation in her case. This examination satisfied me that her's was a suitable case for the operation; that it was, in fact, her only hope of being perfectly restored to health. I, therefore, rested from all further temporising efforts, and advised Battey's operation. She did not hesitate a second about it, and made up her mind at once to have it done.

At that time, I had the idea that the proper way to do this operation was by the vagina. But in this instance, as in the one previously detailed, I proposed to do it by the abdominal section, for the purpose of fastening the pedicle in the lower angle of the external incision, and thereby of curing the retroversion.

With the assistance of Dr. Harry Sims, Dr. Nicoll, and also of Dr. André of San Francisco, the operation was performed on October 25th, 1875. In dragging the left ovary through the abdominal incision, it collapsed. It was a conglomeration of thin cysts. After securing the pedicle in the lower angle of the incision, the remaining portion of the ovary was excised. The wound was closed and dressed in the ordinary way. The recovery from the effects of the operation was rapid. The pulse and temperature never rose over 100. The bowels were moved five days after the operation, without the pain that had for ten years invariably followed. The clamp was removed on the sixth day. She kept her bed for nearly three weeks. The bowels were moved regularly during this time without inconvenience. Then she was allowed to sit up and to move round the room a little. She seemed to be perfectly cured. With the performance of the operation, the vaginismus vanished entirely, which was an unexpected result. But soon she began to suffer when the bowels were moved. The old pain began to recur, and to gradually grow worse from day to day. This was certainly a most discouraging thing, after we had all thought the operation a success. On examination, I found a slight return of the vaginismus, and, on passing the finger into the vagina, I found that the adhesion between the ligament and the parietes of the abdomen had

given way, or was absorbed, and that the uterus was lying back on the rectum precisely as it did before the operation. The operation, after promising so much, and after really doing so much for a month, proved at last to be a failure. True, her suffering was not as great as before the operation. The pain was somewhat ameliorated. She was improved, but not radically cured, as I expected her to be. If the right ovary had been removed with the left, the result might have been different. During the month that the fundus of the uterus was held up by the ligament attached to the abdominal parietes, she was free from pain; but, when the ligament gave way, the uterus fell back and the pain returned. If this accident had not happened, there is every reason to believe that the cure would have been permanent.

CASE III.—Miss W., aged 35, had had dysmenorrhœa nearly all of her menstrual life, and for the last ten years had never been clear of pain in the sacro-pelvic region. She had had the best of medical treatment without the least improvement. Her sufferings had rendered her morbid and morose; and she told her physician, Dr. Jordan, that she would certainly commit suicide if something were not done for her relief. Dr. Jordan then called me to see her. Her dysmenorrhœa was partly due to stenosis of the cervix, particularly at the os internum, but in a greater degree to the ovary. Indeed, the left ovary was the fixed seat of never-ending pain, which was aggravated during the menstrual flow. It was also exceedingly tender on pressure. I believed the ovary to be the principal seat of disease, the origin of all her suffering. Yet I proposed to Dr. Jordan to incise the cervix, with a faint hope that it might in some degree ameliorate the pain of the menstrual flow. For this purpose, I admitted her to the Woman's Hospital, and the operation was performed in October 1874. But she was in no way improved by it. In November 1875, I extirpated the left ovary by the vaginal section. The operation was followed by an attack of pelvic cellulitis, which terminated by resolution. I made the mistake of removing but one ovary, and she was not only not benefited, but made worse by the operation.

[To be continued.]

SOME AFFECTIONS OF THE NERVOUS SYSTEM DEPENDENT UPON A GOUTY HABIT.*

By J. RUSSELL REYNOLDS, M.D., F.R.S.

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THE dependence of "nervous derangement" upon a "gouty habit" has long been known; but I do not think that the frequency of such association has been fully recognised; and my object in writing this paper is to recall attention to the subject, and to point out, so far as I am able, the characters of disturbances in the "nervous" functions which would lead to a diagnosis or suspicion of a "gouty" diathesis.

First, let me say a word or two as to both "gout" and "gouty habit". The former means a "special" change, of inflammatory sort, in the tissues of the joints, accompanied by the deposit in those tissues of urate of soda. The latter, the "gouty habit", means the underlying cause of those special symptoms in the joints, a something which may express itself also in various organs and in diverse ways.

We do not know what is the starting point or essential fact of "gouty habit", but this we may remember, that between the simply chemical process of food-digestion in the stomach, and the ultimate making up, and breaking down, and carrying away of the waste, of tissues—be they in brain, or nerve, or heart—there comes in the process of "assimilation"—or "concoction of the juices", as our forefathers called it—and also the conveyance of "excretory" material to excreting organs, and that these involve an infinity of changes in the quality of blood. This blood, which comes from food and goes to tissue, which comes from tissue and goes to excreting organs, may be healthy and lead to the formation of healthy tissue and the performance of healthy function; or it may be so deranged as to pervert the "nutrition" of certain tissues by a specific inflammatory process—"gout"; or it may disturb the "functions" of other organs by the impression which it makes upon them—"gouty habit". In other words, the "gouty habit" is a "toxæmia", chronic in its duration and multiform in its phases—a "blood-poisoning" induced *within* the system, and so far forth differing from the toxæmie with which we are so familiar, but which are introduced from *without*. That which has led me to believe that many so-called "nervous affections" are due to this "gouty habit" may be thus summarised. I. The actual presence of gout in the joints of the

individual at the time or at previous times. 2. The evidence of "gout" in ancestors or collateral relatives. 3. The frequent occurrence of acid eructations with chronic dyspepsia. 4. The emission of pale, limpid, acid urine, of low specific gravity, and with traces of albumen or sugar, or both. 5. The variability of symptoms, both as to kind and place. 6. The presence of some alterations in skin-nutrition, such as eczema and psoriasis. 7. The impossibility of referring the symptoms to any known disease of brain or spinal cord. 8. The immediate relief of such symptoms after treatment by colchicum and saline aperients, although simple purgation and treatment upon many other principles had failed.

In the endeavour to arrange this subject, there is great difficulty to be encountered; but I will adopt the method of describing "groups of symptoms" under five headings.

I. *Mental Disturbances*.—Many cases have come before me in which there was great restlessness; the patient could not be still for a moment; was alternately excited and depressed; slept badly, or not at all; was intensely hysterical; and could not attend to business; while others have complained of failing memory; of want of power of attention; of suicidal thoughts; of intense melancholy; others of sounds in the ears; voices, sometimes distinct, sometimes not; and some or all of these of long continuance; but yet all disappearing under treatment upon the hypothesis I have mentioned. These symptoms often alternate with, or accompany, those which I mention next.

II. *Pain in the Head*.—Some of the most intense head-pain that I have met with has been of this character, and been relieved by treatment of an anti-gouty description. The special features are pain on one side of the head, usually parietal or occipital; "grinding" habitually; but forced into almost intolerable severity by movement, such as the jar of carriage-riding, or running down the stairs of a house; and this without any oversensitive nerve-points; without tenderness of scalp; and without any aggravation by mental exertion. It is not affected by posture or by food; it is relieved by physical rest, and may disappear entirely after treatment of the kind that I have mentioned. It is not anæmic, nor neuralgic, nor dyspeptic (in the ordinary sense of that word), and it yields to nothing in the way of treatment that may be directed against those common varieties of headaches. It is very often associated with some of the other symptoms that I have mentioned, and they must be taken into account when making a diagnosis of the malady.

III. *Modified Sensations*.—I. Of these, vertigo is one of the most common, and it may exist alone. It takes sometimes the form of objective movement, but more frequently that of subjective movement, such as the sense of "swimming" or "floating" away. This vertiginous sensation is sometimes determined by posture, and occurs only when the patient lies on one side, it may be the left or the right; the apparent movement of external objects being from that side towards the other.

2. With vertigo is often associated "noise in the ears", not the sound of "voices", but drumming, hissing, singing sounds, recognised to be in the ears, or in one ear, or in the head, and not appearing to come from outside. There is not, or need not be, any mental delusion with regard to these; the patient knowing well that they are inside his organism.

3. Associated with such vertigo and tinnitus there is frequently deafness, and the feeling of "beating in the ear"; and the symptoms are like those described by Menière; but I have found them in the vast majority of instances associated with a gouty habit. With vertigo and tinnitus there may be much mental depression, or attacks of bewilderment, amounting sometimes to those of *le petit mal*.

4. Modified sensations in the limbs may occur. A large number of people complain of "numbness", "tingling", "creeping", "deadness", or some other altered state of sensibility in the limbs, which, sometimes taking a paralytic, sometimes a hemiplegic, distribution, have caused much anxiety; and the more so, because the suggestion of organic disease of brain or spinal cord has sometimes been conveyed, and yet all these troubles pass away. That which I have observed to be in them the most characteristic of their gouty origin is their variability in kind and locality. To-day, for example, there is "coldness" in the left leg; to-morrow, "a sense of heat"; last week, a "pricking" in the right hand; the week before, a "stinging" feeling on the side of the head, or in the tongue. This wide distribution and variability, so alarming to the patient, is much less alarming to the physician, who recognises in these very facts the elements for a favourable prognosis.

Here, too, I must mention the great frequency with which pains, flying pains, darting pains, often like those of ataxy, are met with in the limbs. So-called "sciatica" is of frequent occurrence, and "pleurodynia", and "myodynia" of all localities are common enough. The sciatica of gouty sort is often double, shifting from side to side with a

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frequency that does not improve the temper of the gouty patient, but may raise the hope of his physician as to the probability of cure. Other seats of pain are most frequently the insertion of the deltoid muscle and the inner aspect of the upper arm, the ankles, the heels, and the interscapular region. The lower mammary region on the left side is often the seat of pain, as it, indeed, is in many other maladies.

IV. *Modifications of Muscular Action.*—1. Cardiac palpitation, intermittence or irregularity of pulse, or painful aortic pulsation at and below the epigastrium, often suggest to the patient the presence of cardiac disease; and it is worthy of remark that, on the one hand, a very great amount of discomfort may often be felt by the patient when the physician can discover no change in sound of heart or rhythm of pulse; and that, on the other, disease of aortic valves, and other obvious signs of cardiac change, may often be discovered by the physician in a gouty patient, he having never been conscious of any thoracic trouble.

2. Flickering contractions of muscles in the limbs; tonic spasm, with cramp-like pain; and "startings" on falling asleep have often appeared to me to be of gouty origin, and that for the reasons that I have assigned. Priapism, without erotic feeling, is also very common. It sometimes disturbs the sleep, is felt on awaking, but quickly disappears without emission.

3. Local weakness of muscles, such as ptosis, single or double; want of co-ordination of movement of the limbs, both upper and lower, giving an awkwardness of movement and an ataxic gait—are among the symptoms that may have the course and history that I have suggested. I have recently seen several cases of ataxia, and one with marked double ptosis, which had been treated unsuccessfully upon a syphilitic hypothesis, but which recovered speedily when the treatment was based upon a gouty theory.

v. Lastly, there are symptoms beyond those which I have mentioned, and which do not form part of the matter for my description now, but which I will simply enumerate as being further guides or helps in the diagnosis of gouty cases: 1. Dyspepsia, cardialgia, distension of stomach and colon with flatus, pyrosis, and acid eructations; 2. Varicosity of veins, with tendency, upon slight injuries, to occlusion of veins; 3. Brittleness and vertical lining of the nails of both fingers and toes; 4. Slight conjunctivitis with occasional chemosis.

The groups of symptoms that I have enumerated rather than described sometimes coexist, sometimes alternate, and their phases are often very puzzling. They present great difficulties in diagnosis and in treatment until the clue is caught. It is often saddening to look through the carefully cherished prescriptions, and especially when they are one's own, and see the long array of drugs that have done no good—iodine, bromine, strychnine, quinine, zinc, iron, silver, cerium, arsenic, valerian, and hops, to say nothing of mercury, bitter infusions, mineral acids, and the like; but then one's sorrow may often be turned into joy—and a joy in which the patient most heartily participates—when a simple treatment, such as I have suggested, is adopted, and all the troubles disappear with a rapidity that seems quite magical, and reminds one of that beautiful process of clearing a photographic picture by cyanide of potassium.

CHEIRO-POMPHOLYX AND DYSIDROSIS.

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THERE are probably few dermatologists who have failed to notice, from time to time, a disease which Mr. Hutchinson has described as cheiro-pompholyx, and to which Dr. Thin has recently called attention. A short time ago, a well-marked instance of this affection came under my care. The subject of it was a lad in good health, the son of a medical man living in the country, who had for a long time noticed the affection in his son as something out of the common, and sent him to me for a second opinion. The eruption corresponded exactly with the very accurate description of it given by Dr. Thin; and its recurrent character was well illustrated, for my patient had suffered from repeated attacks. It was in his case confined to the hands, and consisted of vesicles arranged singly or in small groups along the sides and backs of the fingers. The contents of the vesicles were quite clear, and there was no other sign of inflammation in their immediate neighbourhood, or on any other part of the body; there was, in fact, nothing resembling ordinary eczema. I should probably never have seen this case had it not been for the peculiar condition of the nails, which caused my patient annoyance, and which were, as Dr. Thin describes them, "undermined and broken near the root".

Judging from the few well-marked cases of this affection that I have

seen, I should regard the following as its chief distinctive features: 1. The symmetry of the parts attacked by the eruption; 2. Its occurrence chiefly in the hands and feet; 3. The absence for the most part of other signs of inflammation beyond the development of vesicles or small blebs; 4. The peculiar condition of the nails; 5. Its strikingly recurrent character. These features may not be found in every case, but they are certainly generally present. I have never been able to discover that this affection originated in the sweat-ducts or glands; and I fail to see, on that supposition, why the nails should be so often attacked. Further observation will probably determine to what group of skin-affections cheiro-pompholyx should be assigned.

With regard to dysidrosis, I entirely agree with my friend Dr. Tilbury Fox, that the affection he describes under that name exists, and also that it is an affection of the sweat-glands, associated with more or less inflammation. But it is perfectly distinct from cheiro-pompholyx; and I fail to see in what respect it differs from a local hyperidrosis, giving rise, as it often does, to secondary eczema. Whoever will refer to vol. i of Hebra's *Handbook of Skin-Diseases* (Sydenham Society's Translations), will find (at page 83) an account of local hyperidrosis, corresponding in every respect with what Dr. Fox describes as dysidrosis. In the case to which Dr. Fox refers in the *BRITISH MEDICAL JOURNAL* (December 8th), he mentions the "oozing out" of the sweat, and, when that was wiped out, a "fresh supply oozed out". So, in his text-book, he remarks (page 476): "The eruption makes its appearance in those who habitually perspire freely." And in speaking (page 478) of the differential diagnosis, the only distinction he draws between hyperidrosis and dysidrosis is, that: "In hyperidrosis, there is a large amount of sweat poured out upon the surface; it is not retained to distend the sweat-follicles." But surely, when we "wipe off" the sweat and a "fresh supply" oozes out, it is not retained in the follicles, nor is it retained in those who "perspire freely".

Hebra, writing many years ago, remarks on the frequency with which hyperidrosis of the hand causes the epidermis to become "saturated with sweat", and to assume a "white colour"; and again, that "hyperidrosis localis may give rise to eczema in all its grades". The fact is, that in acute local hyperidrosis, when the parts become swollen, there is always more or less retention of sweat in the glands and other tissues.

On the whole, however, I cannot but think that the distinction between dysidrosis and hyperidrosis localis is too shadowy to justify the introduction of a new name for an old disease.

A CASE OF PARALYSIS OF THE DIAPHRAGM WITH PECULIAR LARYNGEAL SYMPTOMS.*

By EDWARD LONG FOX, M.D.,
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IN December 1875, a boy came under my observation who had been under the care of Mr. Reid of Tenby and Dr. West of London. Mr. Reid's account dated from a month previously. He had found tenderness and pain in the epigastric region, with great enlargement of the abdomen, dulness on percussion over the epigastric, right hypochondriac, and upper part of the umbilical regions. There was a slight sound on inspiration, somewhat like an eructation, but evidently spasmodic and involuntary. This sound increased in intensity day by day, until it became most distressing, sometimes resembling the clucking of a hen, sometimes the noise made by a turkey, and eventually it became like the scream of a peacock. It ceased during sleep; but sleep was very difficult, and henbane had been found the best hypnotic.

Mr. Reid considered the child was suffering from albuminous liver and kidneys; the more so that, on one occasion, he had found the urine albuminous. But this latter symptom may have been accidental, as the urine was always healthy during the year of my observation of him.

At the date of my seeing him, he was taking a nightly dose of henbane to the extent of two drachms. He seemed a bright intelligent boy. On stripping him, the upper part of the abdomen was very prominent. The respiration was rather forced and wholly thoracic; the diaphragm seemed to be completely inert; and I considered that the prominence and dulness of the upper part of the abdomen were due to the alteration of the position of the liver and other organs caused by this condition of the diaphragm. The respiration was very noisy both on inspiration and expiration, and simulated a peacock's cry pretty closely; it never ceased for an instant, except during sleep. Swallow-

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ing was rather difficult, especially of solids. The eyesight was not as good as before his illness, but he somewhat exaggerated his weakness in this respect. Ophthalmoscopic examination revealed no lesion in the eyes. His general health was otherwise pretty good; but he was both excitable and depressed, from consciousness of the annoyance caused to other people by his noisy breathing. Sensory and motor powers in the limbs were perfect.

The only previous history that seemed to bear upon the causation of these symptoms was that, nearly a year before his present illness began, he had had a severe blow on the cervical region of the spine from a boy at school. My belief was that the boy was suffering from paresis of the phrenic nerves and irritation of the recurrent laryngeal, the results of an irritative condition of the cervical cord induced by the blow. In the absence of *post mortem* investigation of the cord, the lesion must remain unknown; but it may be presumed that it was entirely connected with the circulation in the spinal cord.

Under gelseminum, and then strychnia, with faradisation used with one pole over the cervical spine and the other along the upper and most prominent part of the epigastrium, the diaphragm in about two months time began to act slightly, and after three months abdominal respiration was restored. His power of swallowing and his eyesight improved, and the dose of henbane was gradually reduced. His mother and he were turned out of several lodgings in consequence of his noisy respiration; but in six months' time this also improved, mainly under the use of strychnia, with the good air of country lodgings, and with farmhouse occupations and food; and it ceased twelve months ago. Whilst he was getting better in this respect, the peacock's cry could always be induced by any loud sudden noise, or, indeed, by anything that caused a jar. He has now been perfectly well for a year, and is able to resume his education.

SUGGESTIONS ON THE HOSPITAL OUT-PATIENT AND OTHER DIFFICULTIES.

By FURNEAUX JORDAN, F.R.C.S.,

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THE great evils which follow the attendance of armies of out-patients at our hospitals are now so widely recognised and earnestly discussed, that something will be done for their relief. I am not about to dwell on those evils or their causes. I cannot but think, however, that there is some exaggeration on a few points connected with the wide-spread inquiry into hospital affairs. What, for instance, is the amount of improvidence excused by a certainly too indulgent system of hospital relief, compared with the pauperising tendency of the garish gin-palace, the squalid home, and the long absence of any teaching that it is well to have some thought for to-morrow? Are we not, as a profession, unduly alive to the microscopic pauperisation of hospitals, and unduly indifferent to the alpine pauperisation of "drink"? There prevails also a too rose-coloured view of the general benevolence of the medical profession. We are as good as persons in other callings; we are no better. It is frequently said that no other profession is so generous in the gift of time and effort. Comparison, however, is attempted where no comparison is possible. Let us see. A working man marries; the couple have their accidents and ailments; the wife has half a dozen or a dozen confinements; each child teething, is vaccinated, has measles, mumps, scarlet fever, whooping-cough, diarrhoea, and so on—a long and weary list. If these fifty events necessitated a legal proceeding, we may be sure that large legal charities would exist, and that lawyers would prove to be as self-sacrificing a class as any other.

But now to the objects which this short paper has in view. The number of out-patients is unmanageable, and leads to many evils. The especially urgent cases are robbed of adequate care by a multitude of trivial cases. How came this? The fault lies mainly with hospital physicians and hospital surgeons. They have encouraged mere numbers: an easy task, seeing that the advice was good, the drugs plentiful, and the cost nothing. They have failed to condemn the growing mischief which they should have been the first to see. Lay hospital authorities could scarcely interfere when physicians and surgeons pointed with pride to numbers, and said, "See what good we are doing". The apparent good has proved a real evil, and it is not unfair to ask those who helped to do the mischief to help now to undo it. I propose to show how this may be done. *The numbers of out-patients can best be reduced by hospital physicians and surgeons.* There is a clear principle to guide them in doing this. Hospitals should be

simply consulting institutions to the poor; they should supply "second opinions" to those who otherwise must go without them. Cases requiring "consultations" are the proper cases for hospital relief. Consulting or second-opinion cases are exceptional cases—cases of urgency, or obscurity, or obstinacy. Let the hospital medical officer, then, ask this question on every case which comes before him: Is this a case of such urgency, or obscurity, or obstinacy, that, if it were in another social position, a second opinion would be suggested or asked for? Yes; then the case is precisely the one needing hospital assistance. But, if the reply be No, as in nine out of ten cases it will be, then let the case, with a few kind words of direction, be referred to family medical advisers, or general, provident, self-supporting, or friendly, or parochial dispensaries. A certain number might with benefit be told to go nowhither and do nothing. There will follow but little saving of the time and labour of hospital physicians and surgeons. The urgent, obscure, and obstinate cases need all the attention now given to cases which are not urgent, are clearly understood, are easily treated, or are obviously incurable.

An eminent authority in hospital administration—Mr. Timothy Holmes—suggests that selected cases should be sent to hospitals by family advisers and dispensaries. This is a suggestion of much value as a collateral and later agency in hospital reform, but it would take a long educational period to bring it into operation. When a family adviser chooses to forward a comparatively poor person for an "opinion", every element of hospital fitness is present; and much experience enables me to say that such cases are most important and instructive. To make this a rule would be an unjustifiable tax on the practitioner's time. At present, however, and probably for some time longer, crowds will come to the hospital; and the crowds will not first ask the family or dispensary doctor if they may, or if they are fit. Hospital physicians usually, and hospital surgeons occasionally, are in private practice "consultants" also. Clearly, then, they are best able to say "Come" to the proper cases and "Go" to the improper. They have, or ought to have, the needful knowledge; they are on the spot.

By the method now proposed, any physician or surgeon, may to-day, or to-morrow, or next week, begin an important and much needed reform—a reform which will also tend to greater knowledge, experience, and judgment in the men who carry it out. I venture, further, to say that the time is quickly coming when any hospital physician or surgeon who has a large number of out-patients will be open to one of two charges: either he is seeking notoriety and private ends by unfair means, or he is incapable of judging of what is urgent, or obscure, or obstinate.

The reduction of numbers by a method at once simple, just, and easily put into practice, brings about indirectly another reform. If the numbers of out-patients are reduced nine-tenths, the financial, social, and provident aspect of the out-patient difficulty is also reduced nine-tenths. I shall not dwell on this. It is not the duty of physicians or surgeons to pass the out-patients through a financial sieve. But, however the "financial fitness" inquiry be made, or whoever makes it, the task is greatly simplified by reducing the out-patients to one-tenth of their present number.

Another difficulty would be lessened by the transformation of a crowd of trifles into a group of problems. To put continuous investigation in the place of wearisome routine would bring about the highest educational benefits. The out-patient rooms might thus be made as useful for medical instruction and experience as the hospital wards.

One administrative condition is needed to make the changes which are now suggested. The physicians and surgeons must be entirely free to admit suitable and reject unsuitable cases. Without this freedom, no kind of reform is possible. By the privilege or ticket system, the subscribers practically select; and selection by subscribers involves neglect of the most pressing cases. To modify an expression of De Maistre's, it may be said that "contempt for tickets is the beginning of hospital wisdom". To me it is a real gain to be connected with a hospital where I am able to do that which I believe I ought to do, and that which I now ask others to do.

The unmanageable numbers of out-patients are mostly on the medical side of the hospital. In other words, the out-patient difficulty is largely a physician's difficulty. Seeing that the medical labour is double or treble the surgical, it is surprising that hospital authorities have not seen the need for more physicians than surgeons. As regards out-patients at least, a hospital having four surgeons should have eight physicians. To this the reply will probably be, that physicians cannot be got. I rejoin, that "pure" physicians are more numerous than "pure" surgeons. If a family medical adviser, whose private experience is mostly medical, be converted into a hospital surgeon (as our social exigencies require), why should he not be more frequently con-

verted into a hospital physician, whereby his private and public experience would unite in securing the best results? The position of a family adviser in a hospital surgeoncy has significant bearings. His private experience is medical, and gives him no assistance in the heavy responsibility of hospital duty; his hospital experience is surgical, and gives him no assistance in the heavy responsibility of family medical care. I do not wish to give undue importance to this "hospital difficulty"; but I cite it as another trouble that would be greatly lessened by the change which it is the chief purpose of this paper to urge. To diminish the out-patients to one-tenth, and, it may be, the in-patients to some extent, would facilitate the better organisation of hospital staffs—would render easier the adaptation of men to work.

Before closing, one word on the division of hospital beds. With in-patients as with out-patients, it is the duty of a hospital to do the most good to the greatest number of the gravest cases. These "gravest cases" are those which are most difficult to treat at home: accidents, operation cases, and cases needing exceptional surgical appliances. The gravest medical cases are less grave than these, if they can possibly be treated at home. If this proposition be true, the proportion of surgical beds, in the hospitals of large provincial towns at least, should be much larger than it is. The proportion ought not to be the same in all localities and under all circumstances: sometimes there should be two surgical beds to one medical; sometimes three, or four, or five to one. That pale faces with serious injuries should be seen on temporarily made up beds, while medical cases with comfortable beds, perhaps empty during the day, are enjoying their tobacco on the green, or adjusting their hair to the latest fashion, is an anomaly which fair-minded physicians themselves will help to remove. I am here presuming that the surgeons are so alive to just views on hospital relief and hospital economy that they do not permit their beds to be filled by cases which are not of that "gravest" character already described. If I err in this presumption, there is no ground for asking for a change in the distribution of beds.

It is to be hoped that the discussion on hospitals now going on, in which the public take a real interest, will not tend to lessen their income. There cannot be much fear of this. The closer the inquiry into hospitals, the more clearly seen are the benefits they confer on the sick poor. Let any large town be deprived of its medical charities, say for one month, and their need would be so keenly felt that they would start into existence again with double the number of subscribers and treble their income.

ON THE ETIOLOGY OF AURAL EXOSTOSES.

By JAMES PATTERSON CASSELLS, M.D., M.R.C.S.Lond.,

Aural Surgeon to the Glasgow Royal Infirmary, and Lecturer on Aural Surgery in the Royal Infirmary School of Medicine.

THE following conclusions in regard to the origin of aural exostoses are the result of several years' observation of such cases. They are now very briefly laid before the profession, in order that further, and mayhap wider, observation on the part of others may prove or disprove their correctness. Those of my *confrères* in the practice of aural surgery who are familiar with such cases, and who also know the mystery that has hitherto surrounded the subject of aural exostoses, both in regard to origin and treatment, will find the subject more fully treated by me (illustrated by the kindness of my friend Dr. Foulis, Pathologist to the Glasgow Royal Infirmary) in the next issue of the *Archiv für Ohrenheilkunde*, to which I beg to refer them. Meantime, so far as my knowledge of the subject goes, I may claim to be the first observer who has given a rational explanation of the origin of an aural exostosis supported by clinical and pathological facts. These conclusions are as follows.

Premising that aural exostoses and hyperostoses are totally distinct affections in regard to origin, situation, form, and treatment, an aural exostosis is benign in origin, only to be found on the outer half of the external meatus, has its point of attachment *always* at the posterior wall, is pedunculated, and has its origin in the periosteum of the mastoid, close to the meatus.

The origin and development of an aural exostosis are as follows. At the outset, a subperiosteal abscess forms over the mastoid, and makes its way out into the meatus by way of the line of junction between the cartilaginous and osseous portions of that canal—sometimes even through the cartilage itself—discharging itself, and continuing to do so for some time. By-and-bye, highly vascular granular-like growths sprout from the opening of the abscess and go on increasing in size, while at the same time they are being gradually changed into bony tissue in their interior by the gradual conversion of

their cells into bone-cells. The final size of the osseous tumour, as well as its form, is determined by the original size and form of the granular-like growths. After complete ossification, no further increase takes place in the size of the tumour.

The treatment that suggests itself in such cases, and which I have found effectual, is as follows: in the early stages, removal of the soft growths, and freely laying open the abscess; in the latter, removal of the bony tumour by the *écraseur* (Wilde's) armed with a fine *steel wire*. In cases in which the tumour so fills the external meatus as to hinder the use of this instrument, I would recommend electrolysis of the tumour, as devised and successfully executed by Dr. Clark of Bristol, and reported by him in this JOURNAL in December 1873.

CASE OF ATHETOSIS.

By G. MACKENZIE BACON, M.A., M.D.,

Resident Medical Superintendent of the Cambridgeshire County Asylum, Fulbourn.

THE following case is a fair specimen of the condition described by Dr. Hammond under the name of *athetosis*. It resembles the third of the series published by Dr. Gowers in the last volume of the *Medico-Chirurgical Transactions*. The illustration is copied from a photograph; and, in order to take this, it was needful to steady the left hand.

Sarah B., aged 44 (in 1877), single, is one of a family of eight children, said to be healthy. She had some illness when between two and three years of age, and has ever since suffered from epileptic fits



and paralytic enfeeblement of the left side. She was admitted into the Cambridgeshire Asylum on March 8th, 1872, and was then described as imbecile from birth. Her condition since admission has not varied much, and may be described as follows.

She is rather tall and well nourished. Her hair is greyish, and she looks older than her years as recorded. Her head is well formed, and has a circumference of twenty-one inches and one-fifth. She has rather prominent eyeballs, has a lacrymal fistula of the right eye, and an external squint of the left. The face is drawn slightly towards the left; and the tongue, when protruded, also inclines to the same side. The left limbs are paralysed, and much contracted. The left arm is shrunken, and held spasmodically to the side. The left ulna measures half an inch less in length than the right, *i. e.*, from olecranon to styloid process; and the circumference of the left wrist is rather less than that of the right, and that of the left forearm at its largest diameter is rather less than that of the right. The left leg measures less than the right in length and circumference; the left foot is incurved, and the heel does not rest on the ground, but is permanently drawn upwards, as in talipes equinus. When placed upright, the patient stands with the left heel drawn up and the toes pointed in-

wards. The left arm is drawn close to the side; and the fingers of the left hand are flexed on the palm, the thumb being flexed on the fingers, and the index finger slightly projected beyond the others. Her ordinary attitude is that of sitting in a chair with her left hand flexed on the forearm, the right hand more or less supporting it. When the right hand is withdrawn and her attention is distracted, the fingers of the left hand are seen to move irregularly and more or less constantly. The movements are principally these; viz., a slow extension of the fingers, the three inner fingers being moved together, and the index one later; then the thumb is extended; and then the fingers are flexed on the palm, the index projecting, and the thumb being flexed over the fingers and under the index. These movements are repeated pretty constantly through the day, but they appear to be arrested during sleep.

The mental condition of the patient is one of imbecility, with occasional attacks of excitement, about three or four times a year, lasting a few days. She is always very touchy and ill-tempered, and requires some tact in management. She has epileptic fits nearly every week, never passing over two weeks without an attack; and at such times is very excitable. Sometimes, during these paroxysms of excitement, she has had convulsive movements of the left (paralysed) arm, and has had the idea that a miracle had been worked, and that she had suddenly regained the use of her limbs. By practice, she has been able to do some coarse sort of knitting, the right hand doing most of the work, and the left supporting the other needle.

A FEW REMARKS UPON THE USE OF TURPENTINE IN DISEASED STATES OF THE SYSTEM OF AN ACUTE CHARACTER.

By R. PERSSÉ WHITE, L.K.Q.C.P., F.R.C.S.I.,

Surgeon to the Meath Hospital, Dal'lin.

So long ago as 1860, I was led to try the use of turpentine in a case of typhoid fever in a young lady, which had run a course of twenty-eight days without extreme severity. The diarrhoea was not severe, and was kept in check by acetate of lead, with small doses of opium.

On the twenty-ninth day of the patient's illness, in fact on the first of her convalescence, the symptoms had all abated, and she seemed to have overcome her illness. On the thirtieth day, on visiting her, I found her in a state of terrible excitement. There was some cause, but not enough, to account for her state. Fearing mischief, I at once sent for a leading physician from Dublin. He advised the use of turpentine, but his advice was based on the view that there was uræmic poisoning; for, during his visit, she had severe convulsive movements of her face. The urine was scanty; it was tested, but did not show any morbid condition. On the thirty-first day, her night was terrible, with violent raving and restlessness; no sleep. On the thirty-second day, she was in a worse state and almost collapsed. The sphincters were failing. The turpentine mixture had been continued since the consultation, but there was no benefit from it. She died that night.

In this case, the turpentine was given for the head-symptoms. The next cases in which I used turpentine were various, and at different stages of the disease. In my earlier practice, and in hospital practice, in 1873, when I acted as physician to the Meath Hospital in the absence of my colleague Dr. Stokes, and of his colleague in the medical wards, I had at least one great case which showed the value of turpentine in typhoid fever. Here the chest was, in the latter stage of the fever, attacked with severe bronchitis, the bowels being much too free at the same time. The attack of bronchitis was intense, of the form common at that time; but after the second day she rallied, and passed on to complete recovery. I saw her in health long afterwards. Bronchitis was for some years an almost constant attendant on typhoid, and often the cause of death.

My mode of giving the turpentine was as follows. If bronchitis were present, and even if diarrhoea complicated the case, I gave what was known as my turpentine mixture. ℞ Terebinthinæ olei, ℥ii; liquoris potassæ ℥ii; mucilaginis acaciæ ℥iv; syrupi papaveris albi, syrupi floris aurantii, āā ℥viii; aquæ camphoræ q. s. ad ℥viii. Fiat mistura. A tablespoonful to be taken every fourth hour, the bottle being first shaken.

Since I commenced that treatment, I never lost any case of typhoid from either bronchitis or diarrhoea, or from its sequelæ of ulceration or hæmorrhage. Each epidemic of typhoid (and at present there is a wide-spread and severe one passing over the country) is marked by its peculiar characters. In the present time, most of the cases of typhoid are characterised by intense pain in the abdomen, with enormous flatu-

lent distension. Constipation exists before the illness is developed, and at times during its progress; and when it is removed by purgatives, diarrhoea sets in. I give a short sketch of some cases recently under my care.

I was called to visit a boy residing several miles from the city. The child sickened slightly about September 30th, but nothing was suspected for some days. On Monday, October 4th, I found him very ill, and I at once suspected typhoid fever. He had on Sunday some vomiting and slight diarrhoea, which was, on the 7th, followed by constipation. I found it necessary to give an enema, with turpentine. This brought away a quantity of scybala of a light colour, and gave some relief. The abdomen was at this time tumid, with some pain on pressure. I gave a small dose of castor-oil and turpentine on the succeeding day. It gave much relief, with a similar character of discharge. Between the 9th and 10th, his bowels became a little too free, but the distension of the abdomen had become so great that it pressed up on the heart and lungs, so as to give much distress. I at once ordered about ten minims of turpentine every third or fourth hour in mixture. On the 11th, there was some improvement; the pain was much less. On the 12th, he allowed me to press my hand on his abdomen, which hitherto he could not bear, and expressed himself much better. I need not detail the case. I continued the turpentine for nearly a fortnight, toward the end lessening the dose to twice each day. No diarrhoea returned, but the bowels were slightly free twice most days. After this, slight pain and diarrhoea came on, and a few doses of the turpentine were given with perfect success. This child is now quite well, running about; he convalesced in the sixth week.

The next case is that of a lady, aged 73, without any previous history of illness. On Sunday last, November 18th, she vomited, and diarrhoea quickly set in, severe in its character; blood was mixed with the stools, but in small quantity. When I first saw her next day (Monday), I put her on aromatic sulphuric acid, with small doses of Battley's liquor sedatives. This gave much relief for two days, and at my visit on Wednesday all was well; she had had only two slight motions, with no blood. In the afternoon, profuse diarrhoea occurred four times before 9 P.M.; nine times to 7 A.M. on Thursday; and five times more up to my visit, blood coming in all the later motions. I at once ordered the turpentine mixture, two tablespoonfuls every fourth hour. On Friday morning, she was going on well. The diarrhoea had ceased. There had been only two small motions since the turpentine was commenced. I saw her at night. She still continued in comfort; no more motions since morning. On Monday, November 26th, she continued in comfort; no pain and no diarrhoea; only two small motions in the twenty-four hours. On December 5th, after four days of complete constipation, she had the following draught at bedtime: ℞ Olei ricini ℥vj; tincturæ sennæ comp. ℥i; syrupi zingiberis ℥ij; mucilaginis acaciæ ℥ij; spiritus terebinthinæ ℞xxv; aquæ cinnamomi ℥ij. This case is not concluded, but all goes on most favourably.

I have several other cases of typhoid on hand at present; but none of them of any peculiar type, except one, who developed jaundice. About the twelfth day it quickly yielded, and the child (five years old) now progresses favourably.

FOREIGN BODIES IN THE EAR.

By W. B. DALBY, F.R.C.S.,

Aural Surgeon to St. George's Hospital.

I AM sorry to say that I read with little surprise in the BRITISH MEDICAL JOURNAL of December 8th, that a child had died whilst attempts were being made to extract a bead from its ear; and with, if possible, less surprise that a *post mortem* examination showed there was no bead or other foreign body in the ear.

Instances of the destruction of the tympanic membranes and injuries to the tympana occurring in a manner similar to what was described are too familiar in my experience; and, if surprise be an element in any emotions I may have on the subject, it is that death is not more frequently the termination of these operations, if such a term be applicable to them.

It cannot be too often repeated (evidently it has not yet been often enough repeated) that, with the exception of a vegetable substance which swells rapidly as it absorbs water, or a living insect, no foreign body in the ear *left alone* can possibly be injurious, and that any subsequent injury is the result of manipulation by inexperienced hands.

In the course of two separate days, I have had brought to my notice four tympanic membranes ruptured in this way; the monotony of one day being relieved by seeing a small stone in the meatus, and behind it

a tympanic membrane intact. In two of these instances, rupture of the membrane had been effected, although there was no foreign body in either ear.

With such experiences, in which I am probably not singular, it will not be thought presumptuous in me to urge that all students at hospitals be taught that, so long as they live, they are to abstain from any attempts whatever to remove a foreign body from the ear unless they have learned to use their hands at the same time that the external auditory canal is thoroughly illuminated from a mirror worn on the forehead. So long as this rule is obeyed, no injury will be done. Whenever this rule is broken, the tympanic membrane will be ruptured, and the life of the patient placed in imminent peril.

As this subject has been discussed by me in *Lectures on Diseases and Injuries of the Ear*, I abstain from further remarks, excepting to add that occasionally syringing will increase the difficulty attending the removal of foreign bodies from the ear, inasmuch as this proceeding often has the effect of pushing deeper into the canal an object which, previous to the syringing, was more easily capable of removal by other means.

NOTE ON THE DIAGNOSIS OF THE NATURE OF PLEURITIC EFFUSIONS.

By LAUHLAN AITKEN, M.D., Rome.

AT the Manchester meeting, various able papers were read on the treatment of pleurisy by paracentesis, and on the mortality arising therefrom; but neither in the papers nor in the discussion which followed was any allusion made to the possibility of diagnosing by physical signs the nature of the effusion. As the President of the Section very properly restricted the discussion to the treatment by puncture, the attention of the meeting was scarcely directed to the diagnosis of the nature of the fluid by any means, although, as all the speakers admitted, this question has most important bearings both on the treatment by puncture and on the method of its performance. The publication of several of the papers induces me to forward a brief note on diagnosis.

Dr. Barlow and Mr. Parker admit that there is no certainty in the diagnosis of the nature of the pleuritic effusion. In children, they say that "the aspect of the patient—a peculiar anæmia, with an earthy complexion—and, above all, clubbing of the finger-ends, have been the most characteristic features, suggesting empyema rather than serous effusion"; and they allow that by physical signs "they know no means of discriminating serous from purulent effusion, except when the latter has led to localised swelling, which we believe the former never does". Dr. Clifford Allbutt says nearly the same thing: "The presence of œdema in the wall of the thorax, however, will generally tell us when the contents are purulent"; and Dr. Henry Barnes alludes to the absence of œdema of the chest-wall in one case as probably indicating a sero-fibrinous effusion. In the most recent text-book, too—Ziemssen's *Handbuch*, vol. iv, *Krankheiten des Respirations-Apparates*—where Fraentzel treats of the physical signs of pleurisy in a perfect deluge of words, there occurs the assertion "that œdema of the diseased side of the chest, whether over the whole half of the thorax or only at isolated points, almost always justifies a diagnosis that the effusion is purulent".

In 1875, however, Dr. Baccelli, the Professor of Clinical Medicine at Rome, published some papers* on the Transmission of Sounds through Endopleural Fluids, in which he maintains that there is a physical sign by which we can distinguish the character of the fluid. The slight vocal vibrations produced by a whisper, he asserts, are differently transmitted to the ear according to the nature of the fluid; through purely serous effusions much more intensely than through sero-fibrinous; while in thick purulent fluids they are entirely, or almost entirely, lost. He formulates the results of his observations thus.

1. The whispered voice-sound is transmitted most clearly through a serous effusion.
2. Through sero-fibrinous effusions the same sound is transmitted more or less clearly according to the point at which we listen; clearly at the upper part, where the fluid is lightest; less clearly lower down, where the fluid is denser; and probably lost altogether at the base.
3. In empyema, the transmission of the whispered voice-sound is reduced to a minimum or altogether lost.

Baccelli draws those conclusions not only from the numerous cases he publishes, in which the character of the fluid had been diagnosed by

this sign previous to paracentesis, but also from the results of some physical experiments which prove, he says, that "the denser and more heterogeneous a fluid is, the more quickly and the less intensely does it transmit sound; and the lighter and more homogeneous the fluid, the more intensely and the less quickly does it transmit sound".

I am in no position to judge the truth of this physical law, and I have not had the necessary time to attend the *clinique* with sufficient regularity to confirm the observations except in a single case. In private practice, I have found in several cases variations in the intensity of transmission of the whispered voice-sound at different levels of the fluid and at various stages of the complaint; but none of my cases have required puncture since I became acquainted with the sign in 1875. It would be a waste of time to give extracts from Baccelli's cases published then, or from the more recent ones which have just appeared in the *Gazzetta Medica di Roma* for October and November of this year. My object has been to draw the attention of hospital physicians to the point, as they alone have the necessary material for its confirmation or rejection.

There are some precautions which ought to be taken in listening to this sound. The patient should be sitting, with the face directed away from the side affected; to the left, for instance, if the auscultator be listening at the right posterior base. One ear should be applied direct to the chest-wall, and the other should be thoroughly closed by the finger.

HÆMORRHAGE FROM THE BOWELS, DURING ENTERIC FEVER, FOUND TO BE DUE TO POLYPUUS OF THE RECTUM.

By ALEXANDER R. COLDSTREAM, M.B., L.R.C.S.Ed., Leith.

IN September this year, I was called to attend a boy, nine years of age. The patient, a blanched delicate-looking lad, I found to be suffering from the symptoms of the initial stage of enteric fever; but was somewhat surprised to learn from the mother of the patient that, every time the bowels acted, a small quantity of bright red blood appeared in the motion. From the history of the present illness, I concluded that the fever was of twenty-four hours' duration, rigors on the previous day having been preceded by a fortnight's *malaise*, and succeeded by the feverish condition which induced the mother to obtain medical advice. The hæmorrhage, therefore, could not be attributed to the specific typhoid lesion. Further, the general condition of the patient was good; and, granting that my calculation as to the invasion of the fever had been incorrect, there was nothing to indicate the probability of intestinal hæmorrhage. On questioning the mother closely, I ascertained that for three years previously she had occasionally noticed stains of blood on the boy's shirts; and, on still more closely questioning the boy, he allowed that for long some drops of blood had been daily lost at stool. A rectal examination revealed the presence of a polypus, which, on being drawn beyond the grasp of the sphincter, was found to be of the size and colour of a cherry, and attached to a well-defined pedicle. The fever ran the ordinary course, the temperature curve and the appearance of rose-coloured spots confirming the diagnosis. On the occurrence of every motion, the polypus was found to protrude, but was at once and easily replaced in the rectum by the boy himself. After convalescence had been fairly established, I proceeded to remove the polypus, intending to ligature and then snip the pedicle; no cutting, however, was necessary, as during slight traction on the growth, so as to allow the application of the ligature to the pedicle, the latter gave way at its point of insertion on the polypus. A perfect recovery ensued, no pain or hæmorrhage occurred, and the ligature separated the sixth day after the operation. The boy immediately began to improve in colour and to put on flesh. His weakly and anæmic appearance, for some time previous to the attack of fever, had been noticed by his parents; no alarm, however, being raised in their minds, as no complaint was made, and no symptom of disease evident beyond the stains of blood occasionally seen on the clothes, which were supposed by the mother to be due to piles.

The case seems worthy of record, as an example of the accidental discovery of a serious and uncomplained of condition. But for the occurrence of the enteric fever, the loss of blood might have gone on for an indefinitely long time.

MEDICAL students have already enough to answer for without being called upon to bear by imputation the blame of any offence which may be committed by young men such as Edward Lee, who was described by the reporter at Bow Street Police-court recently as being "something like a medical student".

* *Archivio di Medicina, Chirurgia, ed Igiene*, 1875, Disp. vii e viii; also as a pamphlet.

CLINICAL MEMORANDA.

[UNDER this head, we publish from time to time, as materials accumulate, short records of remarkable cases in practice which are sufficiently rare, interesting, or instructive, to deserve record, but do not call for lengthened statement or comment. Brevity and point should be the valuable characteristics of cases forwarded for this column.]

HEPATIC ABSCESS BURSTING THROUGH THE LUNG, SUCCESSFULLY TREATED BY CARBOLIC INHALATIONS.

THE patient, a gentleman aged 40, when in China twenty-one years ago, had suffered from dysentery, and has since then thrice been jaundiced. On April 9th, 1877, he was taken ill with inflammation of the liver, suffering intense pain, but no jaundice. Of this he was apparently well at the end of May, except for a slight pain in the right side. On July 6th, however, after violently coughing, an immense quantity of "putrid matter", in all about a pint and a half or two pints, was brought up. The discharge continued for a week, and then entirely ceased until the end of August, when it occurred again from time to time until early in October, when it became almost constant. On October 22nd, when he was first seen, the discharge varied in amount, being about nine ounces daily; it was fetid, blood-stained, sometimes clotted, and purulent. The physical signs were, a marked bulging in front below the right nipple for about three inches, extending into the axilla and slightly posteriorly; increased vocal fremitus; impaired resonance; crepitation; cavernous breathing and voice-resonance; all these signs being most marked in front and in the axilla. The liver was felt about one inch and a half below the ribs in the right mammary line; its edge was hard. There were no other signs in the chest, either of lungs or heart.

The treatment for a week consisted of mineral acids and opium; but at the end of that time the patient was decidedly worse. Carbolic acid (half a drachm in half a pint of hot water) was then directed to be inhaled night and morning for ten minutes; and, after two inhalations only, a marked improvement took place both in the character and quantity of the sputa and the constitutional symptoms. Since the eighth day of treatment by these inhalations, only a little sputa, and that chiefly of mucus, has been brought up in the morning. At the end of another week, the patient was apparently well, went out, and has been exposed to all kinds of weather since. No bulging is now (November 26th) noticed, nor crepitation heard; and the other physical signs, especially posteriorly, have greatly improved—in fact, are only such as would be expected.

Amongst the many interesting features of the case are: 1. The diagnosis, which can scarcely be otherwise than that of an abscess connected with the liver, hepatic or perihepatic, and not any affection of the lung; 2. The contraction, though not yet complete, of the cavity of the abscess, as shown by the physical signs; and 3. The rapid improvement and recovery after the commencement of the inhalation of carbolic acid, the change being almost as marked as a crisis in pneumonia.

PATMORE SHEEHY, London.

CASE OF UNUSUALLY LARGE PROLAPSE OF BOWEL, INCLUDING THE CÆCUM AND ITS APPENDIX.

D. T., AGED 28, previously in excellent health, had never been ruptured. When in the act of defecating, and, as he says, without straining, a portion of his bowels came down. He was at once placed in a dog-cart and driven home, a distance of about three miles. During the drive, more and more bowel prolapsed, and when I arrived at his house, about an hour after the occurrence, I found nearly two feet of intestines prolapsed, including the cæcum and its appendix. The appendix was turned completely inside out, but was so tense and hard, probably from effused blood, that I could not reinvert it. Symptoms of collapse warned me not to waste further time in the attempt; and accordingly (having well oiled my hands) I succeeded, after much patient effort, in returning the prolapsed parts *en masse*, reinvaginating the several coils as well as I could through the rectum. This done, I introduced a full-sized well-oiled bougie as far as possible; a pad and bandage were then applied, and a full dose of opium administered. The opium was continued three times daily for four days. On the fifth day, I very cautiously gave him an enema of warm soft water, gradually throwing it up until five pints had been injected; with the result, as I believe, of distending the bowels as far as the ileo-cæcal valve. Some fluid feces came away with the injection. On the following day, a flattened, riband-shaped, semi-solid motion passed. A

few days later, the normal shape returned, and the patient ultimately convalesced without an unfavourable symptom, and is now, more than six months after the occurrence, in the enjoyment of perfect health. As far as I am aware, the appendix has not sloughed and come away (though this has been known to happen, with a favourable result, as in a case related by Dr. Jackson in the *Boston Journal*, quoted in *Dublin Medical Press*, April 4th, 1860). Unless, therefore, it became spontaneously inverted at the time the large enema was administered, it must still be lying within, instead of outside of, the cæcum. The possibility of so large a prolapse occurring in an adult may, perhaps, be questioned, and I cannot find recorded any instance of an exactly similar occurrence; but Dr. Macleod has narrated one in which the vermiform appendix and caput coli lay just within, though they had not passed through, the sphincters, in a child; and he adds this comment: "It is easy to perceive how, if one part of the intestinal canal be fixed and distended with gas, and then be suddenly and violently acted on by muscular pressure, great portions may become invaginated, so that the ileum may project at the anus." (BRITISH MEDICAL JOURNAL, Nov. 1876.) Niemeyer also, in his *Text-Book* (vol. i, p. 562, 2nd Amer. edition), makes the same assertion.

J. HOLMES JOY, M.A., M.D., Tamworth.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

CONSULTATIONS.

November 29th, 1877.—*Tumour of the Femur.* Mr. CALLENDER called the attention of his colleagues to a patient now in Sitwell Ward, a woman twenty-seven years of age, suffering from a large tumour of the left femur. She was married and had six children. Up till three years ago, she had enjoyed good health, but then strained severely the muscles of her left thigh by slipping off a plank. For a year, she has noticed the swelling on the femur. It measures now two feet and a half in circumference, and extends close to the head of the bone. No enlargement of the femoral or inguinal glands could be detected. The leg was oedematous. The patient has lost flesh considerably during the last twelve months. On making an exploratory puncture, a gelatinous fluid escaped, such as is observed when cysts developed within sarcomata are laid open. Mr. Callender felt certain that the patient was afflicted with a cystic sarcoma of the femur. Although he did not think that the pelvic bones were involved, still the risk of a hip-joint amputation rendered that operation, in his opinion, hardly justifiable, notwithstanding the desperate condition of the patient. Still, he was ready to remove the entire femur on the advice and support of a majority of his colleagues. After consultation, it was decided that no operation should be undertaken.

December 6th.—*Eczema of Nipple.* Mr. SAVORY brought forward a woman, aged 39, who has been subject nineteen months to an eczematous eruption of the right nipple. She has not suckled a child for nineteen years. Three months ago, she noticed a hardness in the same breast. At present, there is a distinct induration in the centre and outer side of the breast having all the characters of scirrhus. It is separate from the nipple, which is not retracted. There is one enlarged gland in the axilla. Considering the character of the tumour, and the frequent association of eczema of the nipple with scirrhus, Mr. Savory believed that amputation of the breast was necessary. All the remainder of the surgical staff were of the same opinion.

Tumour of Clavicle in a Child.—Mr. T. SMITH solicited advice in the case of a female child, twelve years of age, who has suffered eleven months from a tumour on the outer part of the right clavicle. It has grown rapidly, and is now of the size of an orange, lobulated, free from other structures, and covered by reddened integument. It points forwards from the front of the acromial end of the bone. There is an enlarged gland in the axilla, and another in the posterior triangle. Mr. Smith stated he that was not inclined to remove the clavicle, but would be ready to operate if his colleagues were strongly in favour of surgical interference. In one case, where he had removed a similarly diseased clavicle, the tumour recurred in eight months.—Mr. Holden was of opinion that the tumour probably had deep attachments, which could not be ascertained by external examination, and would render its complete extirpation impossible.—Mr. Savory believed that the growth

might be completely removed, but the removal would involve serious mutilation of important neighbouring structures, not compensated for by any sufficiently durable benefit to the patient. None of the other surgeons were in favour of any operation, so Mr. Smith decided upon not interfering with the tumour.

Suppurative Inflammation of Knee. Mr. SAVORY showed a lad aged 13, in Kenton Ward, laid up with acute suppurative inflammation of the right knee-joint. Two months previously, he had been kicked on the inner side of the right thigh, and a swelling appeared at the site of injury, which broke in a fortnight. He was admitted fifteen days later with a sinus in the same region; it ran deeply in the popliteal space, but there was no symptom to be observed indicating that the articulation was involved. A week ago, however, acute inflammation of the knee-joint set in. An opening was made, and much pus escaped; the joint was kept open and washed out, the fluid escaping through an external counter-incision. Whether the disease of the joint was due to proximate inflammation of the bone, or to the direct escape of inflammatory products, the condition of the part was such as to demand, Mr. Savory considered, immediate removal. Nearly all the surgeons were of a similar opinion.—Mr. Marsh believed that, if the patient were at present in a good state of general health, it would be advisable to delay the operation until there were signs that the local condition was endangering the patient.

CASES OF PARAMETRITIC ABSCESS.

(Under the care of Dr. MATTHEWS DUNCAN.)

Two cases of parametritic abscess are now under treatment. A woman aged 25 was confined a month ago in a lying-in hospital, that being her third confinement. Delivery was rapid, and appears to have been natural in every way, except that there was some subsequent flooding. A fortnight later, she was seized with abdominal pain, and soon afterwards she noticed a swelling in the hypogastrium. The lying-in hospital being then closed on account of several cases of puerperal illness, the patient was discharged, and came under Dr. Duncan's care.

When seen on admission, there was a swelling of considerable size situated just above the right groin, evidently an abscess. It extended from the right anterior superior iliac spine to the body of the left pubic bone as a prominent pear-shaped mass, bounded below by Poupart's ligament, and extending upwards two and a half inches above the symphysis. On examination *per vaginam*, the uterus and other pelvic organs appeared to be healthy and in their proper position, except in the right anterior quarter of the pelvis, where some fullness was felt. The right thigh was not contracted, but lay straight in bed, showing the absence of signs of irritation of the anterior crural nerve and psoas muscle, such as is often seen in cases of pelvic abscess. Temperature 102 deg. Fahr., but no great amount of constitutional disturbance.

Dr. Duncan remarked that this case presented points of considerable interest. It was a case of parametritic abscess, secondary to an uterine condition, but in no way involving the uterus or the tissues surrounding it. It was probably due to inflammation, extending from the uterus up the round ligament, involving also the cellular tissue surrounding it, which subsequently supported and formed the inguinal abscess.

It has been said by some authors that such abscesses should not be opened, but Dr. Duncan recommends early evacuation of the pus, as a harmless operation, tending to shorten the duration of the illness and relieve the patient.

The skin over the abscess was smeared with carbolised oil (1 in 20 parts), and a free opening was made with a bistoury under the carbolic spray. The finger, passed through the incision, felt the limits of the abscess to correspond with those of the external tumour. The wound was dressed with lint soaked in the carbolic oil.

The second case was that of a woman, thirty years of age, who presented a tumour in the lower portion of the hypogastrium and right iliac region, above Poupart's ligament, extending upwards almost to the anterior superior iliac spine. It was felt to fluctuate, and the skin over it was œdematous, with a slight blush; the percussion-note over it was dull. The right thigh could not be moved without pain, but it was not contracted. On internal examination, the uterus was found to be high up and far back; between the cervix and the right anterior half of the pelvis, the finger detected a distinct resistance and hardness; all the other structures of the pelvis felt normal. There were much sweating and much pain; the temperature varied from 100 deg. to 101 deg. F. On several occasions, the urine had to be drawn off with a catheter.

In this case, no operation has been performed, but fomentations with belladonna have been applied over the swelling, and it presents all the appearances of being about to discharge itself spontaneously in a few days. Directions have been given to the nurse that, when it bursts, a pad of lint soaked in carbolised oil should be placed to receive the pus. In this

case, the abscess pointed in the usual site, the hardness extended down to the uterus, but did not surround or involve it. As in the preceding case, it came on shortly after delivery.

It was remarked that, in both the patients, the abscess had formed on the right side, though in the greater proportion of cases it is on the left side that pointing occurs.

RETRO-UTERINE HÆMATOCELE.

(Under the care of Dr. MATTHEWS DUNCAN.)

A woman, twenty-three years of age, came to the hospital on account of a large abdominal tumour. Three weeks previously to coming under treatment, she had one night suddenly been attacked with abdominal pain, and at the same time her menstrual period ceased prematurely. The abdomen was found very prominent in its lower half, this region being occupied by a very large, firm, globular tumour, extending upwards to within two inches of the umbilicus; it was elastic, with an indistinct sense of fluctuation; percussion over the tumour gave a dull note, while the flanks were resonant. Examination *per vaginam* demonstrated that the uterus was in its natural position, but its cervix was tilted a little forward; its cavity was of the natural length. Behind the uterus, and extending across the whole of the posterior half of the pelvis, the finger detected much resistance, and the part was very tender. There was much abdominal pain and tenderness, and she complained of some difficulty and pain on micturition. The temperature was 102 deg. Fahr.; this appeared to be due to local peritonitis, which, however, proved useful by causing lymph to be thrown out, which to a certain extent enclosed and confined the blood: hence the necessity for careful manipulation in examining the woman, so as to avoid breaking down any recent adhesions.

Dr. Duncan gave the diagnosis of an enormous effusion of blood on the following grounds. It was certain that there was an extensive effusion, although there were no indications of suppuration, the patient continuing in good health, without rigors, sweating, or fever. This diagnosis has been confirmed by the course of the case while under observation; she has been in the hospital a fortnight, and from the first the tumour began to subside rapidly without any outward discharge, so that at present there is hardly anything but a little induration to be felt. No active measures of treatment have been adopted; she has been left quiet in bed, and has taken *mistura camphoræ*.

Extra-uterine Fœtation.—This case, referred to in our "Hospital Notes" in the JOURNAL of November 10th, is still doing well. When before referred to, the heart's sounds and movements of the child afforded evidence of its life; but now these signs have passed away, and it appears certain that the child is dead. No operative procedure has been attempted, as the child's life is lost, and no indications have arisen for interference on behalf of the mother. Dr. Duncan thinks that probably the cyst containing the fetus will suppurate, and then the fetus may be brought away as circumstances may indicate best. The patient is in good general health.

Induction of Premature Labour.—A woman the subject of chronic Bright's disease, and pregnant at the sixth month, has lately been attacked with convulsions, and came into the hospital that premature labour might be induced. Dr. Duncan inserted a soft bougie into the os uteri, and then pushed it up between the uterus and the membranes, and left it there. He remarked that it was impossible to say how far the bougie had passed up, as it might have coiled upon itself instead of passing up towards the fundus. Should labour not follow this proceeding, a Barnes's dilator will be inserted.

In some remarks upon various cases, Dr. Duncan referred to the ordinary text-book diagrams, in which, most erroneously, the vaginal canal is represented in a state of permanent distension, instead of collapsed, with the walls of mucous membrane in contact with one another. Again, in the diagrammatic vertical sections representing the position of the pelvis, the umbilicus is placed a great distance in front of the sacral promontory, whereas in a well-made young woman the last lumbar vertebra, with the aorta resting upon it, can be felt to lie just beneath the umbilicus. Ignorance of this anatomical fact has occasionally led to mistakes in diagnosis; the lumbar spine, when arched forward, being mistaken for a tumour.

KING'S COLLEGE HOSPITAL.

MR. LISTER'S WARDS.

Cases of Antiseptic Surgery.—Mr. Lister dressed a case in which he operated five days previously for the removal of a large tumour of the thyroid gland. A large portion of the tumour passed backwards between the trachea and œsophagus, and had to be removed by scooping it out from

its capsule. It being found impossible to arrest the hæmorrhage by ordinary means, the cavity was stuffed with boracic lint previously steeped in carbolic lotion. Mr. Lister stated that two days after the operation, the wound became putrid, with some feverishness and constitutional disturbance; and he explained this as being probably due to the boracic lint with which the wound had been stuffed. From former experiments, he has proved that boracic acid is not fatal to all forms of organisms; and it appears possible that, in preparing the lint, some septic particles may have become entangled in the boracic crystals, and, not being destroyed by them, had thus escaped the action of the carbolic acid. The wound is, therefore, no longer dressed under the spray, but simple boracic lint dressing is used.

In another case, of incision of the thyroid, the operation was performed three weeks ago. Here an unilateral tumour had been removed, which also passed between the trachea and œsophagus. There has been no suppurative or inflammatory disturbance; the wound is now healed, and the patient is going about the ward.

A New Operation for Fracture of the Patella.—In a case of transverse fracture of the patella, Mr. Lister cut down on the fragments, opening the knee-joint, cleansed the surfaces of the fragments, and, having established an independent drain of horsehair for the knee-joint, drilled the two portions of the patella and tied the fragments together with silver wire, and then closed the wound, which was also drained with horsehair.

This operation was performed six weeks ago; the wound, as exposed to-day, was seen to be completely healed, the ends of the silver wire projecting through the scar. The highest temperature that had occurred was 100 deg. Fahr. on the morning after the operation. There has been no disturbance, constitutional or local, and both the wounds healed in about a fortnight.

The limb will be kept at rest for another fortnight, when, if union have taken place, the wires will be withdrawn.

Removal of Tumour from the Larynx.—The patient was admitted suffering from a tumour of the size of a hazel-nut, apparently attached to the anterior part of the vocal cords.

A fortnight ago, Mr. Lister operated, dividing the cricoid cartilage and upper three rings of the trachea, and was thus enabled to see clearly the vocal cords from below, and found that they were both affected from end to end. After putting a tightly fitting tube into the trachea, to arrest hæmorrhage and enable the patient to breathe, he divided the thyroid cartilage in the median line, and clipped away the vocal cords, both true and false.

The wound is now for the most part healed, except at its lowest part, where a small communication with the trachea still exists; when this opening was closed, the man was able to cough and speak with a distinct but gruff voice.

EAST SUFFOLK AND IPSWICH HOSPITAL.

SYPHILITIC HEMIPLEGIA.

(Under the care of Dr. DURRANT.)

MRS. —, aged 26, the wife of a publican, was admitted into the hospital in October 1877. She was a tall healthy looking woman, and gave the following history. She stated that she had enjoyed good health, with the exception of occasional sore-throat and pain in her legs. She had had five children, four of them having been born dead; the youngest child was living, six years old, and healthy. A month prior to her admission into the hospital, while walking with a friend and apparently in perfect health, she was suddenly seized with numbness and twitching in the left side of the face, and entire loss of power in the arm and leg of the same side. She had no headache, did not lose consciousness, and she was at once assisted home.

On admission, her left arm and hand were found to be very weak and almost powerless, the fingers being irregularly contracted. The left leg was dragged and paralysed. Her general health was fairly good, and there was no difficulty in articulation or in the selection of words. The heart-sounds were healthy, but its action was feeble. The urine was free from albumen. The catamenia were normal. On being questioned, she admitted that she had occasionally experienced pain on pressure over the tibiæ, and also had felt tenderness on pressing the sternum. She was kept in bed, and at once put on the iodide of potassium, with ammonia and gentian. This treatment was signally beneficial until she was seized with a severe attack of cyananche tonsillaris, which quickly yielded to scruple doses of powdered guaiacum. This was followed by an attack of erythema and lichen, to which she said she had been from time to time subject. The iodide was resumed; and, at the expiration of a month, she left the hospital at her own request, having entirely regained the power of the arms, and with very slight remaining weakness in the leg, and able to walk without difficulty.

REMARKS.—This case is interesting—1. From the suddenness of its onset, while the patient was apparently in perfect health; 2. From the clearly marked fœtor, which was so distinctly traceable to a syphilitic origin. (The patient was purposely not questioned as to primary symptoms.); 3. From the marked result of treatment, which still further cleared the diagnosis. Of the actual condition of the brain at the time of seizure some doubt must exist. The most probable factors would be embolism, the rupture of a minute aneurism, or a localised spot of disease in the form of deposit of a syphilitic origin. Of these three, the last mentioned is, perhaps, the most probable, especially when we consider the marked syphilitic character of the phenomena and the rapid and complete recovery under the specific remedy. The entire absence of unconsciousness would scarcely warrant the theory of embolism; and the same negative fact would hardly sanction the idea of effusion from a ruptured aneurism.

REVIEWS AND NOTICES.

GUNSHOT INJURIES: THEIR HISTORY, CHARACTERISTIC FEATURES, COMPLICATIONS, AND TREATMENT; WITH STATISTICS CONCERNING THEM AS THEY ARE MET WITH IN WARFARE. By Surgeon-General T. LONGMORE, C.B., F.R.C.S., Honorary Surgeon to Her Majesty, Professor of Military Surgery in the Army Medical School, etc. London: Longmans, Green, and Co. 1877.

It has been long known that the Professor of Military Surgery in the Army Medical School has been preparing a *magnum opus* on gunshot injuries, and now the expected work is before us.

In his preface, Mr. LONGMORE points to the fact that, of late years, neither time, nor money, nor mechanical skill has been spared in promoting efforts to produce guns and rifles of more and more destructive qualities. The effect of this has been, that gunshot injuries have thrust all other kinds of injuries into the background in modern warfare. Wounds, he adds, by cutting and stabbing weapons are so few in proportion to them, that they no longer occupy the place of interest among the injuries of war which they held at comparatively recent periods. Nor does the author neglect to show that this subject has an interest in the present day not alone for military surgeons, but also for those in civil life; for the use of firearms among all classes of the population is now universal.

It is with pleasure we observe that Mr. Longmore, as he is justly from his knowledge and position entitled to be, is very plain in laying it down, that henceforth field-hospital organisation and all the administrative arrangements for the care and disposal of the large numbers of the wounded must be placed in the hands of the medical department of the army. He shows that the difficult operation of collecting, removing, and arranging for the wants of the vast numbers of wounded resulting from modern battles can no longer be left, as of yore, to a military department of the army, having no special training for such duties, and already overburdened with its own purely military work and responsibilities. Our author dwells with pleasure on the fact that, in this particular, a new era has dawned on the department under the New Warrant for the Army Medical Service, which gives to medical officers the power of controlling all that concerns their special functions. For the first time in its history, authority goes hand in hand with responsibility. Under the old *régime*, there never was any lack of the latter, while the former was always wanting, the result being that too often, in public estimation, army surgeons suffered for "faults" indeed, "but not their own".

We venture to say that this is the most complete treatise in any language on the subject of which it treats. This is a strong expression, but we are willing to be judged by surgeons, at home and abroad, as to its accuracy. The first section treats of the means by which gunshot injuries are produced. The second deals with the causes which influence the nature, characters, and progress, and ultimate issues of such wounds. The third section describes the characteristic features and distinguishing signs of gunshot injuries. The remaining seven sections are devoted to the primary symptoms and complications, the diagnosis, the secondary complications, the ulterior consequences and disabling effects, and the general treatment of gunshot injuries; the administrative arrangements for the care and treatment of wounded soldiers, and the statistics of such injuries in warfare. Each of these sections is divided into chapters; each chapter into subdivisions, with distinct headings, making the book, with a copious table of contents and index, the easiest book of reference it has ever been our fortune to review. We must add that the style is clear and scholarly, and neither in description nor discussion is the reader ever left in doubt as to the author's meaning. Instead of distracting the reader by footnotes, Mr. Longmore has udi-

ciously collected them into an appendix, arranged and numbered according to sections.

The chapters on the statistics of gunshot injuries will interest many outside the profession who may not care for the strictly technical parts of the book. The details are very curious, and certainly dispel many popular beliefs on the subject. In the Franco-German war of 1870-71, it was said that a ton of iron was expended for every man killed. "This," says Mr. Longmore, was "probably a mere verbal expression without any definite basis; but it sufficiently shows the prevailing notion regarding the smallness of the number of hits to the amount of shot and shell fired. While the war was in progress, the enormous fire of artillery on both sides, and the destructive nature of the shell projectiles employed, were the theme of constant observation; yet, the fifth section of Fischer's statistics shows that in the Prussian and North German armies only 48 officers and 647 men were killed, and 276 officers and 4,113 men wounded, by shell-fragments. The amount of loss must be so out of proportion to the amount of iron discharged, as to seem almost to warrant the popular remark just now mentioned." Our author's general conclusion on this subject is: "The probable truth is that, if the numerical force of the whole army operating in the field during a given war be taken as the basis, and the total number of projectiles discharged and of casualties produced by them in this force be then compared together, the ratio of hits to shots will not be found to have been much changed by the improvements effected in modern projectiles; but, if similar comparisons be instituted with regard to special sections of the army—particular corps, or detached bodies of troops, which have happened to be brought into close collision in the open field—the effect of the increased precision and destructive power of the new weapons will then be made manifest by a far greater proportion of casualties to the number of shots fired than has been known in any former experience under corresponding circumstances."

Our limits will not admit of a more extended notice of a work that will assuredly take its place as one of standard authority—the most complete and exhaustive treatise on all that directly or indirectly relates to the injuries of modern warfare that has yet been given to military surgeons and to the profession generally.

PRIZE ESSAY: EXCISION OF THE LARGER JOINTS OF THE EXTREMITIES. By H. CULBERTSON, M.D., etc. Pp. 672. Philadelphia: 1876.

THIS essay is apparently one which obtained a prize at the International Medical Congress last year; but we are not furnished with any definite information relative to the competition, whether the subject of the essays was fixed, or whether the whole range of surgery was thrown open to the essayists; whether there were many competitors, whether those who competed were all Americans, and many other particulars which would have been of interest in reference to the question of the condition of medical literature and general culture in the United States. For, to speak quite frankly, this essay—though "voluminous and vast", parading its cases by the thousand, and affecting to give data on which definite conclusions are founded upon all kinds of questions relative to the operations treated of, even down to the best month in the year for undertaking them—appears to us of little practical value and less literary merit. The author has adopted for his motto the words "Labor omnia vincit"; and undoubtedly there is sufficient evidence of labour in every page of it, but it is the labour of a clerk or a registrar rather than of a surgeon. The author himself, we should conjecture, has but little personal knowledge of the questions which he investigates, and which he tries to solve by the simple process of tabulating on a common form all the cases of excision of the hip, knee, ankle, shoulder, elbow, and wrist joints that he could find, whether fully reported or no, whether complete or incomplete, without, as far as we can trace, any selection. By this method, which it is the fashion now to call "statistical", a large number of cases may, it is true, be collected; but, unless great care be taken, such a number of imperfect and unreliable cases may be accumulated as, far from giving greater value to the collection, will increase the risks of error in the conclusions.

Another obvious logical error in deducing conclusions from tables like these is that, in summarising the cases, the various particulars set out in the table are treated as if they were independent, while really they may, and probably do, exercise the greatest influence on each other. Thus, from a certain numerical percentage is to be calculated the mortality of the operation, *i. e.*, its general risk; from another, its risk at each age; from a third, its risk in "exhausted" or "vigorous" states of the system; from a fourth, the percentage of perfectly and imperfectly useful limbs; and so on. Yet no one can doubt that these various particulars cannot really be in practice separated from each other; that, for instance, the age at which an excision is performed is

the most important of all factors in its general mortality. When excision of the knee was a novel operation, its indiscriminate advocates used to compare its mortality with that of amputation, and, among many other mistakes which they made in the comparison, paid no attention to the fact that the excisions were only performed on young subjects, the amputations on patients of all ages. So with regard to the "exhausted" or "vigorous" states of the system: allowing that these expressions are precise enough to form a basis for any conclusion at all, is it not obvious that such exhaustion is more hopeless according to the age of the patient? And, again, with respect to the utility of the limb, what is the use of reasoning on data which are supplied in most cases before the patient's growth is complete?

On the whole, therefore, we cannot say that we attach any practical importance to conclusions founded on data so diverse in worth and so strewn with logical pitfalls as are the indiscriminate notes of cases like these compiled, without any reference to experimental knowledge of the surgery of the matter; and we regret the labour spent on this portly volume. The only use which we can discover in such treatises is, that they serve more or less completely as an index to the cases operated on down to the period of their compilation; and, unfortunately, even this purpose is only very imperfectly fulfilled.

NOTES ON BOOKS.

PART V of Mr. CHRISTOPHER HEATH'S *Course of Operative Surgery* (London: J. and A. Churchill, 1877) completes the work. It includes the amputations of the lower limbs. The parts of this work have appeared with commendable regularity; and, now that it is completed, it may be said to have fully realised the promises held out, and to constitute the most valuable illustrated work on operative surgery which the student or the young surgeon can possess. The plates are admirable, and the descriptions brief, accurate, and to the point. The work embodies the experience of twenty years' teaching in operative surgery, and will undoubtedly take its place in English literature as a standard work of the utmost practical value.

Pet Moments. By R. A. DOUGLAS LITHGOW, L.R.C.P., etc. (Provest and Co., London.)—Mr. Lithgow has added his name to the list of medical poets by a series of contributions of a pleasing and musical character. This little volume of short poems, written in the intervals of study and of active professional work, is marked throughout by sentiments of purity and tenderness and a deep appreciation of Nature. Sometimes Mr. Lithgow strikes a higher chord, not without success. The poems indicate considerable literary culture and real poetic feeling.

A New System of Medical Bookkeeping for Gentlemen, &c., in General Practice. By ALFRED SHEEN, M.D., Surgeon to the Cardiff Infirmary. (W. Lewis, Cardiff.)—Dr. Sheen first drew attention to his scheme for an amended system of medical bookkeeping in a paper read by him before the South Wales and Monmouthshire Branch of the Association in 1875. He claims for his system greater simplicity and completeness than those hitherto in use. We consider it ingenious, and would be probably found to work well in the hands of a practitioner who would take the trouble to learn the method; and we therefore recommend its adoption by gentlemen about to engage in business, or by young practitioners. We doubt extremely whether old practitioners would care to trouble themselves to learn a new method of entry, etc. Its chief advantage consists in this, that it presents a ready method, whereby a prescription written perhaps some half-dozen years before may be found and employed again in those cases where an old patient has had a relapse of a previous affection. Dr. Sheen has also prepared a new form of Medical Visiting List, which embodies some improvements on other productions of the same class. We think it might be improved by being made a trifle wider in the page, as there is not sufficient room for entering the patient's name in the column devoted to that purpose. His Charts, 3s. per 100, by the same publishers, will also be found useful. They might advantageously be bound up with the visiting list, a few in each.

The Morphology of the Skull, by W. K. PARKER and G. T. BELLAMY, M.A. (London: Macmillan and Co.), is a book simply invaluable to talents of morphological anatomy, presenting as it does a welcome introduction to the history of the skull in the principal types of vertebrates. This book will be essential as a help to practical workers. It will not be intelligible or useful as a mere subject of reading; but for the working student it is indispensable, as there is no other in the language which fulfils the very necessary purpose which is aimed at and successfully attained by its accomplished authors.

SELECTIONS FROM JOURNALS.

THERAPEUTICS.

COLD BATHS IN CEREBRAL RHEUMATISM.—At a meeting of the Société Médicale des Hôpitaux in Paris on June 22nd, M. Valleix reported a case of cerebral rheumatism cured by the cold bath. The intensity of the symptoms, the elevation of the temperature (106.5 Fahr.), amply justified the use of this method, of which the efficacy was demonstrated by the rapid amendment of the patient. M. Valleix, however, is of opinion that this mode of treatment, which may be termed of a revolutionary character, should be reserved for very serious cases only, as, for instance, those in which the temperature exceeds 106.5 deg. Fahr.

ALBUMINURIA DURING PREGNANCY: CURE BY JABORANDI.—M. Langlet of Reims, in the *Union Médicale et Scientifique du Nord-Est*, No. 6, reports the case of a woman in the third month of pregnancy who for six weeks had suffered from œdema of the legs, great oppression, cephalalgia, vomitings, etc. The urine was very scanty and loaded with albumen, and was uninfluenced by the usual diuretics. From the first day after the administration of jaborandi, there were salivation, very little perspiration, but, as a counterbalance, an increase in the quantity of urine voided, which continued for some subsequent days. The patient took jaborandi for sixteen days, and during that time the œdema was reabsorbed, the albumen decreased, the general symptoms improved, and there was eventually a favourable delivery, with a healthy child.

EXOPHTHALMIC GOÏTRE CURED BY GALVANISATION OF THE SYMPATHETIC IN THE NECK.—The *New York Medical Record* quotes an important case from the *Giornale Veneto di Scienze Mediche*. The patient was a girl nineteen years of age; her brother suffered from progressive muscular atrophy, his sister from frequent attacks of hemiplegia, and she herself had been subject throughout youth to repeated diarrhœa accompanied by colicky pains, which occurred without traceable cause, and proved rebellious to all treatment. Two years ago, the eyes became more prominent, and palpitation of the heart appeared. Shortly afterwards, a tumefaction of the neck was noticed, accompanied by emaciation, prostration, frequent flushing of the countenance, diarrhœa, and change of character, which became irritable and capricious. The digestive functions became languid. Dr. Ancona proposed galvanisation of the first cervical ganglion of the sympathetic. The poles were applied to each side of the neck behind the angle of the jaw, pressing back the sterno-mastoid muscles. He employed at first ten elements of Stöhrer's apparatus. Each application lasted from three to five minutes. After a few days, the circuit was frequently interrupted. The physiological effects observed were, dilatation of the pupils at each closing of the circuit, more marked on the side corresponding to the negative pole; slight contractions of the sterno-mastoid muscles; sometimes an increased flow of saliva, and a coppery taste in the mouth; occasionally some vertigo. In the course of five months, one hundred sittings were had. The treatment was well borne, and during the whole time she only suffered from one severe attack of hemiplegia and two very light ones. With the treatment by electricity was associated the internal administration of arsenic. From the very beginning of the treatment, a notable amelioration was observed, which proved continuous, so that at the end of five months the patient had increased in weight about thirty pounds. The face and the mucous membranes gradually returned to their normal colour. The eyeballs regained their position and their mobility; the thyroid body became greatly diminished in size; the pulsation of the arteries ceased to be visible; the cardiac impulse became regular; the pulse beat forty times a minute; menstruation became regular; and with the digestive functions the strength returned.

MEDICINE.

TYPHOID FEVER COMPLICATED WITH MENINGITIS.—Dr. Cadet de Gassicourt recently communicated to the Société Clinique the following case. The patient, a boy aged 5, was brought to the Hôpital Sainte-Eugénie, his parents saying he had been ill a week, and had been unconscious five days. The child was pale, prostrate, nearly immovable in the dorsal decubitus; the eyes half closed; the nostrils slightly encrusted; the tongue red, clammy; the lips dry; the abdomen tender, with slight tympanites, painful to pressure over the right iliac fossa, without appreciable gurgling; no lenticular spots. The spleen could neither be felt nor measured, percussion proving every-

where an equal dulness. He had involuntary soft motions. There was slight contraction of the muscles of the neck; slight paralysis of the right eyelid. The pupils were much dilated, but equal. There was marked paresis of the right arm. Cutaneous sensation was slightly obtuse. The child cried constantly, as if in pain. The temperature was 103 deg.; respirations 36; pulse regular, 124. The next day, the little patient died. At the necropsy, the following lesions were discovered. There was subarachnoid effusion, with abundant red punctation of the left occipital, right parietal, and anterior and inferior parts of the two frontal lobes. There was meningitis, with a rather abundant exudation at the level of the two first anterior frontal convolutions. The meninges at these spots were thickened and contained a little pus. Beneath, the white cortical matter was softened superficially; the grey matter was congested. There was no effusion into the lateral ventricles; no tubercles. In the intestine were found the changes characteristic of typhoid fever in the second week; the agminated follicles were swollen; Peyer's patches were inflamed and puffed, and one of them showed commencing ulceration. The mesenteric glands were very large and of the colour of wine-dregs. The spleen was small and hard, measuring 4 by 2½ inches. The lungs were congested in the lower part. In the right superior lobe at the back, and nearly at the apex, there was extensive sclerosis with old pneumonia surrounding a small crude tubercle.—*France Médicale*.

THORACENTESIS IN THE CASE OF PLEURISY WITH CARDIAC CLOT.—M. Vergely lays down the following rules to aid in the diagnosis of pleurisy and pneumonia. In pleurisy, if the fluid be thin and serous, there is true ægophony; if the effusion be of a greater density, or purulent, there is a peculiar bronchophony. Bronchophony in purulent pleurisy is more metallic and of a higher tone than in pneumonia; and this sign is sufficient, when other signs, as the thoracic vibrations, are not easily made out, to permit one in doubtful cases to give the preference to pleurisy. As to thoracentesis, it is contraindicated when there are signs of cardiac clot. These signs are, œdema successively invading the face, neck, and chest; smallness of the pulse; and increasing dyspnoea. This œdema is caused by the superdistension of the superior vena cava.—*Gazette Médicale de Paris*.

REPORTS AND ANALYSES

AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

A NEW NURSING-BOTTLE.

MESSRS. VILLIERS, LUCHT, & Co., of 59, Frith Street, Soho, W., London, have forwarded us a sample of M. Monchovault's self-acting feeding-bottle. This very useful and ingenious contrivance presents the following advantages.

1. The bottle (of white glass) is graduated so that the quantity of food swallowed is at once known.
2. The stopper has an aperture which lets the air into the bottle as the milk is withdrawn, and which prevents the milk from escaping in case the bottle should be accidentally inverted. A pin is attached to each instrument for cleaning its aperture.
3. The exhaust-tube contains a valve, and the mouth-piece or nipple is so perforated that the whole constitutes a sucking-pump which admits of the child getting his food without exertion, as very slight pressure on the nipple-piece causes the fluid to flow.

This apparatus may therefore be recommended to the attention of the profession as a very excellent feeding-bottle, of great value in artificial nursing.

NEW MEDICINAL PREPARATIONS.

MESSRS. C. J. HEWLETT & SON, manufacturing chemists, have forwarded us a "liquor santal flavi cum buchu et cubebâ", which is readily miscible with water, and which, when administered in cases of gonorrhœa and gleet, proves to contain all the medicinal virtues rightly attributed to these drugs.

They have also forwarded us a solutio opii purificata, which is guaranteed perfectly free from resinous matter and other impurities. This solution, in certain suitable cases, appears to be a very valuable addition to the list of preparations of opium, as it does not parch the mouth or induce the unpleasant cerebral excitement frequently observed in the administration of ordinary preparations of this drug. It is of the same strength as the tincture of opium of the *British Pharmacopœia*.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTION to the Association for 1877, closes on 31st JULY.

Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 15TH, 1877.

THE ASSOCIATION AND THE JOURNAL.

THE objects and uses of the British Medical Association are now so widely known and so generally appreciated throughout the profession in this country and abroad, that it is unnecessary to do more than quote the words of its fundamental statutes, which declare that it was founded for the purposes of promoting the knowledge, increasing the cordial co-operation and personal friendliness of the members of the medical profession, and advancing its scientific, social, and ethical interests. These purposes it has now carried out with steadfast energy and with continually increasing success since the year 1832, when it was first founded. The main objects of its activity have been:

1. The promotion of improvement in medical education and examination; the simplification of the complex and unequal tests for medical diplomas;
2. The establishment of a system of Public Medicine, and of a generalised staff of medical officers of health adequate to diffuse a general knowledge of the principles of hygiene, and to carry out a system of sanitation intended to check the lamentable inroads of preventable disease;
3. The defence of the interests and the improvement of the position and of the efficiency of the public medical services of the Army, the Navy, and the Poor Law;
4. Encouragement of scientific research and clinical record in the daily practice of medicine by all the members of the profession;
5. The especial advancement and promotion, by honorary and financial encouragements, of original investigation in aid of the progress of medicine and its collateral sciences;
6. The maintenance of a high ethical standard of professional conduct, and the means of checking flagrant departures from it;
7. The provision of frequent means of cordial personal and scientific intercourse amongst all the members of the profession throughout the cities and towns and in the rural districts of Great Britain and Ireland.

As a few practical examples of the part taken by the Association in bringing about these results, we may mention:—1. The progress made, under the influence of the efforts employed by Sir Charles Hastings, to secure reciprocity of medical practice, with sufficiency and minimum uniformity of qualification, throughout the kingdom. This progress has been made under the Medical Act of 1858, which the Association was largely instrumental in passing, and by the action of the General Medical Council, of which Sir Charles Hastings was an original member; 2. The appointment of the Royal Sanitary Commission, at the instance of a powerful deputation of this Association, which laid before the Government a well-considered scheme of inquiry prepared by Dr. Rumsey, Dr. Acland, Dr. Stokes, Dr. Stewart, Mr. W. H. Michael, and other of our leading Associates, who subsequently, by their assistance on the Commission or by their evidence before it, contributed to lay the basis of the existing Public Health Act, which falls far short, however, of some of their requirements; 3. The abolition of the wretched system of tendering for Poor-law medical appointments as tradesmen tender for supplying boots or bread, and the subsequent

reorganisation of the Poor-law Medical Service; also efforts many times crowned with success to improve the position and remuneration of the Medical Services of the Army and Navy; 4. The establishment of the weekly JOURNAL for the continuous record of the latest results of medical research and clinical experience throughout Great Britain, and of the annual addresses, which record progress in all the great departments of medical practice; and the institution of annual grants for the specific encouragement of scientific medical research; 5. The steady repression, by the influence of the JOURNAL and of the local Branch organisations, of all proceedings tending to lower a high professional standard of conduct; 6. The establishment of Branches, numbering now not fewer than twenty-nine, and continually extending over the length and breadth of the three kingdoms, for the purpose of friendly intercourse, scientific debate, and ethical control. Space does not allow us even to refer to the most recent instances in which the Association has, through its Parliamentary Bills Committee, influenced public and legislative action in respect to vivisection, army medical reform, and factory legislation, or to the work which it may still be expected to do, and which its Committees have in hand, in furthering medical reform, reform of the coroners' court, reform of abuses of hospital charity, and of the means of dealing with dipsomaniacs.

Of the JOURNAL itself, also, we need say but few words. This present week, however, brings to a termination a period of ten years during which the present editor has conducted the BRITISH MEDICAL JOURNAL; and it will suffice, and may not be uninteresting, to bring up to this date the statistics of the decades during which the JOURNAL has existed, which were collected by Professor Allen Thomson in the address which he gave and published on the History, Constitution, and Objects of the British Medical Association, on the occasion of the foundation of the Glasgow Branch. The Association was founded in 1832. At the end of its first decennial period in 1843, it numbered 1,300 members; in 1853, it numbered 1,850 members. In the beginning of 1853, the weekly JOURNAL was commenced, and in 1863 the number had risen to 2,200. A further increase, at the average rate of about fifty new members annually, continued till the end of 1866, when the present editor received charge of the JOURNAL. From that date, the rate of increase rose from an average of fifty to an average of five hundred new members annually, so that in the ten years more than twice as great a number of members have joined the Association as in the previous thirty-four, and the present number of members is about 7,400; the weekly issue of the JOURNAL, including sales, being at present 8,100 copies, which is equal to about one-half the total strength of the medical profession. Meantime the JOURNAL, which was at once doubled in size, has gradually been raised to dimensions necessary to enable it to report the proceedings of all the great societies throughout the kingdom, as well as the metropolitan societies; to adequately represent the interests of all the public services; to publish those of the proceedings of the local Branches which have a general interest; and to give expression to the results of the most active workers and observers throughout the profession, one of every two of whose members now belongs to the Association.

The subscription has not been raised: but, although the weekly publication of the Association is now fourfold its former size and contents, and a considerably larger expenditure is made on grants for the work of the scientific and other Committees, the increased number of subscribers and the proportional advance in the collateral source of revenue from advertisers, together with the economy and efficiency with which the business is conducted by the appointment of a business Manager and Secretary at the central office, have enabled the Association, with the sole payment of the annual guinea subscription of its members, to realise an important annual surplus for the last six years. The review of the decade is one which may be regarded with much satisfaction, and is full of promise for the future.

PHYSIOLOGICAL AND MEDICAL EFFECTS OF ALCOHOL.

THE third report of the Select Committee of the House of Lords on Intemperance brings before us the interesting fact, that, notwithstanding the immense amount of evidence they have taken on the subject, the Committee have not yet been able to frame a report; and, consequently, they express the hope that they may be permitted to resume their inquiry during the next session. It was hardly to be expected that they could consider the inquiry closed. The magnitude of the interests involved, the difference of opinion, both medical and lay, as to the proper uses of alcohol, and the unfortunate spirit of partisanship which has been introduced into the inquiry by otherwise impartial investigators, have all operated as causes of difficulty in the way of framing a comprehensive report. For our part, we are not much interested in the question whether a hundred and thirty or a hundred and fifty millions sterling are spent annually on alcoholic drinks, nor does it directly concern us how much of this large sum is profit. If the people of Great Britain and Ireland consume annually eleven hundred million gallons of beer, it may almost be taken for granted that they derive some benefit from the consumption; and it is not asserted that more than two hundred million gallons of this quantity should be attributed to intemperance, while only nine of the forty-three million gallons of spirits consumed are referred to this category. It is, no doubt, an interesting fact that the increase in the consumption of proof spirit, for the twenty years ending 1875, is only 24 per cent. greater than it was in 1856, and one which may be taken as a refutation of the common statement that drinking is largely on the increase among us. We are pleased also to record the authority of Sir William Gull for a statement, which we have more than once made on our own part, that the amount of drinking among ladies of the upper classes is greatly exaggerated by temperance orators and a certain number of medical and other writers.

It is not, however, the economic aspect of this question, nor even the social aspect, deeply important as these no doubt are, with which we have at present to do. The physiological and medical effects of alcohol are those which here especially concern us; and it is to this part of the subject that we wish now particularly to turn attention. This third report lays before us the evidence of two eminent physiologists and of one practising physician; and the first thing which strikes us is the unanimity with which all three speak of the usefulness of alcohol in medical practice. These three witnesses are also agreed that persons in health are better without the use of alcohol; although neither Dr. Lauder Brunton nor Dr. Burdon Sanderson went so far as to say that a small quantity of alcohol was, generally speaking, absolutely injurious. Thirdly, we observe in this evidence a repetition of the statements that alcohol is injurious in excessive cold, and, as a rule, in excessive heat also. The men who have served in Arctic expeditions have, of their own accord, preferred hot coffee to hot rum, finding that the former supplied heat which really enabled them to withstand the cold, while the latter supplied only a very temporary and evanescent stimulus, which, on passing off, left them worse than they were before. As regards the use of alcohol in excessive heat, Dr. Brunton refers us to the Ashantee expedition. During the march, liquor was found to be disadvantageous; but after the march was over, when the men sat down at their camp-fire for their evening-meal, they found the advantage of a little rum; because the rum stimulated their stomachs, and assisted them to digest their food. But it was noticed that the young men did not care so much for the rum, often not taking their full allowance; while the older men, in whom the processes of life are less active, wanted all their own allowance, and would take also the allowance of a neighbour, if he would give it to them.

As to the question, whether alcohol is utilised in the system, there is also practical agreement; and it seems to be now pretty generally accepted that an average man will utilise in his economy a variable quantity of alcohol, the average amount being about two ounces daily.

A larger quantity than this will indicate its presence by the elimination of alcohol in the breath and in other ways. Lastly, with some slight differences of detail, the medical witnesses are practically agreed as to the effects of the abuse of alcohol. Sir W. Gull's statement is, that its abuse produces disorders of the liver. From disordered liver, we get disordered blood, and, consequent upon that, we get diseased kidneys and diseased lungs. Then we get diseased heart and nervous system. The general effects are no doubt, first, congestion of these organs; next, increase of their fibrous tissue, which presses upon the secreting cells and induces general atrophy and fattiness.

Respecting the conditions in which the administration of alcohol is useful, we come upon a slight difference of opinion between Sir W. Gull and the other witnesses, he preferring to name as a sedative what they characterise as a stimulant. We think that alcohol will act as one or other, according to the condition in which it is administered. In the case which Sir W. Gull supposes, of very high and uncontrollable delirium in early typhoid, alcohol no doubt calms and quiets the patient, and this action may fairly be called sedative. Similarly, in the later high fever spoken of by Dr. Brunton, alcohol may be useful to lower the pulse and the temperature. There is, however, this difference between these two actions, that the former is not generally obtained until a rather large quantity of alcohol has been administered, while the pulse and temperature are generally lowered by smaller quantities. In the latter case, the reduction of pulse and temperature is probably induced by the combustion of the alcohol itself in place of that of the tissues. The delirium is calmed, on the other hand, probably by clouding of the intellectual powers and by the soporific effect of the alcohol on the nervous tissues. These two actions may be called sedative if the ultimate effect of the alcohol, rather than its mode of action, be taken into account. The stimulant action, on the other hand, of which Dr. Brunton and Dr. Burdon Sanderson spoke, may be looked upon as the primary action of alcohol; that, namely, of filling the capillary vessels by removing or diminishing the power of the sympathetic system of nerves. It is by such an action on the stomach, no doubt, that the feeble digestion to which Dr. Brunton referred can be improved or stimulated; and it is by inducing this action that alcohol sometimes acts as by magic upon the pain of anæmic or spanæmic neuralgia or headache, or that it prevents from stoppage the exhausted heart beating feebly in the termination of typhus fever, before convalescence is fairly established. This being so, it seems to come to this, that the sedative action spoken of by Sir W. Gull is only an increased quantity of what is generally called the stimulant action of alcohol. The latter is obtained by the administration of so much alcohol as will somewhat paralyse the sympathetic nerves and congest the capillaries; the former, or sedative action, is obtained by still more paralysing the sympathetic system, and also to some extent by substituting the consumption of alcohol for that of the patient's own tissues. Inasmuch, however, as both actions are obtained by paralysing the nervous system, it might be well, as Dr. Gull proposes, to consider alcohol as a sedative rather than as a stimulant; and we are inclined to think that the use of this term might be of some advantage to the public by keeping before them the mode of action of alcohol.

While we are upon the so-called stimulant action of alcohol, we wish to draw attention to a very extraordinary statement made by Dr. Burdon Sanderson. He proposes, very justly, to administer small quantities of alcohol when the temperature (and the pulse) sink below the normal; and he says that the moment the temperature sinks below the normal, danger to life ensues. Again, he says that a temperature of from 96 to 98 deg. would be a really dangerous lowering of the temperature. We cannot help recording our surprise at these statements, especially when they are made by so eminent an authority. Every medical man who has given attention to the matter knows that a fall of temperature to 97 deg., or even to 96 deg., so far from being a dangerous condition and one threatening collapse, is actually the normal condition in convalescence from fevers in general, and probably also from the acute inflammations. In some fevers, such as relapsing

fever, it is the rule, one may say, for the temperature to sink to 95 deg. in the course of the disease, while 94 deg. is not at all an uncommon limit of subsidence. There are even exceptional observations taken in relapsing fever, where the thermometer has registered 92 deg. Now, as is well known, relapsing fever is one of the least fatal forms of specific fever, death practically never taking place excepting in the extremely aged and the extremely young. It is evident, therefore, that mere lowering of temperature ought not to have the importance attached to it which is stated in this evidence. Like other symptoms, its gravity must be determined by its concomitants.

A number of other interesting points come before us in the course of this evidence. The use of beer, in contradistinction to that of alcohol, for example, is not so emphatically condemned by the medical witnesses; it being seemingly admitted that beer is much more largely a nutrient than alcohol, though, of course, its abuse is not much less hurtful. Sir W. Gull reminds us of the case of a brewer's drayman, whose body became exceedingly swollen a few hours after death. Wishing to know what this swelling meant, he punctured the skin in many parts, when it was found that the evolution of carburetted hydrogen was so considerable as to make it possible to light fifteen or sixteen gas-burners at the man's body at once. Several references were made by the medical witnesses to the practice of the late Dr. Todd; it being unanimously held that that distinguished physician erred in too freely prescribing alcohol, although the adynamic theory of disease on which he founded the practice finds favour with Sir W. Gull.

Into the question of restraint of habitual drunkards, time does not permit us to enter. The subject is a very wide and complicated one, and we observed an unwillingness on the part of some of the witnesses to commit themselves to any but general opinions. Connected with this is the question of the medical treatment of habitual drunkards; and the witnesses mostly express themselves as favourable to the absolute and immediate stoppage of alcohol in delirium tremens. This question has had no new light thrown on it. Dr. Brunton's suggestion, to treat the drunkard as an epileptic, is ingenious, and may prove useful in some cases. On the whole, we may fairly congratulate the profession on the approach to unanimity which the medical evidence evinced, and we shall await with considerable interest the further evidence which it is proposed to take on the subject.

THE PATHOLOGY OF INFLAMMATION.

THE most conspicuous opponent of Cohnheim's theory, that the origin of pus-cells is to be sought exclusively in the white corpuscles of the blood, is Professor Stricker, from whose laboratory there have come of late years a number of valuable contributions to pathological histology, bearing directly on this subject. The object of most of these papers has been to show that in an inflamed tissue there is a rapid formation of cells from those pre-existing in the part, in circumstances and under forms that exclude the possibility of the new cells being white blood-corpuscles. A recent memoir by Arnold Spina, Assistant in the Laboratory for General and Experimental Pathology in Vienna, on "The Changes in the Cells in Inflamed Tendon" (*Wiener Medizin. Jahrbücher*, 1877), may be regarded as a continuation of the series of experimental studies on inflammation which have been inspired by the ideas of the Vienna school.

It is a misfortune that histologists are so little agreed as to the nature of the cellular elements of connective tissue, that the conclusions at which any observer arrives regarding the changes produced by inflammation must always be read in the light of the opinions he holds regarding the normal structure. This is not less the case with tendon than with other forms of the tissue. Herr Spina, therefore, very properly prefaces his memoir by a statement of his views on the histology of tendon. They are briefly as follows. Between the bundles of tendon there are interspersed rows of cells. The rows are spindle-shaped, the cells becoming narrower

towards the ends of the spindle, until the cells disappear, the spindle being continued by fibres from each extremity. These rows become, as the animal gets older, changed into elastic bands. The cells of which these rows are composed are in young animals surrounded by a hyaline substance from which the elastic tissue is formed. The cells of tendon, further, have processes in the form of flattened bands and fibres, by which they are connected with each other.

Now what takes place in these elements when the tendon is inflamed? In the tendons of young animals, cauterised by caustic potash, cut out after twenty-four hours and coloured by chloride of gold, the cells were found enlarged, and their number increased; the cell-processes were found to be thicker and in greater number. Similar changes were found, even in a more striking manner, in the tendons of older animals; the presence of nodular swellings in the band-shaped processes of the cells being conspicuous. New spindle-shaped rows of cells are formed, and it is inferred that they are the product of the nodular swellings in the processes of the older cells, these swellings being clumps of protoplasm (*Klumpen*), which by blending with each other form a new chain of cells. When the inflammation has lasted longer than forty-eight hours, the substance of which the bundles are formed gradually disappears, whilst the cells increase in number more and more until large layers and masses of cells are formed. After three or more days, the individual cells can no longer be distinguished, and the cell-groups have been succeeded by a coarsely or finely granular mass. This granular mass, when stained by hæmatoxylin, is seen to contain the nuclear elements which are peculiar to pus-corpuscles, and the mass itself is in reality a small abscess. When these cellular masses were teased out after two or three days' inflammation, an important change was found to have taken place in the spindle-shaped cell-rows described by Herr Spina in healthy tendon. These could now be isolated, and were found to be much longer than in the normal condition. Instead of being one cell broad, two and even more cells were now found side by side. The elastic bands developed from the cells had gone back into their histological elements, and become "pus-bands". At other times, according to Herr Spina, the cellular elements of these elastic bands develop red blood-corpuscles, colour being apparently the chief element taken into consideration in coming to this conclusion. These blood-like cells are also found at some parts in a breadth of several cells, contrasting again with the appearances seen in healthy tendon.

It would thus seem to be beyond doubt that, if we follow Herr Spina's methods of examining tendon, and possibly whatever method may be followed, we shall find in a very early stage of inflammation a greater number of cells than will be found in healthy tendon similarly treated. Is Herr Spina's conclusion that the healthy cells have multiplied under the stimulus of inflammation, therefore, justified? To answer this question it is necessary to consider an interesting point in histological technique. The bundles of tendon being somewhat cylindrical in form and parallel to each other, necessarily leave at certain points between them, when they are cut transversely, angular gaps. It is in these gaps that the nuclei of the tendon-cells are seen, and it has been conclusively shown by Boll that the cells lie on the bundles. When a transverse section of tendon treated by gold-chloride is examined, these gaps are found filled with a dark purple mass, which insinuates itself in angular projections between the bundles. Herr Spina, whose preparations were mostly obtained by the use of this re-agent, believes that this angular and occasionally anastomosing deposit is the tendon-cell, an opinion that is irreconcilable with the results obtained by Boll and Ranvier. When an inflamed tendon has been treated with gold, this deposit between the bundles is increased in quantity, and the bundles are proportionately separated from each other. There are, further, an increased number of gold-stained lines traceable between and into the bundles. Histologists who do not agree with Spina's views regarding the nature of the tendon-cell, will not see with

him in these changes any evidence of growth or multiplication of cells, but will regard them as evidences of distension of the spaces between the bundles by serous effusion. When, after a longer duration of the inflammatory process, the large spaces between the broken-down bundles are found occupied with pus-cells, an objector to Herr Spina's views would naturally ask why their source should not be sought in the blood-vessels that exist in the tissue between the groups of bundles. The important fact, however, remains, that an increased number of cells are actually found in the inflamed tissue, and it has not been shown that they are connected either with the gold network between the bundles or with emigrated white blood-corpuscles. In isolated cell-bands, several breadths of cells were found side by side. Neither from the description given by the author, nor from an examination of the plate which illustrates his memoir, does it seem probable that these were white corpuscles in a particular stage of development, and as little is there evidence that they proceeded from each other by any process of division or endogenous cell-formation. The demonstration of their existence will, we believe, be found to be an element of permanent value in Herr Spina's work; but, before pathologists can be expected to agree regarding their nature, the whole question of the histology of tendon must be re-examined from the foundation.

THE *Whitehall Review* reports that there has been a good deal of diarrhoea and dysentery among one or two of the regiments in Malta, in consequence, it was said, of the wretched state of the drinking-water wells in one of the barracks.

ACCORDING to the *Builder*, new pipe-drains are being laid at Marlborough House, with a view to improve its sanitary condition; but the soil from the old drains is actually being dug into the ground and left there, to save the expense of cartage. This appears, however, to be a misstatement.

DR. J. BURDON SANDERSON will commence his Brown Institute Lectures on the Infective Processes of Disease, of the University of London, at Burlington House, this day (Saturday) at 5.30 P.M. We shall commence the publication of this valuable course of lectures, illustrated by drawings made expressly for this JOURNAL, in the first number of the new volume of the JOURNAL which will be issued on January 5th.

WE understand that the Senate of the University of London have instructed counsel to prepare a draft supplemental charter to admit women to degrees in all the Faculties, in accordance with the various resolutions passed by Convocation on the subject. This charter will be discussed at the meeting of the Senate, which is to take place next week.

ONE of the veterans of French medicine, M. Gintrac of Bordeaux, Corresponding Member of the Academy of Sciences and Associate of the Academy of Medicine, formerly Professor and Director of the School of Medicine at Bordeaux, has lately died. At an age when most men seek rest from their labours, M. Gintrac commenced the publication of an important work, a *Theoretical and Clinical Course of Pathology and Medical Therapeutics*, in eight octavo volumes, of which seven are published. This work contains upwards of sixteen thousand cases observed by the author, in addition to a large number gathered from all available sources of information.

MR. WILLIAM THOMPSON, in a proposition absurd enough to cause a smile, contained in a paper read at the last meeting of the Manchester Literary and Philosophical Society, seems to credit himself with the discovery of an improvement upon antiseptic dressing by the construction of antiseptic rooms for surgical operations. The idea upon which this is founded is, no doubt, scientifically correct, but Mr. Thompson's means of giving it effect are impracticable. What is really required is the creation of an antiseptic atmosphere, and this may be

done, as Professor Lister has abundantly shown, by local precautions in dressing without regard to the conditions of architectural construction. Others are of opinion that a "clean" air is safe enough without antiseptic precautions.

AT a recent meeting of the Paris Academy of Medicine, M. Lasègue showed two epileptic patients, a girl and a boy, whose crania presented the malformation or arrest of development which he considers to be pathognomonic of epilepsy. In the case of the girl, aged 14, one of the frontal protuberances was more developed than the other, and there was want of symmetry in the palatine bones. The nature of the deformity in the boy is not stated.

THE METROPOLITAN MEDICAL SOCIETIES.

THE leading medical societies are all now in full working order, and have many good papers in hand for discussion. None of them will change their presidents during the ensuing year, as the tenure of the presidential office in each of them (viz, the Royal Medical and Chirurgical, the Clinical, the Obstetrical, and Pathological) is for two years, and the presidents in all these cases were elected during the present year. The only one of these societies which has as yet nominated its new officers is the Obstetrical, the secretaryship of which will be vacated by Dr. A. Edis, who will be succeeded by Dr. C. Godson. The Council of the Pathological Society has decided to devote some meetings to the exhibition of specimens relating to lymphadenoma and leucæmia, and a discussion thereon, which will begin on March 19th, 1878. The President of the Harveian Society, Mr. Carr Jackson, has retired, and will probably be succeeded by Dr. Graily Hewitt. There will consequently be no president's address at the annual meeting on January 3rd, but a *conversazione* will be given.

RECENT RESEARCHES ON TETANUS AND HYDROPHOBIA.

THE meeting of the Royal Medical and Chirurgical Society of this week was occupied with a paper and discussion on tetanus and hydrophobia. The paper of Dr. Joseph Coats was taken up with the pathology of these diseases, and it described in the first place the lesions found in the organs examined. In the central nervous system there are, in both diseases, certain appearances suggestive of the existence of an irritant in the blood, which has acted on the vessels and caused, in the case of tetanus the exudation of a granular material, and in hydrophobia of leucocytes. These lesions, as they are different in appearance, indicate that the irritating material which has produced them is different in kind. There is a remarkable similarity, however, in the distribution of the lesions in the nervous system in both diseases, the vessels of the medulla oblongata being most affected, those of the spinal cord next, and the centres above the medulla oblongata less than the cord. As regards other organs, it was shown that in the parotid gland, the mucous glands of the larynx, and the kidneys, in two dogs which had been affected with rabies, there were distinct lesions attributable to irritation of the blood-vessels, the lesion in the salivary glands closely resembling that in the nervous system. Turning to the pathology of these two diseases, the remarkable similarity in the distribution of the lesions in the central nervous system was taken to indicate that in both there is some morbid poison at work, and that this, by its action on the nerve-centres, causes the symptoms. The lesions are merely to be taken as evidences of irritation, but their special relation to the vessels indicates that the irritating agent circulates in the blood. In hydrophobia, the irritating agent attacks other organs; and here it is, again, the blood-vessels which are specially involved. In tetanus, observations are wanting as to the state of the internal organs; but it was anticipated that evidence would probably be forthcoming of the existence of irritation in this disease as well. Reference was also made to the similarity in the grouping of the nervous symptoms in these two diseases, and this was specially related to the similar distribution of the lesions in the cord and medulla oblongata. The symptoms are very different in kind, but both point to irritation of the cord and medulla oblongata, the predominant symptoms connected with the

throat and neck in both diseases pointing back to the nuclei of origin of the hypoglossal, glosso-pharyngeal, and spinal accessory nerves in the medulla oblongata. In the discussion which followed, the importance of the lesions described was acknowledged; but, in the case of tetanus, great doubt was thrown on the inference that this disease is due to a morbid poison. The frequent association of this disease with inflammation or irritation of a peripheral nerve, and the fact that the disease has, in some cases, been arrested by cutting out a portion of the nerve coming from the part, were regarded as strongly bearing against this view. It was also said that, if there are such extensive lesions in the cord and medulla oblongata, we ought to have paralysis in tetanus and hydrophobia. But it was also pointed out that these lesions do not involve any great destruction of nervous tissue, and are rather to be regarded merely as evidences of irritation. If we might venture to refer to what we think ought to be the practical outcome of the debate, it would be that, in studying the pathology, both of tetanus and of hydrophobia, a wider view of the subject should be taken. Too exclusive attention has been paid to the nervous system, both in clinical and pathological observations. The general symptoms—such as temperature, pulse, state of the secretions—ought to be taken more into account; and, on the other hand, the internal organs, especially the salivary glands, kidneys, and liver, ought to be carefully examined both in tetanus and in hydrophobia. It would also be of great consequence if an attempt were made to find out to what extent tetanus may be endemic. Reference was made in the debate to the frequent occurrence of epidemics of tetanus after battles among the wounded. This may possibly be taken as a fact analogous to the outbreak of pyæmia in wards with numerous cases of open wounds. In both cases, there may be special conditions present, inducing the exceptional development of the special poisons.

THE PATHOLOGICAL SOCIETY.

THE twenty-eighth volume of the *Pathological Society's Transactions*, just issued, is a volume of very remarkable interest, and fully demonstrates, we think, the wisdom of the course which we first advocated, and which Dr. Murchison, the able President, has induced the Society to adopt, of rising above the dead level of the mere exhibition of dead-house specimens to the discussion of pathological processes. We pointed out, when we discussed this subject two years ago, that the Society was quite outside the real pathological movement of the day, and that the known researches of Burdon Sanderson, Lister, Gull, Sutton, Creighton, Klein, and others, who were engaged in real progressive scientific work of investigating pathological processes as distinguished from mere *post mortem* appearances, were not represented in the Society's *Transactions*. These suggestions and this criticism were very frankly accepted by the Society, and every one of the workers whom we named has in turn been invited to bring to the Society, for discussion, the results of his work. The largely increased popularity of the Society, its renewed influence on scientific opinion, and the crowded meetings which have been drawn together, attest the vital value of this policy; and the present volume, which is, perhaps, the finest ever issued by the Society, crowns the year's work. Besides descriptions of a great number of extremely interesting specimens, much better selected, more thoroughly weeded, more carefully described, than has been the average experience of the last few years, the volume includes a highly valuable series of papers on changes in the spinal cord and its vessels in arterio-capillary fibrosis, by Sir William Gull and Dr. Sutton; important papers illustrating visceral syphilitic disease; and papers of classical value by Dr. Klein on certain acute specific diseases, scarlatina, etc. The volume is very rich in illustrations, and can compare most favourably not only with the transactions of any other Pathological Society in Europe, but with the best volumes of its own past series, which is the highest compliment which can be paid to it. The Council propose, also, to follow a similar course this year; and the first of the series of papers of the kind which we have indicated will be Professor Lister's paper and specimens to be given

to the Society at its next meeting on Tuesday evening, December 18th, on the pathological applications of his recent researches on lactic fermentation.

THE LONDON HOSPITAL MEDICAL SCHOOL.

LAST week, we made some remarks on the past and present condition of the London Hospital Medical School; and we are glad to hear that, at a meeting of the College Board held last Tuesday, a resolution was proposed by Dr. Langdon Down, and seconded by the Rev. J. Kitto, that a principal be appointed to the Medical College. It was then proposed by Mr. Couper that Dr. Norman Chevers be requested to accept the office of Principal, with a seat at the College Board, this motion being seconded by Mr. Buxton, Treasurer of the Hospital. Dr. Norman Chevers is well known to the profession as an author, and as having been for fifteen years Principal of the Medical College of Calcutta, during which time the College prospered exceedingly and became one of the largest medical schools, a fact which at once characterises him as well fitted for his present position, independently of his well known tact and administrative power. The fact that the medical and lay authorities have united to raise the position of the executive head of their educational department to be Principal of the College is in itself an indication of their desire to improve the school in all its departments, and to render thoroughly efficient their system of medical education. It is understood that the new Principal of the College, with the necessary aid of a clerk or other subordinate officer, will supervise and direct the whole of the educational work in the College and Hospital, in conjunction with the College Board; and it is believed that an intimate association of the committee with the school will encourage a greater amount of mutual confidence and co-operation. Both the public and the profession will conclude from this appointment that the College Board and Hospital Committee are determined to raise the institution to the highest degree of efficiency. This determination on the part of the authorities is a wise one; for soon the treasurer will have to make an appeal to the public for the funds necessary to carry on the work of the hospital, and, dependent for its support as the London Hospital is upon the annual contributions of the public, it has the greatest need to take every precaution to inspire public confidence, especially at the present time, when funds are urgently needed. A wise and liberal policy, with such supervision of all the departments and details of the place as may ensure economy combined with thoroughness, are of essential importance; and we should be glad to see, on the part of the Committee, less tendency to reticence, and more desire to court free and open criticism. At the above meeting, the Committee elected as their new Chairman Mr. John Henry Buxton, son of the present treasurer; Sir Edmond Currie, who now resigns this office, being requested to retain the post of Chairman to the College Board. The Hospital Committee, being desirous that the Chairman should see with his own eyes the present working of the institution in all departments, have advisedly chosen a younger member of their body, who will be able to devote the time and energy necessary to make himself thoroughly acquainted with all its complex workings. These appear to have been steps taken in the right direction; but, to render them effective, it is necessary that they should be strengthened by a hearty and cordial support, and followed, as successive vacancies occur, by appointments made with the sole object of selecting the fittest candidate to fill the office, and the man most likely to work for the credit and welfare of the institution.

ANTISEPTIC SURGERY.

WE have received a copy of a report from the Surgeon-General's Office at Washington to the Medical Officers of the United States Army, by Assistant-Surgeon A. C. Girard, on Lister's system of treatment of wounds by antiseptic methods. The report states that its writer had "received the glowing accounts of Lister's disciples with an incredulous ear; and it was only by travelling from one 'Lister' hospital to another that belief in its superiority forced itself upon

him". He quotes some striking instances, and mentions among others the remarkable experience of von Nussbaum and Volkmann, observing that "while in amputations of the thigh we find an usual percentage of deaths (from 76 to 92), we find in the hospital of Professor von Nussbaum, six consecutive operations of this kind and one disarticulation at the hip-joint recovered; of twenty-seven consecutive amputations and forty consecutive compound fractures, all recovered. What other system", he asks, "shows like results?" Before the introduction of Lister's system, Professor von Nussbaum performed thirty-four ovariectomies, with sixteen deaths; since then, he did the same operation sixty-two times, and lost only twenty-one patients; and of the last eight, none. Lister's percentage of deaths during the two years preceding the introduction of his system, was thirty-five; during the three succeeding years, fifteen. To indicate the extent to which surgical proceedings are modified by the immunity from failure and accidents which Lister's method affords, we may mention that Professor Franz König, in the second volume of the *Lehrbuch der Speciellen Chirurgie* just issued, apologises in the preface for the delay in issuing this volume, by observing that the introduction of this *securè* method of healing wounds and obtaining a recovery after surgical operations has so completely revolutionised operative surgical precepts as to make it necessary entirely to rewrite the whole subject. "Surgical operations are," he observes, "now free from the fear of the worst accidents which formerly had to be apprehended; and for this freedom in procedure, and for this safety in handling surgical injuries, it is right", he says, "that I should offer our grateful thanks to the man whose method has provided us with this shield from the most serious dangers. It is Joseph Lister who has freed us from the anxieties which beset our old methods of operating and endangered the issue of our best efforts."

THE HEALTH OF THE POPE.

OUR correspondent in Rome writes:—There is no doubt that the increasing weakness of Pius IX causes much anxiety at the Vatican. Since the exertion of receiving the Carcassonne pilgrims three weeks ago, his Holiness has been confined to bed; he has been very sleepless, and, though still cheerful, complains of total want of appetite, and can with difficulty be persuaded to take the necessary nourishment and wine. The breathlessness, too, seems to be a troublesome symptom, and the issues of the legs do not give so free vent as is to be desired to the fluid distending the subcutaneous tissue, while the edges of one of them have taken on an unhealthy action. There seems little probability at his age, and considering how slowly and insidiously, yet surely, his complaint advances, of any marked improvement occurring. A little more sleep one night may give rise to a more encouraging report next day, only to be contradicted, in its turn, by some slight aggravation of the symptoms. The well known vitality which he and many other members of his family have shown, may prolong his life beyond present expectation.

SKULL-SHAPING.

MR. EDWARD B. TYLOR, in a review of *Das Kind in Brauch und Sitte der Völker: Anthropologische Studien*, by Dr. H. Ploss, published in the *Academy* of November 17, discusses the practice of difforming the skulls of infants, to which a chapter is devoted in the work under review. He observes that within the last generation or so, medical observers have put on record its extensive prevalence in France, the custom of Normandy being for the nurses to give the baby's skull the approved sugar-loaf shape by means of bandages and a tight cap, while in Brittany the long shape of the new-born child's head is disapproved of, and pressure is applied to make it round. This latter appears to have been the old Swiss custom. . . . It is interesting to find the nurses not only shaping the babies' skulls, but shaping them to different types in different districts. . . . In New Caledonia, some tribes prefer a long head and others a flat-head type, and compel the infants' plastic little skulls to grow accordingly. This difference of opinion as to the desirable form of skull helps to explain

the origin of the custom, as having arisen from the type of the dominant race being artificially produced or exaggerated. On this supposition, we should expect to find, as we actually do, flat-headed or round-headed conquerors and nobles set up as models in different districts. Such a state of things is well shown among the Flathead Indians, who enslave the neighbouring tribes with undistorted skulls; the children of these captives are not allowed to have their skulls bandaged in the cradle so as to imitate the badge of nobility, and even white men are despised for having round heads like slaves. Just as naturally the nurses in Turkey, in the sixteenth century, as Vesalius mentions, gave the children bullet-heads, and among the Asiatic population of Constantinople it seems to be done still. The motive popularly assigned is that a round head suits best for wearing a turban, but the real reason probably lies much deeper, in the imitation of the round skulls of the conquering Tartar race. The details which show how large a part of mankind have habitually practised cranial difformation suggest the question whether any nations have been perceptibly injured by it. There are remarkable cases to the contrary, such as that of the Chinooks, whose monstrous difformation is said not to increase the mortality of the children, or even to prevent their growing up fully to the savage level of strength, bravery, and cleverness. On the other hand, travellers have set down some races with compressed skulls as exceptionally stupid. It is more to the purpose, it is added, that in modern France, medical observers, such as Foville and Lunier, have noticed among the insane an unusual proportion of patients with artificially distorted skulls, and have also remarked a prevalence of mental disease in those districts where the nurses still most persistently keep up the practice of skull-shaping.

THE INDEX AND RING FINGERS.

IN a paper in the *Archivio dell' Antropologia e P. Etnologia* (vol. vii, part 1) Dr. Paolo Mantegazza states that he has frequently put the following question to anatomists, artists, and sculptors:—"Is the index-finger or the ring-finger the longer in the human hand?" And he has generally found that, being thus suddenly called upon for a reply, they have looked down at their own hands before attempting an answer. In fact, no one seems very clear about it. Ordinary anatomical works give contradictory statements, and the author cites a warm discussion on this subject between Casanova and Raphael Mengs (*Mémoires de Casanova*, t. vi, p. 252). Dr. Ecker has observed that in the anthropoid apes the index is always shorter than the ring finger; and out of twenty-five negroes he found the same relation to hold in twenty-four, while on examining the hands of twenty-four negroesses it was seen that fifteen had the index shorter than the annularis, six had it longer, and three had both fingers of the same length. A Hottentot and an Australian were found, like the majority of the negroes, to have the second finger shorter than the fourth; and this was also the case in the hands of the two Akka boys brought to Italy, two or three years ago, from Schweinfurth's country of the dwarfs. Such facts as these might induce anthropologists to regard the relation just given as that characteristic of the lower types of mankind. On the other hand, it is said the highest types have the ring-finger shorter than the index. Most of the sculptors of antiquity seem to have thought this typical of a fine hand, and it is seen in the Apollo Belvedere, the Venus de Medici, the Venus of the Vatican, the Dying Gladiator, etc. But modern sculptors and painters appear careless in this respect, giving the greater length sometimes to one and sometimes to the other finger. Dr. Mantegazza, assisted by Mr. Forsyth Major, has examined 712 Italian hands. Of these 91 had the index longer than the ring-finger, on both hands; 503 had the index shorter on both hands; 102 had the index longer on one hand, and either shorter than, or equal to, the ring-finger on the other hand; while 16 had the two digits of equal length on both hands. It appears, therefore, that the relation of length between the two fingers is not sufficiently constant to be made an ethnical characteristic, or a mark of higher or lower physical development. This agrees in the main with the con-

clusion of Dr. Ecker. Mantegazza claims to be an impartial judge of this question, since nature has given him a left hand with the index as long as the ring-finger and a right hand with the index much shorter.

TEARLESS MADNESS.

ONE of the most curious facts connected with madness is the utter absence of tears amidst the insane. Whatever the form of madness, tears are conspicuous by their absence, as much in the depression of melancholia, or the excitement of mania, as in the utter apathy of dementia. If a patient in a lunatic asylum be discovered in tears, it will be found that it is either a patient commencing to recover, or an emotional outbreak in an epileptic who is scarcely truly insane; while actually insane patients appear to have lost the power of weeping: it is only returning reason which can once more unloose the fountains of their tears. Even when a lunatic is telling one in fervid language how she has been deprived of her children, or the outrages that have been perpetrated on herself, her eye is never even moist. The ready gush of tears which accompanies the plaint of the sane woman contrasts with the dry-eyed appeal of the lunatic. It would, indeed, seem that tears give relief to feelings which when pent up lead to madness. It is one of the privileges of reason to be able to weep. Amidst all the misery of the insane, they can find no relief in tears.

OUTBREAK OF SCURVY.

THE barque *Craigie Lea*, belonging to Dublin, from Bassien, has arrived at Plymouth with two of the crew suffering from scurvy. The disease, however, has not presented itself in its most virulent form. The Board of Trade Medical Officer, Dr. Eccles, has instituted an inquiry into the cause of the outbreak, and, it is said, finds that there was an ample supply of lime-juice, preserved meats, etc., on board, and that there was nothing in the diet of the men which could have produced the disease; but this we venture to doubt.

HEALTH LECTURES FOR THE PEOPLE.

UNDER the auspices of the Manchester and Salford Health Association, a lecture was delivered in Association Hall, Manchester, on the 28th ult. by Dr. Arthur Ransome on "Pure Air, and its Influence on Health". This lecture forms one of a series which will be delivered during the winter months at the instance of the Association, and which comprises the following additional subjects: "Clothing in relation to Health", by Dr. John Haddon; "A Healthy Skin", by Dr. W. J. Sinclair; "The Dwelling-House in relation to Health", by Dr. Henry Simpson; "Why Little Children die", by Dr. H. H. Vernon; and "Our Food and how it is Adulterated", by Mr. C. Estcourt, Public Analyst for Manchester. The necessity of making the knowledge of the laws of health more widely known has induced the Association to announce also that the lectures will be published after delivery in a popular form and at a nominal price.

THE ASSIMILATION OF FAT.

ON Monday evening last, Dr. Lauder Brunton, F.R.S., gave an address on the above subject before the Medical Society of London. He pointed out the utility of fat in the organism; its general diffusion over the whole surface in animals living in cold regions; and its collection on localised sites, as in the hump of the camel, in the inhabitants of warm latitudes. The fat stored in the bodies of different animals varies in its composition. The fat which is more slowly stored, and contains a larger proportion of margarine and stearine, is not so readily re-absorbed, does not so readily disappear, as that which is more quickly laid on and contains chiefly oleine. The digestibility of different fats varies considerably, and many children cannot digest beef and mutton fat who can assimilate bacon fat, butter, or cod-liver oil. Often a fat can be digested readily if reduced to a fine state of diffusion, as in mashed potatoes and butter, which is indigestible swallowed in a mass. The digestibility of cod-liver oil is due partly to its chemical com-

position, and partly to the bile-salts present in it, rather than to any small amount of iodine present. The ready diffusibility of oil to which bile has been added, as compared to that free from bile, was demonstrated by experiment. The uses of fat in the economy and the pathology of fatty degeneration were then described. The lecture was listened to throughout with close attention; and a brisk discussion as to the practical application of Dr. Brunton's demonstrations followed.

GENERAL AND COMPARATIVE PATHOLOGY.

IT is much to be desired that the recommendations made by Dr. Acland, on the subject of a Chair of General and Comparative Pathology, should be carried out by the Royal Commission now inquiring into the constitution and administration of the Universities of Oxford and Cambridge. It is well known that at Oxford great efforts have been made for many years past to establish a department of Physical Science, in which all the subjects fundamental to medicine should be taught; and in connection with which opportunities for original research should be amply provided. This, indeed, is in great measure the aim of the institution called the Museum. Many of our readers are aware what results have been produced there by Sir Benjamin Brodie and Dr. Odling in Chemistry, and by Professor Rolleston in Biology. The point to be considered in the Biological Department is where the line is to be drawn between scientific anatomy and physiology in the widest sense, and pathology such as belongs to the wards of a hospital. Dr. Acland, it seems, has urged that a special Chair should be founded for carrying on the study of normal structures into the domain of abnormal changes throughout the animal series. No doubt, comparative pathology would profit much by such a foundation. It will not be long, indeed, before it will be a matter of surprise that human and comparative pathology have been divorced. We do not know that any details are yet agreed upon; indeed, they will require much consideration. But of the importance of such a chair none who watch the progress of histology can have any doubt. The investigation, too, concerning rabies and hydrophobia, which is now engaging professional attention, points to the practical as well as the scientific questions, which would test to the full any man who undertook the Professorship.

INFRINGEMENT OF THE FACTORY ACTS.

MESSRS. WILLIAM POWELL AND SON, tanners and leather-dressers of Bermondsey, have been fined by Mr. Partridge, the magistrate at Southwark Police-court £3 and costs for having failed to hang up an abstract of the Factory Acts and the usual notices at the entrance of the factory; also for neglecting to register the names of those employed under eighteen years of age, and not obtaining surgical certificates as to other young persons after being remonstrated with by Mr. Redgrave, Her Majesty's Inspector of Factories.

OUR MILK-SUPPLY.

IN no recent case has the truth of an old adage been more strikingly shown than in that which was submitted to the magistrate at Bow Street Police-court for decision. A carman in the employ of a milk-dealer was charged with wilfully putting eight quarts of dirty water to thirty gallons of milk, with intent to defraud his master. The prisoner was seen early in the morning to go to a trough in the yard, in which the cans were washed, and take therefrom eight quarts of dirty water, which he mixed with thirty gallons of milk. The facts were not denied, but the prisoner, on the other hand, accused his employer of directing the men in his employ to mix water with some "white stuff in the cellar", in the proportion of sixty-four quarts of water to four quarts of the stuff, which he stated was termed "fake". The milk-dealer, without admitting that this statement was correct, declined to swear that it was false; but explained that the stuff referred to was only condensed milk, "which was occasionally used when they ran short of the regular supply". The case was adjourned for a week, the magistrate remarking that the prisoner's cross-examination "had opened his eyes to several things; the charge he had made against his

employer was a most serious one". Here there is room for investigation; and, in the interests of the public and all concerned, we hope that the investigation may be more thorough than has yet occurred, the prosecutor having subsequently withdrawn the case from full inquiry.

RUSSIAN RURAL DOCTORS.

THE medical men of Russian country districts do not receive very flattering testimony at the hands of a correspondent of the *Pall Mall Gazette*, either as to their ability or prestige. He says: "A man had better not fall ill while in a Russian country town, for all the doctors outside the large cities are believers in phlebotomy and violent purgatives. They prescribe tea, but drug it without telling you, and the effects are felt for days afterwards. Their fee is anything you like to give; but whatever you may offer, they will be sure to ask more, and must, therefore, be dealt with as bluntly as tradesmen."

A DISMAL WEEK.

DURING the seven days of last week, the duration of registered sunshine in London was four hours and a half. According to the almanacs the sun was above the horizon for nearly fifty-six hours. The amount of sunshine was, therefore, only 8 per cent. of its possible duration.

MOTIVES FOR MUTILATION.

THE price of a human jaw at the seat of war in Bulgaria is, the *Times* states, 10 francs, more or less. It varies according to the regularity, soundness, and whiteness of the teeth. In Paris, the quotation is 50 per cent. greater at wholesale rates. The ghastly wares are conveyed in cases containing five hundred, and the teeth are extracted after their arrival at the city to which the jaws are consigned.

BOARDING-OUT.

MR. WILLIAM TALLACK, writing to a daily paper, observes that in the report of the Local Government Board, it is stated that, of the many thousand orphans and deserted children upon the rates, the total number placed with foster parents was, by the latest return, only three hundred and forty-nine. This statement is correct, in so far as it relates to pauper children boarding-out, under the conditions of Mr. Goschen's permissory rules, in parishes beyond the unions to which they belong. This class includes, for example, a number of poor children from Liverpool, successfully boarded-out at Windermere, and elsewhere. But the statement makes no reference to the much larger and increasing number of about two thousand five hundred pauper children who are boarded-out with foster parents in houses within the circuit of their respective unions, but not under Mr. Goschen's special rules. For instance, nearly all the pauper children in Cumberland are thus economically and advantageously boarded-out within their own unions.

SCOTLAND.

It is stated that at Ayr a boy aged three and a half years, and his sister aged seven, dissolved some liquorice in a bottle in which there had been a small quantity of chlorodyne cough-mixture. After drinking the liquorice, they both became ill and the boy died.

WE understand that Dr. J. Bell Pettigrew, F.R.S., Dean of the Medical Faculty, and Professor of Medicine and Anatomy in the University of St. Andrew's, has been elected by the Universities of Glasgow and St. Andrew's as their representative in the General Council of Medical Education and Registration of the United Kingdom.

THE poor-roll for the parish of Dull (Perthshire) consists of over eighty paupers. The average age of twenty of these amounts to over eighty-six years, the oldest pauper being Peter Figgans, who is said to have reached the extraordinary age of one hundred and seven years. It must be a grand parish for health, but very bad, one would think, for the pocket.

At the Edinburgh Dean of Guild Court, on Thursday last, warrant was granted for the erection of the proposed new Royal Maternity Hospital, at the corner of Lauriston Place and Lauriston Park. The cost of the building is estimated at £10,500, and the institution will bear the name of the Edinburgh Royal Maternity and Simpson Memorial Hospital, in respect that towards its erection £3,000 was contributed by the Simpson Memorial Committee.

HEALTH OF EDINBURGH.

THE Edinburgh rate of mortality has been steadily rising for the last three weeks, and last week the deaths amounted to 125, which gives an annual rate of 30 per 1,000 living. This great increase may be accounted for by the continued prevalence of diseases of the chest, which may be roughly stated to have been the cause of half the deaths. The zymotic mortality is still low, and the solitary death from fever occurred last month, and has only now been recorded.

NEW PERMANENT HOSPITAL AT BELVEDERE.

THE official inspection of the new permanent hospital at Belvedere, Glasgow, which has just been completed, was made on Wednesday, the 5th instant, and afterwards the ceremony of handing over the building to the Glasgow authorities took place. There was a large assembly of members of the municipal and parochial bodies, including Lord Provost Collins, Dr. Andrew Buchanan, President of the Faculty of Physicians and Surgeons, Dr. Russell, Medical Officer of Health, and others. The original intention in building the new hospital was to afford accommodation for cases of small-pox and other epidemic diseases. The scheme was first suggested in 1868, at a time when fever was prevalent, and the temporary hospital was found insufficient for the wants of the city. In 1870, the Lord Provost and magistrates, by virtue of powers obtained for the purpose, purchased the estate of Belvedere, thirty-three acres in extent, at a cost of £17,000. The new hospital, which is most complete in all its details and arrangements, consists of five positions. Each position is divided into two distinct wards, each having a smaller or convalescent ward, with bath-rooms, etc., attached. As fitted up at present for small-pox patients, there are thirty-two beds in each position, making one hundred and sixty beds in all. The main wards are each 56½ feet in length, 22 in breadth, and 16½ in height. The grounds are neatly laid out, and the design of the buildings is harmonious and tasteful. The total cost of the hospital is fully £30,000, exclusive of the cost of the grounds.

GLASGOW ROYAL INFIRMARY DORCAS SOCIETY.

THIS Society, a most useful adjunct, or rather supplement, to the Infirmary, has issued its annual report. During the year ending November 1877, out of the 4,901 persons admitted to the Infirmary, 854 were supplied with clothing, and 38 with artificial limbs, trusses, etc.: the expenditure on these objects had been upwards of £500. It was much to be regretted that the outcry which had been raised, most unfairly, against the nurses of the institution on account of their religious faith, had induced several of the contributors to withdraw their usual subscriptions.

SANITARY LECTURE.

THE first of two lectures, on "Some Sanitary Requirements of Healthy Houses", was delivered, last week, by Dr. James A. Russell, in the Hall of the Royal Scottish Society of Arts, Edinburgh. The object of the lectures, and others of the same kind which will probably follow, is to bring the subject, from a medical and scientific point of view, under the notice of builders and plumbers. After glancing at the things to be considered in choosing a site for a house, Dr. Russell pointed out the very great importance of rendering the subsoil dry and warm by deep drains. The want of attention to this point was the source of half the cases of pulmonary consumption, heart-disease, and rheumatism. Subsoil-water should be at least three feet below the foundations, and as much more as can be got. The drains should have no blind ends, but should have a constant circulation of air. The

lecturer then went on to speak of the various apparatus for carrying away the waste-water from the interior of dwellings. House-drainage had become a battle with sewer-gas; it affected children especially, making them weak and puny. No pipe should contain anything but fresh air in a state of motion, and no trap should contain anything but pure water. Pipes should be as long as possible, it being so difficult to make joints tight. Long iron pipes, well soldered with lead, were much preferable to short earthenware ones. Water-closets should have separate cisterns, and every waste-pipe should have a trap on it. In the next lecture, he proposed to treat of the warmth and ventilation of houses.

THE EFFECTS OF WEATHER ON HEALTH.

A PAPER was read last week, before the Philosophical Society of Glasgow, by Mr. Alexander Buchan, the well-known Secretary of the Scottish Meteorological Society, on "Some of the more striking Relations of Meteorology to Public Health". Diarrhoea, bronchitis, scarlet fever, and whooping-cough were, he said, among the diseases which showed implicit obedience to weather influences. During December, January, and February, the mortality among females rose to 11.2 per cent. above the average; whereas among males it only rose to 7.8 per cent. From the incompleteness of the registration returns, however, it was impossible to say how much of the excess during the coldest months of the year was due to sex, how much to occupation, and how much to their boots or other fashions. A comparison of the meteorological with the mortality returns, showed strikingly the influence of particular types of weather in largely increasing or diminishing the number of deaths from particular diseases. Periods of unusual cold, for instance, combined with dampness, in the end of autumn, had a proportionally increased mortality from scarlet and typhoid fever; periods of cold with darkness, in spring, produced mortality from brain-diseases and whooping-cough; cold, in winter, left an enormously increased mortality from all bronchial affections; and heat, in summer, presents a startling, and, in many cases, an appalling death-rate from bowel complaints.

IRELAND.

DR. WILLIAM WESTROPP died at his residence, George Street, Limerick, on the 5th instant, aged 73. The deceased was a graduate in medicine of the University of Glasgow, and formerly held the post of medical officer to the Kilpeacon Dispensary District.

THE post of Assistant Librarian of the Royal College of Surgeons in Ireland, vacant by the death of Dr. Handsel Griffiths, has been filled by the appointment thereto of Mr. John Alexander Spencer. There were several candidates for the office, the emoluments of which are £100 per annum, including several non-professional men. Mr. Spencer is a licentiate of both the Irish Colleges, and has been lately in practice in the County Donegal. He served for some time as surgeon in the United States army during the war of the rebellion.

THE WATERFORD ASYLUM.

THE office of Medical Superintendent of the Waterford District Lunatic Asylum has become vacant by the death of Dr. Conolly. Dr. Ringrose Atkins, Assistant Medical Superintendent of the Cork Asylum, is a candidate for the appointment. Dr. Atkins has, by his energetic cultivation of the scientific branches of his speciality, no less than by his general energy and practical administrative power, shown himself to possess very high qualities, such as cannot fail to recommend him for any important office in lunacy administration.

SANITARY CONDITION OF TALLAGHT.

THE Executive Sanitary Officer lately reported to the Sanitary Board of the South Dublin Union, that he had visited and inspected this village for the purpose of examining the sewerage. He states that

several of the houses in the place have no rears, and are totally unprovided with any sanitary accommodation whatever, the consequence being that the entire refuse is thrown into the roadway immediately in front of the dwellings, causing an intolerable effluvia. He recommends that the subsanitary officers should serve notices upon the landlords of the dwellings so situated, requiring them to provide proper sanitary accommodation for the inmates; and, should these notices be disregarded, to close the houses as being unfit for human habitation. We fear there are many villages adjacent to Dublin similarly placed to Tallaght in the total absence of all sanitary requirements for a large portion of their inhabitants.

BELFAST WATER-SUPPLY.

AT a recent meeting of the Chemico-Agricultural Society of Ulster, Dr. Hodges, Borough Analyst for Belfast, directed attention to the present condition of the water supplied to that town. He stated that in several examinations which he had made he had found it to contain an excessive amount of decomposing organic matters. The engineer of the Water Commissioners had very properly recommended that the water should be filtered before being supplied to the town. Dr. Hodges observed that the pollution of the water from the tillage and manuring of the lands about the reservoirs and from other causes was increasing, and he considered that the inhabitants of the town had a right to claim that the water sold to them should, as far as possible, be given to them in a pure unpolluted condition. No expenditure of money by those entrusted with public funds is more justifiable than that employed in providing a wholesome supply of water.

SIR PATRICK DUN'S HOSPITAL.

THE following is the report of the Committee appointed on November 24th, 1877, by the Provost and Senior Fellows of Trinity College, Dublin, to consider the existing relations between Trinity College, the King and Queen's College of Physicians, and Sir Patrick Dun's Hospital. The report was adopted by the Provost and Senior Fellows of Trinity College, December 1st, 1877. "Your Committee do not recommend that any alteration should at present be proposed in the School of Physics Acts. Your Committee adhere to the opinion already expressed by the Provost and Senior Fellows, that it is essential to the prosperity of a large medical school to have a well managed hospital in direct connection with it. Your Committee find, on inquiry, that Sir P. Dun's Hospital is constructed to maintain eighty beds constantly filled, and believe (if that number of beds could be kept up) that hospital to be admirably qualified to be the hospital of the Trinity College Medical School. Your Committee recommend that the governors of Sir P. Dun's Hospital should be aided in their efforts to maintain their hospital in full working order, by the following proposals:—1. That Trinity College shall pay for patients admitted into Sir P. Dun's Hospital, from the fifty-first to the eightieth patient (both included), from October 1st till March 31st each year, at the rate of 1s. 3d. per patient per day; 2. That the governors of Sir P. Dun's Hospital shall undertake to maintain eighty patients from April 1st to June 30th each year; 3. That the governors of Sir P. Dun's Hospital shall arrange with their medical officers to assign to each officer a certain number of beds in continuous charge; 4. That all students residing in Trinity College shall be entitled, when suffering from any of the fevers, to admission to the pay wards of Sir P. Dun's Hospital free of charge. N.B.—This arrangement to continue in force until December 31st, 1882. (Signed) Andrew S. Hart, Vice-Provost; John H. Jellet, Senior Lecturer; Samuel Haughton, Medical Registrar."

PROFESSOR COHNHEIM of Breslau has accepted an invitation to the Chair of Pathological Anatomy and General Pathology in the University of Würzburg. The former occupant of the professorship, Dr. E. Wagner, has been appointed to the Chair of Clinical Medicine vacant by the death of Professor Wunderlich.—A Clinic of Mental Diseases has been instituted in the University of Heidelberg, and Dr. C. Furstner has been appointed professor.

HYDROPHOBIA AND RABIES.

THE Committee recently appointed by the Scientific Grants Committee of the British Medical Association "to organise an inquiry into the Causation, Pathology, and Treatment of Rabies and Hydrophobia", consisting of Mr. Callender, F.R.S., Dr. Burdon Sanderson, F.R.S., Dr. T. Lauder Brunton, F.R.S., Mr. Ernest Hart, and Dr. Gowers, desire to announce that they will feel favoured if any medical gentleman having under his care a case of hydrophobia will kindly communicate with them. In any cases of hydrophobia or of rabies in which a *post mortem* examination is made, they will be glad to receive for investigation the following parts; namely, the spinal cord, medulla oblongata and pons Varolii, a small piece of the cerebellum, corpus striatum, convolutions of the middle third of the brain, one of the salivary glands, the nerves leading to the part bitten, portion of the liver and of the kidneys, and the scar. These should be at once placed in a mixture of equal parts spirit and water (or, if the organs be at all softened by commencing decomposition, in a mixture of three parts of spirit to two parts of water), and forwarded with as little delay as possible, together with a report of the *post mortem* appearances, to the Office of the British Medical Association, 36, Great Queen Street, London, W.C.

The members of the Committee are also anxious to have the opportunity of visiting cases of hydrophobia under treatment, or of attending any *post mortem* examinations in fatal cases.

SCIENTIFIC GRANTS MADE BY THE BRITISH MEDICAL ASSOCIATION FOR THE YEAR 1877-78.

THE following grants in aid of researches have been made this year by the Committee of Council on the report of the Scientific Grants' Committee of the British Medical Association.

Mr. Gaskell.—In aid of a Research on the Reflex Action of the Vascular System and Muscles and Reflex Vaso-motor Action generally	£	s.	d.
Mr. Langley.—In aid of a Research on the Changes produced in the Salivary Glands by Nerve Influence	30	0	0
Dr. Rutherford, F.R.S.—For a continued Research on the Action of Cholagogues	25	0	0
Drs. Braidwood and Vacher.—For Engravings for Illustrating the Third Report on the Life-History of Contragium	50	0	0
Mr. Pye.—In aid of a continued Research for the Investigation of the relation that the Retinal Circulation bears to that of the Brain	40	0	0
Mr. Bruce Clarke.—In aid of a continued Research on Syncope and Shock	8	15	0
Mr. A. S. Lee, Heidelberg.—In aid of a Research on the Quantitative Determination of Digestive Products obtained by the Action of Pancreatic Ferment upon the various Albumens	10	0	0
Dr. McKendrick, Glasgow.—In aid of a continued Research into the Antagonism of Drugs	25	0	0
Dr. McKendrick, Glasgow.—In aid of an Investigation into the Dialysis of Blood—renewed	10	0	0
Dr. John Barlow, Muirhead Demonstrator of Physiology, Glasgow.—In aid of an Experimental Investigation into the Changes produced in the Blood-Vessels by Alcohol	10	0	0
Dr. Joseph Coats, Dr. McKendrick, and Mr. Ramsay—a Committee upon the Investigation of Anæsthetics	50	0	0
Dr. McKenzie.—A Research on Pyæmia	25	0	0
Mr. Callender, F.R.S., Dr. J. Burdon Sanderson, F.R.S., Dr. T. Lauder Brunton, F.R.S., Mr. Ernest Hart, and Dr. Gowers—a Committee appointed for the Investigation of the Pathology and Treatment of Hydrophobia	100	0	0
	£	413	15

The reports of these investigations will appear in the forthcoming volumes of the BRITISH MEDICAL JOURNAL, printed in large type, and separately paged, so as to form a supplement capable of being bound as an additional volume.

FORTHCOMING PAPERS.

IN the January numbers of the BRITISH MEDICAL JOURNAL for 1878, we shall publish, among the lectures and papers, the Brown Lectures of Dr. Burdon Sanderson on Infective Diseases, with illustrations specially prepared for the JOURNAL; three Clinical Lectures by Mr. William Savory, F.R.S., of St. Bartholomew's Hospital, on a Case of Naso-pharyngeal Polypus; on a Case of Aneurism of the Dorsalis Pedis Artery; and on Phlebitis; an Address by Dr. Hudson of Dublin at the Dublin Branch of the British Medical Association; papers by Dr. Keith of Edinburgh on a Fifth Series of Fifty Cases of Ovariectomy and on Antiseptic Ovariectomy; by Dr. Marion Sims, on the Surgical Treatment of Dysmenorrhœa (fully illustrated); and on Epi-

thelioma of the Cervix; together with a series of papers by Dr. Simpson of Manchester, Dr. Philipson of Newcastle-upon-Tyne, Dr. Mahomed, and Dr. F. T. Roberts, on the Treatment of Aneurism; and by Mr. Arthur Durham and Mr. Berkeley Hill, on Internal Urethrotomy; by Dr. Brabazon, on the Uses of the Mineral Waters of Bath; etc.

THE ASSOCIATION IN IRELAND:

THE DUBLIN BRANCH.

WE referred last week to the approaching annual meeting of the Dublin Branch of the Association, to be held on the 30th January next. The Fellows of the King and Queen's College of Physicians in Ireland, we are informed, have most courteously unanimously granted permission to hold the meeting and dinner of the Branch in the magnificent hall of the College. They have thus shown, in a graceful manner, the opinion held in the Irish metropolis of the importance of this so recently established addition to our Association. Although we have for some years numbered a very considerable and important body of members in Dublin, they had until lately been content to remain without Branch organisation, and, consequently, without adequate representation in the central executive of the Association. The Dublin Branch dates from the 18th of May of this year. It commenced with thirty-five members, and now numbers one hundred and six. This number, which includes many new members of the Association, will, we have no doubt, be increased by the date of the annual meeting; and, with the inducement of an address from its distinguished President Dr. Hudson, and the *prestige* that will be lent to the Branch by its place of assembly, all circumstances will contribute to make the first annual gathering of the second Irish Branch of the Association an event of considerable interest and importance.

"Union is strength"; and in no profession is union more necessary than in ours. Nothing has done more to retard the advance in the social status of its members, especially those in remote country districts, than want of union. Those who are acquainted with that esteemed Nestor of medicine, Dr. Stokes, know that one of the most cherished objects of his life was the establishment of an intimate connection between the medical profession and the State. In the absence of a representative union between its individual members, such much-to-be-desired connection would be unattainable, and the mutual welfare of the whole body of the profession consequently suffer. The constitution of the British Medical Association, with its numerous and rapidly increasing Branches, furnishes medical men with the means, not only of becoming members of a "great national professional union", but also of improving themselves scientifically and socially, and adding in the most effective manner their quota to progress. Numbering, as it now does, upwards of 7,000 members, the influence which the Association has upon the legislature, in all questions relating to the interests of the profession, or the advancement of medical or sanitary science, is universally recognised. Through the medium of its Branches—each of which, however, is independent and autonomous—every member of the Association may be represented on its Council; and thus enabled to extend the usefulness of the Association by socially enlightening and guiding its action and strengthening its hands. In Ireland, it has been said by some that the existence of the Irish Medical Association rendered the introduction of the British Medical Association Branch system into the country needless. To such objections, it may only be necessary to remark that the objects of both Associations are identical. The Associations have frequently worked together harmoniously, and we doubt not will always continue so to do. Several of the most active members in the formation of the Dublin Branch, and now its officers, were also members and officers of the Irish Medical Association.

One feature in connection with the British Medical Association is its JOURNAL; and here we would only remark that we have made arrangements for representing Irish medicine and Irish medical affairs side by side with British medicine and medical affairs more completely, in the BRITISH MEDICAL JOURNAL, than has yet been done in any other English or Irish medical journal.

CORK AND THE SOUTH OF IRELAND BRANCH.

IN 1874, the South of Ireland Branch was established under the presidency of Dr. Thomas Gregg, whose death, last year, was recorded in this JOURNAL. Dr. Gregg was Surgeon to the Cork County Hospital, and took from its origin an active interest in the Branch and its organisation. Dr. H. Macnaughton Jones, who was mainly instrumental in originating the Branch, was the first honorary secretary,

and held the office until two years since, when he resigned the post in favour of Dr. Ringrose Atkins, who has since energetically laboured to promote the interests not alone of the local Branch, but of the parent Association in the South of Ireland. The Branch includes in its sphere of operations the counties of Cork, Kerry, Waterford, and Limerick. There are now sixty or seventy members, and each of these counties is represented by medical men of position. Cork is likely to attract considerable attention in a professional and scientific point of view in the next few years, as the visit of the Association to the city is regarded as settled for the year 1879; and it is only right that this ancient city, which has been the birthplace of many eminent scientific men in all professions, should receive a visit, the second to Ireland since the formation of the British Medical Association.

Cork has a large and thriving Medical School, there being generally about two hundred on the class-roll. The Queen's College is situated a short distance, about five minutes' drive, from the city, and is a most picturesque building, now completely fitted up with all modern accessories in the various departments, whether of arts or medicine, necessary for teaching purposes. Dr. Sullivan, the president, is a man of great energy, and has a special regard for the advancement of the College in its medical aspect; consequently, he has gone to considerable trouble to obtain from Government sufficient funds to place the medical buildings of the College on a proper footing for teaching purposes. New museums, lecture-rooms, laboratories, and a splendid anatomical lecture-room, are in course of construction; and, by the time the Association visit Cork, will be in full use. The President and Council of the College are entering heartily into the scheme of preparing proper accommodation for the 1879 visit, and the members may rely on having a building just as suitable for the business of the meeting and as comfortable for the members as the Owens College at Manchester.

There is plenty of interesting professional work to be seen in Cork. The County Hospital contains one hundred beds; the North Infirmary about as many more; the Mercy Hospital, sixty beds; and there are several special hospitals, for diseases of the eye and ear and other specialities. Psychologists will find the Asylum for Treatment of the Insane a few minutes' drive from the city. Dr. Eames, this year elected President-elect for 1879 of the Branch, is the resident medical superintendent; and when the Association visits Cork, he will be found most anxious to give the members who take an interest in this special department, every opportunity of seeing this institution. Dr. Ringrose Atkins, whose researches in psychological work are so widely known, is the assistant resident officer; and we may hope for a valuable and rare collection of morbid specimens and microscopical preparations connected with the diseased conditions of the nervous system, to be exhibited by him in August 1879.

But in other aspects than a purely professional and scientific one, the Association is to be congratulated on their contemplated visit to the capital of the Yorkshire of Ireland. It is in the centre of the most delightful scenery; within easy distance of Killarney and its far-famed lakes; of the romantic Blackwater and the picturesque scenery from Cappoquin to Lismore Castle, the seat of the Duke of Devonshire; also the towns of Bandon, Mallow, Youghal have each special attractions. But, beyond all, is the unsurpassed river scenery of the Lee, and the splendid natural harbour of Queenstown, perhaps the finest in the world. Altogether, there is, in the immediate neighbourhood and vicinity of Cork, ample means for enjoying a holiday. The trip to the West Coast of Ireland, taking in Limerick, Kilkee, and Kiltush, and on to the Giants' Causeway, returning by Dublin to the exquisite scenery of the County Wexford, is as delightful a week's excursion as any we know of. Most of the local points of interest can be visited during the week of the Association visit; and, though we believe it is contemplated having excursions to Killarney, the Blackwater, Queenstown, etc., on the Saturday ending the meeting, still, those who have not previously visited Ireland on a holiday tour, will find in this an ample opportunity of combining profit with pleasure, and laying in a stock of health in the midst of the exhilarating scenery of the south.

The Association has but on one occasion previously visited Ireland: Dublin was favoured in 1867. The presence of this body in the southern Irish metropolis will do much to advance there a spirit of professional ardour in scientific matters and stimulate the members of our profession there resident to fresh exertions in the cause of medical science generally.

The Branch of the Association in the South of Ireland is to be congratulated on the exertions made by its officers to invite the Association to Cork in 1879; and the Committee of Council of the Association has shown its appreciation of this unanimity, and of the hearty co-operation of the members of the profession residing in the South of Ireland, by the warm resolution of thanks recently recorded and given to the South of

Irel and Branch for its action in this matter. The members may, therefore, anticipate a most enjoyable trip to the Emerald Isle in 1879, and one which, we are sure, will conduce as much to the health as to the intellectual advancement of those who participate in it.

REFORM OF THE CORONER'S COURT.

Letters from Dr. J. C. Cormack, Dr. William O'Neill, Mr. Samuel Mills, and Dr. Charles Grabham.

IN reference to the recent meeting of the Parliamentary Bills Committee reported in the JOURNAL, on the subject of the Reform of the Coroner's Court, at which the suggestions of Dr. Alfred Swaine Taylor, F.R.S., Dr. D. Ferrier, F.R.S., Dr. Hardwicke, and Dr. Southey were considered, we have received valuable communications from Sir Robert Christison and Dr. Diplock (the Coroner for West Middlesex), which will be laid before the Committee; and the following communications. Dr. Taylor and Mr. W. H. Michael are preparing some further notes on the subject for the consideration of the Committee, and meanwhile we invite the free expression of professional opinion on the subject.

DR. J. CLAUD CORMACK of the North Dispensary, Liverpool, writes to us:

In a leading article in the BRITISH MEDICAL JOURNAL of December 1st on "The Law of Coroners' Inquests", I notice you invite a discussion in the JOURNAL by those members of the Association who take an interest in the reform of the Coroners' Court. I have had considerable experience in medico-legal cases for some years, through my connection with this institution as resident medical officer. I would suggest that the Coroners' Court, instead of consisting, as at present, of a coroner, beadle, jury, and bailiff, should consist of the following officers: 1. The coroner; 2. The medical referee; 3. The analyst; 4. The registrar; 5. The jury; 6. The bailiff. I will now take them in their order, dealing with their qualifications, appointments, and duties.

1. *The Coroner* should be a barrister of at least seven years' standing at the bar. He would thus be more suitable for the office than a medical man, from his knowledge of the law, his training in sifting evidence, and his better capability of charging the jury upon the law and evidence; while, in all cases, he would be assisted, as regards the medical facts of a case, both before and during the inquest, by

2. *The Medical Referee*.—This would be the creation of a new office, and the gentleman holding this post should be a registered medical and surgical practitioner of at least seven years' practice at his profession. He should also hold or have held some public medical appointment conferring on him large experience in *post mortem* examinations and medico-legal duties. His services should only be required at inquests where there is no medical witness, as in cases of persons found dead, dying, or in sudden deaths, etc., or in inquests where there is a likelihood of a charge of murder, manslaughter, or civil action being sustained. In such cases, he should in no way exclude the evidence of the medical man in attendance on the deceased before death. The medical referee should give no opinion in any case as to the cause of death without a *post mortem* examination. In large cities or towns, a fixed salary ought to be attached to his office of such amount as to be recuperative of being debarred from private practice, which would be rendered impossible to himself, from his constant attendance at inquests, criminal and civil courts for days and perhaps weeks, as well as dangerous to his patients, from his liability of communicating to them the infection of the deadhouse. If possible, all *post mortem* examinations should be made by clear daylight, and not by artificial light, which I believe to alter very much pathological appearances; they should also be made within twenty-four hours after death, especially in summer, if convenient.

3. *The Analyst* should be a Fellow or Member of some College of Chemistry, and at least of seven years' standing, being in actual practice as an analytical chemist while he holds the appointment. The medical referee, with the sanction of the coroner, should determine when a chemical analysis is requisite, and the analyst should be paid by fees in each case. The public analyst or medical officer of health (if qualified to undertake analyses) for the district might hold this office.

4. *The Registrar* should be a solicitor of at least five years' standing, or, if not a solicitor, an educated and otherwise competent person, similar to a clerk to magistrates. His duties should consist in viewing

the body, making all preliminary inquiries concerning the cause of death, and reporting the same to the coroner; also taking all depositions of witnesses and paying all fees, etc. My object in suggesting the institution of this office in connection with the Coroners' Court is for the purpose of abolishing the post of beadle which, in the majority of cases, is held by some ignorant person, such as a policeman or old soldier, who has the making of all preliminary inquiries and framing of a report according to his ideas, which, with some coroners, may influence their decision as to the desirability of holding an inquest or not. Perhaps, on further consideration, the best person to fill the office of registrar would be the registrar of deaths for the district, provided only that this person be a medical man; but on no account would I appoint the present registrars of deaths, as a great many of them are as incompetent as the beadles, not knowing the meaning of the causes of death they register. Again, by the registrar viewing the body, and swearing as to its identity before the court and jury, the necessity of their going through this useless formality would be dispensed with, to the advantage of the public, as regards expense, the friends of the deceased as regards their finer feelings, and the coroner and jury as regards time and fatigue. I only know one case where viewing the remains was serviceable, and that was where a number of bones were unearthed in a Midland county; the coroner, on the beadle's recommendation, held an inquest, and the jury, on going several miles to view the bones, discovered them to be those of a common jackass.

5. *The Jury* should be retained, and consist of twelve men. The public will always have more confidence in inquiries held before a full and open court than before a few officials; but, as a prisoner committed on the coroner's warrant to the assizes will have his case reheard before the grand jury and a special or common jury, as the case may be, I do not see why the *agreement of the majority* of the coroner's jury should not answer for a mere commitment. Thus a great amount of time and trouble would be saved in cases where one or two jurymen hold out, the whole jury eventually having to be discharged. The coroner's jury not having to view the body, a more respectable body of men might be collected to serve than are generally to be found on coroners' juries. The law ought also to provide better remuneration to jurymen, especially in cases of protracted inquests.

6. *The Bailiff* should summon all witnesses, make arrests, collect and take charge of jury, etc.; also prepare and provide suitable accommodation for holding inquests and *post mortem* examinations (where none exist). In my opinion, the police-stations throughout the country are the proper places for the establishment of public mortuaries and the holding of inquests.

Regarding the election of coroners and other officers of the court, in no case should the election be placed in the hands of either the county or borough magistracy, as they are a body most unsatisfactory to deal with afterwards, from the high-handed manner in which they conduct the working of public business. The election in counties should be in the hands of the freeholders on the franchise lists, and in boroughs entrusted to the mayor and members of the corporation. The appointments should be confirmed by the Home Secretary. The payment of all salaries of the officers of the Coroners' Court, as well as all witnesses' fees and other general working expenses, should be defrayed in part by the boroughs and counties in which the inquests are held, and also by the Imperial exchequer. In connection with the question of fees, I may mention that provision ought to be made in any future legislation for the payment of the regular fees to the resident medical officers of hospitals and infirmaries who have, under the existing regulations, to make *post mortem* examinations and give medical evidence on all patients dying in their charities free of charge. I would also suggest that the ordinary private practitioner should not be compelled to attend from day to day the court for the one fee, but to be paid for every day of his attendance. In conclusion, I would recommend that a schedule of cases for inquests, meeting the requirements of the age in which we live, be drawn up, not only for the guidance of the coroner, but also for that of the profession and the public.

Dr. WILLIAM O'NEILL of Lincoln writes to us:

I agree for the most part with the memorandum submitted by Dr. Taylor to the Parliamentary Bills Committee; but I venture to differ from him in his proposed mode of electing the *post mortem* examiners and analysts, and I also venture to differ from Dr. Hardwicke in the way in which he would elect the coroners. To entrust the election of coroners and their professional officers to magistrates and ratepayers would be to perpetuate one of the greatest abuses of the present system, and to lay the appointments open, in many cases, to favouritism and jobbery. I am of opinion that the appointments should be

made by the Home Secretary or by a suitable examining body. I should like to see a fair number of the new coronerships fall to competent members of the medical profession; but, whether the Government elect that the new coroners should be taken from the legal or medical profession, it is to be hoped that on no account should they be permitted to hold other appointments. Their districts should be sufficiently extensive to occupy their whole time and attention, and their salaries should be adequate to their positions and to the importance of their office. With respect to the making of analyses, I am afraid the country would never be satisfied, at least at the outset, with those made by young men, as the majority of the analysts doubtless would be. It would, therefore, be better that such important matters should be entrusted to men of recognised authority in London.

Mr. SAMUEL MILLS of Southampton Street, Covent Garden, writes to us:

I am Surgeon to the Bow Street Police Station and Thames Division of Police at Waterloo Bridge Pier, appointments which have acquired for me exceptional experience in making *post mortem* examinations and giving evidence thereon. As regards the medical witness, Dr. A. S. Taylor proposes to discontinue the employment of the local or general practitioner in these forensic inquiries, on the ground of their incapacity, arising from inadequate experience. This is a grave and sweeping charge against two classes of general practitioners, to whom has fallen a very large share of the work in question: Divisional Police Surgeons and Poor-law Medical Officers. In my own case, rarely a week passes without my being summoned to cases of sudden death, such as found drowned, suicides, and deaths from violence. During the last eight years, I have made upwards of three hundred *post mortem* examinations for coroners' inquests, and have given medico-legal evidence before magistrates and at sessions in twenty cases, at least, in each year. Doubtless, many others holding similar appointments have had experience equal or approaching to this; and, if so, the above charge of want of experience certainly requires considerable modification. It is worthy of note that Dr. Ferrier is not in favour of the exclusion of medical witnesses from private practice; and that Mr. Carttar, the able and experienced coroner, attaches great importance to the evidence of "the medical man attending at the time of death". The men chosen to perform these important forensic duties are not selected haphazard, for, as regards police surgeons, they receive their appointments from the Home Secretary, upon the recommendation of Mr. Holmes, the chief surgeon. I freely admit that the present system of summoning medical witnesses requires improvement. Nor can it be questioned that, in cases calling for analysis, it is desirable to call in the aid of a special analytical expert.

Dr. CHARLES GRABHAM of Pontefract writes as follows:

I am one of the coroners for the honour of Pontefract, a large tract of the West Riding of Yorkshire, and hold my office by letters patent under the seal of the Duchy of Lancaster. My jurisdiction embraces one hundred and twenty-five townships, about a dozen large collieries, many miles of navigable rivers, and it includes the port of Goole, with its extensive docks. My mileage per inquest is twelve miles and a half, and I frequently travel twenty-six miles to hold one inquest; and have to do a great deal of cross-country work by horses. I have held my office three years and a half, and so far find the machinery to run smoothly. No doubt, the Home Secretary's new Act will make the appointment of coroner a legal one, with special qualifications. As regards the election, it should be taken out of the hands of the freeholders and vested in the Crown. On no account should it rest with the magistrates to appoint. If Mr. Carttar's plan of ordering *post mortem* examinations and then deciding himself as to the propriety of holding an inquest were permitted, it would save much trouble and expense to the county; but I think it requires a medical coroner to decide this important question. My own magistrates would not allow me to take this course. As to mortuaries and special *post mortem* makers, they would not be practicable in an extensive outlying district like mine. It is important, for the sake of economising time, that the body should be near to the place of holding the inquest, which is sometimes on the bank of a river. As to holding the inquest at a public-house, it is, without doubt, most objectionable, but in country districts cannot be avoided. Wherever possible, I hold my inquests in private houses, village schoolrooms, or boardrooms. A short time ago, I held one in a Dissenters' Chapel. I think the jury ought not to be obliged to view the body. In cases of infectious diseases, when the bodies have been exhumed, or have been a long time in the water and are very offensive, I let them have a view through a window, or some loop-hole. With regard to the selection of *post mortem* makers, I generally summon the police-surgeon or parish doctor, but *always* the medical man in attendance

during life. In the great majority of cases, I am perfectly satisfied with the result. I want no *experts*. Give me an intelligent young surgeon fresh from the schools, whose diplomas should guarantee a sufficient knowledge of modern pathology and medical jurisprudence. Such men are to be had in plenty.

In conclusion, allow me to express my concurrence with the learned editor of the last edition of *Ferri's on Coroners*, who says that "coroners, who, by virtue of their office, are conservators of the peace and magistrates, ought not to be made amenable for their actions to those with whom they might, with considerable show of reason, claim equality". Therefore, a coroner should have a seat on the Bench.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

M. Sée on Salicylic Acid.—M. Broca on Man's Place in Nature.—Spectacles for Soldiers.—Beards and Moustaches for Soldiers.

As is generally the case with all new remedies, the introduction into practice of salicylic acid and its preparations has been most enthusiastically welcomed by the profession both here and elsewhere. Although it has been for some time known in Germany and Great Britain, to Professor Germain Sée is due the indisputable honour of having introduced salicylic acid into France, at least as a therapeutic agent. As soon as his report that was read before the Academy of Medicine was published, he was literally assailed by rheumatic and gouty patients, who came from all parts of the country to consult him. M. Sée has made a good thing of it; for I am told that a gouty old gentleman, who was one of the first to apply to him for advice, had to put down 2,000 francs, or £80, for the consultation. As may be imagined, the *pharmaciens* are also making a good harvest, and they offer the new remedy to the public in every variety of form as a panacea for the affections for which they are and are not indicated; but an unwitting public, easily gulled, soon find to their cost that not only they have not been cured, but, terrified by some of the disagreeable symptoms produced by the medicine, give it up without allowing it a fair trial, and thus throw discredit on a remedy which, if properly and intelligently employed, may be looked upon almost as a specific in the treatment of gout and rheumatism. At least such is the experience of M. Sée and others, and, in a conversation with him, he assured me that his success with the new medicine has been so unexpected and overwhelming in the cure of these two affections, that he has been induced to try it in other analogous complaints, such as arthritis, produced by surgical or other causes, and the results have been identical with those effected in gout and rheumatism; viz., marked amelioration, if not complete cure, in two or three days. He is not prepared to explain the *modus operandi* of salicylic acid in these cases; but believes that, besides being an analgesic, it promotes the absorption, and prevents the reproduction, of morbid products, thus rendering *nil* one of the principal arguments brought against it by its detractors, that it would favour rather than prevent valvular disease of the heart and great vessels. The detractors of the new remedy put forward as another argument against it the constant failures they have met with in their practice, to which M. Sée replies that it is not the medicine that is to blame, but the failures are owing most probably to the timidity with which certain practitioners have prescribed it; for, to be effective, it must be administered in sufficiently large doses: four to six *grammes* (sixty to ninety grains) a day of salicylic acid, or eight to ten *grammes* (one hundred and twenty to one hundred and fifty grains) of the salicylate of soda. He gives a decided preference to the latter, as being more soluble and more manageable, and prescribes it largely diluted in the proportion of one-tenth. Sometimes, however, severe gastric symptoms arise; but, in the great majority of cases, they may be put down to the impurity of the salt. Sometimes the salicylate produces other disagreeable symptoms, such as deafness, tinnitus aurium, and a peculiar cerebral disturbance; but these need not alarm the physician, as they soon vanish on a discontinuance of the medicine for a short time. Another accusation brought against it is its toxic action on the system even in moderate doses. Here M. Sée observes that, if pure, the salicylate of soda may be administered to the extent of twenty *grammes* (three hundred grains) a day, without fear of poisoning the patient, as the salt is so quickly eliminated, that it can have no time to accumulate in the system.

The reopening of the Anthropological Institute of Paris took place on Saturday, the 1st instant, with a lecture by M. Broca on man's place in Nature. The learned Professor entered fully into the his-

torical part of the question, in doing which he referred to the different opinions extant as to the distance which separates man from his nearest neighbours in the scale of the animal creation. According to some authors, the distance is incalculable, so much so that man constitutes a distinct species or order, to which they have given the name of human or hominal. According to others, man does not belong to a distinct species, but is intimately connected with, and forms part of, the great family of anthropoids or monkeys. Between these two extremes, nearly every intermediate degree has been assigned to man, thus forming, according to the different methods of classification, a branch, a class, a subclass, an order, or a family in the zoological scale. M. Broca condemns these classifications as being more ideal than real, and proposes one which alone can stand the test of a rigorous examination, and respond to the true scientific notions of comparative anatomy: that which constitutes man as a member of the great family of the order of primates.

Among the lessons learned by the French in the late Prussian war is the fact that, with the aid of spectacles, short-sighted soldiers can fight as well as those whose sight is not affected. On the representation of Dr. Perrin, one of the professors of Val-de-Grâce, a ministerial circular authorises the rank and file, in common with officers, to wear spectacles whenever considered necessary. The consequence is, that myopic subjects who used formerly to be rejected are now enlisted in the French army.

Another ministerial circular, ordering officers and soldiers to wear the moustache and beard, has lately appeared. The latter is to be in the form of a *mouche*, consisting of only a small tuft under the lower lip: the style of the royalists. This was superseded under the Empire by a fuller beard called the "imperial"; but those in the colonies have the option or not of wearing the full beard; all officers and soldiers to have their hair cut quite close. Thus we see that moustache or no moustache, beard or no beard in the French, and indeed in our own army, depends entirely on the whim of the commander-in-chief. When will the authorities learn to treat soldiers like intelligent beings, and allow them to wear what Nature has endowed them with?

MANCHESTER.

[FROM OUR OWN CORRESPONDENT.]

Royal Infirmary.—The New Board.—New Students.—Hospital Rev.—Medical Students' Debating Society.

For many years past, the recurrence of erysipelas, or pyæmia, has compelled the Medical Committee of the Infirmary from time to time to protest to the Weekly (*i. e.*, governing) Board against the bad ventilation and the worse drainage of the hospital. In the intervals of these representations, matters have been allowed to sink back into their former state; and so affairs went on, until Mr. Netten Radcliffe's report, by its very specific charges of bad construction, and with his revelations about the drains, roused the public opinion of Manchester, all the more readily indeed as arguments in favour of removing the infirmary altogether were coupled with the accusations against its fitness for the work. As the first fruits of this general agitation, the new Board was elected, and, so far as it has gone, it certainly merits credit for energy and resoluteness of purpose.

The oft-repeated cry of the Medical Committee is no longer to be ignored or neglected; but immediate steps are to be taken to remedy the most glaring faults connected with the drainage and the ventilation. It is to be hoped that no unnecessary obstacle will now be placed in the way of the General Board by those members of the Medical Committee who are out and out removalists. Whatever be the future fate or site of the hospital, nothing in the shape of removal can be contemplated as possible for the next five years; and, in the meantime, it is certainly desirable that the drainage be put to rights, and, as far as possible, fresh air be allowed to permeate the building. It is not just to say that an outlay of £4,000 or £5,000 for such purposes will necessarily pledge the Board to non-removal. The arguments for keeping the infirmary where it is are, apart from the financial aspect, so overwhelming as to need no support of this kind. In the meantime, the huts erected on the grounds, at the suggestion of Mr. Radcliffe, relieve the pressure and prevent overcrowding, and so enable the staff to prosecute the work of a large hospital with fair success. It is true that, since June 1876, there have been fifty-eight cases of erysipelas; but, with few exceptions, these followed lacerated wounds, and were in very few cases sequential to any operative interference.

Two cases of nerve-stretching have recently been under observation at the infirmary. The first was under Mr. Heath's care. The patient, a stout woman aged forty, had long suffered intense neuralgic pains in the right buttock and down the back of the right thigh. Nothing

relieved the sciatica, though all the usual remedies were diligently tried. Accordingly, Mr. Heath cut down upon the sciatic nerve ten days ago, and exposed it where it emerges from beneath the gluteus maximus. Seizing it with two forceps, he forcibly stretched it and loosened it from its bed. No inconvenience followed the operation, and the woman has since been perfectly free from pain; in fact, it promises to prove a complete success. The second case was that of a man aged fifty, under Mr. Bradley's care, suffering from hyperkinesis of the spinal system generally. The condition of the poor fellow was so distressing that Dr. Ross, who had had previous charge of the case, suggested that nerve-stretching should be systematically tried, first in the legs and then in the arms. As the operation was quite of a tentative character, the only nerve stretched at the first operation was the anterior crural, just beyond Poupard's ligament. It is too recent to speak confidently about the result, for the operation was only performed last Saturday; but, so far as it has gone, it is encouraging. There is no loss of power or sensation in the muscles supplied by the anterior crural, while there is a marked diminution in the choreic movements of these parts.

Mr. Bradley performed gastrotomy, three weeks ago, upon a lad aged fifteen, who had swallowed a quantity of washing fluid (caustic soda) three months before. The resulting oesophageal stricture was so tight that it was found impossible to pass the finest probe through it, though the most persevering efforts were made to do so under chloroform. The stomach was consequently opened, being reached by an incision parallel with the last true ribs, and attached by carbolised silk sutures to the abdominal parietes. No peritonitis or pyrexia followed the operation, which so far may be regarded as successful; but, from some cause difficult to explain, the boy does not thrive, and, in spite of being fed both by the stomachal mouth and the rectum, he threatens to die of inanition.

The Medical Students' Debating Society has commenced its fourth session very hopefully. The meetings, under the presidency of Mr. E. A. Birch, F.R.C.S., are well attended, and the discussions have hitherto been very good. The following is a list of the papers promised and those already read. "Cardiac Hypertrophy", by Mr. H. Leah; "Novel Treatment of Stumps", by Mr. Whitehead; "Vis Medicatrix Naturæ", by Mr. C. F. Diggle; "Alcoholic and Non-Alcoholic Treatment of Fevers", by Mr. H. J. Irvin; "Therapeutics and Physiological Research", by Mr. H. G. Brooke, B.A.; "Consanguineous Marriages", by Mr. J. Hodgson; "Paracentesis Thoracis", by Dr. Tompkins; "Belladonna", by Mr. Hayle; "Medical Women", by Mr. Diggle, junior; and "Chloroform", by Dr. Young.

LIVERPOOL.

[FROM OUR OWN CORRESPONDENT.]

Death of Dr. Trench.—*Tenure of Office at the Royal Southern Hospital.*
The Health of Liverpool.—*Finances of the Hospitals.*—*Provident Dispensaries.*

MUCH regret has been felt among members of the profession here at the death of Dr. Trench, which was briefly noticed in the JOURNAL last week. It occurred suddenly, though not unexpectedly, as it had been long known that the deceased gentleman was suffering from heart-disease. It would be impossible to do justice to our late associate in a limited space; and a full report of his life and labours must be deferred to a future number.

It is proposed to alter the rule of the Liverpool Royal Southern Hospital which limits the tenure of office of the honorary medical officers to twenty-one years, and to substitute for it a new rule limiting it to the age of sixty. This is in keeping with the example set by the Royal Infirmary a few years ago. The alteration was not received with general favour by the profession here, the period of twenty-one years being considered quite long enough; especially as our three large hospitals do not receive out-patients, and the physicians and surgeons have not a long previous term as assistant-physicians or assistant-surgeons.

At the last meeting of the Health Committee, the Deputy Medical Officer of Health reported a mortality of 24.3 per 1,000 of the estimated population. There were 51 deaths from zymotic disease, being a decrease of 29 on the average. Only one death was due to small-pox, the deceased not having been vaccinated. Of the total deaths (246), 112 were of children below five years of age, and of these 58 were infants below one year. Nineteen deaths formed the subjects of inquests before the borough coroner. All things considered, these returns must be considered very favourable.

The commercial depression and stagnation of trade have told severely upon the funds of our local hospitals, and strenuous efforts will have to be made to prevent them from becoming burdened with debt. Our Hospital Sunday and Saturday Fund has yielded an average of £10,000

per annum; but even if this liberal sum should be reached next year (as is too much to be feared it will not), it will barely suffice to start the medical charities with a clear balance-sheet.

Those who are interested in the formation of self-supporting dispensaries may take encouragement from the results of nine months' working of the Dispensary for Seamen, established here in February last, and noticed in the BRITISH MEDICAL JOURNAL, March 3rd, 1877, p. 274. Up to the present date (December 10th), the medical officers have seen 797 different patients, while the number of attendances has been 2,160. Upwards of £140 has been received in shilling fees. The practice of the dispensary is limited to sailors suffering from venereal diseases. It is confidently expected that, in the course of another year, these satisfactory results will be considerably increased; and that the dispensary will be enabled to pay all expenses, and have a sufficient balance left for an honorarium for the medical officers.

The weather for some time past has been most inclement, and more rain has fallen than was ever remembered at this season. Fortunately, the situation of Liverpool removes all apprehensions of danger from floods, except the cellars of some houses situated in the line of the ancient "Pool", from which the town derives its name.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, DECEMBER 11TH, 1877.

CHARLES WEST, M.D., President, in the Chair.

ON THE PATHOLOGY OF TETANUS AND HYDROPHOBIA.
BY JOSEPH COATS, M.D. (GLASGOW).

THE paper first described the lesions met with. In tetanus, the central nervous system showed hyperæmia and certain appearances in the neighbourhood of the blood-vessels. In the spinal cord and medulla oblongata, pons Varolii, corpora quadrigemina, and corpus striatum, but chiefly in the two first named, there was a granular material around the vessels, probably an exudation. In the medulla oblongata, it was noted that a longitudinal vessel in the posterior parts was particularly affected; and that here, as well as in other parts, there were occasional hæmorrhages. In the convolutions, there was an exudation of a yellow fluid outside the smallest vessels, the medium sized ones (which were those affected in the cord and medulla oblongata) having mostly escaped. In hydrophobia, there was in the central nervous system an aggregation of leucocytes around the blood-vessels. In the spinal cord, medulla oblongata, pons Varolii, and corpora quadrigemina, it was the medium sized vessels which were so affected; in the convolutions, it was those of small or capillary size. The salivary glands were infiltrated with leucocytes which had special relations with the blood-vessels. The mucous glands of the larynx were similarly affected, though much less intensely. The kidneys were hyperæmic, with aggregation of white blood-corpuscles within them. The pathology of these two diseases was then discussed, and it was pointed out that there was a great similarity in the distribution of the lesions in the central nervous system, as well as a certain analogy in the kind of lesion. The special distribution of the lesion was compared to the localisation of the tubercles in tubercular meningitis, and was ascribed to physiological and anatomical peculiarities of the circulation. Attention was also drawn to the fact that in hydrophobia the lesions were not confined to the central nervous system, while in tetanus facts were deficient in this regard, but a parenchymatous affection of the liver, kidney, etc., was asserted by one author. The special localisation of the symptoms in both diseases, in the tongue, throat, and neck, was associated with the special prevalence of the lesions in the medulla oblongata, and especially in the neighbourhood of the nuclei of the nerves in the floor of the fourth ventricle, etc., it being pointed out that the principal nutrient vessel of the medulla was specially related to these nuclei of grey matter. It was concluded that in tetanus and hydrophobia there seemed to be two different poisons, each of which, circulating in the blood, attacked the central nervous system. These agents irritated the nervous system; but, as they were different in nature, so the kind of irritation they produced was different. There was, however, a remarkable similarity in the localities irritated by them, and these seemed to be specially the spinal cord, medulla oblongata, and corpora quadrigemina, and to a lesser degree the cerebral convolutions. The irritation seemed to centre in the medulla oblongata, and in a particular region of it; this localisation being probably determined by the anatomical and physiological relations of the nutrient vessels. The high temperature met with in hydrophobia, and sometimes in tetanus, was regarded as not inconsistent with these views.

Dr. ALTHAUS thanked Dr. Coats for his paper. The microscopic preparations were extremely well made; and the author's observations must have an influence on our future ideas of the pathology of tetanus and hydrophobia. The discovery of lesions in the medulla oblongata was interesting; they had not been found by Lockhart Clarke, though the symptoms would lead one to expect that the medulla oblongata was affected. He would ask Dr. Coats if he had examined the ganglia of the cervical sympathetic in hydrophobia, as some of the symptoms indicated that this nerve was affected. He could not agree with Dr. Coats, that the lesions were characteristic of tetanus and hydrophobia; according to Lockhart Clarke, the cord was affected in a similar way in paralysis as well as in tetanus; and some of the lesions described by Dr. Coats were also found in acute ascending paralysis. He could not agree in the idea that there was a special poison in tetanus; while there could be no doubt of the existence of one in hydrophobia. Twenty-five years ago, he had seen many inoculations made during an epizootic of rabies in Germany; they succeeded in about 50 per cent.; and often, when the first inoculation failed, a second one was successful. Tetanus had never been transmitted by infection; there had, indeed, been, as it were, epidemics of tetanus arising from some cause acting in common on the persons liable to the affection; but there was no reason for believing in the existence of a special poison. There was very little in common between tetanus and hydrophobia. In tetanus, there was long continued rigidity of the muscles, especially in the form of trismus, which was rare in hydrophobia. The convulsions in tetanus were tonic; in hydrophobia, they were clonic and intermittent, as in the second period of the epileptic seizure. Many other differences could be pointed out; hence it would be wrong to conclude that the two diseases were identical.

Dr. DICKINSON had examined the preparations shown by Dr. Coats. He thought that, in looking at the pathology of tetanus and hydrophobia and other nervous diseases, the first observable change was an alteration in the relations of blood-vessel and nerve. The pathological conditions in some nervous diseases were very similar to those in others; there was obstruction of the blood-vessels in chorea and other diseases, as well as in tetanus. There must be something beyond nerve-change to distinguish them. He had long thought that both tetanus and hydrophobia were of blood-origin. The theory that tetanus was of blood-origin was advanced many years ago by Dr. J. A. Wilson of St. George's Hospital. He did not, however, say that tetanus was identical with hydrophobia; but he considered that there must be a blood-poison in tetanus, which (in the traumatic form) always occurred in connection with an open wound, after a certain period, as if incubation had taken place. He regarded the microscopic appearances as only a step in the pathological series of changes.

Dr. GOWERS remarked that Dr. Coats's observations established some very important facts; viz., the affection of the kidneys in hydrophobia, and the identity of the affection of the central nervous system in the dog and in man. The facts went far to show that there was a distinctive lesion of the nervous system in hydrophobia. He had examined the nervous system in five cases of hydrophobia in man, and found lesions which he believed to be special to the disease; he had found nothing similar in other diseases of the nervous system. Among other things, he had found collections of leucocytes—what Benedikt called miliary abscesses—in the medulla oblongata; also in the spinal cord, but to a far less extent. In the medulla oblongata, vessels of very small size had nuclei in the vicinity, but they were not so well seen as those around the larger vessels, because they were not limited by the perivascular sheaths. In tetanus, he had not found the lesions more intense in the medulla oblongata than in the spinal cord. In considering the lesions of the nervous system in both tetanus and hydrophobia, allowance must be made for the congestion of the nervous centres in the paroxysms of interference with respiration. The extravasations of blood were more in tetanus, where the disturbance was more intense. A great share of the lesions must be discounted to this mechanical congestion. He thought that tetanus arose from action on the nerve connected with a wounded part; but, at the same time, there might be some poison present which predisposed the nervous system to develop tetanus under the influence of a special poison. In hydrophobia, the existence of a special poison was well known. It was natural to expect that the vascular lesions would be more intense in it than in tetanus.

Dr. F. C. TURNER thought that miliary abscess might be produced a very short time before death by congestion at any weak point. He had examined the spinal cord, kidney, liver, and brain in a case of hydrophobia, and had found exudations of leucocytes. In the spinal cord, the appearances were much the same as Dr. Coats had described, but he thought that vessels of all sizes were alike affected. He thought that the leucocytes were more abundant in the grey matter of the cord.

The cervical and lumbar regions of the cord were firm; but the dorsal region was softened. In the cervical part of the cord, there were distinct hæmorrhages from one or two large vessels, and much granular matter was present. In the kidneys, there was an abundance of leucocytes between the tubules; also in the liver, for the most part apparently in the portal canals; here, however, the clusters were less dense. He had also examined the spinal cord in a case of hydrophobia at the London Hospital three years ago. There were leucocytes in the cord, but not so many as in the other case; and also a number of less defined exudation bodies, of which some appeared to be encapsuled.

Sir JOSEPH FAYRER had been somewhat disappointed in the discussion, though much interested in the paper. He had long wished for information on the state of the spinal cord and medulla oblongata in tetanus and hydrophobia; but he hoped to hear something about the phenomena of the diseases, the circumstances in which they occurred, and what could be done for them. He had seen many cases of tetanus, and several of hydrophobia. He was not sure that he had seen an epidemic of tetanus; but he had seen it occur endemically. It prevailed sometimes in the so-called idiopathic form, no wound being present; and was then very amenable to treatment. Perhaps traumatic tetanus might also be found to be so.

Dr. BUZZARD said that, supposing the cause of hydrophobia to be a poison, its special affinity for certain parts of the nervous centres was no more or less difficult to explain than the affinity for mineral poisons for certain organs, as of arsenic for the stomach and intestinal canal, of mercury for the salivary glands and large bowel, of lead for the muscular system and peripheral nerves. He suggested that all this might be due to some chemical condition, in virtue of which the part had a special affinity for the poison in the blood; and that it might be now time for the chemical analyst to try to find a solution of the problems involved.

Mr. CURLING had had much experience in tetanus, and had seen six or eight cases of hydrophobia. As regarded tetanus, the clinical history did not quite agree with the morbid appearances. Lockhart Clarke had spoken of granular disintegration and softening of the spinal cord in tetanus; these conditions ought to produce paralysis, but he (Mr. Curling) was not aware of a single case of paralysis occurring in connection with tetanus towards the close of life. He thought that tetanic patients died rather from impeded respiration through spasm of the glottis than from syncope. In both tetanus and hydrophobia, there was a period of incubation, lasting, in the former, ten days or a fortnight; in the latter, six weeks or more. How was this incubation to be explained? The idea that tetanus was a blood-disease was not consistent with the fact that in many cases it could be arrested by dividing the nerve passing from the injured part.

Sir JOSEPH FAYRER had, in at least three cases, seen tetanus arrested by section of the median nerve in cases where it arose from injury of the hand.

Mr. HOWSE had, within the last seven years, seen several cases of tetanus following injuries occurring in very similar circumstances; the patients having been dragged on the ground and got the dirt ground into the tissues so deeply as to be beyond the reach of antiseptics. Here, besides tetanus, other symptoms indicated the presence of a poison analogous to the septicæmic poison. A boy fell into a midden-heap, and had a compound fracture of the leg; the dirt was carried into the wound, and was not removed, although the wound was syringed. Tetanus set in; amputation was performed, and the tetanus was arrested; but the patient died of septicæmia. In another case, a man was dragged between a railway platform and a carriage, lacerating the skin over the deltoid muscle; dirt was rubbed in, and, after a few days, tetanus set in and proved fatal. He looked on a wound into which London dirt had become rubbed as very liable to give rise to tetanus; and he thought that the occurrence of the disease in these cases pointed to its origin from a local poison. As to idiopathic tetanus, might it not be altogether a different affection from the traumatic form? The cure of tetanus by section of the nerves might, perhaps, be due to the fact that the nerve itself was the channel along which the poison was conveyed.

Dr. FITZ PATRICK said that tetanus was not uncommon in horses, in which the subcutaneous injection of the alkaloid of conium had been found useful.

Dr. GREENFIELD thought Dr. Coats's paper of great importance in directing attention to the pathological anatomy of the diseases, which was of much importance with regard to their pathology. He protested against too much attention being paid to the changes in the nervous system. How far did these changes afford a clue to the true pathology of the disease? How far were they rather the result of mechanical irritation? He would attach very high importance to them; but they were also found in other diseases; and it was a subject for inquiry how

far they occurred in other diseases attended with an elevation of temperature. He thought that Dr. Coats's observations on the condition of the salivary glands and kidneys were of great value.

Dr. JOHN HARLEY said that, in experiments with aconite, he had found it possible to produce all the symptoms of hydrophobia.

Mr. JOHN WOOD asked if Dr. Coats had examined the scar in hydrophobia. Perhaps the examination of this might throw light on the period of incubation.

The PRESIDENT called attention to the tetanus of new-born children as likely to throw light on the matter. This disease was formerly very prevalent in the Lying-in Hospital in Dublin, but had been almost banished by ventilation of the wards. He had been struck with the tendency to overlook the results of clinical observation, and to regard the microscope as affording the clue to the pathology of disease. He would by no means undervalue morbid anatomy or microscopic research; but the results obtained by these were not more certain than those of clinical observation. To look at the process of disease only when it was completed, and not when it was in progress, was a mistake. He did not find that the study of pathological anatomy had done much to put a stop to the wild theorising of which our predecessors of a hundred years ago were accused; but the theories were now wrapped in more scientific language. There seemed to be a risk of losing sight of our position, as curers of disease, in investigating disease when it was beyond our power.

Dr. COATS, in reply, said that only a portion of the paper (from want of time) had been read, and this had caused some misunderstanding of his meaning. He had not regarded the lesions as the disease, but only as the evidence of irritation—of the action of some poison. And, as the irritation differed, so he recognised a difference in the two diseases, though they were to a certain extent analogous. He considered tetanus and hydrophobia to be due to totally different morbid poisons. He thought that the term "miliary abscess", as used by Benedikt, was not a happy one. An infiltration of nervous tissue with leucocytes did not constitute an abscess. He had found leucocytes in the stomach in cases of hydrophobia; but they were also present in other stomachs which he had examined. He did not think that the alterations of the spinal cord in tetanus were sufficiently advanced to produce paralysis. With regard to the incubation of tetanus and hydrophobia, he was disposed to endeavour to gain instructions from tubercle. A cheesy tubercle might remain local for a long period until, under some unknown influence, general tuberculosis was developed from it. The same might be the case in hydrophobia; the disease being at first local, and then, after a time, becoming general. But both the tubercle and the hydrophobic poison might remain localised throughout life. He had examined the cicatrix in hydrophobia, and had found evidence of irritation of the neighbouring tissues, more than would be expected, after the wound had healed for some time. He had endeavoured to associate the pathological anatomy of the disease with its symptoms.

UNIVERSITY INTELLIGENCE.

UNIVERSITY OF CAMBRIDGE.

NATURAL SCIENCE FELLOWS.—Two new Natural Science Fellows have been elected this term. One, Mr. A. M. Marshall, Senior in the Tripos of 1874, has been elected at his own College, St. John's. His able papers on Embryology have been an important addition to the researches which are making the British school again famous in this subject, and he is the first Doctor of Science in Comparative Anatomy in the University of London. Two of the newly elected Fellows of St. John's are taking to Medicine; viz., Dr. Marshall and Mr. McAllister, the last Senior Wrangler. At Trinity, the open Fellowship has been adjudged for the first time to a non-member of the College, Mr. J. N. Langley, B.A., of St. John's, whose services as Demonstrator of Physiology to Dr. Foster are most highly appreciated.

THE ANATOMY AND PHYSIOLOGY BUILDINGS.—The new buildings for anatomy and physiology are advancing to completion and are partially occupied, Mr. Balfour's two practical classes of Comparative Anatomy being accommodated in them. Dr. Foster will transfer much of his work here after Christmas. The new buildings will be almost too small as soon as completed; for Dr. Foster has fifty men and several ladies working in his elementary classes this term.

UNIVERSITY OF DURHAM.

REPRESENTATIVE IN THE MEDICAL COUNCIL.—At a convocation of the University of Durham on December 11th, Dr. Thomas T. Pyle was re-elected as the representative of the University in the General Medical Council for the ensuing five years.

CORRESPONDENCE.

A MUNIFICENT OFFER.

SIR,—Many years ago, when commencing the practice of my profession, I was so fortunate as to make the acquaintance, and secure the friendship, of the founder of this Association; and it is with pleasure that I remember how often, and sometimes at brief notice, I contributed to the pages of its earliest journal—the *Midland Medical and Surgical Reporter*. Among other subjects discussed with him, in the prospect of the predicted extension of the objects embraced by the Association, it was then thought desirable to preserve at fixed periods a record of the progress of the various material sections of medical and surgical science. I speak from memory; but such is my impression. If this be now the view of the Council, I shall have the pleasure of presenting the sum of five hundred pounds for the purpose of founding a triennial (?) prize for the best essay or analysis of the progress of ophthalmic medicine and surgery, subject to such regulations as may be suggested.—I am, sir, yours, etc.,

A RETIRED SURGEON.

Birmingham, December 12th, 1877.

CONFLICT OF MEDICAL EVIDENCE.

SIR,—I shall feel much obliged by your allowing me to state that, in the case referred to as one of conflict of ophthalmic evidence in the *JOURNAL* of December 8th, I gave no opinion whatever on the condition of the plaintiff's eyes.

My evidence had merely reference to the general condition of his health. To this I had the less hesitation in speaking, as the patient had been under my observation, and had been treated by me in conjunction with his medical attendants, since last May.

The surgeons who saw the patient on behalf of the railway company did not take the same view of the case that I had. Such differences of opinion appear to me to be unavoidable and perfectly legitimate in obscure and complicated cases, such as this undoubtedly is. Were they confined to cases that come into the courts of law, the spectacle would be a melancholy one. But he must have but a very slender experience of our profession who does not know that they are of daily occurrence in the wards of the hospital and in the sick-room of the private patient.

The fact is, that the same group of symptoms is often differently interpreted as to cause, nature, and probable duration by different observers; and the opinions formed on all these points will necessarily be as widely divergent as are the various interpretations of the phenomena on which they are founded.

The following is a case in point. Not long since, I met in consultation, but separately, two physicians of very great eminence on the case of a lady who had become paraplegic during pregnancy. One pronounced the paralysis to be due to softening of the cord, and consequently to be incurable and permanent. The other considered it to be simply hysterical and quite curable. Had this been a "compensation case", a conflict of evidence must necessarily have arisen of an irreconcilable character; but it would have been as honest as I most truly believe the conflict of evidence to have been in the case to which you have referred.—I am, sir, very obediently yours,

London, December 8th, 1877.

JOHN ERIC ERICHSEN.

ASSOCIATION INTELLIGENCE.

THAMES VALLEY BRANCH.

THE next general meeting of the above Branch will be held at the Spread Eagle Hotel, Wandsworth, on Tuesday, December 18th, at 5 o'clock.

The following communications are promised.

1. Dr. Hooper: Case of Intussusception treated by Foreign Injection.
2. Mr. W. A. F. Bateman: On the Muco-Enteritis of Young Children.

There will be a dinner at the above hotel at 7 o'clock. Charge, 7s. 6d., exclusive of wine.

F. P. ATKINSON, M.D., *Honorary Secretary*.
Kingston-on-Thames, December 12th, 1877.

MEDICAL NEWS.

UNIVERSITY OF LONDON.—M.D. Examination, 1877.

Archer, Herbert Ray, St. George's Hospital
 Hetley, Henry, Guy's Hospital
 Hear, Charles Edward, King's College
 Hunt, J. W., B.S. (Gold Medal), University College
 Jameson, Leander Starr, B.S., University College
 Kidd, Walter Aubrey, B.S., Guy's Hospital
 *Ord, William Miller, St. Thomas's Hospital
 Rigby, James Arthur, Guy's Hospital

Logic and Moral Philosophy only.

Ashby, Henry, Guy's Hospital
 Bogg, Thomas Wemyss, University College and Manchester Royal Infirmary
 Burton, Samuel Herbert, B.S., University College
 Firth, Charles, St. Bartholomew's Hospital
 Morley, Thomas Simmons, Guy's Hospital

M.S. Examination.

Pepper, Augustus Joseph, University College

B.S. Examination. Pass List.

First Division.

Symonds, Charters James, Guy's Hospital
 Verco, Joseph Cooke, M.D., St. Bartholomew's Hospital

Second Division.

Bury, Judson Sykes, University College

Examination for Honours.

First Class

Verco, Joseph Cooke, M.D. (Scholarship and Gold Medal), St. Bartholomew's Hospital
 Symonds, Charters James (Gold Medal), Guy's Hospital

* Obtained the number of marks qualifying for the Medal.

MEDICAL VACANCIES.

THE following vacancies are announced:—

- ADDENBROOKE'S HOSPITAL, Cambridge**—House-Surgeon. Salary, £65 per annum, with board and residence. Applications to be made on or before the 17th instant.
- BRADFORD UNION, Yorkshire**—Medical Officer for the Horton West District.
- CHARING CROSS HOSPITAL**—Medical Registrar and Surgical Registrar. Applications to be made on or before the 22nd instant.
- DUNDALK UNION**—Medical Officer for the Ravensdale Dispensary District. Salary, £120 per annum, and the usual sanitary and vaccination fees. Applications before the 29th instant.
- GUEST HOSPITAL, Dudley**—Resident Medical Officer. Salary, £120 per annum, with furnished apartments, board, coals, and gas. Applications to be made on or before January 1st.
- INFIRMARY FOR CONSUMPTION AND DISEASES OF THE CHEST, Margaret Street, W.**—Physician in Ordinary. Applications to be made on or before the 19th instant.
- KENT AND CANTERBURY HOSPITAL**—Assistant House-Surgeon and Dispenser. Salary, £50 per annum, with board, lodging, and washing. Applications to be made on or before the 28th instant.
- KIDDERMINSTER INFIRMARY**—House-Surgeon.
- NEWCASTLE-UPON-TYNE INFIRMARY**—Senior House-Surgeon. Salary, £100 per annum, with board lodging, and washing. Applications to be made on or before February 4th, 1878.
- TAVISTOCK UNION**—Medical Officer for the Tavistock District and the Workhouse.
- URLINGFORD UNION**—Medical Officer for the District. Salary, £120 per annum, besides vaccination and registration fees. Applications up to the 20th instant.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

- HELME, J. Milner, M.B., appointed House-Surgeon to the Royal Southern Hospital, Liverpool, *vice* W. Roughton, M.R.C.S. Eng., resigned.
- *HUGHES, H. R. Greig, L.R.C.P. Ed., appointed Honorary Surgeon to the Carnarvonshire and Anglesey Infirmary, *vice* J. Richards, L.R.C.O.P., appointed Physician; also appointed a Certifying Surgeon under the Factory Act.
- *SNELL, Simeon, M.R.C.S. Eng., appointed Lecturer on Anatomy at the Sheffield School of Medicine, *vice* *W. Skinner, M.R.C.S. Eng., resigned.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 5s. 6d., which should be forwarded on stamps with the announcement.

BIRTHS.

- CHARLSON. On December 7th, at Tockwith, near York, the wife of T. R. Charlson, M.R.C.S.F., of a daughter.
- GOWERS. On December 14th, at 50, Queen Anne Street, the wife of *W. R. Gowers, M.D., of a daughter.

DEATHS.

- GAINE. On December 7th, at 8, Edgar Buildings, Bath, Adele Bridges, the beloved wife of *Charles Gaine, M.R.C.S., aged 31.
- WARD. On December 11th, at West Brompton, Tillard William, youngest surviving son of the late *Dr. Martindale Ward, of Chelsea, aged 14.

OPERATION DAYS AT THE HOSPITALS.

- MONDAY**..... Metropolitan Free, 2 P.M.—St. Mark's, 2 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopædic, 2 P.M.
- TUESDAY**..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopædic, 2 P.M.
- WEDNESDAY**.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.
- THURSDAY**... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
- FRIDAY**..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
- SATURDAY**... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

- MONDAY**.—Medical Society of London, 8.30 P.M. Dr. Andrew Clark, "On the Prognosis of certain forms of Heart-Disease".
- TUESDAY**.—Pathological Society of London, 8.30 P.M. Professor Lister, "On Lactic Fermentation and its bearings on Pathology". Mr. Lister's specimens will be ready for inspection at 8 P.M.
- THURSDAY**.—Harveian Society of London, 8.30 P.M. Dr. Graily Hewitt, "On the Mechanical System of Uterine Pathology".
- FRIDAY**.—Medical Microscopical Society, 8 P.M. Dr. Urban Pritchard, "The Cochlea of the Ornithorhynchus". Special Meeting to consider Mr. Golding-Bird's resolution.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

A REVISED PLEA FOR BREVITY.

WITH the continued increase of the number of readers of the BRITISH MEDICAL JOURNAL (which has now a circulation of eight thousand copies weekly), the pressure on space by correspondents naturally grows apace, and we must once more remind our contributors of all classes of the necessity of cultivating brevity to the utmost degree. Of many communications of great interest which we publish from time to time, it is difficult to suppose that the same amount of information could not be conveyed in fewer words.

PHYSICAL PRACTICE.

WE sometimes hear remarks from outsiders (as in the case of Dr. Vose of Liverpool) about the fees of consultants for country journeys; but the appreciable risk of a railway accident, which may inflict incalculable injury, is seldom taken into account. Such a painful event as the death of Dr. Baly does not, indeed, often occur, but the risk cannot be ignored. We regret extremely to learn that Dr. C. D. F. Phillips of Gloucester Square was injured in the accident which occurred at Nine Elms on Saturday evening last. He was returning from a professional visit in the Reading train when it collided with a "flat-top" train. Fortunately, it was not at full speed, or the results would have been still more disastrous; but several carriages were derailed, and several passengers were seriously hurt, and conveyed, we believe, to St. Thomas's Hospital. Dr. Phillips, we are sorry to say, sustained a fracture of one or two ribs, and suffered from severe nervous shock; but happily, according to the latest accounts from his medical friends, he is now making favourable progress.

SIR. Are gold snuff-boxes legally entitled to the usual fees for making a post-mortem examination, and giving evidence at coroners' inquests in the case of a person's death?—I am, &c.

JOSEPH CHRISTIE (Leipzig).—Professor Nussbaum's method of preliminary narcotisation by the subcutaneous injection of morphia prior to the injection of chloroform for operations, especially at the nose and face, is well known in this country; but is not, we believe, much practised.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

MEDICAL ETIQUETTE.

SIR,—My attention has been directed by a friend, who sends me a copy of a letter from Mr. Box in your last issue. I have had no other information of its appearance, and might have remained in blissful ignorance of the serious, and I may add, criminal, charge brought against me therein. Mr. Box having opened his case so ably, ought to substantiate by some evidence the assertion he makes. I therefore ask him to forward to your Journal for publication certificates from Messrs. Wood and Harris showing that Morris had no fracture of the ulna, but a recent injury, feeling like a small node, caused by pressure (no doubt he means my splints and bandages). I will then reply as briefly as possible on the whole case. Mr. Box omitted to furnish his answer to my letter, which I now enclose; and hope, in conclusion, that my imagination may not in the sequel appear as futile as Mr. Box represents it to be.—I am, yours, etc.,
Oswestry, December 12th, 1877. W. BERSFORD, M.D.

[Copy.]

"Sir, I am again surprised, but this time at your audacity. I am prepared to prove that this man suffered only from fractured radius at about the junction of the lower and middle thirds, and that the ulna was not fractured; and that the angularity of which you speak can only have existed in your imagination, if it ever existed there.

"If the man presented such an appearance as you state, it was not a trivial case; and, as regards the evidence of Dr. Rees, I have the evidence of two assistants to place against it.

"I shall not allow the case to rest.—W. H. BOX."

SIR,—Will you kindly insert the following in this week's JOURNAL, which is a copy of a letter I have this evening sent to Mr. Box, and oblige, yours truly,
Oswestry, December 12th, 1877. ROBT. REES.

(Copy.)

Oswestry, December 12th, 1877.

"Dear Sir,—I was very much astonished to find reference made to me in your letter in last week's MEDICAL JOURNAL, where you refer to me as a *very young* practitioner, formerly the pupil of Messrs. Blaikie and Bersford, and now their assistant, and on those data leave the profession to draw their own deductions; by which, I have no doubt, you mean that I am not to be believed in any statement I may make, or, at least, am likely to be unduly biassed in my view of the case in dispute. I am quite willing to admit that I am a young practitioner, lacking perhaps a third of a century of your age; but I find, on reference to the *Medical Directory*, I am only six or seven years your junior in point of qualification. I have been assistant to two other medical gentlemen, whom I am sure will be pleased to testify to my veracity and my ability to distinguish the ulna from the radius.

"I send you this letter, which I intend to publish; and, in conclusion, I will, when necessary, state the condition of the arm when I first saw it.—I am, yours truly, ROBT. REES, M.D. To W. H. BOX, Esq."

SIR,—In last week's JOURNAL I find that a question has been put to you by A. B. with reference to the medical etiquette and gentlemanly behaviour or otherwise of C. D. In answer, you very wisely start with the expression, "Assuming the facts to be as stated," you "think C. D. blamable"; therefore, C. D. asks you, in all fairness to himself, to give your opinion on all the facts properly stated.

C. D. admits the professional status, etc., of A. B., and that for a length of time he had attended the patient in question; but A. B. does not tell you, as he probably may not be aware of it, that the patient, early in October last, expressed to C. D. a wish that he should attend him professionally in consultation with A. B. This C. D. declined, feeling certain that A. B., being an older practitioner, would not like it. But as the patient stated that he was suffering from Bright's disease, C. D. suggested that he should ask for a consultation with Dr. William Roberts of Manchester, who accordingly attended on Wednesday, the 21st of November, as stated in his note by A. B. The friends of the patient said that they would like to consult a homœopath; and to this A. B. assented, but told them that he could not meet him in consultation. This gentleman, who lives thirty miles off, saw the patient on Thursday afternoon, the 22nd November; and on Friday morning A. B. called on the patient, and expostulated with him in such a manner on the step he and his friends had taken, that he became greatly agitated, and feared that he was going to have a paroxysm or convulsion, A. B. having stated that they did occur towards the close of such cases. The friends then send for C. D. to come and see him, but he is from home. On Saturday, the 24th, I. F., brother-in-law of the deceased, calls on C. D., tells him what has happened, and wishes him to see the patient at once, as he fears that he is dying. C. D. at once states that he can have nothing to do with homœopathy, and is at once told that the homœopath will not come again unless sent for. C. D. then asks, why do you not send for A. B.? The reply was the following significant one: "A. B. made him so ill yesterday, that we fear he would have a fit if he saw him, and we are all so hurt at his conduct that we will never ask him to call again." "Then have you dispensed with his services, and that of the homœopathic practitioner?" "We have." And as he appears to be in a dying state, all beg that C. D. will see him at once, or some one else will be sent for. C. D. went, wrote to A. B., stating that he was informed his services were dispensed with, and that of course he (C. D.) had nothing to do with homœopathy. These facts were communicated to C. D. by three different members of the patient's family, who will vouch for the correctness of the statement. C. D. thus shows that at an early period of the case he would not interfere with A. B., but that the visits paid by C. D. on the 24th were at the urgent request of the family, after all other services were dispensed with. The patient died that night.—I am, etc. C. D.

SIR,—Kindly give your opinion on the following case. B. and C. are two medical practitioners in the same town, and are on perfectly friendly terms. C. holds a club appointment, where the medical man is re-elected annually with the other officers. He has held that appointment to the entire satisfaction of the members; but notwithstanding this, B., before the time of re-election, applies for the appointment, and uses every means to secure it, including personal canvassing and letter-writing. Is such conduct consistent with friendship or medical etiquette?—Yours, etc.,
A MEMBER.

* * * Taking the question as an abstract one, the answer is No. But we should be glad to have an explanation from B.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

AN ABORTIVE COMPETITION.

ARCHITECTS were recently invited to compete for the erection of a hospital for infectious diseases for the borough of Maidenhead; and though the sum to be expended was limited to £800, over eighty plans were sent in, and thus far the ratepayers of Maidenhead may be congratulated on the interest which their proposed hospital excited amongst the architectural profession, and on the excellence of many of the plans submitted for their approval: but here, we are sorry to say, our flattering remarks must cease. The conditions stated that the hospital should contain accommodation for four male and four female patients, and a matron and nurse, with the necessary offices, and that the plans should be "under motto". The professional papers, the *Builder* and the *Building News*, have severely criticised the decision of the Council; and as the matter involves serious medical and sanitary questions, we think it proper to add the weight of our opinion to their remarks. The architect selected by the Council to carry out the work appears to have submitted a plan far inferior to those of many of the competitors, as he perpetuates some of the most generally recognised sanitary evils of hospital construction, and fails to comply with some of the first principles of hygienic law. The central corridor on this plan is lighted and ventilated from above alone, and has opening into it the following rooms: two wards, two closets, the bath-room, kitchen, scullery, and the matron's room, which in combination would produce an atmosphere defying analysis. The wards have no cross ventilation, and possess only one window. The cubic space is very deficient, and the patients must leave the wards and cross the corridor to visit the closets. The scullery is, wonderful to relate, separated from the kitchen by the corridor, and access to the pantry is through the scullery. No provision is made for washing or disinfecting patients' clothing; and though required by the advertisement, no room is provided for the nurse. Further, a mortuary can only be obtained at an expense beyond the stipulated £800. At first sight, it would appear that a plan so defective in every way could only have been selected through ignorance on the part of the judges; but this is negated by the fact, that four other plans were selected for honourable mention, which are as superior to those of the other competitors as they are to that of the chosen candidate. A strong feeling is prevalent in the town, and was even openly expressed by some of the Council, that the plan of Mr. Ernest Turner, which obtained the second prize, was undoubtedly the best; and this opinion we can fully endorse, as it is evidently the work of one who has made hospital construction and economy a careful study. We can also speak very highly of the design by Messrs. Cooper of Maidenhead, which might well have been adopted, as the Council seemed so determined to select a local man. Though the result is most unfair and unsatisfactory to the competitors, still we should not have noticed the matter had it not been that the erection of such a building is likely to be most disastrous to the welfare of the patients; and the hospital, instead of being a source of pride, is likely to be a cause of future annoyance to the ratepayers. We consider it, however, hardly likely that the Local Government Board will give their sanction to the adoption of such a design; at any rate, without such material modifications as will practically amount to a rearrangement of the whole plan. The explanation of the award may, as is usual in such cases, be probably found in local influences.

CONTINENTAL DEGREES IN MEDICINE.

SIR,—Having just obtained my medical and surgical qualification, and being deprived of the privilege of entering for an M.D. in this country, I should very much like to know if any of your readers can inform me where I can obtain full information regarding the examinations for M.D. at any Continental University.—I am, sir, yours truly,
Yorksire, December 1877. MEDICUS.

X. Y. Z. asks whether is the M.D. of Erlangen, Göttingen, Heidelberg, or Brussels considered to be the best qualification, and can the M.D. be obtained by examination from each without residence or taking out lectures at the University by a duly qualified person? Also, can an M.B. or M.D. be obtained at a Scotch University by a licentiate of the College of Physicians without previous residence at a Scotch school, or without another preliminary arts examination.

* * * The number of communications of this kind which we receive points to the pressure of the want felt by medical students of England for an arrangement such as that by which medical students in the great clinical centres can obtain a diploma of M.D. on the same terms as in Scotland and Ireland. The London University does not meet the requirements of those who, like our correspondents, aim only at family general practice: its examinations are especially designed for the very highest standards, and exclude all but a select few. The solution of the problem is not easy; but the grievance that a degree of M.D. and the right to call themselves Doctor is practically out of the reach of nine-tenths of the students of London, Manchester, and Liverpool, is none the less one well deserving of serious consideration.

DR. DONOVAN.

In reply to Dr. Atkinson, R. W. E. (Dublin) writes to us that Dr. Donovan was a practitioner in the town of Skibbereen, county Cork, during the visitation of "the famine" in Ireland in 1848. He was the good Samaritan of the locality, and had perhaps more experience of death from starvation than any other man in the kingdom.—Dr. Donovan died in October last; and an obituary notice of him will be found at page 609 of the present volume of the JOURNAL.

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LECTURES ON THE INFECTIVE PROCESSES OF DISEASE.

Delivered in the Theatre of the University of London.

By J. BURDON SANDERSON, M.D., F.R.S.

Professor of Physiology in University College; and Superintendent of the Brown Institution.

LECTURE I.

Introduction: Infective Processes in General.

IN the present course, I propose to continue the consideration of the subject on which I entered in the second part of my course of 1873. I have been induced to select this subject, by the consideration that it is one of present interest in its bearing on practical questions, and that one or two of the many points which have been hitherto in doubt or obscurity relating to the origin and causation of infective diseases seem, by the gradual progress of clinical and experimental investigation, to be passing into such a position as to admit of satisfactory settlement.

The adjective *infective* is an adaptation of a word which has been long in use in Germany, but is new to English literature. I adopted it, in 1872,* because the word "infectious", which I might otherwise have chosen, had come into common use and acquired a secondary meaning which rendered it unfit for my purpose. That purpose was to bring under one designation two sets of morbid processes—those by which (if I may use the expression without being understood to mean something special by the word seed) the seeds of disease are introduced from outside; and those by which disease, having already taken root in the organ or tissue, *affects* (or as we say, infects) the whole organism.

As regards the former cases, we attribute the results observed to the action of a morbid poison or contagium; but, in the latter, all that we are able to observe is either that the primary process spreads from the part first affected to other parts which are connected with it by continuity of structure or by channels of absorption, or that it repeats itself in distant organs. To these processes of extension and metastasis, no less than to the others, the term infective is applicable; for, although the channels and modes of infection may be more difficult to trace, there can be no question that the phenomena are more easily understood by referring them to the diffusion or dissemination of morbid material from a centre than in any other way.

In the English edition of the *Encyclopædia* of Ziemssen, the translators have rendered the German word *infectiv* by the English *infectious*.† Consequently, the English reader is surprised to find many affections included under that term which, in the common acceptation of the word, are not infectious. But they are all infective. Thus, for example, erysipelas is, without doubt, an infective disease; for, quite apart from any conclusion which may be arrived at as to its being determined by the introduction of some morbid material from outside, there is no doubt that, from the moment that the disease has established itself in the organism, the affected parts act towards neighbouring parts as sources of infection.

I have no doubt that we are most of us agreed in the opinion that no contagious disease can originate *de novo* any more than that an organism can originate *de novo*. There may be some, however, who think otherwise on both questions. Fortunately, agreement of opinion on this subject is not absolutely necessary to our uniting in the study of the process of infection. About some infections we are *practically* certain that the true plant never comes up unless the seed has been sown—as, for example, syphilis, small-pox, or hydrophobia. About others, we may allow ourselves more latitude; as, for example, the traumatic affections. Thus, good *a priori* grounds may be advanced for the belief that a wound cannot suppurate unless it is infected from outside, and that nature herself, if not interfered with by external influences, proceeds at once with the process of reparation. Some of us may believe this, others doubt it; but the side we take on this question is comparatively of little consequence, provided that we understand, first, that in a wound infective products are extremely apt to originate, and that, by carefully studying

and observing the conditions on which they depend—whether extrinsic or intrinsic—we are able to prevent or control them.

There can, I think, be no doubt that, during the past eight or ten years, the notion of infectiveness as an important element in diseased processes has become more familiar than formerly. The progress of pathological knowledge has compelled or induced us to recognise infective action in a much larger number of instances than formerly. No one, for example, hesitates to include among infective diseases some in respect of which we have no knowledge of the infective agent. We may not know why it is that a pulmonary catarrh, which in one person subsides without leaving any pathological vestiges, develops in another into pulmonary tuberculosis; but there are few who doubt that a tuberculous process, once begun, spreads infectively. Similarly, as regards common traumatic inflammation and its various results and complications: in a certain sense, it has been long familiar that an inflamed part is a focus from which irritating material is distributed to healthy parts by radiating lines of absorption; but it is only of late years that it has been distinctly seen and recognised clinically that every exudation-liquid of an inflamed part is more or less phlogogenic, *i.e.*, carries with it more or less the properties of an inflammation-producing virus.

It was this fact—that of the property of exudation-liquids to excite inflammation in healthy textures—that I endeavoured to express in my paper on the Infective Products of Inflammation, communicated to the Royal Medical and Chirurgical Society in 1873; and I am going to ask your permission to refer to it, in order that I may bring what I then said into relation with what has been said and written by others since. Starting from the accepted notion that by inflammation is meant simply the sum of the local pathological effects of an injury, I distinguished inflammations into two classes, infective and non-infective. In the non-infective (or normal) inflammations, the pathological effects are co-extensive with the injury, so that no tissue is destroyed excepting so much as has been spoilt by the *noxa* itself; in the infective, the surrounding tissues are damaged and to a greater or less degree destroyed by the extension of the pathological process. It is this destruction of tissue which seems to me to constitute the source of the common infectivity of wounds. When no tissue is disintegrated beyond the limits of the injury, there reparative processes at once begin. Wherever the solution of continuity is surrounded by a zone of damaged tissue, there there is potentially an infective focus; and the question whether it will extend its influence beyond the limits of the part primarily affected depends on conditions which, however they may originate, have their seat of operation exclusively in the wound itself.

The admission and realisation of this fact cannot fail to have an important bearing on every inquiry relating to the mode of origin of traumatic affections, for it leaves us quite free to appreciate the influence of any agent, whether atmospheric or constitutional, whether extrinsic or intrinsic, which can be shown to act on the wound itself.

The proposition that, in order to the right understanding of a pathological process, it is necessary to investigate what happens at the seat of disease, and not to draw conclusions as to its nature from what may have been observed to occur elsewhere, is so obviously true that it might seem waste of time to insist on it; but in relation to the question which is now so much discussed—the question whether living atmospheric particles determine infective changes in wounds—this principle is the only one which will guide us right.

In 1872, I thought myself justified in inferring, on the basis of observation on the traumatic affections of animals, that an essential condition of the development of infective action in a wound or an inflamed serous membrane was the presence in it of the organisms which I had two years before characterised as microzymes. I still think so. I still believe that to the chemical processes which give rise to the production of infective products these minute organisms are not only accessory, but necessary. But the conviction of this fact appears to me to afford no ground for accepting the theory that, under ordinary circumstances, contagium is brought ready-made into a wound by organised germs from the atmosphere. I am led to emphasise this statement by the circumstance that it has lately been suggested that I have changed my views on this subject.* I think I may venture to say that there is no foundation for the suggestion. I have always maintained that the facts we already possess relating to the development of organisms belonging to the same group as bacteria, in association with pathological processes, are such as to make it impossible to doubt that such organisms exercise an important part in those processes; but, as regards the theory that the common air we breathe is constantly charged with infective organised particles, *apart from and*

* "The Infective Product of Inflammation." *Medico-Chirurgical Transactions*, vol. lvi, p. 345.

† "Acute Infectious Diseases." Title page of vol. i.

* See Letter by Dr. D. Cunningham and F. R. Lewis, entitled "Dr. Sanderston's Changed View of the Ultimate Nature of Contagium," *Lancet*, September 22nd, 1877.

without reference to its having previously come into contact with any specific source of contagion; and that, when a wound goes wrong, it does so because these ordinary air-particles find their way into it—I have never neglected any opportunity of saying that, to the best of my judgment, such a theory is based rather on what I venture to think the misapplication of an analogy than on the direct observation of what actually goes on in the wound itself. But, as I said before, whatever opinion any of us may entertain as to this interference of organisms in traumatic processes, that opinion need not necessarily interfere with the view we take of the ultimate relation which, as I have endeavoured to show, subsists between infection and the inflammatory process itself. I cannot better illustrate this than by referring to the important work on traumatic diseases published by Professor Billroth in 1873. This work has, I believe, attracted very little attention indeed among English surgeons, notwithstanding the great reputation of its author: a fact which may be well attributed to its title. The position held by Billroth may be said to be intermediate between that of the extreme germ-theorists and those who hold to the old ways. Billroth, be it observed, although he calls his book after bacteria,* is by no means, as they call it in Germany, "*bacterien-froh*"† himself. In Germany, indeed, he is one of the most formidable opponents that the germ-theory has had to encounter, for the reason that, being a great surgical pathologist and a successful operator, his name has great influence. But, notwithstanding his anti-bacterial convictions—notwithstanding that he may be theoretically wrong in his opinion that the "*Zersetzung des Gewebes*", which he associates with every traumatic affection, may go on independently of organised ferments, and is due merely to the action of a "phlogistic zymoid"—that mistake, if mistake it be, does not in the slightest degree detract either from the value of his observations or from the clearness of his statement as to the conditions which lead to the development of the infective agent, or as to the mode of morbid action.

With these considerations in view, it will be my aim in these lectures to discuss infective actions from a purely pathological point of view. From the way in which many intelligent persons talk, you might be led to suppose that they imagined that the question of infection might be removed from the field of pathology to that of meteorology; that by merely studying the physical properties of the atmosphere, it might be possible to arrive at some valuable knowledge of the way in which diseases originate in the human organism! To those who have had to meet the difficulties which beset the path of the pathological investigator at every step, it seems surprising that any one should attempt such a task; for to us it appears so plain that the only way to gain knowledge about disease is the direct observation, experimental or clinical, of diseased processes, that we find it difficult to conceive that those questions which so many laborious and capable men have for years been working out step by step to their issues by these methods, can be expected to be at once and without difficulty solved by applying to them general laws derived from the observation of external nature.

Let us, however, guard against the opposite mistake of supposing that progress is possible without a knowledge of these laws. What we object to is not, I need scarcely say, the application of exact natural knowledge to medicine; for medicine is itself merely a department of natural knowledge; nor is it that theories derived from the exact sciences should be applied to in explanation of pathological facts, for the only way in which we can comprehend vital phenomena is by comparing them with non-living standards. What we object to is the assumption that relations of phenomena which are known to be constant outside of the living organism must also hold good when the conditions are modified by the presence of life; not because life has in it anything essentially different from other chemical processes, but because its conditions are extremely complicated and often beyond the reach of direct observation. The hidden processes of disease are known to us by their concomitant phenomena, and by the effects they leave behind them after death; and we recognise as plainly as the natural philosopher does, that they have resemblances with processes which go on in external nature, but we find ourselves compelled to extreme caution in using them, the history of medicine being pregnant with instances which prove that analogies of this kind have much more frequently guided men wrong than right. Consequently, the pathologist is led to limit the scope of generalisation with the utmost strictness. The boundaries of pathological knowledge are as nearly as possible coincident with those of exact observation of pathological

fact. Pathology claims to be a science only in so far as it is a putting together or classification of morbid phenomena.

What has been said as to the possibility of acquiring a satisfactory knowledge of the order of phenomena in the process of traumatic infection by careful observation, notwithstanding that our notions of its intimate nature may be open to correction, applies with equal truth to the investigations relating to the specific contagious diseases. Thus, although in view of certain *à priori* considerations as to the nature of contagium, I find it, for my own part, as impossible to believe that small-pox can originate *de novo* as I find it impossible to realise that any plant or animal can come into existence spontaneously, I am well aware that there are others who experience no such difficulties; and what I desire to make clear is that, if we can only persuade ourselves that it is not necessary to mutually excommunicate each other, this difference of opinion, fundamental as it may seem and no doubt is, as to the why of contagion, need not prevent us coming to perfect agreement as to the how. In order that this agreement should be brought about it is, however, necessary that we should all make up our minds to look at the subject, not as philosophers seeking to harmonise our observations with what we conceive to be the divine order of nature, but as, for the time, only pathologists whose business it is to acquire by accurate observation a complete knowledge of the facts relating to each particular case; as, for example, of the conditions, whether local or personal, which lead to a man's getting typhoid fever. For, however important it may be that we should think correctly, it is still more important that we should observe correctly, and, consequently, if by shelving the more remote questions of ultimate origin of contagia, we could induce people to fix their attention more earnestly and with freer minds on the facts relating to particular cases, it would be well worth the sacrifice. Let me endeavour to illustrate this by an example.

There is no epidemic disease about which there is so much discussion as about cholera, and it is generally imagined that the main question at issue is whether the material cause of cholera is an organism or not. Now, I venture to think that at present the more completely the question of organised germs or no germs is eliminated from the area of discussion about cholera the better; for, although I am, for my own part, entirely unable to explain to myself the dispersion of the material cause of cholera without calling in the aid of organisms, it is not the less apparent to me that, if I could carry that conviction into the minds of all who are at present engaged in controversy on the subject, it would aid in the solution of the ætiological questions at issue, and for this reason. With reference to cholera, as with reference to some other epidemic diseases, there is conclusive and irrefragable evidence to show that at least two distinct influences are at work in producing the disease; viz., a local influence or miasma, of which all that can be said is that, springing from the soil, though acting through the air, it depends on conditions of the soil; and an epidemic influence capable of being conveyed through the air over vast distances, and probably more or less dependent on human intercourse.

Both of these causes must, of course, be material, and must be capable of acting together, *i.e.*, of combining in a single act of infection. The question now at issue, and which has been at issue for some years, relates chiefly to the proportion in which the two factors contribute to the result. In India, the influence of soil-born miasma is known to be so paramount to every other, that it is not surprising that Indian pathologists say unhesitatingly the cause of cholera is local. In Europe, where we know cholera only as an invader, though we attribute great importance to miasma, we are naturally more alive to the existence of those disseminated causes which exist only at epidemic periods, and are conveyed to us from the home of cholera in the far East. The question is, How do the two factors unite their influences so as to produce the result? There are certain European towns which in every epidemic have hitherto been cholera free, others which have as invariably suffered severely. What is the explanation of this? Is it that, in cholera towns, such as Munich, the miasmatic soil is excited by the advent of epidemic influence to morbid fruitfulness, or is it that the inhabitants of such places are prepared by miasma—have their constitutions so modified by local influences—as to acquire a proclivity to the disease? There are, I think, good reasons for preferring the latter alternative; for facts seem to show that persons who have lived in cholera districts carry with them their liability to cholera when they migrate; but that is not the point to which I ask your attention. My point is that, to whichever of these explanations we are led by experience, whether we think that the conjugation of local with epidemic influences takes place in the individual or in the soil, either conclusion can with equal facility be formulised in terms of *contagium vivum*. For, in the imagination, it is quite as easy and as reasonable to embody a *miasma* in a germ as to embody a *contagium*.

* *Bakterien*.
† *Bacterien-froh*.
By Professor Billroth. Vienna, 1873.
1. G. H. W. G. G.

Considering this, and considering that as yet we have no evidence, *pro* or *contra*, of organisms in relation to cholera, it would be certainly better, for the scientific discussion of the ætiological question relating to this disease, to dismiss germs for the present from consideration than to allow them to obscure the facts, or to confuse or bias our judgment as to their meaning. In point of fact, both of the opposing views have actually been so embodied. In most people's minds, the "germ-theory", as it is loosely called, of cholera is identified with contagionist views; but, in the very philosophical work of Professor Nägeli of Munich, just published,* you will find a much more maturely worked out theory of *contagium vivum*, which is in accordance with Indian as well as with European experience.

[To be continued.]

REMARKS

ON

BATTEY'S OPERATION.

By J. MARION SIMS, M.D.,

Honorary Fellow of the Obstetrical Societies of London and Dublin; Ex-President of the American Medical Association.†

II.—DR. SIMS'S CASES (*continued*).

CASE IV.—Miss D., aged 20, had never had a menstrual period without pain; but her sufferings were not confined to the period. She was never clear of pain in the pelvic region. She had had the best medical advice in the country without any benefit. She was admitted to the Woman's Hospital in October 1873. She had anteflexion, small os tincae, and contracted cervical canal, with hypertrophy of the anterior wall of the uterus. I promised to cure her by incising the cervix and enlarging the canal, so as to permit a free discharge of the menstrual flow. The operation was done, and she left the hospital not much improved. She returned a year afterwards (October 1874), suffering quite as much as, if not more than, she had ever done. On examination, I found that the cervical canal was nearly as much contracted as it was before the operation a year ago. And I also found, what I had previously overlooked, that the left ovary was the seat of disease, and was probably the source of all her suffering. We now spoke of Battey's operation, but concluded to repeat the operation on the cervix, not with the expectation of making a radical cure, but with the hope of ameliorating in some degree her dreadful suffering. The operation and its effects over, my patient went home; and returned to New York a year afterwards (1875), suffering as much, if not more, than she had ever done before. Then it was that we began to discuss in earnest the propriety of performing Battey's operation. Miss D. was willing to have it done a year ago; but now she was anxious for it. The operation was performed in November 1875. The left ovary, being the principal seat of pain, was extirpated by the vaginal incision. It was somewhat enlarged, and had undergone cystic degeneration. The pedicle was severed with the electro-cautery. This was followed by hæmorrhage, and it was necessary to apply a ligature. The operation produced a severe attack of pelvic peritonitis and pelvic cellulitis, which fortunately terminated by resolution. She was confined to her bed for several months, and barely escaped with her life. She left New York emaciated to a skeleton, and confirmed in the "opium habit". She returned again in October 1876, a most wretched sufferer, but plucky to the last; for she came expressly to have the other ovary extirpated. I did not have the courage to do the operation, though she begged for it. Yet I am sure she can never be restored to health but by Battey's operation by the abdominal section. Here again I made the mistake of removing but one ovary (instead of both), simply because it alone was the seat of the pain.

CASE V.—Mrs. C., aged 38, regular, but had suffered great and constant ovarian pain for more than eight years, which was aggravated during menstruation. The uterus was retroverted. The posterior wall was hypertrophied and tender on pressure. The left ovary was somewhat enlarged, and very painful on pressure. It seemed to be the centre from which radiated all her suffering. She had been under the care of Dr. W. T. Walker for a long time two or three years previously. He operated on the cervix uteri, hoping to relieve the pain of menstruation; and he adjusted a Hodge's pessary for the retroversion. The instrument could be worn with comfort for a little while, but soon the ovary would become prolapsed, and the instrument pressing on it would produce so much pain that it could not be worn. After several weeks of well directed effort by Dr. Walker to relieve her, she went home not

improved. Mrs. C. intended to return to New York for a repetition of the incision of the cervix uteri. But her visit was delayed till after Dr. Walker's death. She then came with her physician to see me.

I found the left ovary to be the source of all her suffering. I gave it as my opinion that there was no remedy for her but in Battey's operation. I advised her to submit to the operation, or to return home and stop all medication. The patient, her husband, and her physician went to their hotel, and held a consultation on the subject, and decided to have the operation done. I then advised extirpation of the ovary by the abdominal section, as in Cases I and II, securing the pedicle in the lower angle of the incision, with the view of curing the retroversion at the same time that the diseased ovary was removed. The operation was performed in February 1876. She was stout and fat; the abdominal walls were thick, and the operation was by no means an easy one. Both ovaries had undergone cystic degeneration, and both burst and discharged their contents during the effort of drawing them up to the surface of the abdomen. Both pedicles were brought out at the lower angle of the wound, and clamped. This was evidently a mistake; for the ligaments were very short, and the walls of the abdomen very thick; and thus the traction on the pedicles produced such intense suffering as to necessitate large and repeated doses of morphia hypodermically. She died of peritonitis on the seventh day after the operation.

CASE VI.—Miss H., aged 20, menstruated at 14, the flow soon becoming regular and normal in quantity and quality. At 15, she had a severe fall, and was badly injured in the spine. She was never afterwards clear of pain in the lumbo-sacral region and through the pelvis. But the most remarkable feature of this case was coccygodynia of such intensity as to require large and repeated doses of morphia by the skin. The morphia never entirely controlled the pain, even when given in the largest doses. She groaned and moaned all day and all night. She appeared to be in constant pain, even when asleep. Indeed, it seemed that she had almost lost the power of sleeping; but, of course, she slept, although she declared she did not. Her mother thought she got short naps of sleep, but certainly never an hour or two continuously.

Her physician, Dr. Mitchell of Mount Sterling, Kentucky, after exhausting all his resources, sent her to Dr. Wright of Cincinnati, who performed Dr. Nott's operation of extirpating the coccyx; an operation which, based on the history of the case and the symptoms immediately following upon the fall, was certainly justifiable. But no benefit whatever resulted from it; and, after a few weeks, she returned home, suffering as much as she had before the operation.

A year after this, Dr. Mitchell sent Miss H. to me. It was truly pitiable to see one so young so worn down with physical suffering. The pain at the end of the spine was continuous and most agonising. It never ceased for a moment day or night. It was never modified in the least, except by enormous doses of morphia hypodermically, and often repeated. She could stand, and walk with unsteady gait, but she could not sit at all, because she could bear no weight on the coccygeal region or on the right nates. She lay in bed most of the time in a semi-erect position, always on the left side, the head bent on the chest, the knees flexed and drawn up towards the chin, with lumps of ice applied to the seat of pain. She usually kept her head covered to exclude the light. Photophobia was a marked symptom of the complete derangement of her whole nervous system. When her head was uncovered, her eyes, so sensitive to light, were kept half-closed, and she was frowning and blinking all the time. She had a strong intellect and a kind heart, but her long suffering had soured her temper and depraved her whole nature. She was at times dictatorial, self-willed, and obstinate. She would often cover up her head and refuse to see anyone, or to speak to her physician (Dr. Harry Sims), even when he spoke in the kindest and most persuasive manner. Her natural gentleness was submerged by her physical suffering. She fretted and whined like a sick infant; or she was dogmatic like a spoiled child.

The idea of examining the seat of pain produced in her great nervous agitation. She shuddered and shrank from even the thought of it.

I found a longitudinal cicatrix, an inch and a half long, over the coccygeal region, marking the seat of the operation performed a year ago by Dr. Wright for the extirpation of the os coccygis. This cicatrix was elevated a little above the level of the adjacent skin. It felt hard and gristly, and was exceedingly tender to the touch. Indeed, the gentlest touch produced intense suffering. Even titillation with a feather was agonising. The sensitiveness was not confined to the cicatrix alone. It extended for an inch or more above, and as much below it. It also extended laterally on the right side of the nates for about two inches, but not at all on the left. The skin on the right of the cicatrix was thicker than natural. Its follicles were hypertrophied. The skin of the whole sensitive region was thicker and coarser than that on the

* Die Medizin der Pflanzlichen Beschaffenheit der Infektionskrankheiten. By Professor C. V. Nägeli. Munich 1877.

† Continued from page 842 of last number.

opposite side of the cicatrix; while the skin on the left side of the nates adjoining the cicatrix was natural in appearance, and its sensibility was normal.

The fall, the concussion of the spine, and the coccygodynia following immediately afterwards, all conspired to concentrate my attention on the chief point of suffering, the end of the spinal column. I could see the case only as Dr. Mitchell and Dr. Wright had seen it before me; so I deemed to repeat Dr. Wright's operation, removing the tender cicatrix, a larger piece of the bony structure, and all the thickened supersensitive skin on the right of the original operation.

The operation was performed in November 1876. The wound did not heal entirely for about three months. The operation was not attended with the least improvement; and was, therefore, a perfect failure.

On February 1st, 1877, Miss H. was on the eve of returning home, worse, if possible, than when she came under my care. As I said before, she had suffered greatly from dysmenorrhœa ever since the fall, and she never ceased to complain of pain in the right ovary, but the excruciating pain of the coccygeal region masked all other symptoms, and naturally monopolised the thoughts and attention of every medical man who had seen her.

After my signal failure to relieve her in the least degree by the operation on the end of the spine, the idea occurred to me that all this exaggerated hyperæsthesia might possibly be merely a reflex symptom. Then it was that I turned my attention seriously to investigate the condition of the pelvic organs. A great obstacle to this investigation was found in the fact that she had a vaginismus of the worst sort.

On a minute examination, I found a well marked retroflexion, with the right ovary very painful. On pressing the ovary suddenly, she shrieked out, saying the pain shot from the ovary down to the seat of hypersensitiveness in the coccygeal region. I repeated this experiment several times, and she always declared that, while the local touch was agonising, the radiated pain was more so. I then came to the conclusion that the malposition of the uterus and the attendant ovaritis were due to the fall, and that the coccygodynia was simply symptomatic of the utero-ovarian trouble.

I then proposed Battey's operation, which this poor sufferer gladly and hopefully accepted. The operation was performed on April 6th, 1877, by the vaginal incision. The right ovary was soon seized, brought down, and crushed off with the *écraseur*. The operation was immediately followed by a severe attack of pelvic peritonitis and pelvic cellulitis. Her pulse went up to 130, and her temperature to 103½ deg. She had a pelvic abscess, which fortunately discharged by the vagina. She had pyæmic poisoning, and pyæmic abscesses in various parts of the body. Her sufferings were so greatly aggravated, that we were obliged to give her immense doses of morphia hypodermically to make life bearable. Altogether, she was made much worse by our well meant but misdirected efforts to relieve her; and she left New York seven weeks after the operation, in the most miserable condition imaginable.

If I had extirpated both ovaries by the abdominal section and secured the pedicle in the incision, as in Case I, there would have been some chance of radical cure of this case. As it is, she has been made worse by an operation half done.

CASE VII.—Mrs. G., aged 38, married at 20, enjoyed good health till the birth of her child fifteen years ago. Since then, she had not seen a well day. The labour was prolonged and difficult. It was followed by subinvolution and a train of uterine troubles that required constant care. In spite of the best medical aid, she grew gradually worse and worse; and she was eventually obliged to resort to opiates for the temporary relief of her inordinate suffering. In October 1876, her physician, Dr. McSherry of Martinsburg, Virginia, came with her to New York for advice.

She was naturally frail and delicate. She was anæmic and very thin, because she could not take enough nourishment. The daily use of morphia hypodermically, which was absolutely necessary, impaired her appetite and digestion. She had constant pain in the pelvis. She had had a severe form of dysmenorrhœa ever since the birth of her child (fifteen years before); and she was never at any time clear of pain, even when under the influence of morphia. She had retroflexion of the uterus, with great hypertrophy of the posterior wall, which was very tender to the touch. The os was exceedingly small. The cervix was of gristly hardness. The canal was contracted through its whole length to the cavity of the uterus. The os internum was abnormally contracted just at the point of flexure; and the passage of a small probe produced exquisite suffering. The uterus was bound down with adhesions to the rectum, for it could be elevated by the uterine retractor to an angle of only about 45 deg. above the axis of the vagina, and at that point the pain produced in the rectum became so intense that I

was obliged to desist. But the worst feature of the case was, that the ovaries were the source of all her sufferings. They were very tender and sensitive to the touch; and slight pressure, especially on the left ovary, produced the most intense agony.

I gave the opinion that the case was incurable, except by Battey's operation. Dr. McSherry thought it would be wiser to operate on the cervix first by incision, for the purpose of relieving the obstructive painful menstruation. If that should fail to give relief, then we might subsequently resort to the more serious operation of Battey. Accordingly, the operation of incising the cervix was performed. The cervix was so much indurated, that the noise made by the knife in the incision could be heard by the assistants. [Where there is such a gristly degeneration of tissue in the cervix, we can never expect any permanent relief from operation.] The induration and the grating sound of the knife at the os internum were as great as at the os externum. She menstruated more freely at the next period than she had done for many years, and the pain was less. But at the next period the canal of the cervix had contracted down nearly to the size it was before the operation, and the menstruation became again scanty and painful as before. The ovarian pains were not relieved in the least degree. Mrs. G. went home to await the full result of the operation; and, at the end of three months, being no better, she returned to New York with Dr. McSherry's full consent to the performance of Battey's operation. I was at this time fully persuaded that the easiest and safest method of doing this operation was by the vaginal section. Accordingly, the operation was attempted in May 1877. The incision in the vagina was made according to Battey's plan. In my three previous operations by the vagina, the opening into the peritoneal cavity was made easily enough; but in this case it was exceedingly difficult, on account of the adhesions between the rectum and the posterior surface of the retroverted uterus. These adhesions, which were old and dense, were broken up by the finger. Then, by the uterine retractor, the uterus was raised up into its normal position, which was impossible before the adhesions were broken up. Holding the uterus up with the retractor, and pulling its anterior surface forward almost in contact with the inner face of the pubes, I passed my finger into the peritoneal cavity, and attempted to bring down the ovaries. They were firmly bound down by strong bands of false membrane, and it was impossible for me to dislodge them. I made steady and determined efforts to remove them piecemeal, as Battey had done before, but (fortunately) I could not. Then, to my great mortification, I was forced to abandon the operation. Being a firm believer in Lister's antiseptic method, I tried it in this instance; and to this I attribute, in a great measure, my total failure to finish the operation; 1. because the carbolic spray corrugated the parts and rendered them dry and unyielding; and 2. because it deadened the sensibility of my finger, so that I could not distinguish one part from another.

It might well be asked why I did not complete the operation by the abdominal section. I did not, because my patient was very feeble, and quite exhausted by the half-hour's etherisation, and I thought it safer to stop at once, than to submit her to the anæsthetic for another half-hour.

In the three cases on which I had previously operated by the vaginal incision, all had pelvic cellulitis (one of them pelvic peritonitis). In some of Battey's cases by vaginal incision, similar results followed. In this case I feared the same unlucky complication, because of the extensive laceration of false membrane that bound the opposing surfaces of the uterus and rectum together. But there was no complication whatever. She recovered from the immediate effects of the operation at once. Her pulse and temperature rose but little above the normal standard, and only for the first twenty-four hours after the operation. Was this due to the antiseptic spray? If this operation had been performed by the abdominal section instead of the vaginal, both ovaries would have been removed entire with the possibility of a complete cure. I knew, before the operation, that the uterus and rectum were bound together by false membrane, because this bond of union had prevented me from replacing the uterus in its normal position. But I was then labouring under the delusion that, even with adhesions to be broken up, the vaginal route was safer than the abdominal, because it favoured drainage.

[To be continued.]

BILLROTH AND VOLKMANN.—Last week, the completion of Billroth's tenth year of professorship in Vienna was celebrated by a festival, at which, at least, fifteen hundred students were present. Professor Volkmann of Halle was honoured on December 7th with a numerously attended festival, in celebration of his refusal to quit the scene of his labours for the Chair of Surgery offered to him in the University of Würzburg.

ABSTRACT OF HARVEIAN LECTURES

ON

THE MECHANICAL SYSTEM OF UTERINE PATHOLOGY.

Delivered before the Harveian Society of London.

By GRAILY HEWITT, M.D., F.R.C.P.,

Professor of Midwifery and Diseases of Women, University College; and Obstetric Physician to the Hospital.

LECTURE I.—Thursday, December 7th.

FIVE years ago, the author published in a succinct form the conclusions observation induced him to come to on the subject of the "Pathology of the Diseases of the Uterus". These conclusions were formulated as follows.

1. Patients suffering from symptoms of uterine inflammation (or, more properly, symptoms referable to the uterus) are almost universally found to be affected with flexion, or alteration in shape of the uterus, of easily recognised character, but varying in degree.

2. The change in form and shape of the uterus is frequently brought about in consequence of the tissues of the uterus being previously in a state of unusual softness, or what may be correctly designated as chronic inflammation.

3. The flexion once produced is not only liable to perpetuate itself, so to speak, but continues to act incessantly as the cause of the chronic inflammation present.

Further experience had confirmed the accuracy of these views; and, having since had the advantage of the criticisms of other authorities, he was now enabled to develop the subject more completely. It was explained that the use of the word "mechanical" was not intended to imply the necessity for the employment of instruments in the cure of uterine diseases. The designation "Mechanical System of Uterine Pathology" had reference to the important influence which mechanical influences exercised in the production of uterine diseases, and the effects of mechanical alterations in the shape and form of the uterus. The various forms of severe prolapsus had long been admitted as diseases. The slighter internal displacements had also been known to occur, but were not considered as important. Of late years, bendings or flexions of the uterus had attracted much attention; but the proper significations of these latter alterations were not yet known, nor their relations to other diseases and alterations properly defined. In regard to the frequency of their alteration in shape, the author's observations at University College Hospital, over a period of a little more than four years, was cited.

Of 714 patients suffering from uterine symptoms, 620 were examined. Of these, 182 were affected with fibroid tumour, cancer, or pelvic cellulitis; 61 cases offered various conditions. But in 377, the uterus was materially altered in regard to shape or position. In 184 cases, ante flexion was present; in 112, retro flexion; in 81, there was prolapsus. Thus, in 60.8 per cent. of the cases actually examined, distortion or displacement existed in a marked degree.

As an introduction to the subject, the mechanics of the uterus were considered. The position of the uterus offers a certain degree of protection from external injury. Its motion is comparatively restricted, its fundus having more motion than its centre; lateral motion being little; upwards and downwards, more; forwards and backwards, more superiorly, little in the middle, and more inferiorly. Tilting also to a slight extent is admissible. Slight bending only is possible in a normal uterus, owing to the natural rigidity the organ possesses; and this is, in fact, its chief safeguard against the occurrence of flexion. The bladder offers some resistance in front; behind, there is no protecting organ. The blood-vessels also are numerous, and their healthy distension aids also in giving the organ firmness. In a state of health, the uterus probably moves a little, and indeed bends a little, but quickly recovers itself when the disturbing force is withdrawn. Possible alterations in position and shape are: 1. Slight version, anterior or posterior; 2. Slight descent of the whole uterus; 3. Considerable version, generally associated with flexion; 4. Considerable descent of the uterus as a whole in the pelvis. All combinations of these may be met with. Particular attention was directed to the necessity for a definition of ante flexion and ante version. The fact that slight curvature forwards is natural, has prevented many from attaching due importance to the anterior displacements, and, consequently, severe ante flexions and ante versions are not seldom overlooked. When the uterus is healthy and in its natural position and shape, by an ordinary digital examination it should not be possible to reach and define the outline of the body of

the uterus. Descent forwards of the uterine body, so as to render its outline evident, constituted a displacement. Ante version or ante flexion may exist separately; but generally the two are associated. The sound, unless judiciously employed, may readily mislead the observer; the uterus becoming often straightened or its position altered by its introduction.

The various forces of a dislocating character were next described. Severe falls; slipping on the pavements; severe muscular exertion; continuous overwork from nursing, or lifting heavy articles; excessive walks; certain gymnastic exercises; straining of the abdominal muscles; long-continued sitting, and others, were frequently found to have produced uterine displacements and distortions. The resistance which the uterus offers to these various disturbing forces was next estimated. Whatever tends to soften and relax the ligaments and attachments of the uterus, so far diminishes its resisting power. Pregnancy often leaves behind it such softening and relaxation. But more important is the softening of the tissues of the uterus itself, as a predisposition to flexion or distortion. This point was particularly made the subject of an essay, recently read by the author at the meeting of the British Medical Association held at Manchester. Several cases were then narrated, in which marked degrees of uterine flexions were present, associated with very undue softness of the uterine tissues. The patients were those in whom the disturbing influence of pregnancy had not been present. This softening was met with in cases where the attendant circumstances left no doubt that the cause of the undue softness was really malnutrition of the uterus. The subjects of these cases had long been out of health, feeble, and weak, and for various reasons had taken very little food. In unmarried women, undue softness of the uterus so produced predisposes to flexion. In married women, or in those who have been pregnant, other conditions liable to produce undue softness of the uterus are present. In cases of slow involution after delivery, the uterus remains soft and unduly pliable, and flexions are very liable to be originated as a consequence of this. The frequency with which uterine troubles are known to have had their starting-point after a certain delivery is thus explained. After abortions, the same liability to distortions of the uterus occurs, and in the same way. The author next entered on an examination of the clinical aspect of uterine disease, and an investigation of the symptoms, abnormal sensations, and discomforts experienced by the patient, with the view of determining the importance and influence of mechanical diseases of the uterus. The necessity for close attention and analysis of these symptoms was urged. In two lists were arranged: A. The symptoms of all kinds which may be observed in connection with diseases or affections of the uterus, these symptoms being indicated as nearly as possible in their order of frequency; and B. The various non-organic physical changes which the uterus may undergo.

A. included pain: 1. Spontaneous; 2. Produced by motion (dyskinesia); 3. Undue sensitiveness of the uterus to touch; leucorrhœa; dysmenorrhœa; amenorrhœa; menorrhagia:—in the married: sterility; abortions; various reflex phenomena: 1. Sickness or nausea; 2. Hysteria; 3. Convulsions; 4. Cephalalgia; disturbance of functions of the bladder, of the rectum, of sexual functions.

B. included change in position; change in size of walls, of cavity, of cervix; change in shape; change in patency in canals; change in texture; undue hardness or undue softness; increased vascularity; disorders of innervation; increased secretion.

The importance of any one of the possible uterine changes should be, approximately at all events, indicated by the frequency with which it occasioned uterine symptoms. If any particular change, or combination of changes, have a decided pre-eminence in this respect, it will be natural to consider that change or changes important. For then, if the particular symptoms of which the patient complains be those in question, this will be additional reason for this belief. Such belief will be strengthened, when it is shown that there is a rational and intelligible explanation of the association of these particular changes and those especial symptoms.

DURHAM.—During the quarter ending September 30th, there were 589 births and 261 deaths registered in this rural sanitary district; the births being above and the deaths below the average of former years. The deaths of young children still remained very large, as 84 died under one, and 139, or more than half, under five years of age; but the proportion of deaths under one year to total births was not large, viz., 14.3 in each 100 births. The uncertified deaths were excessive, as they were 66 in number out of the 288, which is a matter requiring some stringent measure as a preventive, Scarlatina is not so prevalent as hitherto, and small-pox is not mentioned. The mean temperature of the quarter was *minus* two degrees, whilst the rainfall was 3.79 inches in excess.

NOTES OF A CASE OF EXTRA-UTERINE GESTATION.

By HENRY GERVIS, M.D., F.R.C.P.,
Obstetric Physician to St. Thomas's Hospital.

ABOUT a year ago, Mr. Jessop of Leeds brought before the Obstetrical Society the particulars of a case of extra-uterine gestation, in which, by abdominal section, he saved the lives of both mother and child. In the discussion which followed, very various opinions were expressed. On the one hand, the President considered that the success which had attended Mr. Jessop's admirable operation—a success unique so far as this country is concerned—must not be taken as furnishing a precedent for abdominal section in other cases in which the symptoms were less urgent. On the other hand, Dr. Meadows held that where it was evident that not only a living but a viable child existed in the abdomen of its mother, it was our bounden duty to interfere; and expressed the hope that Mr. Jessop's case would be the starting point of a new practice. Among authors, equally various opinions are to be found. The majority of English writers disapprove, while some of the highest authorities on the Continent strongly advocate, the operation of primary gastrotomy. The particulars of the following case are placed upon record as a contribution towards the further consideration of this important question.

M. W., aged 39, was admitted into St. Thomas's Hospital, August 27th, 1877. She had had eight children, the youngest being a little over two years old. From that time up to the end of February of this year, menstruation had been regular, and her health good. During this last menstruation, which ended February 28th, she had suffered an unusual amount of pain, with vomiting, and both the pain and sickness continued for several days after the period ceased; and since then, up to seven weeks previous to her admission, she had had every eight or nine days an attack of uterine hæmorrhage, accompanied with more or less sickness and abdominal pain. In addition to these irregular hæmorrhages and the increase in size which she believed to be due to her pregnancy, she had had more or less constant and sometimes severe pain in the lower abdomen; and it was for this she more especially sought advice as an out-patient under Dr. Harley, under whose care she had been previous to her admission. I saw her for the first time on September 1st. Her general health was fairly good, but her appetite was poor, and her aspect somewhat anxious and worn. On examination of the abdomen, it was seen to be occupied on the left side by an enlargement of more or less irregularly oval contour, rising above to within a finger's breadth of the lower margin of the ribs; on the left side passing far back into the lumbar region; on the right, reaching to within an inch of the median line; and below, separated by a resonant sulcus from a rounded body rising some three inches into the left inguinal region, and which further examination showed to be the uterus. Lastly, in the hypogastric region was a not well defined area, somewhat resistant on pressure, dull on percussion, and in which now and again a blowing sound of the character of the placental *bruit* could be heard. The foetal heart-sounds were heard most distinctly just above and two inches to the left of the umbilicus. On vaginal examination, the cervix uteri, somewhat developed, was found pressed towards the left and a little higher in the pelvis than normal. By bimanual examination, the rounded body about the size of the fist referred to as perceptible in the left inguinal region was found to be continuous with the cervix, and evidently the fundus of the uterus. The sound was not passed on this occasion, and I may add that in all examinations of the abdomen, the greatest gentleness was used, it being anxiously desired not to endanger the cyst nor prematurely arouse any uterine action. Occupying more than the right half of the pelvis, and so pushing the uterus towards the left, was a rounded swelling entering from above, somewhat tense, but without any well defined margin, corresponding in character with the dull area already referred to as existing above the pubes.

The diagnosis, therefore, of extra-uterine gestation appeared complete. There was evidently a child in the abdomen, for its heart-sounds could be heard and its movements felt; and as by conjoint manipulation, the body felt in the left inguinal region could be pronounced to be uterus, it was apparent that the child could not be *in utero*. The less defined swelling occupying the hypogastric region to the right of the uterus, and in which an occasional blowing sound could be detected, was considered, and as the event proved, rightly, to be placenta. The circumference of the abdomen at the umbilicus was $32\frac{3}{4}$ inches; from the umbilicus to the right anterior superior spine of the ilium was $7\frac{1}{4}$ inches; and from the umbilicus to the left spine 8 inches. Judging from the severe vomiting which occurred almost

immediately after the cessation of the catamenia on February 28th, that conception took place at that time (if not, indeed, just before, the period itself having been unusually painful), she would now be entering the seventh month of her pregnancy. Her pulse was 96; her temperature but little above normal. The bowels were generally confined. For a month after her admission, but little change beyond a gradual increase in size took place, and a gradual assumption by the foetus of a somewhat more central position. The measurements on the 22nd were as follows: The circumference of the abdomen at the umbilicus was 34 inches; from the umbilicus to the right anterior spine the measurement was $7\frac{1}{4}$ inches; the corresponding measurement on the left side was $8\frac{3}{4}$ inches.

On September 27th, she had a severe attack of vomiting, with great abdominal pain, increasing especially with all foetal movements; and from this time to the date of the operation, she had to be kept more or less constantly under the influence of morphia. Vomiting continued from the 27th to October 5th. The bowels were only relieved by enemata. The urine contained for a few days a small amount of albumen.

On October 25th, she had another very violent attack of vomiting and abdominal pain; and so excessive were the movements of the foetus, and so great the prostration, that we were extremely anxious both as regards the probability of the cyst giving way and the effect on her general health. Fortunately, this attack lasted but twenty-four hours, yielding then to large doses of sedative; but it left her very distinctly weakened. Up to this period, my inclination had been not to operate until symptoms of danger arose, either from rupture of the cyst, or in connection with the death of the child, or from progressive exhaustion of the mother; but after considering the matter very carefully with Mr. Mac Cormac, my surgical colleague for the current three months (and whose kind and valuable assistance throughout I beg sincerely to acknowledge), and encouraged by the successful issue of Mr. Jessop's case, it was decided to operate without further delay. The grounds of our decision were these. That it was scarcely possible to expect but that in some of these attacks of convulsive foetal movement the cyst would rupture, peritonitis ensue, and the patient's chance of recovery after gastrotomy be thus proportionately lessened. That in addition to this risk of rupture, which might occur at any moment, these attacks of severe pain and vomiting were very evidently telling upon the patient's strength, and each left her in a less good position to contend with the risks of operation or those other risks unavoidably associated with the case. That as from the stationary position maintained by the child in the abdomen, there could be little doubt it was encysted, and as it was in no way intended to interfere with the placenta, the operation itself would be even less formidable than the majority of the operations of ovariectomy. That in operating prior to the death of the foetus, there would be gained the avoidance of the risk of septic infection from putrefactive foetal changes. And lastly, there was the possibility of saving two lives, the foetus being not only alive but viable.

Having arrived at this decision, on November 3rd, I passed the sound into the uterus, and so finally verified its distinctness from the foetal tumour. The circumference of the abdomen at the umbilicus at this date was $35\frac{1}{2}$ inches; from the ensiform cartilage to the pubes measured $14\frac{1}{2}$ inches; from the umbilicus to the left anterior spine, 9 inches; and the corresponding measurement on the right side was $8\frac{1}{4}$ inches. The foetal heart-sounds were still most distinct a little above and to the left of the umbilicus; their average beat was 144 in the minute. The hard and rounded foetal head was to the right of the median line and below the level of the umbilicus, and the greater part of the body of the child occupying the left half of the abdomen, it was concluded that the prominence felt above the umbilicus on the left was the summit of the left shoulder, that the back looked towards the left, that the abdomen was to the right, the head bent downwards and forwards, and the feet and breech resting against the placenta occupying the lower extremity of the cyst. Examination internally showed no particular change beyond an increased softness and fulness above the cervix and a patulous condition of the os sufficient to admit the finger to pass up to but not through the internal os. On the night of November 3rd, she had another severe attack of convulsive pain; but it was of shorter duration than those preceding.

On November 5th, at 3 P.M., I proceeded to operate in the small ward of Adelaide, kindly and efficiently aided by Mr. Mac Cormac and Dr. Cory, and my clinical clerks Mr. Tennant and Mr. Benington. Among others present were Mr. Croft, Mr. Mason, Dr. Harley, Dr. Greenfield, Dr. Bantock (to whom I am much indebted for many suggestions both before and after the operation), Dr. Galabin, Dr. Crosby, Dr. Sharkey, Mr. Clutton, Mr. Stewart, Mr. Chaldecott, and the majority of the resident staff and senior students of the Hospital.

The patient was placed under the influence of ether by Mr. Gimlette, the resident accoucheur. The incision through the abdominal wall was made in the median line, and extended from two inches above to four inches below the umbilicus. One small vessel had to be ligatured. On opening the peritoneal cavity, the head of the child came into view through a thin semitransparent cyst wall of greenish hue. The upper part of the cyst was overlapped by the omentum, and in front of the lower part appeared the fundus of the uterus. The omentum was somewhat dark in colour, but though overlying the cyst was anteriorly unadherent to it. Such of the peritoneum as was exposed appeared also dark and somewhat dull. Laterally, between the cyst and the abdominal viscera and between the cyst and the omentum, many adhesions existed. It was then attempted to tap the cyst by Mr. Wells's ovariectomy trocar, but its tissue was so soft and lacerable that the amniotic fluid escaped, although in no great quantity, by the side of the cannula. It was of a pale straw colour, and was at once soaked up by carbolised sponges. The placenta was seen to occupy the right iliac fossa, dipping into the pelvis and coming forward also at the front of the lower portion of the cyst. The opening in the cyst made by the trocar was then enlarged by scissors above and below, and the child carefully extracted by the head. The funis was tied and divided. The child was a female, and well developed. Its position in the abdomen did not entirely correspond with our anticipations. It occupied nearly the dorso-anterior position, with the head thrown back against and behind its left shoulder, while the right shoulder, considerably the highest part of its body, was, in fact, the prominence which had been felt above the level of the umbilicus on the left side and thought to be the left shoulder. Some hæmorrhage was then found to proceed from the cyst-wall at the lower angle of the opening made in it, where this approached very near the front edge of the placenta. Two ligatures, however, applied by Mr. Mac Cormac, effectually controlled it, and what blood had escaped into the cyst cavity was removed by sponges. The omentum and intestines were then kept back by carbolised sponges, while the usual sutures were being passed through the margins of the abdominal incision; seven in all were used. The two lower sutures on either side were taken also through the edges of the cyst, but with little hope of their holding on account of the soft thin character of the cyst-wall. The funis was brought out at the lower angle of the abdominal wound, and by its side a large-sized drainage tube passed to the bottom of the cyst. This was done before finally tightening the lower sutures. When the apposition of the edges was completed, a layer of salicylised wool was placed over the wound and packed around the funis and drainage-tube. Broad strips of strapping were then applied over the whole of the front of the abdomen. A conical sponge wrung out in carbolic solution was placed over the drainage-tube, covered by oiled silk, and kept in place by strapping, and a flannel bandage adapted over all. Immediately after the operation, half a drachm of laudanum was injected into the rectum. Temperature, 100.2 deg.; pulse, 120.—9.30 P.M. She complained much of pain in the back; relieved somewhat by rearranging the pillows. Since the operation, she had vomited bilious fluids two or three times. The rectal injection was repeated.—11.30 P.M. The vomiting had continued to trouble her much during the last two hours, the fluid ejected being of a dark brown colour. She was very restless, and still complained chiefly of the pain in her back. Mr. Gimlette, who had special charge of the case in my absence, and whose care was unremitting, administered a third of a grain of morphia subcutaneously. He removed also the sponge and withdrew from the drainage-tube by a syringe about two drachms of reddish serum.

November 6th, 4.30 A.M. Since the last note, she slept three hours and a half, only rousing two or three times to ask for ice. She still complained of the pain in her back. Temperature 100.2 deg.; pulse 108. Her urine was drawn off; it was high-coloured and scanty. The hypodermic injection was repeated.—7.30 A.M. She had slept at intervals since half-past four; but still referred to the back as the chief seat of pain. About three drachms of reddish serum were withdrawn from the drainage-tube, but some had escaped by its side and soaked into the cotton-wool and strapping. The hypodermic injection was repeated. At 9.30 A.M., she was feeling much more comfortable. She had vomited once about half a pint of yellowish fluid. Temperature 101.4 deg.; pulse 120. The morphia-injection was repeated.—12.30. She had been sick once since the last note. She complained of pain in the abdomen as well as in the back. Temperature 102.8 deg.; pulse 144. At 2.30, she was more comfortable; there was no sickness, but one slight attack of retching. Temperature 101.6 deg.; pulse 120. Three drachms of sanguineous fluid were removed from the drainage-tube. The morphia-injection was repeated. Up to this time, nothing but iced water had been given; to this now milk was

added, and some beef-tea was injected into the rectum. At 6 P.M., she was still comfortable, and slept for about an hour and a half. There was no vomiting. Temperature 101.4 deg.; pulse 126. Morphia was given hypodermically. At 9 P.M., she was still comfortable and dozing. Temperature 102.4 deg.; pulse 130. At 11.30 P.M., she had slept for about an hour. There was no more vomiting or retching; no pain was complained of. Temperature 102.4 deg.; pulse 126. About three drachms of red fluid were again withdrawn from the drainage-tube, and, for the first time, this had a somewhat offensive odour. The urine drawn off from the bladder was scanty and high-coloured. The morphia-injection was repeated.

November 7th, 5 A.M. She had dozed through the night, asking at intervals for milk, of which she took a good deal. Temperature 102.5 deg.; pulse 140. The morphia-injection was repeated. At 8 A.M., she was still comfortable, but complaining much of thirst. About half an ounce of bloody serum was extracted from the drainage-tube; but a considerable quantity had escaped by the side of the tube, and the dressings and night-dress were a good deal saturated. Temperature 102.5 deg.; pulse 131. At 11 A.M., retching again occurred, and vomiting of a watery fluid. She complained of much pain in the lower abdomen. Half a grain of morphia was injected.—2 P.M. The retching continued. There had been a profuse discharge of bloody serum, soaking the dressings and sheets. Very little pain was complained of. Her countenance looked pinched and anxious. Pulse 144; temperature 102.7 deg. The discharge continued to escape from the lower angle of the abdominal wound in large quantity. Some beef-tea and brandy were administered *per rectum*, and a little brandy and iced water given her to drink in small quantities. The abdomen was distended; the breathing was thoracic. Half a grain of hydrochlorate of morphia was given subcutaneously. From this time until about seven in the evening, she continued to sink, the sanguineous discharge never abating, but soaking the dressings and bed-linen in great abundance. For some hours before her death, there was no return of sickness and no complaint of pain.

The child had died about six hours after its birth, both respiration and circulation having been very feeble from the beginning. It was very cold when born, and could not be made warm. The *post mortem* examination of the mother was held on the 8th; but, although it took place within twenty-four hours of the death, decomposition, as is usual in puerperal cases, had already far advanced. On opening the abdomen, there were found some few patches of peritonitis, and in the cavity was about a pint and a half of sanguineous serum. The funis, beginning to decompose, could be traced to its insertion into the placenta. The edges of the opening in the cyst were still secured by the sutures to the edges of the abdominal incision; but the cyst-wall itself had given way in many places; indeed, nothing that could be called a cyst remained. The placenta was in such an advanced stage of decomposition, that it was absolutely impossible to ascertain accurately its exact attachments. It occupied pretty much the situation of the right ovary (which could not be found), projecting upwards in front and towards the iliac fossa, and downwards to Douglas's pouch. It was attached to the whole posterior surface of the right broad ligament and to the inner surface of the cæcum. Both Fallopian tubes were in every respect normal. In the connective tissue of the right broad ligament was a cystic enlargement. The uterus was a good deal enlarged, its long axis measuring seven inches and a half, and its breadth three inches and a half, including the thickness of the walls. This elongation was about equally shared by the cervix and body; the cervix from outer to inner os measuring quite three inches. The entire uterus was bent on itself by the bulging of the foetal cyst into the pelvis, the angle of the bend being at the level of the inner os, and the concavity of the bend looking to the right. The mucous membrane lining the uterus was shreddy, partly detached, and deeply congested. The kidneys were large and soft. The liver was in a similar condition. The spleen weighed six ounces, also very soft. Both pleuræ were healthy. Both lungs were somewhat collapsed, the left especially so. The bases of both were somewhat congested. The pericardium was healthy. The walls of the heart were healthy; the valves normal.

The examination may, therefore, I think, be held to confirm the view that was taken during the last hours of her life as to the cause of the sinking that took place. The amount of peritonitis found was comparatively slight, as were the symptoms during life; and we held that her rapid sinking and death were due to the profuse hæmorrhagic loss she sustained. The exact source of this hæmorrhage, owing to the putrefactive changes established in the placenta, could not, unfortunately, be ascertained. The two ligatures which had been applied during the operation still held. I can only suppose it arose through separation of the placenta from some portion of its seat, without efficient clotting taking place in the divided vessels to check the hæmor-

rhage, there being, of course, no help from uterine contraction, as in ordinary *post partum* hæmorrhage. Before her death, the idea was discussed, although hardly entertained, of reopening the abdomen, with the hope of discovering the source of the hæmorrhage; but we deemed it impracticable, and the results of the *post mortem* examination confirmed, I think, the correctness of the decision. I followed the plan, suggested, I believe, by Dr. Hicks, of stitching the edges of the cyst to the edges of the abdominal incision; but, although at the examination the stitches were found still holding, the cyst itself was so thin and soft, that it had given way in numerous places, and practically very little had been gained. For the first forty hours after the operation, the drainage-tube certainly did good service in permitting the ready withdrawal of effused fluid; but, for the last twelve, the fluid welled up around the tube and funis, and the tube was of little use. But, had she not sunk under the hæmorrhage, I cannot but think that, in the later stages of the case, the tube would have been of considerable service. As regards the bearing of the case on the subject generally, one would speak, as of the inferences to be drawn from any single case, with much diffidence. In the operation itself, no unforeseen difficulty was met with, and the risk to the patient was less than in the majority of cases of ovariectomy. The amount of disturbance of the peritoneum was slight, and the evidences found of peritonitis were also slight. But it would seem to sustain the view that the prognosis in these cases hinges very much on the position and behaviour of the placenta, and mainly, I think, from the point of view of its relation to the occurrence of hæmorrhage. If its disintegration and separation do not occur until the danger of hæmorrhage is averted by the establishment of thrombosis in the maternal vessels of the placental site, the dangers from subsequent peritonitis or septic infection would not appear to be great. In Mr. Jessop's case, for instance, many ounces of putrid fluid were on several occasions retained for a while and then discharged, and yet general septicæmia, at all events, did not occur. This probably has relation to the fact that septic fluids are not formed until granulation is in progress on those incised surfaces through which absorption is likely to occur. And, in Dr. Heywood Smith's case, death, I believe, took place from hæmorrhage within a few hours of the operation. The question, therefore, of supreme interest is this. It being by general consent admitted that it is unadvisable to interfere with the placenta at the time of operation, can any treatment of the placenta be suggested, by the local application of styptics or the use of ligatures, likely to lessen the chance of hæmorrhage by premature separation or disintegration of its tissues?

ON THE TREATMENT OF AURAL EXOSTOSES.

By LENNOX BROWNE, F.R.C.S. Edin.,

Senior Surgeon to the Central Throat and Ear Hospital; Surgeon and Aural Surgeon to the Royal Society of Musicians.

I HAVE nothing to say except in agreement with the etiology and pathology of aural exostoses as explained in the commendably concise and very interesting communication of Dr. Cassells; but I think an account of the treatment pursued in the following case may be interesting to readers of the JOURNAL.

Mr. J. S., aged 35, residing at Tunbridge, consulted me on April 16th, 1877, on account of total deafness of the right ear, which had existed over four years. His history was that, eight years previously, feeling the ear itch, he had rubbed it with the finger and induced bleeding. He felt quite deaf for an hour, recovered his hearing partially, but had heard nothing for four years. Meantime, there had been a gradually increasing swelling, which had become denser as it grew; occasionally, a little discharge oozed from behind the growth. He suffered intensely from facial neuralgia of the same side.

On testing his hearing, it was plain that his deafness was due simply to obstruction of the external meatus, which was quite filled by a smooth, spherical, bony tumour covered with skin. With a curved probe, it was discovered to be attached by a narrow bony pedicle to the posterior wall, and attempts were made with every kind of forceps to wrench it off, but without success, as no hold could be obtained on the growth. I, therefore, took him round to Mr. Wallis in Queen Anne Street, and, having removed the dermal covering, I requested that gentleman to drill a hole in the tumour with the American tread-drill now in general dental use. (The moment the growth was perforated, the patient heard the watch at some inches.) I then, with a pair of fine tooth-forceps, one blade being placed in the perforation, easily evulsed the tumour, which, divested of skin, measured just two inches in circumference. There was but little pain or hæmorrhage, and the patient immediately regained perfect hearing. The surface was dressed

with weak solution of chloride of zinc, and healed over in a few days. Dr. Matthewson, of Brooklyn, New York, reports a case somewhat similarly treated in the *Edinburgh Medical Journal* for November.

Finally, as an evidence of the advance which aural surgery has made, even in small matters, in the last few years, it may be stated that Toynbee (*Diseases of the Ear*, with a Supplement by James Hinton, page 110) considered "that there are many weighty objections to any attempt to remove these tumours by operation or by escharotics", and advised "the use of iodine (externally and internally) and other absorbent medicines". My patient had also seen the late Mr. Harvey five years previously to his visit to me, and had been recommended to leave the growth alone.

CASE OF RIGHT HEMIPLEGIA, OCCURRING DURING THE SEVENTH MONTH OF PREGNANCY: RECOVERY ALMOST COMPLETE, AFTER PARTURITION.

By W. R. THOMAS, M.D., M.R.C.P.,

Physician to the Sheffield Public Hospital and Dispensary; Joint Lecturer on Medicine at the Sheffield Medical School.

MRS. A., a married woman, aged 32, who had hitherto enjoyed good health, about the beginning of the seventh month of pregnancy, one morning, when attempting to rise out of bed, complained of a sensation of great weight in her head and dizziness, and immediately afterwards fell backwards, perfectly insensible and helpless, and breathed heavily. She remained in this state, I was told, for nearly half an hour, and then became conscious. On the previous day, she had suffered from slight dizziness, but otherwise felt well. She had had two children, and had soon recovered after her confinements. When I visited her, in about an hour after the attack, I found her sensible, but unable to speak; the right arm and leg were perfectly paralysed; when raised, they dropped like logs of wood; there was but very little sensation left in either limb; the right buccinator was flabby; and the tongue, when protruded, was turned towards the right. The muscles of the chest and abdomen were not affected; she could close both eyes, but not with such power the right as the left; both pupils seemed rather dilated. The pulse was slow and full. Respirations were natural. There was no cardiac hypertrophy, nor arcus senilis. She remained in this state for about a fortnight, when slight sensation returned into the extremities, the lower one first; and power of speech, which had been completely in abeyance since the attack came on, returned to such an extent that she could now utter an inarticulate sound, which at last became developed into a Yes and a No. The urine, which for the first few days was rather cloudy, on applying heat and nitric acid, now showed no signs of albumen. She remained under treatment for six weeks; but, as no appreciable improvement took place, it was deemed advisable to abstain from any treatment for the time being, at all events until after parturition, which was got over (I was made to understand) without any difficulty, the child being perfectly healthy.

When I again saw her, in a fortnight after the confinement, she was very weak, but gradually recovering her strength; able to move her leg and arm, but not to turn over in bed; sensation was almost perfect in both limbs; the buccinator was still flabby, it had not improved to the same extent as the extremities; she could utter a few easily pronounced monosyllables; was rather deaf. Her memory failed her, and her intellectual faculties generally were impaired. She would occasionally alternately laugh and cry, and did not seem easily to comprehend what was said to her. These symptoms made me fear that some permanent mischief was commencing.

At the end of the second month after parturition, she could walk about and use her arms, but both limbs felt rather weak; the buccinator was firm, but the ability to speak was still rather imperfect. The intellectual faculties had almost gained their natural state. The brain, which I at one time feared had received a shock from which it would never recover, seemed to be gradually resuming its functions. The effusion which, I presumed, from the suddenness of the attack, the absence of any appreciable premonitory symptoms, the lividity of the countenance during the attack, and the other symptoms described, had taken place, seemed now gradually to become absorbed: and the patient seemed to be slowly but steadily improving, when I lost sight of her.

A CENTENARIAN.—According to the *Allgemeine Medicin. Central Zeitung*, there is living in Bromberg a man, named Stanislaus Bagerewski, 117 years old.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN
THE HOSPITALS AND ASYLUMS
OF GREAT BRITAIN.THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND
STREET.

MR. HOWARD MARSH.

The Surgical Treatment of Empyema.—There are two proceedings connected with the treatment of empyema that are often found troublesome to carry out: the introduction of the drainage-tube, and the washing out of the cavity of the pleura. The usual method of introducing the drainage-tube is to make an opening in the fifth intercostal space; to pass a long probe through this downwards and backwards to one of the lower spaces; to make the point of the probe prominent beneath the skin, to cut down upon it, and then to drag the probe through the pleural cavity with the drainage-tube attached to it. The following appears to be a somewhat more simple and convenient method.

A number three catheter is threaded with a piece of strong ligature silk. This can be done by passing a piece of silver wire along the tube of the catheter, from the eye to the handle-end, and dragging the silk through with this. Two or three inches of the silk are left projecting from the eye and four or five inches from the opposite end. The catheter, thus prepared, is used instead of the long probe; it is introduced through the upper opening and passed to the lowest part of the pleural cavity, its point is rendered prominent in an intercostal space, an incision is made upon it, and it is brought out through the wound till the silk emerging from its eye can be seized; the silk is firmly held while the catheter is withdrawn, and then the drainage-tube is attached to the silk, and drawn through the chest from one opening to the other. The catheter is a convenient instrument for this operation; it is more rigid than an ordinary probe, its curve is appropriate, and its handle enables the operator to hold it firmly and to use it as a searcher for the lowest part of the pleural sac, while it obviates the necessity of dragging the probe through the chest.

Mr. Marsh has found the following plan useful for washing out the chest. If drainage have been previously used, a special tube is prepared as follows. It is made of red India-rubber, which is tougher and much more durable than the vulcanite, and is not affected by any agent used for injecting the pleura. This tube should have holes cut in its side, only in the lower half. Three or four inches from its upper end, a piece of silk should be tied round it, so as completely to close its canal at this point, and, just above this constriction, a fenestra should be cut in its side. To wash out the chest, all that will be now required is a piece of smaller tubing, one end of which is inserted into the upper end of the drainage-tube, and the other in the fluid which is to be injected, which is held in a vessel six or eight inches above the patient. The apparatus will act as a siphon. The fluid will pass through the smaller tube into the larger, which it will traverse till it reaches the constriction, where it will escape by the fenestra into the cavity of the chest, and will then run out either through the lower opening by the side of the tube or through the perforations in the tube itself. This plan can be carried out without pain or any disturbance of the patient.

MR. EDMUND OWEN: OUT-PATIENT DEPARTMENT.

Severe Eczema of the Thighs, Scrotum, and Lower Part of the Abdomen.—Two cases were under treatment, both in male infants. Mr. Owen was of opinion that this condition is frequently the result of the constant irritation of urine on delicate skin, the cause of the incontinence being a long or adherent prepuce, or a small preputial orifice. One of these patients had lately been circumcised by the house-surgeon, Mr. Kempe, and shortly afterwards the eczema began to die away. The other case, having been similarly treated, is now convalescent. In cases of umbilical and inguinal hernia, it is also well to look to the size of the urethral and preputial orifices, that the child is not compelled to strain unnecessarily in passing urine.

Paralysis of both Serrati Magni, in a little girl, had been coming on for many months. The lower bundles of each muscle ascended in flabby folds to the shoulder-blades, the inferior angles of which projected like wings, so that the fingers could be run up under them nearly to the humeral angle. Treatment by faradisation has been employed for over three months, and the normal condition is now nearly restored. After

the first application of the poles—one over the posterior thoracic nerves in the neck, the other over the sides of the chest—the pains, which had previously radiated over the costal attachments of the muscles, disappeared.

Paralysis of Posterior Scapular Muscles came on suddenly, some months ago, in a male child, during the early weeks of dentition. On account of the atrophy of the supraspinatus and infraspinatus, the spine of the scapula appears extremely prominent. The subscapularis, now unopposed in its action, has drawn the head of the humerus fairly underneath the coracoid process, so that the joint presents the characteristic appearance of the commonest variety of dislocation of the humerus. The dislocation was reduced with the greatest ease, but the head of the bone immediately slipped back into its former place. The elbow was fixed securely over the front of the chest, so that the head of the humerus was driven back into its proper position; and, as the child's parents live at a distance from the hospital, more faith will be placed in constant frictions and shampoos than in the therapeutic influence of electricity. It was advised that the neck and shoulder be kept warm, and rubbed three times a day.

Congenital Talipes Equino-Varus.—If the deformity be not great, frictions and manipulations will be all the treatment required; but, if the muscles be rigid, or the plantar fascia be contracted, division of all offending bands is necessary. The treatment of club-foot "without division of tendons" has, after a careful trial, been discarded as unsatisfactory for any but very slight deformities. In a case now under notice, the tendo Achillis was divided with other tendons, and the foot was evenly fixed by Leslie's strapping on a flexible tin splint, which had been padded and bent to suit the case. No special or complicated shoe will be required, but, when the use of the tin-splint is about to be discontinued, the mother will be instructed in the art of rubbing and manipulation.

Hip-joint Disease.—The origin of hip-joint disease can generally be traced directly to some severe injury or fall; though often a slight cause, acting on an ill-nourished or unhealthy child, is sufficient to start the inflammation. The disease probably commences in the ligamentum teres, after a sudden and severe inversion of the partly flexed limb. The treatment of this troublesome affection amongst the out-patients proves extremely satisfactory, from the fact that the little patients are visited from time to time by the lady-sisters of the hospital, who arrange a satisfactory mattress, apply the "stirrup" weight and pulley, and readjust the same as occasion demands. The sister keeps a record of all the spine and hip cases under her care, knows the amount of weight each child is wearing, and sees that the instructions of the surgeon are properly carried out. Blisters to the groin are frequently ordered for the relief of acute pain, and under the administration of cod-liver oil and steel-wine and a proper diet, the patients do remarkably well; the surgeon, however, appropriates to himself but a small part of the credit or the satisfactory results of the treatment.

Tumour of the Sterno-Mastoid.—An infant presented a congenital tumour in the middle of the right sterno-mastoid, the size of a small nut. This was attributed to effusion into the substance of the muscle, from rupture of some of its fibres at birth. The mother had been in labour about thirty hours. This lesion, which is by no means an infrequent occurrence, must be distinguished from growths the result of syphilis. No treatment whatever is necessary, but subsequent contraction of the resulting cicatrix may very probably give rise to wry-neck.

DR. CHEADLE.

Empyema complicated with Pneumo-pericardium.—A boy, ten years old, was admitted April 18th, on account of an illness which had commenced suddenly a week before. The child had always been delicate, but had never suffered from any known chest affection, except for a fortnight last Christmas, when he was laid up with cough, shortness of breath, and pain in the chest; from this illness he soon recovered. On admission, it was noted that he was an intelligent-looking boy, pale but well nourished, cheeks and hands somewhat blue. He lay low in the bed without dyspnoea; pulse small, 120; temperature 100 deg. F.; respirations 29. A moderate amount of effusion was found in the right pleura, extending up to the third rib; there was no bulging of the chest-wall, but the heart's apex was slightly displaced. During the first three weeks of observation, the physical condition remained unchanged, but the temperature oscillated from 99.5 deg. to 102 deg. The chest was then tapped below the angle of the scapula, and 7.5 ounces of clear serum removed; the cough was then somewhat relieved, but the febrile condition and physical signs remained unchanged. Salicylate of soda, in fifteen-grain doses, was administered every four hours, but without benefit. Later on, both testes became enlarged and the scrotum became oedematous, but these symptoms passed off. By the middle of

June, it was noted that the child had not much wasted; his appetite remained good; there was no cough, but the temperature still remained up; the right chest was slightly retracted, but the signs of fluid remained; three ounces of serous fluid were removed by the aspirator. When tapped again in July, eight ounces of thick pus were drawn off. In August, he was tapped for the fourth time at the sixth space in the mid-axillary region, and twenty-six ounces of thick pus were removed. Ten days later, a similar amount of pus was again drawn off, the fever continued, sweating set in, and the child became paler. A large oedematous swelling then formed over the seat of the first tapping; this was opened, and copious purulent discharge followed, while the right chest became resonant. Shortly after this, a troublesome attack of phlebitis occurred in the left leg, and the urine became slightly albuminous. In September, a counter-opening was made in the chest and a drainage-tube passed through, while the cavity was syringed daily with carbolic lotion. Three days before his death, his breathing became very short, a faint rub was heard over the heart's apex, with expiration. He complained of much pain in his left shoulder and over the heart; respirations 40. The face became very blue; the nights were very restless. Just before death, percussion over the heart gave a very resonant note, and intensely amphoric breathing was heard about the region of the left nipple, more strongly than on the right side. The heart's sounds were weak and distant, the pulse was imperceptible at the wrist, and he died. At the *post mortem* examination, the right lung was found completely collapsed, while the pleural cavity was full of air. A hole, capable of admitting the little finger, and lined with lymph, passed through into the pericardium, forming a free communication between it and the pleural cavity. The heart was uncovered by lung and came close up to the chest-wall; the pericardium was thickened and lined throughout with a thick layer of lymph, as was also the heart, but there were no adhesions. It appeared certain that a condition of pneumo-pericardium had existed. There were no signs of tubercle.

SELECTIONS FROM JOURNALS.

MIDWIFERY AND DISEASES OF WOMEN.

EXFOLIATION OF THE CUTICLE AFTER THE DEATH OF THE FŒTUS.—At a recent meeting of the Boston Obstetrical Society (*Boston Medical and Surgical Journal*, September 20th, 1877), Dr. Abbot, in answer to the question how long an interval of time is necessary after the death of the fœtus to produce exfoliation of the cuticle, said that he was recently called to a patient about to be confined, who was very large and uncomfortable from excessive distension. On examination in the afternoon, he heard the sounds of the foetal heart distinctly; and the patient stated that she felt the motion of the child subsequently to the visit. On the second day afterwards, a large dead child, weighing about ten pounds, was born. In the progress of delivery, there was considerable delay in the passage of the shoulders, and when they at length came a sheet of cuticle was peeled from the entire abdomen. During three or four weeks before labour, dating from an attack of cholera morbus, the motions of the child had been growing gradually feeble, and for the last week had been scarcely perceptible. The sagittal suture was unusually wide, as if from distension by an excessive amount of serum in the brain; and the abdomen was somewhat enlarged. The child was plump, and there was no appearance of maceration of the cuticle. The labour was a hard one, there being scarcely any liquor amnii. From the positive data of this case, the child could not have been dead more than thirty-six hours previous to delivery, and possibly not more than twenty-four.

LACERATION OF THE CERVIX UTERI AS A CAUSE OF UTERINE DISEASE.—Dr. W. H. Baker reports (*Boston Medical and Surgical Journal*, September 20th) twenty cases where laceration of the cervix uteri during labour has been a cause of severe uterine disease. He found the accident to occur most often in those labours which were rapid, with severe pains; also frequently in cases which had required the application of the forceps. In fourteen of these cases, the laceration was on the left side of the cervix. Eleven of the cases were operated upon by Dr. Emmet's plan with the most satisfactory results. Dr. Baker says that the first thing which attracts attention is the tardy recovery of the patient. When more than the usual time has elapsed, and she thinks she should be able to be about, she feels somewhat discouraged on account of her inability to stand; or, with the attempt to walk, more or less hæmorrhage may be noticed. As time goes on, intercourse may be complained of as being painful, or perhaps followed by a slight show; there are constant backache, a sense of weight in the pelvis, pains extending down the thighs, a sensation of

heat or burning in the hypogastrium, irregularities in menstruation, and throughout the whole a more or less abundant leucorrhœal discharge. The nervous system finally claims its full share in the trials to which the patient is subjected, and she probably becomes a confirmed invalid, and may, indeed, think herself fortunate if she be not confined to her bed. The physical signs change much as the case progresses. At an early stage, the cervix uteri is large and soft, and by the aid of the speculum we see at once the everted membrane of the canal, the epithelial layer of which is often abraded; later, there is the large flattened "mushroom" cervix, with its firmer tissue and shot-like feel; and still later the cervix is hypertrophied, the tissue firm and indurated, and, if it have been treated with caustics, the surface is covered over with cicatricial tissue and the substance hard. Or, the case having been left to itself, the epithelium becomes abraded, and the constant friction to which the part is exposed keeps it constantly irritated, so that the appearance might readily be mistaken for that of malignant disease. To all these appearances in this latter stage might be added the various malpositions occasioned by the change in the cervix.

TOXICOLOGY.

POISONING BY CARBONATE OF BARYTA.—M. Seidel reports, in the *Vierteljahrsschrift für gerichtlichen Medicin*, the case of a young woman aged 28, who took a mixture of carbonate of baryta and sugar, probably in repeated doses, but in unknown quantity. She died on the second day, after having suffered from vomiting and diarrhœa, pain in the stomach, restlessness and anxiety, prostration, difficulty of speech, and dyspnoea. At the necropsy, there was found to be very extensive inflammation of the mucous membrane of the stomach and small intestine, with numerous extravasations; also swelling of the intestinal mucous membrane and fatty degeneration of the liver. The poisonous substance was also present in the stomach, in the form of little granules. Carbonate of baryta (Witherite) is regarded by many as harmless; but it is not so, as in the stomach chloride of barium is formed, the poisonous property of which is well established.

HANDY ANTIDOTES.—The French medical profession have frequently occupied themselves with the endeavour to add to their pharmacopœia an antidote which would answer the purpose in the majority of accidental poisonings, and which could always be kept at hand, so that it might be administered at once, before more special indications had the time to develop themselves, either according to information and anamnesis, which are often wanting in cases of accident, or according to symptoms noted by observation of the patient. M. Mialhe has highly recommended, for this purpose, hydrated sulphate of iron mixed with calcined magnesia. This is a good antidote for the metallic salts, which it deoxidises and changes into harmless sulphurets. But this antidote has the disadvantage of disengaging sulphydric acid in the presence of acids. It requires great nicety in preparation, and is difficult to keep. M. Dorvault has proposed, in cases of alkaloid, cyanic, and metallic poisonings, an antidote composed of equal parts of calcined magnesia, peroxide of iron, and washed powder of animal charcoal. This mixture also, however, changes if it be kept some time. M. Jeannel proposed to keep separately—1, a solution of sulphate of iron; and 2, a mixture of 80 grammes of calcined magnesia and 40 grammes of animal charcoal in 800 grammes of distilled water. This mixture, added at the moment of using to the solution No. 1, forms the antidote, which is to be administered in successive doses of from 50 to 100 grammes (about 1¾ to 3½ ounces). This antidote renders preparations of arsenic, zinc, and digitalis insoluble. It completely saturates free acid, and only acts partially on the alkaline hypochlorites and the oxide of copper. It also leaves in solution a small amount of morphia and strychnia, and the oxide of mercury in notable quantity. Professor Ranieri Bellini has made a communication to the Medico-Physical Society of Florence on the iodide of starch, which MM. Bouchardat and Quesneville were the first to introduce into therapeutics, and frequently employed in cases which required an active alterative medication, when the stomach refused to tolerate iodine in any other form. The iodide of starch is a chemical antidote which is specially appropriate to poisoning by sulphur, by the alkaline or earthy sulphurets, by caustic alkalies, ammonia, or any of the alkaloids. It is also an eliminating agent, very useful in the treatment of long-standing metallic poisonings, especially those resulting from lead or mercury. Dr. Bellini advises that the patient should always be made to vomit soon after the administration of the antidote, to rid him of the chemical products which result from the decomposition of the toxic agent, which in their turn might likewise become decomposed.

PHYSIOLOGY.

THE RELATION OF THE PNEUMOGASTRIC NERVES TO THE PALE MUSCLES OF THE LUNGS.—L. Gerlach (Pflüger's *Archiv*, vol. xiii) connected the trachea of a curarised animal, by means of a T-shaped cannula, on the one hand with a bladder, and on the other with a water-manometer. After the chest had been opened, irritation of the peripheral end of the vagus during the pauses of respiration caused a rise in the manometer, amounting in dogs to about ten *millimètres*, and in rabbits to about six *millimètres* (the amount of irritation was sufficient to somewhat retard the heart's action). According to this, the innervation of the pale muscular tissue of the lungs would be due to the vagus nerve; but it was also a question whether the rise in the manometer was not partly due to the stomach pushing the lung upwards. To settle this point, the abdominal cavity was opened and the stomach completely removed; no change, however, was produced in the results of irritation of the vagus nerve. The research was attended with a similar result when a cannula was used, which reached as far as the bifurcation of the trachea, so that the changes of volume in the air contained in the lungs were essentially to be traced to the contraction of the muscles of the smaller bronchial tubes. Gerlach believes that the vagus does not act directly on the muscular fibres, but on the ganglion cells which are present in the lungs, the mechanism being similar to that of the motions of the stomach and intestines. He believes also that the movements in the smaller bronchial tubes may be of a peristaltic character. A rise in the manometer was also observed when the central end of the pneumogastric and superior laryngeal nerves was irritated, the other vagus remaining entire.

REVIEWS AND NOTICES.

A DESCRIPTION OF SELECTED SPECIMENS FROM THE MEDICAL SECTION OF THE ARMY MEDICAL MUSEUM AT WASHINGTON EXHIBITED IN THE PHILADELPHIA EXHIBITION, 1876.

THIS pamphlet, by Mr. J. J. WOODWARD of the Army Medical Department, U. S. A., formed, no doubt, a handy catalogue for those who visited this portion of the International Exhibition of 1876. The specimens, which were for the most part collected during the war of 1861-65, served "to illustrate some of the morbid conditions incident to soldiers". They comprise cerebral tumours, laryngitis, diphtheria, heart-disease, aneurism, etc. But the larger number are examples of the intestinal lesions of typhoid fever and dysentery, and pyæmia. Our first thought on seeing pathological specimens associated with an international exhibition was one of the singular inappropriateness, even in a special department, of any such combination; we were even inclined to wonder whether a quiet irony might not have possessed the authorities in determining that three preventable diseases, such as typhoid fever, dysentery, and pyæmia, should find a place in an exhibition devoted to the *industry* of all nations. But we suppose that, in recognising the fact that the people are still "quick to do evil", it was thought that a wholesome fear was worth a bushel of words, and, to this end, the opportunity might be made to convey an useful admonition, if a pathological department were added to the collection. We can only hope that the lesson was taken in all kindness by the sightseers, and not too curiously; and certainly Mr. Woodward and his colleagues appear to have administered their dose in as "elegant" a form as possible. In the preface are some exceedingly sensible remarks on the preservation and transmission of specimens to the museum. Many people within our experience seem to think that, no matter what the amount of cutting and examination they have received, preparations will be sufficiently useful when put up in a bottle in a museum. There is no greater mistake, and large numbers of valuable specimens are yearly lost by careless manipulation in the fresh state. We recommend Dr. Woodward's advice to all who may at any time have to do with such.

THE TONIC TREATMENT OF SYPHILIS. By E. L. KEYES, A.M., M.D. New York: D. Appleton and Co. 1877. Pp. 83.

IN this book, Dr. KEYES advocates the treatment of syphilis by means of very small doses of mercury continued during a period of from two to three years or longer.

After pointing out that every case of undoubted syphilis requires mercurial treatment, since cases commencing mildly may afterwards develop the most severe after-effects, the author goes on to discuss the action of mercury upon the blood, and claims to have shown that the drug, given in a proper manner, is a tonic in all cases where it can be digested, and increases the number of the red blood-cells both in health

and in disease. The observations have been made with the *hématicimètre* of Hayem and Nacet, of which instrument a description is given, as well as of Dr. Keyes's method of using it. The details of the plan are minutely described, and every care appears to have been taken in order to ensure accurate results. These observations demonstrate also that the iodides increase the number of the red blood-corpuscles. The proportion of white cells has been found to vary so much from independent causes, that calculation of them has been abandoned. The form of mercury preferred by the author is the protiodide, and the usual dose about one-sixth of a grain; but, when this preparation disagrees, mercurial pill, either alone or combined with iron, may be employed. Supposing the protiodide to be used in the form of granules (the author prefers those made by Garnier and Lamoureux, each containing one *centigramme*), the directions are as follow:—One granule three times a day for three days. On the fourth day, four granules are to be taken during the day, and so on, the dose being increased every fourth day until the effects of mercury are produced. The daily amount now taken is called the patient's "full dose", which may be continued until active symptoms have yielded. The dose is then reduced one-half, and this is called the "tonic dose", which is to be continued month after month, unless new symptoms arise, in which case either the "full dose" is to be resumed or inunction or the vapour-bath is to be used together with the "tonic dose", until they subside, when the "tonic dose" alone is to be again resorted to. When the above treatment has been conscientiously followed from the first, the course of the disease has been invariably mild, and bone, nerve, and visceral lesions have been almost unknown.

This statement as to the rarity of tertiary symptoms is a most important one, and it would be interesting to know how long Dr. Keyes kept his patients under observation after treatment had been discontinued.

Besides general remarks on the mercurial bath, inunction, etc., the author devotes a chapter to the consideration of the local treatment of the various lesions of syphilis. The whole book is evidently the result of a large amount of careful work, and we can cordially recommend it as a welcome contribution to our knowledge of the treatment of syphilis.

REPORTS AND ANALYSES

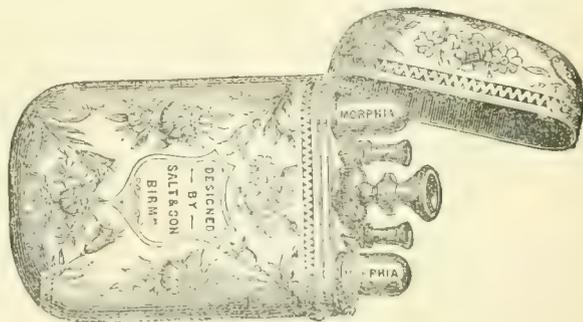
AND

DESCRIPTIONS OF NEW INVENTIONS

IN MEDICINE, SURGERY, DIETETICS, AND THE ALLIED SCIENCES.

SALT AND SONS' POCKET HYPODERMIC CASE.

THE pocket hypodermic case of Salt and Son of Birmingham, of which we annex woodcut, is a model of neatness and handiness; the workmanship is excellent; and the form in which the instruments and the



provision of morphia solution are combined is so extremely portable and elegant, that this hypodermic case is likely to be a great favourite, now that hypodermic medication is established as one of the most ordinary and highly valuable resources of practice.

DISCS OF CURARA.

MESSRS. SAVORY AND MOORE have kindly forwarded us some discs of curara for use in hypodermic injection in cases of hydrophobia. This is a very convenient, portable, and we believe suitable, form of preparation.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 22ND, 1877.

THE SCHOOL OF PHYSIC IN IRELAND, AND CLINICAL TEACHING.

A VERY important question has recently been discussed at the Irish College of Physicians, which we have refrained from noticing until a decision had been arrived at.

Our readers are aware that the most important school of medicine in Ireland is that termed the School of Physic, which is, in fact, the School of Medicine of the University of Dublin, but is governed jointly by the College of Physicians and the Board of Trinity College, Dublin. As only the initiated know the nature of the constitution of this School of Physic, it is necessary to explain how it came into existence, and the relation it bears to the two Colleges. The College of Physicians was, from its earliest origin, intimately connected with Trinity College. In fact, the original College was a body entitled "The President and Fraternity of Physicians", housed in Trinity Hall, a hall of Trinity College, and the Provost and Senior Fellows of Trinity College appointed the President of the fraternity. This body was constituted a College of Physicians in 1667 by King Charles II, with the same relations to Trinity College as existed previously. By the instrumentality of Sir Patrick Dun, a new charter was obtained in 1692, which, as modified by various Acts of Parliament, provides the now existing constitution of the College. In the year 1711, about two years before his death, Sir P. Dun made a will, by which he bequeathed, subject to certain life-interests, money and estates for the endowment of "one or two professors of Physick, to read public lectures and make public anatomical dissections of the several parts of the Human Body's or Body's of other animals, to read Lectures of Osteology, Bandage and Operations of Chirurgery, to read Botanic Lectures, Demonstrate Plants publickly, and to read publick Lectures on Materia Medica, for the Instruction of Studens of Physick, Surgery, and Pharmacy"; he also bequeathed his books for the use of the College of Physicians. He also made provision for the appointment of the professors by the Provost and professors of physick of Trinity College, the president and two senior censors of the College of Physicians, together with the Archbishop of Dublin.

In order to carry out Dun's wish, it became necessary to obtain a Royal Charter to establish the School of Physic, which accordingly was done, and a charter was granted in accordance with the provisions of Dun's will, establishing the King's Professorship of Physic. Thus, the original School of Physic, chartered in 1715, had but one professor, who was to teach all branches of physick and science connected therewith. In 1741, it was found that the estates left by Dun had so far increased that their proceeds could afford to endow three professorships, and that some of the subjects which were required to be taught by the professors of physick were taught by professors in Trinity College. An Act of Parliament was therefore passed, abolishing the King's professorship, and establishing in its stead a professorship of Theory and Practice of Physic, a professorship of Surgery and Midwifery, and a professorship of Ancient and Modern Pharmacy and Materia Medica, the elections to these offices being held in much the same way as for the original King's professorship. So matters rested, Trinity College and the College of Physicians each having its own professors, until

1785, when an Act (25 George III) was passed to constitute a complete School of Physic in Ireland, which provided for the establishment of King's professorships of Medicine, Materia Medica, Natural History, with the addition of a professorship of Midwifery when the funds could afford it; any further surplus funds were to be applied to the support of clinical lectures. Provision was made by the same Act for the appointment of University Professors of Anatomy and Surgery, Chemistry, and Botany. Provision was also made for the clinical lectures being given in some hospital in the city of Dublin. It was here clearly intended that clinical lectures should be given at the best available hospital. At this time, there were certainly three general hospitals of Dublin—namely, Steevens's, Jervis Street, and Mercer's—available for clinical instruction. Nevertheless, some years later, the College of Physicians represented to Parliament that difficulties had arisen about the delivery of the clinical lectures, and accordingly an Act (31st George III, cap. xxxv) was passed providing for the establishment of a clinical hospital for the King's professors, and giving power to take a lease of a house as a temporary hospital until a proper hospital should be provided, and power to purchase any existing hospital, the funds to be provided out of the surplus of Dun's estates and by public subscriptions. This arrangement seems not to have satisfied its promoters; and accordingly, in 1800, another Act of Parliament was passed which repealed all previous Acts relating to the School of Physic, and instituted the School of Physic almost as it exists at present. This Act provided that the King's professorships, on the foundation of Sir Patrick Dun, should be Institutes of Medicine, Practice of Medicine, and Materia Medica, with power, when funds permitted, to add a professorship of Midwifery, and provides a salary for each of £100 *per annum*. The Act then provides that the surplus of Dun's estates, after payment of the professors, shall go towards the foundation of Sir Patrick Dun's Hospital; and enacts that no clinical patient shall be received into the hospital until it is "completed for the reception of thirty patients"; and that the funds shall be permitted further to accumulate until the hospital is capable of containing one hundred patients and contains the necessary apartments for a library and a lecture-room. The appointment of the University professors is confirmed, as in the previous Acts. This Act also provides that, if any of the King's professors shall neglect their duty—namely, giving lectures and clinical instruction—they may be removed by the College of Physicians. The University professors are also appointed to give clinical instruction in Sir Patrick Dun's Hospital, and that the staff of professors of the School of Physic become the medical staff of Sir Patrick Dun's Hospital. Here matters again rested until the advance of liberality and modern science led to the passing of an amendment Act in 1867, removing religious tests from the professors, and providing that the professors of chemistry and botany should cease to be clinical teachers; but making the very curious provision that the other professors, whether suitable or not, shall continue to be clinical teachers. It is, however, provided, by Clause 4 of the Act, that any professor may be removed from his office in the hospital without being removed from his chair in the School of Physic.

After the passing of this Act, the Board of Trinity College, which, be it remembered, possesses no medical element whatever, passed a regulation that in future no University professor should hold an appointment to any clinical hospital other than that of Sir Patrick Dun. This resolution was forwarded to the College of Physicians, who, in their loyalty to their Alma Mater, passed a similar regulation relative to the King's professors. It is the operation of this rule which has given rise to the discussion at the College of Physicians. On November 2nd, Dr. Grimshaw, Physician to Steevens's Hospital and Lecturer on Materia Medica in the School of that Hospital, moved, and Dr. James Little, Physician to the Adelaide Hospital, and Professor of Medicine in the School of the Royal College of Surgeons, seconded a motion—"That the following resolution, passed on February 21st, 1868, be repealed: 'That in future no King's Professor in the School of Physic shall be allowed to hold an appointment as medical officer

to any clinical hospital other than that of Sir Patrick Dun. This rule not to affect existing arrangements." Dr. Grimshaw announced, we believe to the astonishment of even some of the Fellows of the College, that Sir Patrick Dun's Hospital only maintained fifty beds, and had usually less than that number, the daily average being about forty. He argued that such a small field for clinical instruction was calculated not only to injure the student, but also to prevent the teacher himself from gaining that experience which is necessary to make him a good practical physician and clinical instructor. We believe no one attempted to combat this view except one, who seemed to have an admiration for a limited experience because he was once physician to a very small hospital, but who, nevertheless, during the greater part of his life, was officer of the largest clinical hospital in Ireland. The rest of the argument amounted to an objection to any one holding two clinical hospitals. Dr. Grimshaw's reply to the latter argument was, that the small demand on the physician's time would enable him efficiently to discharge the duties of two similar hospitals, as he is only required to attend for *one-third* of the year at Sir P. Dun's. Dr. Grimshaw's resolution, after a discussion which extended over two meetings of the College, was carried by a majority of one. There were twenty Fellows present when the question was put; ten voted for, including the President, and nine against the motion; one did not vote. The resolution, as provided by the School of Physic Act, was forwarded to the Board of Trinity College, who objected to it, and requested the College to revert to the former rule. This, accordingly, the College have done, in deference to the "dons" of their Alma Mater. The division on Dr. Grimshaw's motion was somewhat remarkable, nearly all the younger Fellows of the College (including the Professor of Institutes of Medicine in the School of Physic) voting with the proposers; the minority of nine included three of the professors in the School of Physic and the Medical Registrar of Trinity College, who, of course, under the instructions of Trinity College, led the opposition to the party of progress.

Now, there need be no objection to the intimate association of the School of Physic in Ireland with a clinical hospital; but there is an obvious objection to the greatest school of medicine in the sister country being weighted by so incomplete a clinical hospital as that of Sir Patrick Dun, to suit the views of a few College dons and the protests of those who happen at present to hold professorships in the School of Physic. Since the rule was passed, there have been two elections for King's professorships. The result of the competitions has been to show that the physicians to the Dublin hospitals will not abandon their large clinical experience to accept (with their honours and emoluments) the King's professorships, subject to the incubus of Sir Patrick Dun's Hospital. It is remarkable that three-quarters of a century ago it was considered essential to have at least thirty beds for clinical instruction in medicine alone at Sir Patrick Dun's Hospital, to be increased to one hundred to make it complete; but now no more than fifty are considered quite a sufficient field for instruction by the professional Board of Trinity College, Dublin. The medical students of Trinity College, however, are wiser than their masters, and all, except a few, go elsewhere to obtain clinical knowledge; thus, of three hundred students in medicine stated to be attending Trinity College, we hear that but forty or thereabouts are satisfied with the experience afforded by Sir Patrick Dun's Hospital. If Trinity College wish for a school of clinical medicine, let her contribute to found a hospital similar to those of King's or University College, and then there will be no need of a coercive law to prevent her professors from accepting appointments outside her walls. It is with great regret that we find a medical corporation like the King and Queen's College of Physicians lending itself to support the whims of the old Board of Trinity College, Dublin; and it would be well for the College to consider that the action they have just taken is tantamount to the expression of the opinion that the highest class physicians—namely, the University graduates—need only the smallest amount of clinical instruction.

Since the above remarks were written, a report has reached us that

the Board of Trinity College, rightly calculating that their victory over the party of progress in the College of Physicians must be short-lived, and admitting the inefficiency of the clinical school at Sir Patrick Dun's Hospital, have determined to increase the accommodation at the expense of the funds of Trinity College. We hear, however, that the proposed increase will amount to thirty beds only. Such a small addition will be quite inadequate, and cannot remove the objection to the smallness of the field of clinical experience. It is argued that eighty beds will place Sir P. Dun's in a better position than several other clinical hospitals of Dublin. Such an argument is quite invalid, as the School of Physic should equal the best, not merely reach the mediocre clinical schools of Dublin.

CONTAGIOUS DISEASES ACTS AND VENEREAL DISEASES IN THE ROYAL NAVY.

A RECENTLY published Parliamentary return, called for by Sir Harcourt Johnstone, Bart., M.P. for Scarborough, contains some important figures bearing upon the effect of the Contagious Diseases Acts upon the prevalence of venereal diseases in the Royal Navy, which are worth the serious consideration of all interested in this subject.

The return shows "the number of cases of venereal diseases in Her Majesty's ships and vessels stationed at five home ports at which the Contagious Diseases Acts have been and are in operation, and the number of cases in Her Majesty's ships and vessels at five home ports at which the Contagious Diseases Acts have never been applied, from the year 1860 to the year 1875 inclusive; together with the ratios per thousand of force for each year at each port, and the total ratios for the ports under the Acts, and the ports not under the Acts". It will be seen that this return contains the very information which we have, on more than one occasion, pointed out that the naval medical reports should have contained; the facts for a series of years relating to home ports in which the Acts have been in force, separately and in the aggregate, and the facts for other home ports in which they have never been in force.

The five ports under the Acts with which the return deals are Plymouth, Portsmouth, Southampton, Queenstown (Cork), and Dartmouth. The ports not under the Acts are Liverpool, Hull, Kingstown (Dublin), Greenock, and Leith. The period of sixteen years embraced by the return includes the four years (1860-3) which preceded the passing of the first Act in 1864, two years when that Act was partially in force, and two succeeding periods of five years during which the Acts of 1866 and 1869 were in force. Before noticing the figures contained in this important return, it may be noted that the return was prepared in the Navy Medical Department, and bears the signature of Sir Alexander Armstrong, K.C.B., the Director-General.

Without encumbering this notice with detailed figures for each of the ten ports dealt with in this return, it may be noted that in each of the five ports that have been brought under the operation of the Contagious Diseases Acts the ratio of cases of venereal disease in the Navy shows a marked decline, which, although subject to slight fluctuations, may, on the whole, be described as steady during the ten years 1866 to 1875; the recent ratio of disease is, moreover, much lower than in 1860-4, before any Act was passed. On the other hand, at the five ports which have never been brought under the influence of the Acts, the recent ratio of disease not only shows no decline, but is actually higher than in 1860-3. Let us now examine in greater detail the figures for the aggregates of the five ports under, and of the five ports not under, the operation of the Acts. In Plymouth, Portsmouth, Southampton, Queenstown (Cork), and Dartmouth (all under the Acts), the ratio of cases of syphilis (primary and secondary) per 1,000 of the force stationed at those ports was equal to 75.0 in 1860-3, previous to any Act being passed, increased to 79.1 in 1864-5, when the Act of 1864 came into force, declined to 47.2 in the five years 1866-70 under the operation of the Acts of 1866 and 1869, and further declined to 43.6 in the following and most recent period of five years, 1871-5. On the

other hand, in Liverpool, Hull, Kingstown (Dublin), Greenock, and Leith (none of which have been brought under the Acts), the ratio of cases of syphilis (primary and secondary) per 1,000 of the force stationed there was equal to 70.1 in 1860-3, to 100.0 in 1864-5, to 84.7 in 1866-70, and to 96.4 in 1871-5. Thus, in the five ports brought under the Acts, the average ratio of cases of venereal disease declined from 75.0 in 1860-3 to 43.6 in 1871-5, equal to a *decrease of 42 per cent.*; while in the five ports not under the Acts the average ratio of cases increased from 70.1 in 1860-3 to 96.4 in 1871-5, showing an *increase of 37.6 per cent.* It is further apparent that in 1860-3, before the Acts were passed, the ratio of disease was somewhat lower in the five ports which have not been brought under the Acts, than it was in the other five subsequently brought under the Acts; in 1871-5, however, the ratio of disease was only 43.6 in the five ports under the Acts, while it was 96.4, or more than twice as high, in the five other ports which had not been brought under the Acts. The general bearing of these figures entirely agrees with that of the figures which we published a year ago relating to the mortality from syphilis in the districts under the operation of the Acts, and in the rest of England and Wales where the Acts are not in force.

A brief reference is necessary to the ratio of cases of gonorrhœa which are published in the return for each of the ten ports. At the five ports under the Acts the ratio from this disease rose from 26.5 per 1,000 in 1860-3 to 63.1 in 1871-5. At the ports not under the Acts, the ratio of cases of gonorrhœa rose from 29.3 in 1860-3 to 52.4 in 1871-5. Thus, a large increase of gonorrhœa cases has occurred at all the ports, whether under or not under the Acts. With reference to this increase, the Director-General remarks that it "may be attributed to the greater number of cases of gonorrhœa recorded, rather than to any real increase of disease"; as, since the passing of the Acts, a large number of cases have been brought under the notice of the medical officers which would previously not have been reported.

The cause of the marked decline in the cases of syphilis (primary and secondary) at the protected ports, concurrently with as strongly marked an increase at the unprotected ports, appears unaccountable unless attributed to the beneficial effects of the Acts. The decline, moreover, appears to be simply explained by the fact that hospital accommodation, to the extent of 328 beds, for women suffering from venereal disease has been provided by Government in the five protected ports or districts dealt with in the return; whereas in the five unprotected ports little or no special hospital accommodation exists for this purpose, and if it did exist the provisions of the Acts would be necessary to assure its being used.

It will be interesting to see how the overpowering evidence afforded by this Parliamentary return in favour of the beneficial effects of the Contagious Diseases Acts upon the health of the Navy will affect the announced intention of Sir Harcourt Johnstone again to move, a third time, early next session the repeal of these Acts. It may be presumed that Sir Harcourt Johnstone could never have anticipated that the return he moved for would afford evidence so crushing to the assertions of the advocates of repeal; and, having been the means of producing this evidence, it remains to be seen whether it will have any effect on the tactics of the opponents of the Acts, with whom he has hitherto identified himself.

THE Library of the Royal Medical and Chirurgical Society will be closed on Monday, Tuesday, and Wednesday, December 24th, 25th, and 26th.

A TELEGRAM from St. Petersburg states that the mortality among the people at Tiflis from the black pest is frightful. The pest broke out among the Turkish prisoners interned.

By a recent will, M. Maujean has bequeathed to the French Institute the capital producing a sum of 1,200 francs, designed to form a biennial prize of 2,000 francs, to be awarded alternately by the Aca-

démie Française, and by the Académie des Sciences. To obtain it of the latter, it is necessary to have published the work which shall be pronounced the most useful to hygiene, considered in all its branches.

THE death of Dr. W. G. Guppy, one of the surgeons sent out by Lord Blantyre at Erzeroum, from typhoid, which has been committing great ravages in the city, is announced, and his loss is felt very severely by his colleagues. He was buried on the afternoon of the day of his death in the Saxon graveyard under the Azizi Fort.

THE following notice appears in the *Daily Telegraph* of Wednesday last. At an inquest held at Wolverhampton on the body of William Hyde, moulder, the wife of the deceased stated that her husband died on Thursday last, from injuries sustained while at work eleven weeks ago. He was regularly attended by a local medical man up to his death, and after that occurred, a surgeon to the Accidental Assurance Society, in which deceased's life was insured for £1,000, made a *post mortem* examination without her consent. The coroner forbore to make any observations as to this very irregular proceeding, which he had not been asked to permit. He should order an independent surgeon to open the body, and if it were found that any attempt had been made to defeat the ends of justice, he should take steps to have the matter thoroughly sifted. The inquest was adjourned.

DR. FRANCIS HAWKINS.

THE death, at a very advanced age, of Dr. Francis Hawkins, well known for many years as the assiduous, polite, and business-like Registrar of the Royal College of Physicians, and afterwards of the General Medical Council, is announced. Dr. Hawkins combined much professional accomplishment and literary culture with great amiability and good knowledge of the forms of business proper in the affairs of such bodies as those to which he acted as Registrar. He retained activity to a late period in life, having only recently resigned, and will be kindly remembered by all who came into contact with him.

DR. C. D. F. PHILLIPS.

DR. PHILLIPS has suffered from extreme sleeplessness since the accident which lately happened to him; but we are glad to learn that the bodily pains are now better, and that he continues to make favourable, though slow, progress.

SIR WILLIAM MUIR.

A MILITARY contemporary accuses us of having put forth a "misstatement" respecting the state of health of Sir William Muir, the Director-General of the Army Medical Department, and his return to the duties of his office. Reference to our paragraph on the subject will sufficiently show that we did not use any expression analogous to "quite recovered", attributed to us by the journal in question. It is well known that Sir William Muir's illness arose from hæmatemesis; and it is equally well known that this is not a dangerous disease, unless it is associated with lesions of the viscera of a kind which Sir William Muir's physicians had no reason for believing to exist in his case. Of course we are aware that the weakness resulting from a grave attack of hæmatemesis is not "quite recovered" from until after some considerable time has elapsed; but we had good grounds for asserting what we did, that the recovery of strength had gone on very favourably, and that the Director-General had nearly regained his former state of health. We were equally correct in stating that he had resumed the duties of his office; for he was then performing, as he is still doing, all the duties which appertain to his special position in the department over which he presides. Our contemporary is quite safe in announcing such generalities as that *sooner or later* Sir William Muir's retirement will become a necessity—that will happen to all of us; but we entirely deny that the paragraph in this JOURNAL contained any misstatement whatever. There is no ground at the present moment for declaring the intended or probable retirement of Sir William Muir. What the future may have in store, we do not pretend to be informed upon.

POISONED BY ACCIDENT.

A VERDICT of death from misadventure was returned last week by a coroner's jury at an inquest held at the Kensington Infirmary by Dr. Diplock, upon the body of Emily Healey, the housekeeper at the dispensary, who suffered from rheumatism, and had swallowed by mistake an embrocation composed principally of opium, ammonia, and belladonna.

BROMPTON HOSPITAL ENTERTAINMENTS.

WE have before us the programme of the musical performances on Monday evening, December 10th, forming part of the Brompton Hospital Entertainments, the present being the eleventh season. The entertainments are very carefully organised by the kind aid of the staff and of a number of visitors and their friends; and this particular programme would be considered brilliant at one of the most fashionable evening parties. The Brompton Hospital patients are more than fortunate in that kindness does all that fashion and leisure can suggest to alleviate the tedium of their detention in hospital, while the highest medical skill is employed to promote their recovery or lessen their suffering.

TYPHOID FEVER IN SHREWSBURY PRISON.

A CASE of typhoid fever (not typhus, as stated by most of our contemporaries), terminating fatally, has just occurred in the above prison. This being the fifth case during the past year, some anxiety is naturally felt by the authorities, especially as great pains have been taken and large sums of money expended in carrying out suggested improvements in the sanitary arrangements. All the drains leading from the prison have been taken up, relaid, and ventilated, as well as every soil-pipe in the building; water from the town works laid on to the cells for washing and flushing purposes, and filtered rain-water supplied to the prisoners for drinking. A searching inquiry has failed to bring to light any probable or even possible cause for this late case.

GEOGRAPHY OF PREVENTABLE DISEASE.

THE exceptionally low temperature of the past summer caused the fatality of diarrhoea, principally infantile, to be lower during the three months ending last September than it had been in the corresponding period of any year since the cold and wet summer of 1860. It is well known that the fatality of infantile diarrhoea in summer is mainly dependent upon temperature, and it is equally well known that the disease is most fatal in urban populations. The Registrar-General, however, again calls attention to the many reasons which appear to disprove the assertion that heat is the sole controlling element in the causation of diarrhoea, and especially notes the wide variations in the mortality from the disease during last quarter in different English and Welsh urban populations. The annual death-rate from diarrhoea in the whole of England and Wales last quarter was equal to 1.31 per 1,000, whereas in the seven preceding corresponding quarters it had averaged 2.53. In the mainly agricultural counties of Dorset and Wilts, the death-rate from diarrhoea did not exceed 0.31 and 0.32 per 1,000; while it was equal to 2.03 in Lancashire, 2.79 in the East Riding of Yorkshire, and 2.90 in Leicestershire. In London, with its three and a half millions of urban population, the death-rate from diarrhoea was equal to 2.00 per 1,000, and was lower than the rate in any of the three last-mentioned counties, each of which has a considerable proportion of rural population. In twenty of the largest English towns, the diarrhoea-rate averaged 2.3 per 1,000, and ranged from 1.4 in Bristol and Bradford, to 3.4 in Portsmouth, 4.6 in Hull, and 5.6 in Leicester. In fifty other large town districts, the diarrhoea-rates showed equally marked variations; while the rate averaged 1.5 in the fifty towns, it ranged from 0.2 in Swansea, and 0.3 both in Merthyr Tydfil and Halifax, to 3.8 in Preston, 4.0 in Wigan, and 5.4 in Yarmouth. Among the apparent anomalies in the varying incidence of fatal infantile diarrhoea, in different towns during last quarter, it is pointed out that, whereas it showed a generally large decline, the rates in the three south-coast towns—Portsmouth, Brighton, and Plymouth—were

actually higher than those which prevailed in the summer quarters of 1876; diarrhoea-rates also showed an increase last quarter in Dover, Hastings, Reading, and Ashton-under-Lyne. Leicester and Yarmouth, as in recent years, again showed conspicuously excessive death-rates from diarrhoea, the real causes of which are little more known now than they were when they first seriously attracted the attention of hygienists a few years since. Diarrhoea, whether a distinct filth-disease, or only a symptom, plays so important a part in the causation of infant mortality, that it calls for further investigation at the hands of public health professors. It is essential that we should learn why the large towns of South Wales enjoyed last summer almost complete immunity from diarrhoea, while the disease showed severe fatal prevalence in other urban populations, especially in Lancashire.

CHLORAL-HYDRATE.

AN Order in Council, published in the *London Gazette*, signifies the approval of the Lords of the Privy Council of a resolution agreed to by the Council of the Pharmaceutical Society, declaring that chloral hydrate and its preparations ought to be deemed poisons within the meaning of the Pharmacy Act, 1868.

STAFFORD HOUSE COMMITTEE.

ON Saturday last, Mr. Barrington Kennett made to the Stafford House Committee a statement of their work in European and Asiatic Turkey, from which it appeared that upwards of thirty thousand sick and wounded soldiers have been attended by the surgeons of the Committee, and have received food on their way from the front; and, at the present moment, upwards of one thousand men are under treatment in the permanent hospitals, independently of the field ambulances.

OPHTHALMIA IN DISTRICT SCHOOLS.

IN a recent report of a meeting of the Holborn Guardians, we find it stated that the Clerk read a letter from Mr. Bader, the oculist, to whom the Board had deputed the duty of visiting the schools and examining the eyes of the children. He stated that all the five hundred children in the schools were more or less afflicted with ophthalmia; and he thought that steps should be taken to restore them to health, as the nerve of the eye in most of the children was afflicted. He had visited the schools, and found in the boys' schoolrooms that the stench was most objectionable, and he hoped that in the future the children would be required to wash in hot water and carbolic soap. His own opinion was that, if the children had plenty of fresh air and open-air exercise, he had no doubt that the children would soon recover. He was prepared to receive a limited number of children suffering from ophthalmia into Guy's Hospital. We hope that Mr. Bader's letter is misrepresented, and possibly he will be able to give us some information on the subject; otherwise it would appear that the means which he proposes are entirely insufficient, and the view he takes of the duties and responsibilities of the Guardians is very incomplete. If it be true that the stench in the boys' schoolrooms is objectionable, there is obvious reason for very searching and complete reform, both in respect to the habits of the children and to the ventilation and cleanliness of the schoolrooms. Much more than this is necessary if it be also true that all the five hundred children in the school are more or less afflicted with ophthalmia, a state of things which would reflect the deepest disgrace on the Guardians; nor is it right that the funds of public hospitals should be taxed to supply the wants of a rate-supported school controlled by the Holborn Guardians.

ENGLISH DOCTORS AT THE WAR.

IN relation to a subject upon which we have already commented, a recent correspondent writes: "Dr. Vachell left here last night for England; his companion, Dr. Douglas, had left some time before. I learn that great injustice has been done these gentlemen in certain quarters in England in consequence of their having signed a statement

describing the treatment of the Russian wounded by the Turks at Telis after the first Russian attack and repulse on October 24th. When the Russians captured this place a few days after this date, Messrs. Douglas and Vachell remained with the Turkish wounded and were captured. The Russians demanded of them the whereabouts of their wounded left on the battle-field after the previous engagement referred to, and they were compelled to admit that no Russian wounded had been received in the Telis hospitals. The Russians then told them that, as they were the sole representatives present of the Turkish Medical Department, they must be held responsible for these missing wounded men, as the men must have all been murdered on the battle-field. The surgeons had no resource except to state the facts which had come under their observation. When the details had all been drawn out of them by direct questions, they were called upon to sign the written statement of their replies as an evidence of good faith. I saw this document before it was signed, as I was at Bogot at the time, and, knowing all the circumstances of the case, have no hesitation in asserting that they had no legitimate means of avoiding the responsibility cast upon them by their circumstances, and the consequent natural demand of the Russians to know what had become of their wounded comrades." Dr. A. Baird Douglas has written a letter to the *Times* in reference to Mr. Barrington Kennett's circular, and the statement made that he had been incautious in volunteering information detrimental to the army with which he had been acting, and states that while strictly withholding information of a military nature, he simply verified the report of a Russian officer upon the mutilation of the wounded; and he maintains that, as a member of the Red Cross Society, he was bound not to shield such a vile infringement of humanity and modern warfare. In this opinion, all his own countrymen to whom he represented the facts agreed.

ROYAL SOCIETY.

At the anniversary meeting of the Fellows of the Royal Society, held on Friday, November 30th, at Burlington House, the following gentlemen were elected officers and council for the ensuing year. *President*: Sir Joseph Dalton Hooker, C.B., K.C.S.I., M.D., D.C.L., LL.D.—*Treasurer*: William Spottiswoode, M.A., LL.D.—*Secretaries*: Professor Stokes, Professor Huxley.—*Foreign Secretary*: Professor W. Williamson, Ph.D.—*Other Members of the Council*: F. A. Abel, C.B.; W. Bowman; F. I. Bramwell; W. B. Carpenter, M.D., C.B.; W. Carruthers; W. Crookes; Professor P. Martin Duncan, M.B.; W. Farr, M.D.; Professor W. H. Flower; Professor G. Carey Foster; John R. Hind; Lord Rayleigh; Vice-Admiral Sir G. H. Richards, C.B.; Professor H. J. Stephen Smith; Professor Balfour Stewart; and Allen Thomson, M.D. The medals for the present year were awarded as follows: The Copley medal to Professor James Dwight Dana; a Royal medal to Mr. Frederick A. Abel; a Royal medal to Professor Oswald Heer of Zürich; and the Davy medal to Robert W. Bunsen of Heidelberg, and Gustav Robert Kirchoff of Berlin.

SURGICAL AID SOCIETY.

The annual meeting of this Society was held on Monday, December 10th, at the Cannon Street Hotel; the Right Hon. the Lord Mayor in the Chair. The secretary read the report, and its adoption, duly moved and seconded, was carried *nem. con.* Mr. Roger Eykyn moved the following resolution, of which he had given notice.

"That, in the opinion of this meeting, the system of administering relief in present use by the Society is capable of amendment. The Committee is, therefore, respectfully requested to draw up a scheme which would both relieve the applicants from the burthensome task of collecting letters and also provide that cases may, after due investigation, receive prompt relief on the recommendation of a subscriber."

He desired in no way to stand between the meeting and the report, and congratulated the Committee on the amount of relief which had been afforded during the past year to the suffering poor; but he still felt that the mode of administering relief as pursued by the Society was, as indicated by the terms of his resolution, a heavy burden upon many

of those relieved. He urged the Committee to make concessions in the direction of the words of his resolution. Dr. Chepmell seconded the same. Mr. Coles, a member of the Committee, expressed his full appreciation of the benevolent intentions of the mover and seconder of the resolution; but said that it depended on the subscribers whether they would leave the means to carry out Mr. Eykyn's suggestion in their hands. Mr. Jabez Hogg entered into details, showing how easily that *immediate relief* which the Society professed to give might be afforded in all cases, and thus those patients who, as the most afflicted, were the least able to perambulate the town to beg for subscribers' letters, might be saved from making distressing applications. The treasurer assured the meeting that the managers would be delighted to give every consideration to the proposal made in the resolution in the Committee-room, to which they cordially invited Mr. Eykyn. Mr. Eykyn thanked the treasurer and Mr. Coles for their remarks; and, although he held in his hand one hundred and fifty proxies in favour of his resolution, and the opinions of two hundred and fifty subscribers in favour of the change suggested, he felt pleasure in doing a justice to the Committee by accepting the offer they had made and withdrawing the resolution. The meeting closed with a vote of thanks to the Lord Mayor.

POST MORTEM EXAMINATIONS AND MEDICAL EVIDENCE.

A CORRESPONDENT calls our attention to a case of alleged manslaughter which was tried at the Old Bailey last week, which he considers to illustrate afresh some of the defects of our present system of obtaining medical evidence in criminal cases originating in the coroner's court, and to point to the necessity of securing, in some form or other, the services of a medical referee, to whom the coroner or presiding judge could apply for assistance in doubtful cases. The child, whose death on the day on which one of the medical witnesses was first called in formed the basis of the charge against its father, was seven years old, and had been ailing for about six months, during the last fortnight of which it had kept its bed. The father had got it two bottles of cough-mixture, and had caused mustard plasters to be applied, on the advice of a friendly neighbour. It was also proved that the prisoner was very fond of his boy; and that, though in such distress that his goods had been seized for rent, he gave the child all the nourishment he could: fish, eggs, broth, sherry, and weak brandy and water, etc. On the day on which the child died, he had asked one of the other lodgers to fetch a doctor early in the morning before he went to work; but she, not being well herself, had not done so till the middle of the day, when the child was dying. The jury, taking a common-sense view of the matter, stopped the case, but not before some extraordinary evidence had been given by the medical witnesses called for the prosecution. These gentlemen had found the internal organs generally healthy, with the exception of the right lung, which both agreed was in a state of gangrene; though one, when asked for a definition of this state, explained that he meant it was "full of corruption"; and the other contented himself with saying that the lung was "broken up and disorganised". There was absence of fat in "all the internal organs where you would expect to find it"; and this was said to be very unusual. The gangrene had proceeded from inflammation, which had not been medically treated. Asked whether the gangrene would give rise to any alarming symptoms, they agreed that great pain would be the chief. Upon the judge inquiring what were the symptoms of the first stage of inflammation of the lungs, he was informed by one of these representatives of modern medicine that they were cold rigors, perspiration, and pain. Our correspondent adds: Owing to the case having been stopped by the jury, it became unnecessary to call medical evidence on the part of the defence to show that not a single pathognomonic sign of gangrene had been mentioned by either witness at the trial or in the evidence before the committing magistrate; and thus a conflict of medical evidence somewhat similar to that which arose in the Penge case was happily avoided. It is always undesirable for one medical man to have to correct the errors or misstate-

ments of another in open court; but it is still less desirable that the life or liberty of one of Her Majesty's subjects should be imperilled by medical evidence which will not stand the test of adverse criticism.

ANTI-VIVISECTION.

WE see in the *Kent Herald* a report of a public meeting, held under the auspices of the Society for the Protection of Animals liable to Vivisection, which was presided over by the Bishop of Dover, for the purpose of protesting against vivisection. There appear to have been only twenty or thirty persons present; and we are very glad to see, from the marked report which has been sent to us, that, following the course which we recently suggested, Mr. G. Dowker of Stourmouth had taken the trouble to read the reports of the Royal Commission instead of trusting to the garbled statements in respect to vivisection mainly put forward by the agency of this Society at such meetings, and he quoted that part of their conclusions to which we have also referred, namely, that the greatest mitigations of human suffering have been in part derived from such experiments, and that the prohibition of experiments on living animals, even if it were possible, would not be reasonable. The chairman stated that he himself was an advocate for the regulation of vivisection, and not for its abolition. Mr. Dowker moved an amendment—"That this meeting, while sympathising with the general objects of the Society for the Protection of Animals, deprecates any attempt to put obstacles in the way of experiments on animals calculated to advance medical science and thereby benefit humanity, and has the greatest confidence in the medical profession generally, and is well assured that they will abstain from useless cruelty." The amendment was seconded by the Rev. Mr. Mayhew, but, of course, was not carried. One could hardly expect it would be, at so small a meeting specially summoned by the agents of the Society, including well known adherents of the Society and persons whose minds have been poisoned by the abominable statements habitually made in support of its objects. Mr. Dowker, however, rendered excellent service to the true cause of humanity by the part which he took in rectifying the absurdities and misstatements put forward by the agents of such societies; and we trust that, at public meetings summoned by this Society, medical men will take some pains to attend, and instruct intelligent persons capable of understanding the facts, by putting before them the actual conclusions of the Blue Book of the Royal Commission, and especially the evidence of Professor Sharpey, Professor Turner, Sir William Gull, and Dr. McKendrick.

THE PUBLIC HEALTH.

DURING last week, 5,882 births and 3,828 deaths were registered in London and twenty-two other large towns of the United Kingdom. The natural increase of population was 2,054. The mortality from all causes was at the average rate of 24 deaths annually in every 1,000 persons living. The annual death-rate was 28 per 1,000 in Edinburgh, 25 in Glasgow, and 33 in Dublin. Small-pox caused 31 deaths in London, whereas no death from this disease was recorded in any of the nineteen provincial towns. In London, 2,542 births and 1,613 deaths were registered. The annual death-rate from all causes, which in the two previous weeks had been equal to 23.3 and 22.8 per 1,000, rose last week to 23.8. The 1,613 deaths included 31 from small-pox, 92 from measles, 54 from scarlet fever, 10 from diphtheria, 25 from whooping-cough, 26 from different forms of fever, and 10 from diarrhoea; thus to the seven principal diseases of the zymotic class 248 deaths were referred, against 258, 248, and 234 in the three preceding weeks. The 92 fatal cases of measles exceeded the numbers in recent weeks, and were 40 above the corrected weekly average. The Metropolitan Asylum and London Fever Hospitals contained 168 fever (typhus and enteric) patients on Saturday last, against 155 and 173 at the end of the two previous weeks. The deaths from small-pox, which had been 31 and 25 in the two preceding weeks, rose again to 31 last week, of which 17 occurred in the Metropolitan Asylum Hospitals, one in the Highgate Small-pox Hospital, and 13 in private

dwelling-houses. Of the 31 cases, 13 were certified as unvaccinated and 8 as vaccinated, while in 10 cases the medical certificates gave no information as to vaccination. The number of small-pox patients in the Metropolitan Asylum Hospitals, which in the first week in October had declined to 137, have since steadily increased, and were 294 on Saturday last; 85 new cases were admitted during the week, against 54 and 79 in the two previous weeks. The deaths referred to diseases of the respiratory organs, which had been 417 and 397 in the two previous weeks, rose again to 415 last week, but were 81 below the corrected average; 265 resulted from bronchitis and 104 from pneumonia. In Greater London, 3,018 births and 1,890 deaths were registered, equal to annual rates of 36.1 and 22.6 per 1,000 of the population. At the Royal Observatory, Greenwich, the duration of registered sunshine in the week was 6.0 hours, the sun being above the horizon during 54.8 hours.

THE THIRLMERE WATER-SUPPLY SCHEME.

MESSRS. CHAPPELL AND SON, solicitors, writing to the *Times* of the 18th instant, in answer to Mr. John Grave, who asserts that Lake Thirlmere is already the property of the Corporation of Manchester, state that the Corporation have not the power to purchase the lake under the provisions of the Public Health Act, which only provides for the purchase of land, and not of water. Miss Octavia Hill, in the same journal, while admitting that the opponents of the scheme fully grant that all men must have good and abundant water, points out the very great loss the success of the Manchester scheme would entail upon thousands of lovers of the picturesque, whom no engineering ornamentation could recompense for the loss of a spot which has been undergoing a natural course of beautifying; and asks, in conclusion—"Are the men who say their embankment, with a few boulders scattered about, will rival in beauty Raven Crag itself, who ask us to appreciate the advantage of a straight road along the slope of Helvellyn, instead of the present winding coach-road, who think that in adding acres to the superficial area of a lake they must increase its beauty, who ask us to rejoice that they propose to submerge fields in the valley and pull down grey stone walls, who finally tell us they scorn the form of the lake as moulded by rainfall and streams in long ages, and seem to see no value in the flowers of its swamps and no charm in its little-frequented bridle-paths—are these the men to whom we are going to commit one of the loveliest lakes and valleys our England owns?"

SCOTLAND.

THE Edinburgh Botanical Society has selected Dr. T. A. G. Balfour President of the Society for the ensuing year.

THE Senatus Academicus of the University of Aberdeen were, on Saturday last, presented with the portrait of Dr. Macrobain, lately Dean of the Faculty of Medicine in the University. The portrait, which was subscribed for by old pupils, is painted by Mr. George Reid, R.S.A. It is to be hung in the great hall, Marischal College.

KILMARNOCK FEVER HOSPITAL AND INFIRMARY.

THE annual meeting of the subscribers took place last week, when the report showed that the institution was in a prosperous and efficient state. The total cases admitted during the year were 350, being an increase of 16 over the previous year. The fever cases numbered only 40, against 102 last year. The financial statement showed a solid balance in favour of the institution.

DRAINAGE OF FORFAR.

AT a meeting of the Forfar Police Commissioners, held last week, it was reported that the action between Lord Strathmore and the Commission, regarding the pollution of the loch, had been settled on a minute by the parties, providing that the defenders admit that the loch, and particularly the east end of it, is seriously polluted by the sewage and impure matter issuing from the drains of the town; that the de-

defenders admit they have no right to pollute the loch; that the defenders are willing and undertake to execute a system of works by which, in so far as regards the sewage and drainage of Forfar, the water in the loch shall be kept free from pollution, but under reservation to the defenders of power to convey into the loch surface-water from the streets and other water uncontaminated by sewage; that the defenders shall pay the expense of the process incurred by the pursuer, and shall undertake to lodge, before July 1st, 1878, a scheme by which to accomplish the above purpose.

THE LIVINGSTONE INSTITUTE.

A BAZAAR was held in Edinburgh, last week, in aid of the funds of the new buildings, in process of erection, of the Livingstone Medical Missionary Memorial Institute. The Institute has been long in existence, and doing good work, both in the Cowgate of Edinburgh, where the dispensary and training-school are situated, and which are now being rebuilt, and also by its medical missionaries in all parts of the world. The bazaar was a great success, and £3,697 were realised by it. This sum will enable the directors to complete and open the buildings free of debt and *feu-duty*.

HEALTH OF SCOTLAND.

THE Registrar-General's return of the births, deaths, and marriages registered in the eight principal towns of Scotland, during the month of November, is a very satisfactory record. There were 3,686 births, of which 7.9 per cent. were illegitimate, during the month. The rate of illegitimacy varied from 3.7 in Leith to 12.9 per cent. in Perth. The deaths of 2,120 persons were registered. This number was 597 below the November average for the last ten years. The highest death-rate was in Paisley, being 23 per cent. Forty-five per cent. were deaths of children under five years of age; in the individual towns varying from 32 per cent. in Perth to 50 per cent. in Glasgow and Greenock. Zymotic diseases proved fatal to 345 persons, thus constituting 16.3 per cent. of the total mortality. This is the lowest number of deaths and the lowest proportion from this class of diseases in any November since the passing of the Registration Act in 1855.

RED-TAPISM RAMPANT.

A CORRESPONDENT writes to the *Scotsman*: The Wishaw Police Commissioners have taken advantage of the healthy season to take down their old fever hospital, and are building a new and more commodious one in its place. Before doing so, however, they arranged with the Local Authority at Motherwell to get the use of the Motherwell Fever Hospital in the event of any cases arising. Last week, a navy was seized with fever in a common lodging-house in Wishaw. The doctor ordered his removal to the Motherwell Hospital, and a policeman was despatched with him in a covered conveyance. On arriving at the hospital, the policeman presented a note from the Wishaw Sanitary Inspector, but was told that the patient could not be admitted without a line from a member of the Motherwell Local Authority. The policeman, along with the Motherwell Sanitary Inspector, called on one of the magistrates, who, however, refused to sign the line, and, in despair, he drove the patient to the Combination Poorhouse, where, of course, he was refused admission. Several Commissioners and medical men were subsequently called on, but, unfortunately, they were not found at home. At length, a Commissioner was found and persuaded to sign the order, and the patient was admitted to the hospital, after being kept for four hours in the street.

EDINBURGH UNIVERSITY CHEMICAL SOCIETY.

THE opening address of the Edinburgh University Chemical Society was delivered by Professor A. Crum-Brown, President of the Society, to a large audience. Taking as his subject the Life and Works of Joseph Black, the professor remarked that Dr. Black was one of those who had given that turn to the science of chemistry which it still maintained, one who perhaps more than any other was influential in commencing that great revolution in chemistry

which coincided in time with the French Revolution, and who was the greatest of the eminent men who had occupied the Chair of Chemistry in Edinburgh. Born in Bordeaux, Black had been educated in Belfast and Glasgow, in which latter University he subsequently became Professor of Anatomy and Lecturer on Chemistry. In 1766, he was appointed to the Chair of Chemistry in Edinburgh University, where he remained until his death in 1799. He was a man of calm, deliberate, prudent action, who went about his work in a methodical and painstaking way. He was not, however, a man who did a great deal of work; he was too precise and methodical in doing it to produce a large quantity. But what he had done was sufficient to give him an everlasting name in chemical science. Although many men had made far more discoveries than Dr. Black, there was scarcely any one who had made discoveries of such enormous importance and influence as his in regard to fixed air, the latent heat of water, and the latent heat of steam.

ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH.

AT the annual meeting, held on December 5th, the following office-bearers were elected for the ensuing year. *President*: Dr. A. Peddie.—*Council*: Dr. R. Paterson, Dr. A. Keiller, Dr. D. R. Haldane, Dr. G. W. Balfour, Dr. A. Douglas MacLagan, Dr. Angus Macdonald.—*Vice-President*: Dr. A. Keiller.—*Examiners*: Dr. Bell, Dr. Douglas, Dr. R. Paterson, Dr. Keiller, Dr. Pattison, Dr. Haldane, Dr. G. W. Balfour, Dr. Struthers, Dr. Ritchie, Dr. MacLagan, Dr. Smart, Dr. Muirhead, Dr. Brakenridge, Dr. Macdonald, Dr. Wyllie, Dr. Tuke, Dr. Sinclair, Dr. Affleck, Dr. Stevenson Macadam, Dr. Patrick H. Watson, Mr. Joseph Bell, Dr. John Duncan, Mr. William Lees, Dr. Arthur Mitchell, and Dr. H. D. Littlejohn.—*Treasurer*: Dr. John Alexander Smith.—*Secretary*: Dr. John Wyllie.—*Curator of Museum*: Dr. Thomas A. G. Balfour.—*Librarian*: Dr. George W. Balfour.—*Registrar of Applicants for Licence*: Dr. John Wyllie.

COMFORT FOR ADULTERATORS.

THE High Court of Justiciary of Edinburgh made a most important decision, in an appeal case, on December 14th. The appeal was against a conviction under the Adulteration of Food Act, passed in the Glasgow Sheriff Court, upon a milkman. One of the city inspectors of health had bought from the appellant some cream, which was subjected to analysis by the City Analyst. It was found that the percentage of fatty matter was greatly below the standard cream as sold in the city; and, on the prosecution of the inspector, the Sheriff convicted the accused. Against this conviction the accused appealed; and it was argued for him that the facts on which the Sheriff had proceeded did not warrant him in convicting under the 6th section of the Statute; and further, that the sale of the cream to the public officer was not and could not be to his prejudice, as was required by the terms of the section in order to entitle him to a conviction. The judges, by a majority of five to two, quashed the conviction pronounced by the Sheriff, with limited expenses. They based their judgment mainly on the fact, that it was necessary for a conviction, under the 6th section of the Act, that the article adulterated should be proved to have been to the prejudice of the purchaser. The power of compulsory purchase, which was given to a public officer by Section 13, was so given with a view to prosecutions under sections 3 and 5, only for adulteration in articles of food and drugs so as to be injurious to health. It was not here alleged that the purchase had been to the prejudice of the purchaser, and indeed it could not be. Thus the law, as interpreted in Scotland, altogether forbids a conviction against adulterations simply with water or other harmless substance, no matter how far it is carried; at all events if the purchase be compulsory and be made by a public officer. This is by far the most important decision on any question relating to the Adulteration of Food Act which has yet been pronounced in Scotland; and will act most prejudicially in preventing the detection and punishment of offenders who weaken and impoverish our foods, even if they do not add to them any substance in itself deleterious.

IRELAND.

A BAZAAR for the benefit of St. Mark's Ophthalmic Hospital is to be held in Dublin next month.

THE Board of Works have sanctioned the loan of £7,500 for the waterworks which are intended to be completed in Coleraine.

THE first of a course of clinical lectures to be delivered in Queen's College, Cork, was given on the 1st instant by Dr. Eames; it was entitled "Insanity: its Causes and Treatment".

A SUBSCRIPTION ball took place last week at Rostrevor, County Down, the proceeds of which will be devoted towards the Building Fund of the Newry Cottage Hospital, and the sanatorium at Rostrevor.

DR. R. T. HARVEY, Assistant-Physician to the House of Industry Hospitals, and Lecturer on Anatomy and Physiology in the Carmichael School of Medicine, has been appointed Pathologist to the Coombe Lying-in Hospital.

A GRAND bazaar and fancy fair in aid of the Building Fund of the Belfast Hospital for Sick Children, now in course of erection, was held in the Ulster Hall, Belfast, on the 20th instant and two following days.

ON Saturday, the 15th instant, Dr. O'Neill was elected Junior House-Surgeon to the Belfast Royal Hospital, in the vacancy caused by the appointment of Dr. Jefferson to the post of Senior House-Surgeon in the same institution.

GLASNEVIN AND DRUMCONDRA DRAINAGE.

THE plan of Mr. Leonard, C.E., for the sewerage of the entire district lying between Glasnevin and Ballybough Bridge has been approved of by the Local Government Board. The scheme is an extensive one, and the cost is estimated at about £6,000.

RATHFARNHAM WATER-SUPPLY.

A DEPUTATION of the ratepayers of this town lately waited on the guardians of the South Dublin Union in reference to the water-supply. The present supply, it appears, is inadequate and impure, for several months in the year the inhabitants being almost without any water. The sanitary officer of the district, Dr. Croly, stated that he had repeatedly reported to the Local Government Board the great necessity that existed for a supply of pure water, and requested the guardians to have Rathfarnham supplied from the Vartry. The subject is under consideration; but it is to be hoped that some steps will be taken to remedy the present condition in reference to the water-supply of the town.

PROPOSED HOSPITAL FOR CONSUMPTION, BELFAST.

THE desirability of establishing a hospital for the treatment of cases of consumption has been recently under discussion in Belfast. With a factory population like Belfast, there are always a large number of cases of this disease who are not eligible for admission, in the second and third stages of the disease, into the Belfast Royal Hospital, the only general hospital in the town, in consequence of a rule some time since passed by the committee of that institution not to receive consumptive patients, except those in the first stage, owing to the expense, want of room, impossibility of curing them, and their unsuitableness for the wards of a general hospital. It has been urged by those who advocate the establishment of an institution of this kind that by it the patients admitted would have the benefit of skilled nursing, good air, proper food, and other advantages not otherwise obtainable; but it has been pointed out, on the other hand, that the nurses who visit the sick poor at their own homes have usually an average of about one hundred cases of the disease, who are daily visited by them and provided with milk and other sorts of suitable food; and that, as a rule,

phthisical patients prefer not to leave their families for admission to a hospital. We trust that the necessary funds may soon be forthcoming for the establishment and endowment of a hospital of the kind proposed.

POOR-LAW UNION INQUIRY.

THE Union Rating Commissioners last week held an inquiry at Cavan Workhouse in reference to the proposition of the guardians to have all the unions in the county amalgamated. Evidence was given that the number of paupers at present in the house was only two hundred and ninety-eight, but that it was capable of accommodating about one thousand. The principal objections urged against the scheme were that it would entail inconvenience to the poor, and would increase outdoor relief. It has been urged, however, that the number of unions and their officers are very much larger than are required, and that very great economy would be effected by amalgamation, without reducing the efficiency with which the Poor-law can be administered. If union amalgamation be carried out, it must necessarily clash with individual interests, which will explain any opposition that may be shown towards the scheme.

THE SANITARY CONDITION OF CORK.

THE inquiry instituted by the Local Government Board into the cause of the recent prevalence of fever in Cork, to which we lately referred, was resumed on the 3rd instant before Dr. McCabe. Evidence was given relative to the water-supply, from which it appears that the waterworks were obtained by the Corporation in 1856, their construction costing £138,750, and since then £890,500 has been expended upon them. Besides the water supplied to householders, there are 180 public fountains. Under an Act passed in 1860, the Corporation have power to prevent pollutions of the river for a mile above the waterworks, and that power has been exercised on several occasions. There being no special sanitary or drainage rate, it is not compulsory on the owners of houses to connect them properly with the main sewers. Since 1854, the local surveyor deposed they had constructed sewers in 260 streets, and it was the intention to carry out a complete system of drainage in the city gradually. The executive sanitary officer stated that there were 172 registered lodging-houses in Cork; and, when a dangerous infectious disease occurred, the clothes and apartments were disinfected, but he had never exercised the compulsory power of sending cases of infectious disease to hospital. There were 242 houses disinfected during the first nine months of the present year; and 15,596 visits paid by the sanitary officers to the dwellings of the poor during the same period. During the past three years, there had been 640 prosecutions for breaches of the sanitary regulations, with 618 convictions. He considered there was a vast amount of overcrowding, there not being sufficient accommodation for the labouring and artisan classes, who live in houses unfit for habitation, a condition of things which would continue until the Artisans' Dwellings Act was put into operation. The Corporation intended that week to appoint a regular sanitary staff, who would devote themselves exclusively to sanitary matters. Dr. Nunan gave evidence of the contents of several sewers emptying into the river which joins the Lee about two miles above the waterworks. Dr. Donovan deposed that a public closet used by about forty men opened into a "tail" race which flowed into the Lee; this had been closed up, as also a second closet which had been constructed. The main drain of the barracks opened into the "tail" race, which also carried off the drainage of the stables. He believed that the contents of the main drain only entered the river when heavy rain flushed it, and then there was a flood in the river, which neutralised the effect of the pollution before the water reached the waterworks. Dr. Crooke of Macroom was examined as to the sanitary arrangements of that town, and the sources of pollution to the river, and stated that the sewerage of 283 houses at Macroom passed into the river, besides the wash-products of two tanyards. The churchyard was situated on a bluff overhanging the bank of the river, and was so crowded that, in order to bury one body, five had to be disturbed. Macroom, we may add, is

twenty miles above the level of the waterworks, and is situated on the Sullane, which flows into the Lee half a mile below the town. The inquiry has not yet terminated.

THE STATUE OF DR. GRAVES.

As our readers have been previously made aware, a statue of this eminent Dublin physician has recently been erected by his friends and admirers in the hall of the King and Queen's College of Physicians. The ceremony of unveiling the statue took place on Wednesday last, in the presence of a large and distinguished assemblage, including a number of ladies. The President of the College, Dr. Gordon, having taken the chair, Dr. Duncan (in the unavoidable absence of Dr. Hudson), on behalf of the Committee appointed to carry out the design of erecting the statue, gave an account of the proceedings of the Committee, and delivered an eloquent panegyric in Dr. Graves' honour. Having quoted the testimony of Professor Trousseau as to the value of Dr. Graves' writings and his excellence as a clinical teacher, Dr. Duncan referred to the two brief but beautifully written sketches of Dr. Graves' life and labours published by the late Sir William Wilde and Dr. Stokes. Each of these memoirs, he said, gives a short but luminous analysis of his character and achievements. They describe, with all the felicity of style for which these writers are conspicuous, his brilliant talents, his varied attainments, his abundant labours, his unwearied industry; they speak of his numerous and valuable contributions to practical medicine in its several departments of physiology, pathology, and therapeutics; they describe his eminent success as an author, a discoverer, a teacher. They tell us, too, of his enthusiastic nature, his love of truth, his thirst for knowledge, his simple but lofty eloquence, his logical accuracy, his power of illustrating and enforcing the various topics he wished to inculcate, his courage in avowing and defending his opinions, whatever they were, in opposition to popular prejudice or old-established conclusions. In a word, they exhibit him as possessing a rare combination of intellectual feelings and endowments, which made him so conspicuous as an original thinker, a convincing reasoner, an efficient instructor. Dr. Graves was eminently many-sided. He was *totus teres atque rotundus*; and it was the power he possessed of making the information gained in one part of his studies tell upon the others, that made him so admirably fitted to be a teacher of medicine. This is the aspect of his life which shines out above all others as deserving of our notice on the present occasion; for while his numerous writings gained him reputation abroad, his popularity at home was that of a professor and a clinical lecturer. One of the most important benefits conferred upon modern medicine with which Dr. Graves is to be credited, is the complete change he introduced into the manner in which clinical instruction was given to the students attending the Meath Hospital. This consisted partly in distributing the care of the patients to a larger number of the advanced students than had previously been the custom, and partly in changing the scene of instruction from the lecture-room of the hospital to the bedside of the patient. The advantages of this system of teaching, said Dr. Duncan, are indisputable; and Dr. Graves, as the first physician in these countries to recognise its superiority and to introduce it into general use, deserves to be regarded as having a special claim to the character of a medical teacher. In passing, Dr. Duncan paid an eloquent tribute to the dignity and value of the office of a teacher, rightly understood, and showed, by a quotation from one of his lectures, that Dr. Graves was not insensible to the responsibility of his position. While Dr. Graves' eminent success as a writer, a discoverer, and a teacher, would have been sufficient, under any circumstances, to have warranted the erection of a statue to his honour, the eminent services he rendered to Dublin as a place of medical education, renders it infinitely more so. The high esteem in which the Dublin School of Medicine is held dates from its rapid and remarkable rise in a great measure to Dr. Graves.

In one sense, Dr. Graves did more than all his contemporaries to extend and perpetuate the character of Irish medicine, by the establishment, in conjunction with Sir Robert Kane, of the *Dublin Journal of Medical Science*—a periodical now in the forty-sixth year of its existence, which commanded public confidence and support from the moment of its publication, and which, after passing under various management, continues, in the hands of its present able editors, to make the literary labours of Irish practitioners accessible to their brethren all over the world.

Alluding to the fact that the statue of Dr. Stokes occupied the ad-

joining position to that in which Dr. Graves' statue is now placed, Dr. Duncan remarked that there was something singularly appropriate in the circumstance that the names of Graves and Stokes, intimately associated during life, should be brought into equally close proximity before the eyes of future generations by the statues on the President's right and left. Colleagues in office, they were animated by the same noble ambition—to spread the reputation of the Irish School of Medicine over the civilised world, and to uphold the honour and dignity of the profession that they loved—an ambition unsullied by jealousy or personal considerations as to rival merits, which so often mars the finest human characters. He continued:—

The object aimed at in erecting this statue is to give a visible embodiment to those sentiments of pride and admiration which we feel towards one who was at once an honour to the country which gave him birth and to the profession which claimed him for its own—sentiments which had a real existence before the artist took the chisel into his hand, but the existence of which might be questioned or denied so long as they were destitute of any outward demonstration. We do not attempt to rescue from oblivion a name that would soon otherwise be forgotten and pass away. The reputation that Dr. Graves has left behind him bids defiance to the advance of time.

This College has now existed for upwards of two centuries, though the hall in which we meet was erected within the last fifteen years. It is a source of satisfaction to the members of the body that, in seeking for statues to adorn the building, we have not to go back to men of past generations, but we have found them among ourselves. Two of the illustrious men who have been thus honoured are still amongst us,* and the two who have passed away† are fresh in the recollection of almost every one present. This, I think, proves that our College has lost none of its vitality, and that we may safely predict for it a long and brilliant future; and that, when this generation has passed away—when future generations of young men enter on their career through this examination-hall—these statues, though silent, will act as monitors, and in imagination seem to say, "Work as we worked, live as we lived, strive as we have striven, and you will achieve success in life, and your names will be honoured after death".

The statue was then unveiled by the Lord-Lieutenant, and formally presented, on behalf of the subscribers, to the President and Fellows of the College. Mr. Albert Bruce Joy of London, an Irishman by birth, a pupil of Foley, and a son of a distinguished Fellow of the College, is the sculptor, and has produced an admirable representation of the original in features, attitude, and expression. His work, viewed as a piece of art, is as beautiful in conception as it is exquisitely finished. The President having accepted the statue on behalf of the College, speeches were made by the Rev. the Provost of Trinity College; the Right Rev. Dr. Graves, Lord Bishop of Limerick, nephew of Dr. Graves; Sir Robert Kane, President of the Royal Irish Academy, and a Fellow of the College; Mr. Porter, Surgeon to the Queen; Dr. Foot, Senior Physician to the Meath Hospital; etc.; and the proceedings, which were of a most interesting character throughout, then terminated.

THE SICK AND WOUNDED IN THE RUSSO-TURKISH WAR.

WE have received the three following interesting reports, forwarded to the Stafford House Committee.

Extract of Report from Mr. V. B. Kennett, dated Constantinople, November 21st, 1877.—On November 18th, an ambulance section started for Sophia, consisting of the following *personnel*, viz.: Dr. Busby, surgeon-in-chief; Dr. Wattie, surgeon; Dr. Boyd, assistant-surgeon; Mr. Cullen, treasurer and secretary; Constantin, dragoman; one groom (with three horses); an ambulance-wagon; thirty-three cases of material, etc. The exact destination of this section will be decided by Dr. Busby on his arrival at Sophia, where he will have the choice either of attaching himself to Mehemet Ali Pacha's newly-formed army, or of taking over a wing of the military hospital at Sophia. Captain Burnaby called to see me on his arrival at Constantinople. I have given him a letter to take to Osman Pacha, in case he should visit Plevna. The letter inquires after the state of the wounded, and offers to send medical help if necessary. I supplied Admiral Hobart with a selection of medical stores, to be distributed under his personal supervision, on the occasion of his last leaving for the fleet. I have received information from Trebizonde, stating that Dr. Ryan's party, with some of the stores, started for Erzeroum immediately after their arrival, and

* Sir Dominic Corrigan and Dr. Stokes. † Sir Henry Marsh and Dr. Graves.

Williams followed them with the remaining stores yesterday. I have received letters from Dr. Fetherstonhaugh and Zohrab at Erzeroum. A new English hospital is about to be opened, and all Lord Blantyre's surgeons are hard at work. I have to-day received a telegram from Dr. Stiven at Rustchuk, informing me that a battle took place yesterday near Kadikeui; that he and Dr. Lake served on the field, while Dr. Beresford attended on the wounded on their arrival at the Stafford House Hospital, 180 beds of which were filled with serious cases. This hospital has been of great service during all the recent engagements near Kadikeui and Pyrgos. It is within range of the Russian batteries, but, being nearly a mile distant from the town, there is no danger of any shells falling into it by accident during the periodical bombardments which take place.

Extract from a Letter from Dr. Ryan, dated Trebizonde, November 16th, 1877.—I arrived here at nine this morning, and called immediately on Mr. Billiotti, the English Consul. At his advice, and that of Captain McCalmont, one of the military *attachés* just come from Erzeroum, I am leaving to-morrow morning for Erzeroum, hoping to arrive in three days. It will be a hard ride, but I trust that we can manage it. The Consul thinks it of the utmost importance that we should try to arrive there as soon as possible, as there is a fearful amount of work to be done there. I am leaving Williams behind to come on with the stores. He will have a letter from the Pacha here to afford him every convenience and assistance possible. The Consul is to procure us wagons, etc., for our stores, as also an escort. He is sending with our forty-two packages forty-one which he received two days ago from Stamboul. . . . One thousand wounded passed through the hands of our doctors in Erzeroum on Tuesday last, as the Consul reports.

Copy of Report from Mr. Symons Eccles, dated Philippopolis, November 10th, 1877.—Owing to the absence of the General, His Excellency Rifaat Pacha, some difficulty has been experienced in hastening the work connected with this section, and we have been obliged to bring workmen from Tatar Bazardjik, in order to complete the building of the wash-house, all the workmen of this town having been requisitioned for the construction of a shed at the station for the reception of patients *en route*. The number of patients in the two hospitals is one hundred and six; sixty-one in the "Bulgare Metropoli" and forty-five in the "Greek School". Of the sixty-one cases in the Bulgare Metropoli, fourteen of them are wounded and progressing favourably, two of them being cases for operation; but interference has been delayed that the patients may be brought into a state of health sufficiently good to sustain the shock, and that the arrangements may be completed for placing them in the most favourable conditions for recovery, with special reference to hygiene. During the past week, two patients have succumbed to the fatal effects of overcrowding and neglect. The first case was a shell-wound of the right foot, which was lying in the Bulgare Metropoli when the hospital came under my care. Gangrene had already supervened, and the infiltration had extended to the knee. The only possible treatment, with a view to recovery, was amputation at the thigh; but the emaciated state of the patient, who was suffering from profuse and uncontrollable dysentery, precluded any hope of a good result; and, in consultation between two medical officers of the section and a senior medical officer of the Imperial Ottoman service, it was decided that all operative interference was contraindicated. The second case was one of the same nature, the injury being compound fracture of the forearm, left forty days without splints, followed by gangrene, infiltration above the elbow, constantly recurring bleeding towards the end, dysentery of an obstinate type, seventy-one days of emaciation, exhaustion, and death. Such cases are hopeless, dangerous to the occupants of neighbouring beds, but avoidable if certain measures be taken to prevent, as far as possible, their occurrence; and I would most strongly urge, in the event of hostilities breaking out anywhere within a reasonable range of Philippopolis, that the sections at the front should succour as many cases as before, but that they should forward a certain number to us in charge of a transport medical officer, who should have means at his disposal for nourishing the patients under his care at points on the road. If this method could be employed, there is no doubt that the most gratifying results will replace the present mortality; and the medical men at the front will have the satisfaction of knowing that their labours have not been in vain, while those of us in the rear will no longer have the hopeless and discouraging task of alleviating the excruciating sufferings of the moribund, but rather the pleasant duty of endeavouring to complete the work of curative treatment so well begun by our colleagues at the scene of action. The fatality hitherto attending serious wounds and operations, and the fearful condition of the sick who are brought here, some of them in a dying state, after three days' and three nights' constant movement in bullock-wagons between Kesanlik and this town, with no other food save dry

bread, no means of warmth except their military cloaks (some have not even these), and no medical attendance whatever during the transit, prompt me to draw your attention to the field of useful labour open to your Society, whose benevolent object could not be better fulfilled than in applying its resources to the succour of the unfortunate individuals who, having been relieved in a great measure at the Society's advanced positions, lose much of the benefit bestowed on them, and render the aid afforded in the war, in many cases, almost of no avail, owing to the fearful privations to which they are exposed at this season on the roads.

SPECIAL CORRESPONDENCE.

PARIS.

[FROM OUR OWN CORRESPONDENT.]

M. Dally on Ethnology. M. Dally's Orthomorphie Establishment.

AT a recent meeting of the Anthropological Institute of Paris, Dr. Dally, in opening his course of lectures on ethnology, gave a definition of the terms race, people, ethnology, ethnography, and explained the relationship that exists between ethnology and history, sociology and politics. He remarked, further, that the study of ethnology is not a mere curiosity: "the knowledge of the human races in their general characters, their distribution, their extractions, and in the laws which preside over their evolution, will find in politics practical applications of the highest importance; and it is owing to ignorance of these facts, of these laws, that human blood is so lavishly spilt, and the prosperity and fortune of nations compromised." Dr. Dally reduces the various races of men into three principal types: the Ethiopian or Negroid, the Mongoloid and the European or Caucasian. Two races only cannot be comprised in any of these types: the Esquimaux in the North and the Bojesmans in Africa. In the course of his lectures, Dr. Dally will describe the general characters of each principal type and of those to which the various races, or rather subraces, may be assimilated.

Great interest is evinced by the lay public in these subjects; but ethnology seems to be the most popular, if one may judge from the number of persons of both sexes that attend these lectures. Dr. Dally, like Dr. Broca, is perfect master of his subject, which he renders the more attractive by the happy manner in which he expresses himself. But Dr. Dally is not only a distinguished anthropologist (here I use the term in its widest acceptance); he is also a distinguished physician and surgeon, and to him is due, in a great measure, as far as concerns this country at least, the introduction of a rational system of orthopædics, or, as he terms it, the orthomorphie treatment of deformities, which he professes to cure without the aid of mechanical apparatus or cutting instruments. Dr. Dally's method of treatment consists of various manipulations, exercise passive or active, hydrotherapy, electricity, regulated diet, etc., for carrying out which he has founded an establishment of his own in Paris. The principles of his treatment are, that these agents, being powerful modifiers of the tissues, the secretions, and organic or structural forms, in a determinate direction, may be applied to deformities with greater chances of a permanent cure than by mechanical means or even with the knife. The tendency of the body or parts of the body to assume certain attitudes by practice or training may be seen by what may be effected with animals and human beings that are exhibited in public places, such as pugilists, acrobats, and horrible "dislocators", from whom some hints may be taken for the fulfilment of certain indications in the treatment of deformities. I have paid a visit to Dr. Dally's establishment, and was much pleased with the internal arrangements of the place. I cannot say it is vast, but it contains all the requisites for carrying out the different methods of treatment referred to above. Besides deformities of the body, other affections, such as gout, rheumatism, etc., are here treated on the same principles, and I know of a case of alcoholism that was thoroughly cured in less than two months by "massage", electricity (continuous current), and "sudation". The patient was a major of the Indian army, who was obliged to leave, as he felt himself utterly incapable of performing his duties. Under the impression that spirits were necessary for his health, he used to take a glass of brandy the first thing in the morning. This was gradually increased and repeated several times till he reached half a bottle a day, independent of the beer and wine he took at meals. He used to say he drank this quantity, not from thirst or pleasure, but he felt that it was a want that he must satisfy. He left India on furlough to go to Europe about the beginning of the year, and, on his arrival at Paris, placed himself, through the advice of an English physician, in the hands of Dr. Dally. Dr.

Dally stopped his allowance of brandy at once, permitting him to have a pint of beer at each meal, and subjected him to the treatment mentioned above. Since leaving Dr. Dally's establishment, the major has twice written to say he still abstains from spirits; he never feels the want of them, and hopes that he is as thoroughly cured of the habit as he is of his illness.

THE TURKISH ARMY IN ASIA.

[FROM OUR OWN CORRESPONDENT.]

[We have received from our correspondent with the army of Ahmed Moukhtar Pacha two long letters, dated October 13th and 18th, of which the transmission has been long delayed, and of which we can publish extracts only. By an accidental error, our correspondent's letters in the JOURNALS of September 1st and 15th were headed Trebizonde instead of Erzeroum.]

On October 13th, he writes:—As stated in my last letter (of October 5th), I had between two hundred and three hundred wounded upon my hands during the battles of the 2nd and 3rd. On Monday, the 5th, I had left in my tents about twenty patients; the rest had been disposed of; the majority sent to the Kars hospitals, some of the slighter cases back to their regiments, and ten, I think, had died: not a very large proportion, considering the circumstances and the severity of the wounds. My greatest anxiety, however, was naturally for my young colleague, who was dragging through the wearisome second week of a very severe attack of typhoid. The day was the coldest we had hitherto had: you may judge what was the state of my feelings to receive a peremptory message late in the afternoon that we must at once move the ambulance and wounded five miles over the mountain to our rear. There was nothing to be done but to ride as quickly as I could, taking a few tents with me on baggage-horses and arabas, to have a place ready to shelter the unfortunate travellers when they should arrive. Having made the necessary arrangements with all haste, I rode back, and found a few more arabas just starting, loaded with my patients, nearly all of whom were thus provided for. It was now quite dark, and the road over the mountain was a terrible one even by day; so I went to head-quarters to make a last appeal that the unfortunate sufferers might remain till the early morning. I met with the always polite and urbane Hassan Pacha, the chef d'état major, and said that removal that night, especially of my sick comrade, would be almost actual murder. "Mon chère ami", he said, "je le sais bien, mais c'est la guerre, demain il y aura une bataille dans le plateau où est à présent votre ambulance". I was compelled to send off all the patients, including a Russian, who was brought in at the last moment, having just been found on the mountain, where he had fallen wounded six days before, having had from that time, he said, neither food nor drink, but having kept himself alive by eating the grass he could gather. A biscuit was found for him by a wounded Turkish soldier who was on the same araba, and he washed down a few teaspoonfuls of Liebig's extract with some water. After waiting in vain for the araba which I was promised for Buckley until we were in danger of being left the last on the ground, I wrapped him in everything warm I could find, put him on a hand-stretcher, and, by dint of promises of liberal "backsheesh" alternated with threats of shooting them if they failed me, I persuaded the four soldiers I had left with me to convey him to our destination. I set off at the head of the party on foot with a broken lantern, the only one we had, containing a flickering candle, in the hope of throwing a light upon the very uncertain and treacherous path. We had gone half a mile in about half an hour, when a gust of wind blew out the light. I was glad to find that old Hadji, my faithful syce or groom, was following close behind with my horse and his own. I knew I might trust to my horse finding his way over the rocks in greater safety than my own feet would, and, therefore, I mounted and rode on slowly ahead to find out the road. At last, our destination was apparently not very far off, and, to my delight, I heard in the distance the well known creaking and groaning of araba-axes evidently coming in our direction. The four bearers had toiled manfully at their task; but they were beginning at last to exhibit obvious symptoms of exhaustion; so, when the arabas reached us, I seized one of them, much against the inclination of the arabaji, and lifted the litter, poor Buckley and all, on to it. Then, of course, occurred the usual muddle between dragoman and arabaji, and, after a lot of wrangling and shouting, everybody having something to say, and all at the self-same moment, I discovered that the arabaji had not the slightest notion where he was going. We, therefore, drew up the araba under the shelter of a rock, and I rode on, taking Hadji with me, and soon found a track, which I recognised as the one over which I had passed in the afternoon. This I followed, and too well; for, missing the

point at which I ought to have left it, I wandered on till I found myself on the brink of the ravine which surrounds Eolia-tepe. There was nothing to do but to retrace our steps, which we did, soon getting on to very rough and rocky ground, when presently our horses refused to move another step. I got off, and, carefully feeling my way with my hands on the ground, I made the pleasant discovery that we were on the extreme edge of a shelf of rock with a perpendicular drop of ten or twelve feet at least. I was so stiff and cold, that I could not have got into my saddle again if my life had depended upon it; so, finding a cleft in the rock which afforded a little shelter from the wind, I lit my pipe, and, long before the pipe was finished, I was asleep. The daybreak awoke me to discover in what a perilous position we had been, and also that not fifty yards off were the tents we had so vainly attempted to find. Poor old Hadji had, I think, saved my life by wrapping me in his heavy felt cloak, which I had bought him from a Circassian a few weeks before. He himself, when he found I could go no farther, tethered his horses, and, after he had fed them, lay down himself with them, and he said they had kept him warm and comfortable. On reaching the place where the araba had been left, I found no traces of the party; so, after a good search, I went back to the tents, and, to my great joy, found that they also, when daylight appeared, had seen the tents. Soon afterwards, my older servant Renison, an old hero of the former siege of Kars, came up with our belongings, and, when food had been prepared and eaten, we were glad to discover that we were no worse for our perilous night's work. It is not a plan of treatment that I should feel justified in recommending for the future to patients suffering either from typhoid or from chronic diarrhoea; but it is a fact that from that night Buckley has not had one untoward symptom, and I myself have almost got rid of my enemy the diarrhoea, and feel stronger and better than I have done any time for the last three months. Our poor fellows were also exposed through the night, having, like us, lost their way; two of the worst died and were buried on the road; the rest were no worse for their removal. Renison reported that, almost immediately after our departure, our old position was occupied by a battery of artillery. In the afternoon, there was another brisk fight, which went on for the two following days, and provided me with a moderate amount of fresh work to do in my new position near the Eolia-tepe. Yesterday, I got a very stringent order to send all the patients into Kars, and I am now left with only a wounded Bimbashi, who, although about twenty years my senior, has adopted me as his "baba", and will not leave me; another officer who has come in to-day slightly wounded in the thigh a few days ago; and one of the soldier-servants, who has an attack of acute rheumatism. These, with Buckley, who is progressing slowly, but favourably, are my present patients. A consignment of National Aid Society's (Red Cross) stores have this evening arrived; they are selected with admirable judgment, and I feel quite rich and fully equipped for any contingency that may arise.

ASSOCIATION INTELLIGENCE.

BATH AND BRISTOL BRANCH: ORDINARY MEETING.

THE second ordinary meeting of the session was held at the Royal Hotel, Bristol, on Wednesday, December 12th, at 7.30 P.M. There were present, Dr. MARSHALL, President, in the Chair, sixty-nine members, and two visitors.

New Members.—Mr. Thomas Morgan, Mr. W. C. Luffman, and G. F. Rossiter, M.B., were elected members of the Association and of this Branch.

The Annual Meeting in 1878.—Dr. GOODRIDGE tendered the thanks of the Bath section of the Branch for the ready and cordial offer of the Bristol members to co-operate with them in the entertainment of the General Association during its meeting in Bath in 1878.

Subject for Discussion.—It was decided that the subject for the first discussion night should be Hospitalism; and Mr. R. W. Tibbits was asked to open the subject.

Papers.—Dr. SPENDER read an interesting case of Ascites treated successfully; and an animated discussion followed, in which Dr. J. G. Davey, Dr. Fyffe, Dr. Colthurst, Dr. Cole, Dr. Spender, Dr. Skerritt, Dr. E. L. Fox, and Messrs. Stone, Thompson, and Stockwell took part. Mr. H. Grace also mentioned a case of recovery after tapping had been performed two hundred and eight times. Mr. THOMPSON read a paper on Epilepsy. A long discussion on various points in this paper, and joined in by Dr. Atchley, Dr. Swayne, Dr. Skerritt, Dr. E. L. Fox, Dr. Waldo, and Messrs. Crossman and Masor, brought the evening to a close.

REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

TUESDAY, DECEMBER 18TH, 1877.

CHARLES MURCHISON, M.D., LL.D., F.R.S., President, in the Chair.

LACTIC FERMENTATION AND ITS BEARINGS ON PATHOLOGY.

BY JOSEPH LISTER, F.R.S.

MR. LISTER gave an account of his researches on this subject. He said:—A few years ago, it would have seemed very improbable that the souring of milk should have any bearings upon human pathology; but the large, influential, and highly interested audience that listened to Dr. Burdon Sanderson's lecture at the University of London yesterday, was of itself sufficient evidence that the question of the essential nature of fermentative changes occupies a foremost place in the minds of pathologists at the present day.

In reading reports of discussions with regard to diseases presumably of such a nature, for example, the discussion that took place with regard to pyæmia in this Society some time ago, it has struck me that medical men were disposed to begin at the wrong end, so to speak, in this matter, to look at it from the clinical rather than from the physiological point of view.

It seemed to me that, in order that any sure steps should be taken with regard to the elucidation of the nature of presumably fermentative diseases in the human subject, the first thing should be that we should have clear ideas, distinct opinions, positive knowledge with regard to the more simple forms of fermentation, if I may so speak—more simple because they can be conducted and observed, investigated in our laboratories. It may be said, indeed, that such information has been already afforded to us by the researches of Pasteur and others who followed in his wake; and I must confess, Mr. President, that, for my own part, I should be much disposed to take such a view. But this opinion is by no means universal in our profession. We find men of very high position, both as physiologists and pathologists, expressing the view that, though in various fermentative changes, such, for example, as putrefaction, we do find organisms present, yet these organisms, these bacteria may, for aught we know, be mere accidental concomitants, not causes, of the fermentative changes. Some time ago, I made an attempt in the special case of the lactic fermentation to decide this point one way or the other to the complete satisfaction of my own mind. So far as I am able to judge, I did succeed in this endeavour; and it occurred to me that it might not be without interest to the members of the Pathological Society to see with their own eyes the preparations, or samples of the preparations, which resulted from this inquiry, and on which my conclusions are based, before, from the lapse of time, they had lost their value. At the same time, I should not have presumed to bring this matter before the Pathological Society, if I were merely to bring forward what has been already sufficiently explained on a former occasion; but, while very briefly bringing forward those matters, I wish at the same time to place before the Society certain points that have not yet been published with regard to this particular fermentation.

First, I wish to make remarks regarding my method of experimentation, which, in its present simplified form, has never been published. The method of experimenting depends, in the first instance, upon the fact which experience has now amply demonstrated, that, if we have a pure glass—pure, that is to say, of anything living—such as this liqueur-glass, have it covered over with a glass cap, and again this covered with a glass shade, such as I have here, and, for convenience, the apparatus reposing on a plate of glass; having this arrangement of pure glasses, if we have in such a glass any organic liquid, whatever it may be, so far at least as my experience has gone (and it has been considerable), if the liquid be pure from organisms in the glass, so long as this arrangement is maintained intact, no organisms will occur in the substance; or, in other words, although the atmosphere gains access to the interior of the glass—for the glass cap does not fit at all, the glass shade is not designed to fit, but may happen to project beyond the glass plate so as to leave a distinct palpable gap—it does not affect the result, but the double protection of the glass cap and the glass shade, while not excluding the gases of the atmosphere, excludes effectually the atmospheric dust, and, if the dust be excluded, organisms are prevented from occurring.

The glasses are obtained pure, by means of heat. I find that exposure to a temperature of about 300 deg. Fahr. for two hours is sufficient, so far as my experience is concerned, to destroy the life of all living material. But it is not enough that the glasses should be heated; it is necessary that the air that enters them during cooling

should be filtered of dust. This I provide for by heating a cast iron box, the door of which I have brought; the box itself is too cumbersome to bring. This door has its circumference in the form of a considerable groove capable of being packed with a mass of cotton-wool. This door can be screwed up by nuts against the edge of the box, so that the edge of the box becomes firmly pressed against the cotton-wool. The cotton-wool then will serve as an effectual filter of the air that passes in during cooling; but then it is essential that the box should be so arranged that it may be equably heated. This cotton-wool has been used for several experiments, and you see it is only slightly browned; it is not singed. This is provided for by having the box heated by a large Bunsen's burner; between the Bunsen's burner and the bottom of the box are three shelves to prevent the heat from acting directly on the bottom of the box; at the same time, the box is covered over with a cover which confines the heat and compels the heated air to pass round the box and escape at the top of the cover. By these two means combined, the shelves below and the cover round about, we get the result which you see indicated here. The cotton at the top of the box is just in the same degree browned as the cotton at the bottom. Into such a box we may put a dozen glasses like these. We have a thermometer packed with cotton-wool in an aperture in the top of the box, to let us know when the temperature of 300 deg. has been attained. When this temperature has been continued for two hours, the Bunsen's burner is extinguished, cooling is allowed to take place; and, when the apparatus is perfectly cooled, then the glasses are removed, and we are sure that they are taken out perfectly free from living organisms.

In the next place, how shall the organic liquid be introduced pure into such a glass? In my last publication on this subject, an exceedingly complicated method of decantation was described, enough, I confess, to deter anyone from repeating similar experiments. I am happy to say that we now manage the thing in a comparatively simple manner. The means of decanting is a flask of this form, having a bent spout large at the commencement and comparatively narrow in its shorter terminal part. The result of this arrangement is that, when a liquid is poured from such a flask, and then after the pouring the flask is returned to the erect position, the end of the nozzle is always valved by a drop of liquid. The large size of the first part of the spout prevents it from acting like a syphon. There is always a guarding drop at the orifice; regurgitation of air never can take place through the nozzle. The mouth of the flask has been previously covered with cotton-wool; and any air that enters the flask during the pouring out of the liquid passes through the cotton and is filtered of its dust by so doing. As I have already explained, the guarding drop at the end prevents the regurgitation of any air through the orifice of the nozzle. When the decantation is complete, a piece of rag dipped in carbolic acid lotion is applied to the orifice, and by that means, by capillary attraction, the drop is sucked out, and a piece of pure carbolic cotton-wool is then applied. A convenient mode of carbolicising is to treat the cotton-wool with a solution of one part of carbolic acid and one hundred parts of anhydrous ether. The ether flies off and leaves the carbolic acid behind in a highly pungent and antiseptic condition. The nozzle having been deprived of its drop, the carbolic cotton cap is tied—and here is a little projection on the spout to secure the tying—and then the liquid, provided it is pure to begin with and the flask is pure, will remain ready to hand a week, or even a month or a year hence, according to your convenience.

Now, as to the protection of the liqueur-glass that is to be charged. Suppose I were going to charge this glass, say from this vessel—a flask of the same kind charged with Pasteur's solution on the 7th of August of the present year, which, you observe, remains as pure and as clear as when it was first prepared, although from it have been charged various liqueur-glasses—I should remove the cotton-cap from the nozzle, and the instant that was done should slip the end of the nozzle into the opening which exists in this half of an India-rubber ball which had been previously steeped in a solution of carbolic acid and water. The India-rubber absorbs into its consistence carbolic acid, so that, even though dry after such steeping, it is powerfully antiseptic. The moment the cotton-cap is removed, this cap of caoutchouc is applied with its concavity downwards, and then I proceed to decant. I take off the glass cap, and instantly substitute the cap of India-rubber; the flexible India-rubber acting as a hinge. Fluid is poured in, while the antiseptic cap securely excludes any living organisms; and then, the instant the process is complete, the glass cap is replaced and the shade put on. The hemispherical form of the cap prevents lateral currents of air from depositing dust on the end of the nozzle of the flask, and a second glass, a third glass, or a dozen glasses may be so charged; and experience shows that by this mode of procedure such a dozen glasses, provided the flask has been pure and the liquid pure in it, will remain with their contents unaltered till they dry up through atmospheric influence.

The last point is, how do we get the flask in a pure state with a pure

liquid in it? The flask is purified with its caps of cotton over the mouth and nozzle by being put into the hot box. That is so far simple; we have, therefore, a pure flask to begin with.

Next, we wish to introduce into it a pure liquid. There is one liquid which we may very easily get in the pure state with very little trouble indeed, and that is unboiled urine, provided we have a healthy urethra to deal with and a healthy bladder. All we have to do is to apply the 1 to 40 carbolic acid solution to the glans penis and the meatus urinarius of the patient; then, taking off the cotton-cap, apply to the orifice the glans penis. The glans penis takes the place of the caoutchouc cap, and urine passes in, no regurgitation of air being possible. As soon as the act of micturition is over, a carbolised cotton-cap is tied over, and as surely as you do that will you have the unboiled urine, with its vesical mucus (which used to be regarded as the special ferment of urine) remaining for any length of time perfectly unaltered, without any bacteric development whatever.

But, suppose we have to deal with a liquid like milk, where we cannot have it pure to start with, we must purify it by heat. I do not know what I may find in this densely populated metropolis; but, in the comparatively pure metropolis which I have lately inhabited, Edinburgh, I have never yet found any organism which resisted the temperature of 210 deg. continued for half an hour; I mean to say in the moist state. I have found no organisms in a liquid continue fertile after exposure to 210 deg. Fahr. for half an hour. I say 210 deg., and not 212 deg., which is boiling point, because the way in which we have proceeded is, after introducing the liquid into the flask, to immerse the flask in boiling water, and, in consequence of a certain degree of evaporation which takes place through the cotton, the temperature in the flask is prevented from ever rising fully to the boiling point. You do not have ebullition take place, and that is a great convenience, as we have no frothing; but you have a temperature somewhat short of 212 deg.; we may say 210 deg. All we have to do then, having got the flask pure, is to introduce the liquid into the lower part of the flask, with a view to immersion in a saucepan of boiling water; but there must be the most scrupulous care taken that the liquid so introduced shall not come into contact with the upper parts of the interior of the flask; for, if they do, they will fail to be acted on by the full heat of the water in the saucepan. Now, the mode in which I filled my flasks in my first experiment of this kind was, having provided myself with a rag dipped in carbolic acid lotion, I took a long funnel and purified the exterior of the funnel with carbolic acid lotion, which answers just as well (1 to 20 lotion) as exposing it to the gas-flame or the spirit-lamp. I then passed the funnel down through the rag, which I had previously wrapped round it; then poured in the liquid, then withdrew the funnel, taking scrupulous care that the drop at the end of the funnel does not touch the sides of the flask; then substituted a carbolised cotton-cap, and immersed the flask in the saucepan. If I proceeded in this way with Pasteur's solution, with turnip-infusion, with simple water, with other materials I need not describe, I always had success; but, when I did the same thing with milk, time after time, to my great disappointment, I failed altogether. What was the explanation of the failure? Some persons might have said: "Oh! the explanation is very easy to find. There are in the milk complex molecules ready to develop, though as yet chemical substances, into living beings, and, because of the complex constitution of the milk, therefore it is that you fail; whereas your Pasteur's solution is a comparatively simple material, and your turnip-infusion, compared with milk, is simple." I felt sure that that was not the explanation, but that there must be some defect in my method of procedure. It may perhaps have occurred to some of you what that defect was; it was simply that, if we pour in any liquid through a funnel, we invariably have air passing with it. Air-bubbles appear upon the surface of the liquid, and those bubbles bursting carry with them their dust, and it may be that that dust may be deposited upon the upper part of the interior of the flask. But why should you be more likely to succeed with Pasteur's solution than with milk? Simply for this reason: that milk is a material which serves as a pabulum for almost all organisms. I once met with a bacterium, and only once, that would not live in milk; for it appears that almost all varieties of bacteria (which appear to be excessively numerous) will live in milk, whereas it is only a comparatively small proportion of bacteria that, if put alive into Pasteur's solution, will live in it at all. How, then, was the difficulty to be overcome? Of course, when we saw what the difficulty was, there was no great difficulty in overcoming it. It was done by substituting a syphon for the funnel. Here is the syphon that I used, consisting partly of two glass tubes, partly of India-rubber, with a stopcock in the course of the India-rubber. This syphon is charged with water, the temperature of which should be higher than that of the air, so that there will be no dissolved air given off to form air-bubbles. Then suppose this is the fluid you wish to in-

roduce into the flask. We pass one leg of the syphon into it, then turn the tap and permit a sufficient amount of fluid to flow out for all the existing water to escape from the syphon, and then we proceed just as with the funnel. Carbolised rag is wrapped round the end of the syphon; and, just as the cotton-cap is removed from the pure flask, a carbolised rag is put on; the syphon is slipped down, the tap is turned and the liquid is introduced without the introduction of the smallest bubble of air. When a sufficient quantity of the liquid has been so passed in, the tap is turned, and then the syphon is withdrawn, scrupulous care being taken that it does not touch the inside of the flask; then a carbolised cap is instantaneously substituted for the carbolised rag, and the charging is completed.

Now, I have said that, before I saw my mistake as regards the use of the funnel, I never succeeded with milk. Since I have adopted this method, I have charged many flasks, and never failed. Here is a flask of boiled milk, that is to say, exposed to a temperature of 210 deg., on the 7th of August, and here it remains, I venture to say, as pure as it was immediately after the exposure to the heat. Now, I venture to say that this failure and correction of the failure are instructive, as showing how the development of organisms, under circumstances in which we wish that they shall not develop, is liable to be explained by fault on our part, defect in our own manipulation.

Having said so much with regard to our method, I will proceed as quickly as I can with the facts that I wish to bring before the Society. I selected the lactic fermentation as one peculiarly favourable for the purpose of investigation: first, because the lactic fermentation is a very remarkable change in milk, a very conspicuous fermentation in its results, conspicuous in the solidification that ensues, conspicuous in the marked souring that takes place; and, in the second place, because the ferment which causes the lactic fermentation is a rare ferment, speaking of the world generally, and, if it be a rare ferment, it is not likely that any accidental defect in the manipulation will lead to its introduction. I say it is a rare ferment; in dairies it seems to be universal, but in the world in general it is rare. If you charge a series of glasses like this with boiled milk, and take off their caps, exposing them to the air for half-an-hour at different times in the day, or exposing them in different rooms, say for half-an-hour, so far as my experience goes, you will be certain to have fermentative changes result, you will be certain to have organisms produced; but, so far as my experience goes, you will be certain not to have the lactic fermentation take place, you will be certain not to have the coagulation and the souring, and you will not find the peculiar organism to which I have given the name *Bacterium Lactis*, which I have represented here as it occurs in curdled milk, and which, as I left one of those microscopes, was to be seen in souring milk of yesterday.

This bacterium is a motionless bacterium, occurring most commonly in pairs, frequently in threes, fours, or even more. You always find these, as far as I know, in souring milk; but you will not find them under the circumstances to which I have alluded as the result of mere exposure to the air. The glasses I have brought before you here illustrate the same point as regards unboiled milk; these little glasses have been repurified in the hot-box in the way described, each one being fitted with a little test-tube cap. The milk was received from the cow into a pure glass, purified by heat, within about two yards of a dairy—in a little orchard beside a dairy—and from the pure vessel it was transferred with a syringe and a purified pipette into the several glasses. Here we had unboiled milk to deal with. Every one of these twenty-four glasses has undergone fermentative changes, and, though I have not yet had the opportunity of examining them microscopically, I have not the least doubt that they all contain organisms, because, in a former experiment, performed in the same sort of way with half the number of glasses, I saw similar appearances to a considerable extent to those which are the only doubtful ones, and I found on examination that those appearances did depend on organisms. I say the only doubtful ones, because there are some here with regard to which inspection with a pocket-lens is quite sufficient to show that organisms are present. No fewer than seven of these twenty-four glasses have filamentous fungi in them; apparently—I have not yet examined them microscopically—of five different species. In spite of the care which I then took, organisms entered into all those glasses, but in not one of them did the lactic fermentation take place; all had fermentations of other kinds. Some of these milks, if members of the Society will examine them, will be seen to be exceedingly peculiar, indeed beautiful; there are scarlet or almost vermilion coloured spots, for example, here; some have a golden yellow aspect, less seen by this light than by daylight. Numbers of different organisms have developed here, but not a bacterium lactis, or at all events nothing that caused the lactic fermentation.

Here, again, I have a set of glasses with which the same experiment was performed, only still more carefully. In this case, the experiment

was more rigorously conducted, and here, in the majority of the glasses, at first sight you will suppose that no change at all had occurred; and in two of them I found, at the end of six weeks, that there was no indication whatever of any organisms. I tapped one of them and found the milk still perfectly fluid, of normal taste and reaction and without any organisms in it; showing that unboiled milk, as coming from the healthy cow, really has no ferment in it capable of leading to lactic fermentation or any other fermentation, or to any organic development whatever.

The same scarcity of the lactic ferment is found in water as in air. If I prepare a series of glasses of boiled milk, and add water to them, say from an ordinary tap, a corresponding result is obtained. A very instructive mode of performing the experiment is to add very small drops of water by means of a syringe having a graduated nut, revolving on a fine screw on the piston-rod, so that you are able to have exactly one hundredth of a minim—each degree on the nut corresponds to one hundredth—expelled at your pleasure. If I take water from the tap, and introduce one hundredth of a minim into, say ten glasses of boiled milk, which I do by simply taking off the cap and applying the hundredth to the surface, and applying the cap without loss of time, the result is that you get in some of the glasses certainly fermentative changes and organisms, but you do not get the lactic fermentation. And what is extremely interesting is, that you get different fermentations in different glasses, and some glasses escape altogether. That proves at once this important truth, that the fermentative agency in water, the existence of which was pointed out by one of the members of this Society, Dr. Burdon Sanderson, long ago, is not in the form of any matter dissolved in the water, but in the form of suspended particles of some kind or other; for, if it were dissolved in the water, every equal-sized drop would produce an equal effect. But some glasses escape altogether, and those which are affected are affected with different kinds of fermentation.

If the cream happen to be thick, you will see just at the spot of inoculation in course of time the first appearance of alteration when the bacterium happens to be a motionless bacterium, indicated, perhaps, by some curious colour—a vermilion tint, in one instance—spreading gradually over the cream, the vermilion part shown by the microscope to teem with bacteria, the uncoloured part free from bacteria, and so forth. But various as the fermentations were, there was no instance of the lactic fermentation, *i.e.*, curdling and souring of the milk. Therefore, you see, Mr. President, from these facts, that the souring of milk, instead of being what one might suppose *à priori*, perhaps, from seeing it constantly occur in course of time in all milk brought from a dairy—instead of supposing it to be something inherent in the nature of the milk—is something which, whether in boiled milk or in unboiled, requires the introduction of something from without, and that something a scarce article, both in air and in water, except in dairies. I may say that, even in a dairy, I once exposed a glass of boiled milk by taking off the glass shade and glass cap for a quarter-of-an-hour, thinking very likely I should find the lactic fermentation as the result, as I should have had if I had introduced the smallest quantity of milk from any one of the pans. It so happened that I did not get the lactic fermentation even there; I got a filamentous fungus, and I got a bacterium also, but a bacterium associated with a most extraordinary alteration—a degree of viscosity that I dare say was never seen before—a viscosity that reminded one of the drops that bead the spider's web. By introducing a mere needle into the top of the liquid, I could draw it up a yard and two inches before the barely visible thread broke. That was the special fermentation that resulted from exposure on that occasion, even in the dairy; it so happened that no particles of the lactic ferment had been floating in the air so as to fall into that glass.

Well, then, this particular fermentation, from the conspicuousness of its effects and the rarity of the ferment, seemed a particularly favourable one for investigation.

Now before I go further, I wish to make a confession. Next to the promulgation of new truth, the best thing I conceive that a man can do is the recantation of published error. Some years ago I published in the *Microscopical Journal* an account of the behaviour, as I supposed, of the bacterium lactis in different liquids. I described that, having obtained souring milk, I inoculated unboiled urine with a small drop, and the result was the development in the urine of a very different sort of organisms in appearance; instead of being small as these are, about $\frac{1}{100000}$ th of an inch in length, and half that breadth, those were comparatively broad and exceedingly long and coiled organisms, spirillum-like. They were motionless like the bacterium lactis, but exceedingly different otherwise. Then from that I inoculated a second urine glass, and got the same appearance. From the second urine glass I inoculated a glass of Pasteur's solution, and now got an exceedingly different appearance. I got bacteria only in short pairs—and with exceedingly active movements. I then inoculated another urine glass from the Pasteur's solution, and got back my large coiled organisms; and, lastly, from

this I inoculated a glass of boiled milk, and got the lactic fermentation back again as with the original milk. I had also taken the pains to examine a specimen from the Pasteur's solution mixed with urine in a glass garden, if I may so express it, in which I could see the organisms from time to time, and thought I had traced the transition of the one into the other. I was lately mentioning these facts to an eminent physiologist, who took the view that after all bacteria might be mere accidental concomitants of the fermentative changes. I mentioned these facts to him, and when I had finished my story, he said, "Well, I am convinced". I thought to myself, "Well, if I have convinced this eminent gentleman by these facts, they are worth proving more rigorously; I shall have a little time between giving up the surgery in Edinburgh and going to London; I will reproduce the experiments, and this time I will do them more strictly; I will actually observe everything with the glass garden, and see from hour to hour what change does occur, and if the one organism do become transformed into the other". Accordingly I got some souring milk from the same dairy as before. I proceeded to inoculate a glass of unboiled uncontaminated urine, and also a glass of pure Pasteur's solution. The result in the urine was that, instead of getting the motionless organism, I got an actively moving double bacterium. In the Pasteur's solution, on the other hand, I got a motionless bacterium instead of the moving one.

Here, then, were the facts all wrong. What was the explanation of it? I had obviously got some accidental contamination, though I thought I had kept myself clear of the chance of such a thing. So I determined to try, if possible, to get rid of these accidental concomitants, and the way which occurred to me as a possible mode of doing this was to dilute the milk with so large a quantity of boiled, and therefore pure, water as to have on the average only one bacterium to every drop with which I might inoculate the boiled milk. If I did that, then, as the bacterium lactis was out of all proportion in enormously larger numbers than any other, the chances would be, so to speak, infinitely great that I should only have the bacterium lactis in every such drop, that I should exclude all others, such, for instance, as multitudes of organisms which could only develop when the bacterium lactis was excluded. Accordingly, I attempted to count the bacteria, and seemed to succeed, and, I believe, did succeed, in that particular specimen of souring milk. There happened to be two kinds of bacteria in every field. There was not only the motionless bacterium lactis, but there was also an actively moving kind of bacterium, but in much smaller proportion. I found it necessary to dilute with as much as a million parts of boiled water. Having done this, I inoculated five boiled milk glasses, and of those five only one was affected in any way. That was affected with the lactic fermentation. The others were not affected with any fermentation, nor did they show any bacteria. Therefore, presumably, we had now got the bacterium lactis pure and simple; we would work with it, and see how it would behave in other media. I accordingly inoculated urine with it, and here it is represented as it was found in the urine after two days' development, exactly like what it was in the milk. But if I had not had it by itself, I should not have noticed it at all. It grew with extreme slowness; and if I had had the other bacterium that I had before developing at the same time, this certainly would have escaped my notice, so scarce was it. After a time it came to develop still more slowly in the urine, and developed an exceedingly puny progeny, though still capable of producing the lactic fermentation.

Then I inoculated also Pasteur's solution. In doing so, I made use of a tube like this which I have called a separation tube—a little glass tube bent, with one leg shorter than the other, the shorter leg stuffed with moist cotton and purified by boiling, after which it is introduced into a pure liqueur-glass. The liquid to be experimented on is then poured in not to so high a level as the top of the longer leg. The liquid finds its way through the cotton. It rises in the longer leg, and then if we inoculate the liquid in the longer leg with anything, that something will not be able to pass through the closely rammed cotton-wool, unless it be capable of development. If it be capable of development in the liquid, then it will work its way before long through the cotton-wool, closely rammed though it is. Thus we have the means of separating things which are living and capable of development in that particular liquid from things which are not living or not capable of developing there. I inoculated such a separation tube containing Pasteur's solution by introducing a little curdled soured milk—soured with pure ferment. There appeared to be for a long time no change at all. After a while, I thought the curd looked a little swollen. I took a piece of it out and examined it, and found that the curd seemed to have disappeared, and its place was occupied by small bacteria, having the characters of the bacterium lactis, showing that it had developed there; but it seemed to have developed only at the expense of the piece of curd; for, in the outside liquid, although it was kept for more

than two weeks, no development whatever took place. The bacterium had not been able to make its way through the cotton. Not only so; but I inoculated directly another glass of Pasteur's solution from a glass containing the living bacterium lactis in urine. At the end of a fortnight, there was still absolutely no development. Therefore, it appears that, in Pasteur's solution, the bacterium lactis, though it is not destroyed by it, cannot develop; it has not the materials requisite for its nutrition. Therefore, I am bound to make this confession, that I appear to have been mistaken in my former experiments. Certain it is that, in these last experiments, where I took that drop from the souring milk and inoculated urine and got an actively moving bacterium, I got something accidentally concomitant with the bacterium lactis. Equally certain it is that, when I inoculated Pasteur's solution with the sour milk, I got an actively developing, though motionless, bacterium—an accidental bacterium. Now that we know from experiments how exceedingly numerous the organisms are which are liable to infest milk, we can easily understand how such contamination may have taken place.

Having got the bacterium lactis apparently pure and unmixed, I proceeded to the experiment which has been already described elsewhere. I ascertained how many bacteria existed on an average in every hundredth of a minim of milk. Having ascertained this, I knew how much boiled water I ought to add (of course, using the most scrupulous precautions against contamination) in order that every drop with which I should inoculate glasses of boiled milk should, on an average, contain one of the bacteria. Probably, there would not be absolute uniformity of distribution; therefore, some glasses would have more than one, and some would have none. I inoculated ten glasses with such drops. All of these you may say were in one sense infective drops; that is to say, drops taken from an infective liquid; but, of those drops, some only produce an effect; and, by a curious coincidence, it happened that, of the ten glasses, exactly five were affected with the lactic fermentation, and exactly five remained fluid. I have brought before the Society an example of one of the fluid glasses still remaining fluid at this long period, which, you will easily understand, must have been somewhat difficult to bring from Edinburgh here without contamination from spilling. It was, of course, very carefully nursed. There is under one of these microscopes a small drop from this glass. I examined it to-day for the first time since the examination before leaving Edinburgh. I had seen then that there were no bacteria, and I find to-day that there are none. The only alteration visible in the microscope is that the milk-globules are becoming some of them angular through the effect of drying. Here, again, is one of the glasses that underwent the lactic fermentation; and this is equally remarkable; because here, having got the lactic fermentation pure and simple, we have a pure white curd to this day just as if the milk had soured yesterday, whereas with ordinary souring milk, though we get a white curd to start with, we all know that it is soon followed up by other alterations. There is the bacterium that leads to butyric fermentation; there is the odium lactis that constitutes the yellow bloom upon a cream-cheese. Very likely the penicillium glaucum finds its way in, and in the course of time putrefaction takes place; but here we have the pure effect of one particular ferment, and you will perceive that, whatever little odour there is, it is a pure sour odour.

Although I have fully stated elsewhere the inference to be drawn from this experiment, its importance leads me to mention it before this Society. We have seen from the former experiments that in water the fermentative agency is in the form of suspended particles, not matter in solution; and the experiment I have just recorded with regard to souring milk proves the same with regard to that fermentation. All received equal sized drops; half only were affected with the fermentation. That shows that the ferment was not dissolved. It was, as in the case of the ferments in water, insoluble particles in suspension. Then, what are those particles? Let us assume, for the sake of argument, that it is possible that there might be chemical particles destitute of life, capable of multiplying as rapidly as the bacterium, which you may watch multiplying and see growing in souring milk, becoming doubled in the course of an hour—you can see them subdividing at that rate. Suppose, I say, for the sake of argument, you make what I believe to be an unwarrantable assumption altogether; viz., that there might be chemical particles destitute of life, capable of self-multiplication like those bacteria—admit that as a mere hypothesis, and I say it would be inconceivable if those two sets of particles, the true ferment and the bacterium, were mere accidental concomitants; that they should be present in the same numbers; and, if you admitted that they were present in the same numbers, it would be equally inconceivable that they should always go in pairs. I went through the process of examining on the glasses; and I found that, wherever there was a glass affected with lactic fermentation, there was the bacterium lactis, and every glass that was not affected with lactic fermentation showed no bacterium whatever. Therefore, I believe it must be considered absolutely demon-

strated that that special form of fermentation is due to that particular kind of bacterium.

If this be really demonstrated, it must be admitted to be a very important point. Of course, it only proves one instance; but the method, I conceive, can be applied in many other cases of fermentation.

With regard to the odour of sour milk, why should there be such a thing? The chemist would tell you that lactic acid is non-volatile, and so it is—lactic acid is absolutely odourless. If you take a specimen of milk like this, which is some of yesterday's milk from a dairy, kept near a fire to promote souring, you find a fine fragrance of sour milk; but that is not the sort of odour you have from a lactic fermentation pure and simple. The smell of ordinary sour milk seems to be chiefly due to butyric acid, which is volatile; but what is it that causes the odour in our apparently pure lactic fermentation? Some other ingredient than the lactic acid. I have been at the pains to distil sour milk—soured under the influence of pure lactic ferment. I got a clear liquid, which had still more strongly the peculiar, pungent, sour odour, reminding one somewhat of acetic acid, different from ordinary souring milk; but, to my surprise, this liquid had no acid taste, and did not affect litmus-paper in the least. Therefore, it was some form of ether, I suppose—some volatile substance—which, though having a sour smell, is not acid. I must leave it to the chemists to investigate its nature. It has been shown by Pasteur that caramel and other substances exist as concomitants of the alcoholic fermentation of sugar; so it appears that this substance, whatever it is, exists as a concomitant of lactic fermentation.

I should like to allude, if I might, for a minute or two to this diagram, in which we have represented the bacterium lactis, after developing three days in milk diluted with twelve hundred parts of water. It will be observed that the bacterium lactis is here of extremely small size. These diagrams are all to scale, copied from camera lucida sketches. The magnifying power, as represented on the diagram, is about three hundred thousand diameters. You will imagine, therefore, how exceedingly minute these little particles must be. You could not well tell that they are bacteria, seeing that they are motionless, except under the circumstances in which they occur and their grouping; yet bacteria lactis undoubtedly they were. Let me compare them for a moment with this ferment, the *torula cerevisiæ*. What a huge organism is the one in comparison with the other. The small one is not so big in its individual elements as the mere granules in the *torula cerevisiæ*, yet it is an organism with the remarkable fermentative properties I have described. Now, let us imagine what is surely not an improbable thing: that there may exist other organisms as much smaller than the *Bacterium Lactis* as these are smaller than the *Torula*; and we at once get, by that very simple transition, so to speak, to ultra-microscopic organisms. This consideration bears upon pathology. It will not do for us to say that, because we do not find, for example, in erysipelas any visible organisms, there are none. There may be organisms as real, as distinct in structure as these little bacteria lactis, and producing as potent effects by their growth, though we do not happen to be able to see them with any microscope that we have, and are not likely to see them with any microscope that will ever be produced.

Then there is one other point. When the milk was diluted with one thousand two hundred parts of water, within three days the bacteria had produced this puny progeny, not half the size of those that occurred in souring milk; and I should observe that, after three days, the bacterium lactis in the souring milk is not so large as you see it in the first twenty-four hours. If you wish to see the bacterium lactis in the best condition, you should take a glass of boiled milk and dip into a glass of souring milk the point of a needle, and inoculate the side of the glass with it; then, within twenty-four hours, you will find the bacteria. You may search long before you find them; but, if you find one, it will be of a good size. In the course of the next twenty-four hours, they will become smaller and smaller, until at last the majority of them, affected apparently by the sour milk, become so small that you can scarcely recognise them, and they become so confused with the curd, entangled in the curd of the souring milk, as red corpuscles become entangled in the fibrine of coagulated blood, that you may sometimes fail to see them even after a prolonged search, as I fear some of you may fail in that specimen of curdled milk of some months ago, under one of the microscopes. In water, then, or rather in milk very much diluted with water, the bacteria became small. Now, that beautifully confirms an observation I made some years ago to this effect. I took tap-water and introduced it into a pure flask purified in the way I have described. I kept it forty-eight hours. At the end of forty-eight hours, when I took the flask into a dark room and put a candle on the other side, I could just discern a delicate bluish-white film, and, on examining it with a microscope, I found it consisted of closely packed motionless bacteria of extreme minuteness. They were really there in the stagnant water.

Who could doubt, then, that they existed in the running water; that they existed not merely as germs in the running water, but as bacteria? Then call to mind the simple experiments with the subdivision of water into hundredths of a minim; and you remember that, in the tap-water at least which I investigated, the fermentative particles only existed about one in every hundredth of a minim. Add to this that a hundredth of a minim, if spread out between two plates of glass, occupies a space equal to half of a square half-inch; and you will see that, if you were to search for a whole summer-day for such an individual bacterium, you would probably fail to find it. I have gone through the experiment of actually mixing bacteria in such proportions with water, bacteria of full development and large size, and I have failed, with a patient search for hours, in discovering one of them. If to this you add that the bacteria that I saw in water were motionless and minute, I think it will be seen that to say that, because we cannot see in water existing bacteria, therefore, you must be forced to the conclusion that water contains germs of bacteria, ultra-microscopic objects, that we could not see at all even if we had them under our microscopes, is to make an unwarrantable assumption. I am aware that there are two instances, the bacillus anthracis and the bacillus subtilis, in which it is said that the actual germs of bacteria do exist. I have seen nucleated bacteria myself. I confess I have never seen things that resisted such treatment as these germs are said to have resisted in the hands of others. But even these germs are not ultra-microscopic. They are bright points that are seen—bright granules. There has never been evidence of any ultra-microscopic germ; and, as Dr. Roberts points out in his Manchester address, those two species are the only bacteria with regard to which there is anything like evidence that germs exist at all. For my own part, I think it extremely improbable that bacteria in general have germs. They are actually reproductive organs, constantly multiplied by segmentation; and, if there be any organism in existence that does not require germs, I should say it is the bacterium; but the facts that I have mentioned, on the one hand the scarcity of the fermentative particles in such water as I have examined, and on the other hand the small size the bacteria assume when they develop in water, seem to me sufficient to explain why we do not meet with them in microscopic examination. Thus I venture to say that, what appears to me to be at the present time a somewhat needless mystery in this matter, may be satisfactorily cleared away.

I beg to thank the Society most cordially for the patient attention with which they have listened to this long communication.

The PRESIDENT: It is the custom, I believe, gentlemen, in a sister Society for members, when they join the Society, to deposit a specimen of their art. Mr. Lister, in joining the Pathological Society, has deposited in our annals a communication which, I am sure you will all agree with me, is worthy of his own reputation and which will do honour to this Society. I say this, although, of course, I am quite aware that there are many members of the Society who perhaps might not draw the same inferences, as bearing upon pathology, which he does from the very beautiful experiments which he has submitted to us. I trust, however, that there are some members of the Society here who are competent to speak upon this subject, and who will give us the benefit of their opinions in reference to this communication of Professor Lister.

Dr. BASTIAN: I may, perhaps, be allowed to make a few brief observations on this communication of Professor Lister. I am sure we are all very much indebted to him for the very clear and lucid manner in which he has described his method of experimentation. It is a great gain for us also to be made aware of those very careful methods which have been adopted. I myself have had no experience with experiments of the kind which Mr. Lister has brought before the Society to-night; but in the main the experiments concerned organic fluids which have been protected from external contamination, and therefore the assumption underlying these experiments is, that the organic fluids, of the body, when in the body—that is, in the healthy body—are free from the germs of these organisms; so that, when the fluids are carefully removed and carefully guarded out of the body, no such organisms appear. There are one or two facts bearing upon this subject to which I should like to call the attention of the Society, because members of the Society will know quite well by this time that this subject is a very broad one and a very intricate one, and that workers working independently may arrive at results which seem to be wholly discordant; and they may draw conclusions from their own particular set of experiments which are hostile to the conclusions drawn by another. Of course, these experiments which Professor Lister has brought before the Society to-night seem to be perfectly convincing as to the truth of the conclusions which are deduced from them; and it seems difficult to find any flaw in these experiments. But then the question comes, whether, under other conditions and by observations under other con-

ditions, the same conclusions would be still possible. Now, there are two or three points to which I would call the attention of the Society, which have, I think, a close bearing upon these experiments; and the first thing I would mention is that, if we take a healthy animal—kill an animal suddenly in a state of health—and allow that animal to remain some days in summer weather, we all know that putrefaction occurs—the body putrefies. It is perfectly well known now, also, that organisms do exist in great abundance within the alimentary canal of the animal; and so it might be supposed the body generally becomes contaminated from those organisms which are contained in the intestinal canal. But I do not exactly see my way to admitting that method of contamination; because, in the first place, after death of course there is no circulation of blood to convey these organisms. The organisms themselves have no progressive movement; they have to-and-fro movements; they move forward at one movement; they move backwards at the next. And then we find organisms after a few days existing in abundance in the very interior of organs which are far removed from the intestinal canal. We find, for instance, organisms existing in the centre of the spleen; we may find organisms existing in the centre of the kidney some days after death. These organs are situated in the abdomen, and it might be said by some, "But the bacteria have powers of penetrating through tissues by means which we know nothing of perhaps". But, at all events, we may go further still, and we may examine the interior of the brain, which is far enough removed from the abdomen, and in the interior of the brain we may also, several days after death, when putrefaction has set in the body generally, find organisms absolutely swarming. There are the fluids of the body, but under different conditions, it is true, from those which Mr. Lister has shown us to-night; there they are in contact with the dying tissues. It is admitted, I believe, by Mr. Lister, and also by many other eminent pathologists, that the healthy body is free from the germs of these organisms, and yet the organisms appear in abundance. That, therefore, seems to me to be a fact which is worthy of all attention as bearing upon this question, and then there is also the fact that organisms can be made to appear at will in any part of the tissues of certain animals—at least, that is the statement which comes to us from very good authority. For instance, we are told by Dr. Burdon Sanderson that you may introduce boiled ammonia, a caustic fluid containing no organisms, beneath the skin of a rabbit or a guinea-pig, the tissues of which are free from organisms, as he says, and yet that there in that wound within twenty-four hours you have organisms absolutely swarming. Dr. Sanderson also tells us that solution of iodine, or solution of boiled ammonia, may be introduced with some precautions into the peritoneum, and it there also sets up an inflammation of such virulence as to lead to the appearance of organisms in swarms within the fluid thrown out in the inflammatory process. And Dr. Burdon Sanderson tells us that these inoculations have been made in such a way as to preclude the possibility of external contamination. I think those are his words, or something very much to that effect. Then there is one other means also by which organisms have been made to appear at will in definite parts of the body. There was a very pregnant observation by Cunningham and Lewis, in Calcutta, in which, starting from this fact that organisms do appear in the tissues generally after death, they endeavoured to bring about artificially a failure in the nutrition of a certain part of the body to see what effect would result. They opened the abdomen of a healthy dog, tied one of the renal arteries with great care, and then the dog was killed twenty-four or twenty-eight hours afterwards. They say that in the kidney, the arteries of which were tied, they found swarms of organisms, vibrios and organisms of that class. That, again, seems to me to be an observation of very great significance; although, so far as I know, it has not been actually verified as yet by other observers. I have made an approximation to a verification in this way, that last September I made a *post mortem* examination upon a boy in University College Hospital who died from the effects of renal disease and serious heart-disease, and there was multiple embolism, suspected to have occurred during life, in the spleen and kidney. The *post mortem* examination was made within a few hours after death, on purpose that I might examine these patches; and I found embolic patches in various stages in the spleen, embolic patches also in the kidneys, some of them being still swollen and congested patches, others old, which had gone on to cheesy transformation. I also took some blood from the right ventricle, some urine from the bladder, and blood from the freshly cut surface of the lung. The blood from those three situations showed no trace of organisms at all. I then examined the embolic patches; and, on careful search, I could easily find organisms—long vibronic-like organisms—scattered through the tissues. Taking a small portion of tissue, teasing it out into distilled water, there were the organisms very distinctly in almost every one of the patches. I took little

pieces out of the portions of the organs away from the embolic patches, and could find no such organisms. Now, I do think, however true these results of Professor Lister may be, that we must hesitate to draw any conclusion from them unless we contrast them with this other set of facts, which seem to be somewhat difficult of explanation.

Dr. BURDON SANDERSON: I rise for the purpose of expressing the extreme pleasure I have experienced, and which I am sure every one has experienced, in listening to Professor Lister's beautiful exposition of facts, and may add that with the inferences to be derived from those facts I have most entire agreement. I was particularly gratified with the conclusion of his address. I also agree with him as to an interesting point on which I was at variance a short while ago with Professor Tyndall—namely, with reference to the absence of morphological proof of the existence of such things as germs of bacteria. Of course, I was well aware Professor Lister would place the evidence of the existence of such germs upon the same ground as I put them myself—namely, on the ground of our being able to make out their anatomical structure; but it may be, perhaps, worth simply explaining to the Society, as some members may not, perhaps, be aware of what has been going on in another place upon the subject, that Professor Tyndall has given us a definition of a germ which excludes this definition altogether. Professor Tyndall has suggested that we should call a germ anything which germinates without reference to its being visible or having anatomical characters of any kind; and, for convenience sake, it appeared to me to be desirable that we should admit this definition as a good definition, putting aside altogether the question whether a germ possesses structure or not, whether we can see it or not, that we should, so long as we can prove it is a thing out of which an organism will grow, consent to call it a germ. But this, of course, does not prejudice the other question, an entirely different one, as to whether things can be shown to exist, which are the seeds of bacteria. I entirely agree with Professor Lister in the opinion that no proof has been given of the existence of any such seed with reference to ordinary bacteria. Of course, the peculiar organism referred to does stand aside from the others in this respect; but, as he explained to us just now, the spore of the organism is a thing which has no comparison whatever with the invisible particles which were shown in discussion, the spores of the bacillus anthracis being things that are bigger than any of those organisms which have been exhibited in the diagrams. I have simply to repeat the extreme benefit I have myself derived from this paper, and to move a vote of thanks to Professor Lister.

The PRESIDENT: I am sure this proposition will be carried by the acclamation of the Society. We have to congratulate ourselves in having Mr. Lister as a member of the Pathological Society. I hope we shall have more communications from him of a similar nature to that which he has brought before us to-night.

CLINICAL SOCIETY OF LONDON.

FRIDAY, DECEMBER 14TH, 1877.

THOMAS BRYANT, F.R.C.S., Vice-President, in the Chair.

A Case of Convulsions Treated by Venesection.—Dr. BROADBENT read notes of this case, which was that of a gentleman, aged 41, who had had syphilis when young, and who, a year ago, had received a severe injury to the head, supposed to be fracture of the base of the skull. Since then, he at first lived abstemiously; but recently resumed his accustomed generous diet. He then had convulsions, which grew in intensity for three days, and were accompanied by capillary extravasations on the forehead and chest. On the third day, when the patient had been unconscious for four or five hours, he was seen by Dr. Broadbent. During the intervals, there was then no paralysis; the eyelids were kept closed, and the pupils were equal and of moderate size. The pulse was small and weak, but long. During the convulsions, the eyes were widely opened, and all the muscles of the body and limbs were affected by synchronous violent jerkings, the face became livid, the pulse imperceptible, and respiratory movements ceased; death seemed imminent when Dr. Gaven, the medical attendant, depressed the tongue and performed artificial respiration. Calomel had been already placed on the tongue, mustard applied to the calves, and chloroform administered; thirty ounces of blood were now abstracted. The convulsions at once ceased, consciousness shortly returned, and the patient in a few days left London. In commenting on the case, Dr. Broadbent thought the injury to the skull might have interfered with the circulation of the blood at the base of the brain; the patient was plethoric from his recent generous diet, and the state of the pulse was similar to that found in uræmic convulsions, in which bleeding was most useful. The pulse became large and soft as the blood flowed. Dr. Broadbent had often had to regret that an insufficient quantity of

blood, or none at all, had been withdrawn; never that bleeding had been practised unnecessarily or too largely.

Case of Post Partum Convulsions (Uremia) treated by Venesection: Death on the Seventh Day.—Mr. GEORGE BROWN read notes of this case. The patient, who was in humble circumstances, was taken in labour (her sixth confinement) on December 21st, 1876. Mr. Brown, being called to the case, found that the child had been born a few minutes before his arrival. A small dose of ergot was given, the placenta was removed without unusual hæmorrhage, and the patient appeared to be very comfortable, and the uterus well contracted. The patient soon afterwards fell asleep, and dozed at intervals for four hours, when she complained of feeling sick and giddy. Immediately afterwards, she was seized with convulsions, the fit lasting, according to the nurse's report, about five minutes. She then lay in a semiconscious state for half-an-hour, when she had another fit. Mr. Brown, being summoned, found his patient in a fit. It began with twitching of the muscles of one side of the face and neck, which were so violent as to draw the head towards the chest on that side with each spasm. In about half a minute, clonic spasms of the arm and leg of that side commenced, following each other with great rapidity for about a minute, and then gradually ceasing in violence and becoming less rapid. As the spasms ceased on the one side, twitching of the muscles on the opposite side of the face began, followed by similar clonic spasms of the limbs on that side also. The duration of a fit was from three to five minutes. During the fit, the patient's face became quite purple. In the earlier fits, she bit her tongue, but afterwards this was guarded against by placing a handkerchief between her teeth. The patient was quite unconscious in the intervals as well as during the fits. The breathing was laboured, and at times stertorous. It was found impossible to get her to swallow anything. A catheter was passed, and ten ounces of urine were drawn off; this, on being boiled, was found to contain one-third albumen. The fits succeeded each other for four hours at intervals of about ten minutes, when, as death appeared to be imminent, twenty-eight ounces of blood were taken from the left median cephalic vein. During the operation of bleeding, which occupied at least thirty minutes, the patient had two fits, but they were less violent than those which took place before venesection. After the operation, the respiration became more natural and all stertor ceased; the temperature was 100 deg., and the pulse 150 per minute. There was no uterine hæmorrhage. Fits of a milder character occurred at intervals of about fifteen minutes for three hours, and then during four hours only four fits took place. Eight grains of calomel were then given, and two hours later an enema was administered, but it returned without producing action of the bowels. No fits subsequently occurred, but there were occasional twitchings of the limbs. After the cessation of the fits, the patient was able to swallow liquids; and beef-tea, milk, and weak brandy and water were given; also ten grains of bromide of potassium, every two hours. She remained unconscious the whole of the following day, but free from convulsions. Urine was passed involuntarily. The enema was repeated that day without result. The same night, another dose of calomel (eight grains) was given. On the third day, a violent fit occurred, shortly after which the bowels acted very freely. Immediately after the motion, the patient became conscious, sat up in bed, and recognised her husband and other friends who were by her bedside. In two or three minutes, she again became unconscious, and had another fit. The following night, she again became conscious for a few minutes, and voluntarily drank a little milk. The improvement was, however, only temporary; insensibility soon returned, the coma gradually deepened, and she died six days after the onset of the convulsions. No *post mortem* examination was permitted. Mr. Brown said that, although the case terminated fatally, he had no doubt that the bleeding was the means of prolonging life; and, in similar circumstances, he should again adopt the same mode of treatment.

Dr. CLUTTON had recently seen a man, aged about fifty, reported to have had a fit, whom he found unconscious and with a full bounding pulse, and who, whilst in the fit, had been bled to the extent of sixteen ounces by another medical man. A violent convulsion immediately followed the operation. Ice was applied to the head, and an aperient given. The man had two other subsequent fits, and remained comatose for more than a day. It then came out that he had been knocked down in the street. His urine was albuminous. He was still improving, but had partial aphasia, and defective memory and vision.—Dr. ALTHAUS was not sure the bleeding had benefited the patients whose cases had been reported; recovery often rapidly ensued without such treatment. Again, convulsions were rather due to anæmia than to increased blood-pressure; which latter was the result and not the cause of the fits. Spasm of the glottis was usually the cause of death when it occurred during convulsions.—Dr. BROADBENT, in reply to Dr. Althaus, said there was no albuminuria in his case.—Mr. HOWSE

inquired whether there was evidence that convulsions damaged the brain-tissue. If so, treatment for fits was imperatively demanded.—Dr. WILTSHIRE had seen whooping fits in a child; and Sir W. Jenner and Dr. Langdon Down both considered that continuous fits were injurious to the brain. If the surface-veins were full, and the pulse small and feeble, indicating an empty state of the arteries, bleeding would probably do good. He advocated more frequent recourse to venesection, to avoid congestion of the viscera. If, as he supposed, Mr. Brown's case was one of embolism, bleeding would not benefit the patient.—Dr. MYERS had seen bleeding do good in cases of disturbed cerebral circulation. In Africa, he had himself suffered greatly from head-symptoms after great mental strain and shock, and considered that his life was saved by his bleeding himself to the extent of ten ounces. At any rate, his relief was immediate.—Dr. BROADBENT thought that convulsions produced deterioration both in the general health and the mental powers. He thought there were many cases of convulsions which were not caused by cerebral anæmia. Not only in this case, but in others (especially cases of uræmic convulsions), he had seen the fits speedily cease after venesection. But a hard pulse was not always an indication for bleeding, because such hardness disappeared when the heart had become exhausted in protracted cases. In those instances, the pulse was as full between the beats as it was during the pulse-wave. The pulse in his patient was like that in uræmia, and during the venesection it became larger and softer. The superficial veins, as in that case, were often small, and their smallness sometimes interfered with the performance of venesection until convulsions again supervened, when the veins and arteries refilled.

WEST KENT MEDICO-SURGICAL SOCIETY.

FRIDAY, NOVEMBER 2ND.

W. JOHNSON SMITH, F.R.C.S., President, in the Chair.

Intestinal Obstruction Relieved by Tappings.—Mr. W. W. WAGSTAFFE read a case of obstruction occurring in a young medical man aged 25. There was great tympanitic distension of the abdomen, interfering with respiration. This was treated by several punctures with a fine trocar and cannula, followed by the evacuation of large quantities of gas, with immediate relief to the urgent symptoms; and in a few hours the bowels acted naturally and copiously. He had three attacks of intestinal obstruction while under Mr. Wagstaffe's observation, all produced by error in diet. The second, accompanied by tympanites, was relieved by half-grain doses of extract of belladonna every three hours, without tapping. The third occurred in Mr. Wagstaffe's absence from home, and he died. On the night of his death, he was heard to go downstairs and mix himself some medicine, and he died a few hours afterwards violently delirious. As no *post mortem* examination was allowed by the parents, both the cause of death and the condition of the abdominal viscera were unknown.

PRESENTATION.—The retirement of Mr. Paul Jackson of Wimpole Street has been made the occasion for presenting him with a testimonial, consisting of a purse and a "loving-cup", bearing the following inscription:—"This loving cup, together with a purse containing two hundred and fifty sovereigns, was presented on the 8th day of December, 1877, to Paul Jackson, Esq., M.R.C.S., L.S.A., F.R. Med. Chi. S., etc., on his relinquishing his professional practice, to remind him that he carries with him in his retirement the respect and esteem of his numerous patients and friends, by whom his many estimable social qualities, together with the skill, ability, kindly sympathy, and devotion to his art, which have so eminently distinguished him throughout an active professional career of upwards of forty-two years, have long been recognised and will long be remembered."

BEQUESTS.—The following bequests have been made by Mr. George Moore, late of Bow Churchyard, Kensington Gardens, and Whitehall, Cumberland:—Royal Free Hospital, £3000; London Hospital, £2000; St. George's Hospital, £2000; King's College Hospital, £2000; St. Mary's Hospital, £2000; Middlesex Hospital, £2000; Charing Cross Hospital, £2000; University College Hospital, £2000; Cancer Hospital, £1000; Royal Hospital for Incurables, £2000; Royal Home for Incurables, £2000; City of London Hospital for Diseases of the Chest, Victoria Park, £1500; Consumption Hospital, Brompton, £1500; National Hospital for Consumption and Diseases of the Chest, Ventnor, £1000; Sea Bathing Infirmary, Margate, £1000; Whitehaven and Cumberland Infirmary, £1000; Metropolitan Convalescent Institution, Walton-on-Thames, £1500; Cumberland and Westmorland Convalescent Institution, £1000; Asylum for Idiots, Earlswood, £2000.

CORRESPONDENCE.

PHYSICIANS' FEES.

SIR,—When I commenced practice, now many years ago, I was under the impression that the pecuniary relations between the well-to-do and their physicians were based essentially upon the grateful recognition by the former of the services of the latter; and that our honorarium, not being compulsory, would frequently assume a shape which our modesty might even induce us to decline. So far from my fervent anticipations being realised, an experience of more than thirty years has brought me to the conclusion that the public, far from estimating at its proper value the services that we render them, take every opportunity to reduce even the customary fees, in a manner which, in the course of the year, constitutes a heavy item of loss.

Sensitive from the first, and anxious not to appear mercenary, our difficulties on this score seem to increase with our years, and with the increased value of the experience we bring to bear on each individual case. Is it not time that the profession should arrive at some more definite understanding on the subject of *honoraria*, and that the relations and duties of consultants and non-consultants should be placed on a more satisfactory basis? Let me illustrate my point of view by the experience of a single day. A general practitioner brings a patient, requiring a minute examination of all his or her organs; the stethoscope is called into requisition; undressing is also necessary to allow an examination of the abdomen; the thermometer and test-tube have each to be employed; and a prolonged consultation, with directions to the patient, follows. On leaving the room, the latter places a fee on the table, which subsequently proves to be a single guinea. On the same afternoon, you are summoned into the country, to a distance which, according to the usages of the profession, justifies a fee of twelve guineas at least; and, on your departure, an envelope is placed in your hands, which, when you are seated in the train, proves to contain a bank-note for £10. The physician feels that he has lost three hard-earned guineas in his day's work, and has no kind of remedy that I am acquainted with. Much worse cases than this are not uncommon; and although I have never, as happened to a late physician of eminence (I have this from his own mouth), been sent for to Manchester and been offered five guineas for my trouble, I have had painful experience of a similar nature on a smaller scale.

We are often compared to barristers; but there is scarcely any analogy. The barrister receives his fees from the solicitor who employs him, and they are paid with the brief, so that it is in the power of the former to withhold his services if he choose. We perform our arduous and responsible duties in full trust in the theory of the honesty of our employers; and, when our work is done, we have no means of obtaining, even from patients infinitely better off than ourselves, the legitimate pecuniary compensation. And when patients or patients' friends fail to pay you at all, as I regret to say is often the case, where you are called in by yourself and allow the visits "to run on"; or again, when patients die, as must happen sometimes, and the executors do not fulfil the obligations incurred by the defunct, what is to be done? It is all very well to say that the physician accepts these risks voluntarily, when he enters the profession; but it is to be remembered that no principle of justice or equity can be quoted in support of the doctrine that the physician, any more than any other member of the community, is to be deliberately mulcted of his dues.

We do an immense amount of work for the public gratuitously (and willingly) in dispensaries and hospitals, and there are no judgeships or similar havens of rest for the seniors of our profession, in which they can bring their dearly bought experience to bear without the irritating care for the daily bread. It is, therefore, only common decency and justice that our compulsory weakness should be protected against a thoughtless or selfish public, seeing that the more refined and considerate we are, the less we are able to secure protection for ourselves.

The patient of old was content to have his pulse felt and his tongue looked at by his physician, and paid his guinea when the value of the coin was three times what it is now. The physician of the present day is not satisfied that he has done his duty unless he has brought all the apparatus of modern science to bear upon the malady before him; and when he has exhausted every means of inquiry, and has, moreover, thrown his whole heart into the case, he finds that the grateful patient has left a single sovereign on the table, without even the customary shilling.

You so often warn us of the necessity of brevity, that I refrain from dilating on a subject of more than mere personal interest, although much tempted to do so. I trust my reticence may induce you to allow this communication to appear in the JOURNAL, so as to elicit the opinions of other members of the profession on this burning question; and to secure, if possible, some co-operation in the direction of a much-needed reform.—I am, sir, your obedient servant,

December 1877.

F. R. C. P.

THE BRISTOL MEDICAL SCHOOL.

SIR,—Dr. Burder, Honorary Secretary to the Bristol Medical School, has thought fit to publish in the JOURNAL of December 8th a letter animadverting upon the conduct of those members of the Infirmary staff who are not connected with the medical school in the following terms:—"But I must be allowed to express, on behalf of the majority of the Faculty of the school, our deep regret that these gentlemen, before resorting to the extreme measures of an appeal to the College of Surgeons, did not think it their duty to institute some independent inquiries into the accuracy of the *ex parte* statements with which they had been furnished. Such a course would seem to have been demanded, not less by common professional courtesy than by the obligations of private friendship."

Considering the tone of Dr. Burder's letter, I should think the Faculty of the Infirmary will hardly deem it expedient to reply; but, as one of those of its members thus specially referred to, I feel it my duty to refute his imputations.

Though for the last ten years I have had no connection with the school, for the previous twenty I was one of its lecturers, and therefore feel the greatest interest in its prosperity. I did "institute independent inquiries", the result of which convinced me that, however admirably the rules and regulations of the school might be framed, in the absence of any central authority and responsible head, they were not efficiently enforced; and that the Faculty of the Infirmary would have been grossly negligent of their responsibility if they had not, however reluctantly, adopted the course which they did.

Nor can I see how any of the subsequent occurrences could have any other effect than to strengthen this conviction. The melancholy failures of our pupils, at the examination of the last two years especially, are far too numerous (twenty-three out of thirty-two) to be accounted for by simple "ill luck" or general incapacity. To what, then, can they be due? Certainly not, as the School Faculty plead in their memorandum to the College of Surgeons, to a "transitional state" pending the occupation of new premises to be erected hereafter by the new University College; for surely a man who simply contemplates building a new house is in no transitional state, nor can he plead any contingent derangements until he is actually moving from the old house to the new.

Certainly not to the only cause Dr. Burder alleges; namely, the "buildings and appliances" of the school; for they are exactly the same, and so are the general rules and regulations of the school, as those which existed whilst the school was maintaining its position with the highest credit. But just as certainly, as it appears to me, to the only remaining imaginable cause, that "inefficiency in the teaching arrangements and discipline of the school", into which the Infirmary Faculty felt it their duty to request the College to make inquiry. It is not for me—and I trust no one else will feel it his duty—to enter upon the other matters in Dr. Burder's letter. The Bristol Medical School was a credit to our city; it is all essential to the working of our Infirmary and Hospital; its pupils have lately so lamentably failed, that its high repute is tarnished, its very existence threatened, and no amount of imputations of sinister motives and double dealing, no re-primand, can alter the facts, though they may do much to hinder that honest recognition of them which must be the first step towards the restoration of the school we all so much desire.

In conclusion, I must add that the remaining accusation in the last

paragraph of Dr. Burder's letter is as inapplicable as the former. Dr. Burder has not been content to send his letters to the professional journals only, but has thought fit to publish them in the local public papers, and, if a "public scandal" have been the result, it is due to himself alone.—I am, sir, yours obediently,

F. BRITTAN, M.D., Consulting Physician to the
Bristol, December 10th, 1877. Bristol Royal Infirmary.

POST MORTEM EXAMINATIONS IN LUNATIC ASYLUMS.

SIR,—The right to perform *post mortem* examinations is occupying the attention of the public, the Poor-law staff, and the superintendents of lunatic asylums. I was engaged upon the uncongenial task of making inquiries as to what is the practice in kindred institutions when the public judgment so strongly expressed by Lord Salisbury opportunely came to strengthen the position I am taking, justify my scruples, and further to demonstrate the sensitiveness of the nation upon this subject.

The daily press, and the medical, are all agreed that unauthorised and indiscriminate necropsies, whether in public or in private practice, are not desirable; and that it is entirely at variance with the law to act in the absence of explicit and formal instructions. The editor of the *Journal of Mental Science*, in a late number (94), says that "the subject of compulsory *post mortem* examinations is a very difficult one, not to say dangerous". He probably referred only to the rights of the deceased or of the relatives; but there is also a professional aspect of the question. I object, as a medical man, to being compelled to pursue one branch of scientific knowledge whilst engaged in another more suited to my taste and inclination. I prefer inquiring into the causes that produce insanity, and promoting the cure, than recording the mischief that has resulted from it. When the question was raised by the Commissioners in Lunacy in 1870, I determined to act with caution, not to assume an aggressive attitude, but confine myself strictly to the duties assigned to me by the law. Mr. Wickham of the Newcastle Asylum has clearly shown that, since the publication of the numbers of the necropsies performed, a spirit of rivalry has been encouraged, and favourable or unfavourable contrasts have been drawn, according to the zeal displayed in this cause. At that time, I consulted my solicitor, who informed me that I could give no answer to any charge brought against me in this respect by the relatives of a deceased lunatic, unless I could produce some consent or an order from a competent legal authority. Like Mr. Wickham, I applied for permission from the coroner, and I received the same reply, that he had no power unless he held an inquest; and he added that a case might arise in which he could exercise the power of calling in somebody else. Indeed, in conference with one of the magistrates, the latter did not hesitate to say that, in the abstract, he was not quite sure whether a superintendent was the proper person to undertake such inquiries. The following brief account comprises the several methods of procedure adopted for the most part in English asylums.

1. In some asylums, where *post mortem* examinations are the rule, no consent of any relative is sought or obtained, the superintendent claims the right of acting at his own discretion.

2. In several others, arrangements are made, while the patient is alive, for conducting his *post mortem* examination; in that event, consent thereto is inferred, unless a notice in writing to the contrary be lodged with some official at the asylum.

3. In others, a notice is sent after death to the relative that a *post mortem* examination will be made or is necessary, and, unless an answer forbidding it be sent in the briefest possible period allowed, the intimation is carried out.

Mr. Wickham's experience is adverse to this, and he is not the only one who has been threatened with violent measures. Moreover, it confounds non-assent with consent.

4. In some lunatic asylums, expressed consent is obtained verbally; there can be no objection to this, provided there is no undue pressure.

5. My own practice is to send the following addendum to the notice of death to the relative: "If the relative or other person having due authority will send a written sanction for a *post mortem* examination to be made, the superintendent will be willing to conduct the same, time permitting." In cases of peculiar interest, a personal interview, with a view to persuasion, is solicited.

It appears to me to be of doubtful propriety to force upon the poor what we should shrink from doing with the rich. Every Englishman has a right to be buried un mutilated and decently covered. The infliction of three thousand seven hundred and three *post mortem* examinations in one year, that number dying in county asylums, is needless

and a waste of power. The system is calculated to excite suspicion of neglect during life, and of ignorance of the cause of death.

My remarks apply to asylums where the officers are salaried out of the public rates and bound to uphold the law. In hospitals and charitable institutions not under the magistracy, where the patient seeks charity, and the friends in turn ought to be charitable, the case is somewhat different. Mr. Wickham considers that an inquest ought to be held in every case; this would satisfy the ethical conditions of the question, but might not be acceptable to the ratepayers, on account of the expense.

In conclusion, I am satisfied that a *post mortem* examination was never contemplated at all in any one of the Lunacy Acts as a function of the superintendent. Any other than a medical man may be appointed as such by the visitors and the Secretary of State; and nothing is more likely to damage the authority now enjoyed by the medical officer than a demand for special professional privileges.—I am, etc.,

WM. P. PHILLIMORE, M.B., Superintendent.

Nottingham County Asylum, December 10th, 1877.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

THE CERTIFYING OF PAUPER LUNATICS.

THE question of the mode in which lunatic paupers should be certified prior to their admission into an asylum, is one that affects not only the interests of these unfortunates, but is also a matter of moment to the public guardians of the poor and the profession. In some unions, the duty of examining alleged lunatics is performed by a gentleman who may be in no other way connected with the administration of medical poor relief; but most frequently it is distributed among the district and workhouse medical officers of the respective unions. The rule followed is this: so soon as the medical officer becomes aware that there is a presumed lunatic in his workhouse or district, he visits him, and, if satisfied that he is of unsound mind, gives notice thereof to the relieving officer, who thereupon informs a justice of the peace, who directs such lunatic to be brought before him. When this is done, he is generally accompanied by the medical officer who has given the certificate, although the justice may, if he think fit, select the medical gentleman who is to advise him; this, however, is rarely done. It not unfrequently occurs, however, that if the justice be benevolently inclined or active minded, he does not direct that the lunatic should be brought before him, but will go to the workhouse or residence of the lunatic and there examine him and make the order. In those cases where it is inconvenient for the justice to see the lunatic, it is competent for the chaplain of the workhouse, or any clerk in holy orders officiating in the union, to make the order in conjunction with the relieving and medical officers. To these arrangements there can be no objection, especially as, if the justice be not satisfied of the unsoundness of mind of the alleged lunatic, he may visit him again, and so on until convinced. It commonly happens, however—notably in centrally situated urban unions—that no justice of the peace is resident, whence has grown up the custom of giving notice to a police magistrate instead, who directs that the pauper shall be brought before him. At some police-offices, the magistrate will see the lunatic in private, or content himself with going to the cab or carriage door, just looking in and, then making the order; unfortunately, however, in too many instances, magistrates (notably, those at Bow Street and Great Marlborough Street) take a much more exalted notion of their office and capacity for discrimination; they direct that the lunatic shall be brought into court, and the medical officer, being sworn, is called on to show cause why he holds the person to be insane. After making his statement before the lunatic, the latter is asked what he has to say to it; if the lunatic be, as many monomaniacs and others undoubtedly of unsound mind are, shrewd and intelligent on other points, he gathers himself up and makes a tolerably or really collected reply, whereupon the magistrate, to the discomfiture of the doctor, throws up the certificate, with the observation, "I shall not sign this order". Sometimes he wholly ignores the opinions of the medical man, even where, as at Great Marlborough Street, the magistrate, in contravention of the statute (which is content with one), demands the production of two separate medical certificates, which action on their part, legally interpreted, reduces their signature to a purely ministerial duty. The action on the part of police magistrates causes the medical officer to be subjected to the jeers and derision of the vulgar and less intelligent element of his Board. The procedure

of taking a lunatic before a police magistrate sitting in open court is most improper, and has been condemned by the Commissioners in Lunacy. It is unseemly, as it makes a public exhibition of a mentally afflicted person; while the want of medical training on the part of the police magistrate, together with the habits of thought engendered by his daily duties, unfits him for accurately deciding on a question which properly belongs to another profession.

We trust that sooner or later some modification of the system will be made; and we would suggest that, in those cases where the services of a justice cannot be obtained, the chairman of the board, the relieving and medical officers, should be empowered to sign the order; and, this failing, that the services of a minister should be more freely made use of.

INQUEST AT THE CATERHAM ASYLUM.

WE have before us some particulars of an inquest held at the Caterham Asylum, at which the assistant medical officer expressed a strong opinion that the death of a patient who had been nine days in the asylum, and was suffering from general paralysis, and who died from apoplexy, had been hastened by removal from the workhouse infirmary. We have had an opportunity of seeing the *post mortem* details and of learning the general facts of the case, and we can but regret that so serious a statement should have been made upon such very defective grounds. There seems no reason for believing that the death was in any way accelerated by such removal, which, on the contrary, appears to us to have been dictated by the soundest judgment and conducted in the most careful manner. The resident medical officers of such institutions should be extremely careful not to commit themselves to statements which, whilst involving a hasty and imperfect judgment on difficult scientific questions, may, by reflecting upon the conduct of others, lead to unpleasant consequences. The evidence in question is much to be regretted. It was, we consider, erroneous in itself, and, under the circumstances, quite unjustifiable.

POOR-LAW MEDICAL APPOINTMENTS.

GROSS, Charles, L.R.C.P., appointed Resident Medical Superintendent of the Newington Infirmary, St. Saviour's Union, Walworth.
MAPLES, Reginald, L.R.C.P., appointed Assistant Medical Officer and Dispenser of the Newington Infirmary, St. Saviour's Union, Walworth.

OBITUARY.

WILLIAM STEWART TRENCH, M.D., LIVERPOOL.

DR. W. S. TRENCH was born in Jamaica, and came, early in life, to this country to be educated. He subsequently entered the University of Edinburgh, where he graduated as M.D. in 1831, and, in the same year, became L.R.C.S. Edin. In addition to his medical training when passing through the University, Dr. Trench exhibited considerable proficiency both in mathematics and classics, the former of which he subsequently found of great service when medical officer of health. On the completion of his academical career, he returned to Jamaica, and commenced practice in Kingston, which he continued for some time, acquiring a considerable reputation. The climate of Jamaica, however, not suiting him, he returned to England; and, soon after his arrival, establishing himself in Liverpool, he obtained a very lucrative practice.

In 1862, on the death of Dr. Duncan, Dr. Trench was elected medical officer of health for the borough of Liverpool. The year of his appointment was that one known as the "cotton famine" period. The distress produced among the Liverpool dock-labourers was aggravated by the influx into the port of large numbers of men in search of work. The lower parts of the town became densely crowded, and typhus fever raged with great violence. Under Dr. Trench's direction, steps were taken which fortunately tended to the decrease of the epidemic.

In 1866, the town was visited by another epidemic of typhus, followed shortly afterwards by a visitation of cholera. The steamer *Helvetia* arriving in Liverpool with cholera on board, Dr. Trench insisted on the vessel being removed to the quarantine portion of the river, and the transferring of the passengers to a hospital-ship.

The following are some of the improvements which occurred under Dr. Trench's directions: 1. The removal of middens and the substitution of water-closets; 2. The removal of tunnel-middens, which ran under the houses and were frequently not emptied for years; 3. The registering of sublet lodging-houses, so as to prevent overcrowding; 4. Extending house-to-house visitation by sanitary inspectors; 5. The establishment of houses for the disinfection of clothing; and the disinfecting of houses in which fever had occurred. Besides these, may be noticed the total abolition of cesspools; the prevention of the establishment of noxious manufactures in the vicinity of inhabited houses; the almost total prevention of intramural interments; the erection of *abattoirs* under local control; the widening of streets, and the erection of baths, washhouses, etc.

Of course, there was much opposition shown to many of these improvements by owners of property and others; but Dr. Trench remained firm, and his views were eventually entirely corroborated by the late Dr. Parkes and Dr. Sanderson, who, in 1871, conducted an inquiry into the causes of the high mortality of Liverpool.

For upwards of a year and a half, Dr. Trench had been suffering from heart-disease, for which he was attended by Dr. Vose and Mr. Reginald Harrison. On the evening of Wednesday, December 5th, he retired to his bedroom about ten o'clock, when he became faint, and, sitting in his chair, at once expired. As a mark of the respect in which he was held, all the daily papers in Liverpool had leading articles expressing the greatest regret at the loss the town has sustained in his death. The flags at the Town Hall and Medical Institution were hoisted half-mast high; and his funeral was attended by the Mayor (Mr. A. B. Forwood), several town councillors, professional friends, and corporate officials.

HENRY RUNCORN, M.R.C.S., MANCHESTER.

It is not often that we have to notice the removal by death of a resident medical officer who has been attached continuously to the same hospital for so long a period as thirty-six years. Mr. Henry Runcorn, of St. Mary's Hospital, Manchester, was born in that city in 1812. After receiving a good classical and mathematical education at the Manchester Grammar School, he was apprenticed to the late Mr. Thomas Turner, then Surgeon to the Manchester Royal Infirmary. His connection with St. Mary's Hospital commenced in 1841, when he was appointed house-apothecary. On the removal of the hospital in 1856 from South Parade to its present site in Quay Street, it was found necessary to increase the resident staff, and Mr. Runcorn was appointed house-surgeon, with the charge of in-patients. Until a few years ago, it was the duty of the honorary surgeons to assist the midwives in all cases of tedious or difficult labour; it was then decided to transfer the responsible duty to a resident medical officer, who should summon the honorary surgeons only in the more serious cases. Accordingly, the Board of Management appointed Mr. Runcorn the first resident obstetric surgeon, allowing him at the same to retain the post of house-surgeon with its separate emolument. This arrangement proved highly satisfactory, and has been continued from that time. Mr. Runcorn was suddenly seized on November 24th with alarming acute pneumonia of great intensity, and died early on the morning of the 28th, in his sixty-sixth year. Mr. Runcorn was a most valuable officer at St. Mary's Hospital, and one whom the Board will find it exceedingly difficult to replace.

MEDICAL NEWS.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.—The following gentlemen were admitted Licentiates on December 17th, 1877.

Ashworth, John Wallwork, Heaton Moor, Stockport
 Blake, William Farewell, 25, Grafton Street East
 Cones, George Augustus, 6, Devonshire Terrace, Kensington
 Cressey, George Henry, St. Bartholomew's Hospital
 Cripps, Edward Charles, 39, Charlwood Street
 Davies, Francis Joseph, 190, Stanhope Street
 Deane, John Richard, 9, St. Mary's Road
 Dingle, William Alfred, Millbrook, Southampton
 Flint, Arthur, Park Hill, Croydon
 Hayman, Sidney Arthur, Epping
 Husband, Walter Edward, St. Bartholomew's Hospital
 Judson, Thomas Robert, 16, Wynnell Road
 Meek, John William, 70, Stockwell Park Road
 O'Grady, William Fitzwilliam, Workhouse Hospital, Manchester
 Pain, Alfred, Coultings, Bridgewater
 Parker, George Roger, 35, Granville Square
 Poynder, John Leopold, St. Luke's Hospital
 Proffitt, William John Walthew, Burton-on-Trent
 Smith, Ferdinand Clarence, 18, Albert Street
 Sworder, Horace, Luton
 Wise, Alfred Thomas Tucker, M.D. Brussels, 82, Sutherland Gardens

The following gentleman was admitted a Fellow on December 17th.
 Grabham, Michael Comport, M.D. Aberdeen, Madeira

UNIVERSITY OF LONDON.—Examination in subjects relating to Public Health, 1877.

Taafe, Rickard P. Burke, M.D., M.S., St. Bartholomew's Hospital

APOTHECARIES' HALL.—The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 6th, 1877.

Colmer, Ptolemy Samuel Henry, Yeovil, Somerset
 Fox, Joseph Tregelles, Lordship Road, Stoke Newington

Hall, John Lees, Porchester Gate, Hyde Park
 Hope, Robert Charles, York Road, Lambeth

The following gentleman also on the same day passed his primary professional examination.

Walter, William Henry, St. Bartholomew's Hospital

The following gentlemen passed their examination in the science and practice of medicine, and received certificates to practise, on Thursday, December 13th, 1877.

Allinson, Henry Calthrop, Lynn, Norfolk
 Brown, John Alexander, 64, Lyndhurst Road
 Candler, William John, Harleston, Norfolk
 Clitherow, Robert Edward, Horncastle
 Damania, Phirozsha, Jamszee, Bombay
 Reynolds, Lewis William, Park Villas, Poplar, E.
 Smale, Morton Alfred, 165, Edgware Road
 Thorpe, Henry Stanley, Hertford
 Wilson, Joseph Henry, Oundle

The following gentleman also on the same day passed his primary professional examination.

Brookes, Frederick, Charing Cross Hospital

MEDICAL VACANCIES.

The following vacancies are announced:—

- BALLINALLOE UNION—Medical Officer for the Ballinacree Dispensary District, Galway. Salary, £50 per annum, and the usual sanitary and vaccination fees. Applications on or before the 27th instant.
- BRADFORD UNION, Yorkshire—Medical Officer for the Horton West District.
- CHARING CROSS HOSPITAL—Medical Registrar and Surgical Registrar. Applications to be made on or before the 22nd instant.
- COUNTY DOWN INFIRMARY—House-Surgeon and Registrar. Salary, 60 guineas a year, with board, apartments, and washing. Applications to the 1st instant.
- DUNDALK UNION—Medical Officer for the Ravensdale Dispensary District. Salary, £120 per annum, and the usual sanitary and vaccination fees. Applications before the 29th instant.
- GUEST HOSPITAL, Dudley—Resident Medical Officer. Salary, £120 per annum, with furnished apartments, board, coals, and gas. Applications to be made on or before January 1st.
- HANTS COUNTY LUNATIC ASYLUM—Second Assistant Medical Officer. Salary, £100 per annum, with board, lodging, washing, and attendance. Applications to be made on or before January 9th.
- KENT AND CANTERBURY HOSPITAL—Assistant House-Surgeon and Dispenser. Salary, £50 per annum, with board, lodging, and washing. Applications to be made on or before the 28th instant.
- KIDDERMINSTER INFIRMARY—House-Surgeon.
- METROPOLITAN FREE HOSPITAL—Assistant House-Surgeon.
- MOUNTBELLEW UNION—Medical Officer for the Clonbrock Dispensary District. Salary, £120 per annum, exclusive of salary (£15 a year) as Sanitary Officer, and registration and vaccination fees. Applications up to the 27th inst.
- NEWCASTLE-UPON-TYNE INFIRMARY—Senior House-Surgeon. Salary, £100 per annum, with board lodging, and washing. Applications to be made on or before February 4th, 1878.
- SUNDERLAND and BISHOPWEARMOUTH INFIRMARY—Senior House-Surgeon. Salary to commence at £80 per annum, with board and residence. Applications to be made on or before January 24th.
- TAVISTOCK UNION—Medical Officer for the Tavistock District and the Workhouse.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

- *BROWNE, Lennox, F.R.C.S. Edin., appointed Honorary Surgeon to the National Training School of Music.
 GUY, John Rapsey, M.B., C.M., appointed House-Surgeon to the Bristol Hospital for Sick Children and the Out-door Treatment of Women.

BIRTHS, MARRIAGES, AND DEATHS.

The charge for inserting announcements of Births, Marriages, and Deaths, is 3s. 6d., which should be forwarded in stamps with the announcement.

BIRTH.

- STARTIN.—On December 17th, the wife of James Startin, M.R.C.S. Eng., of 17, Sackville Street, of a daughter.

MARRIAGE.

- LUCEY—HARDING.—On December 18th, at St. Stephen's Church, Kirkstall, near Leeds, by the Hon. and Rev. M. Ponsoby, assisted by the Rev. John Julian, uncle of the bride, Eleanor Anne, second daughter of T. R. Harding, Esq., J.P., St. Ann's Town, Headingley, Leeds, to William Cubitt Lucey, M.D., of Ben Rhydding.

DEATHS.

- COPEMAN.—On December 6th, at The Upper Close, Norwich, Frances, the beloved wife of *Edward Copeman, Esq., M.D., F.R.C.P., of that city, aged 68.
 SCOTT.—At Musselburgh, N.B., on the 18th instant, Mary S. Lindsay Alexander, wife of Thomas R. Scott, M.B.

VACCINATION.—The Local Government Board have awarded to Dr. Cook, the Public Vaccinator for Gateshead, the sum of £107 : 16 for successful vaccination.

DONATIONS.—Sir James Hamilton has given £25, and Messrs. Johnson £30, towards the Building Fund of the Belfast Hospital for Sick Children.

OPERATION DAYS AT THE HOSPITALS.

MONDAY..... Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.

TUESDAY..... Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.

WEDNESDAY.. St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.

THURSDAY.... St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.

FRIDAY..... Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.

SATURDAY.... St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the BRITISH MEDICAL JOURNAL, are requested to communicate beforehand with the printer, Mr. Thomas Richards, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with Duplicate Copies.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the JOURNAL, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

A RENEWED PLEA FOR BREVITY.

WITH the continued increase of the number of readers of the BRITISH MEDICAL JOURNAL (which has now a circulation of eight thousand copies weekly), the pressure on space by correspondents naturally grows apace, and we must once more remind our contributors of all classes of the necessity of cultivating brevity to the utmost degree. Of many communications of great interest which we publish from time to time, it is difficult to suppose that the same amount of information could not be conveyed in fewer words.

IN consequence of pressure on space, we are obliged to defer insertion of communications from several correspondents.

ST. THOMAS'S HOSPITAL.

SIR,—May I be allowed to point out that the estimated cost of furnishing the treasurer's house at St. Thomas's Hospital is £3,000, not £2,000, as stated in the JOURNAL of December 8th. This would, on your calculation, be equal to a salary of £500 a year for six years, which you seem to consider of sufficient amount to secure a thoroughly competent superintendent. Is such a salary large enough? I think not; and as it will be far better to have no superintendent than to have an inefficient one, I ask your permission to give my reasons for this conclusion. In the first place, the incomes of the medical superintendent of the Royal Infirmary, Manchester (250 beds), and of the general superintendent at the Royal Infirmary, Edinburgh (500 beds), in each case exceed £500 per annum. At Glasgow, the income of the superintendent is £500 per annum; and at Birmingham the house-governor's emoluments nearly equal this sum. At the London Hospital (300 beds), the house-governor's income is £800 per annum. Relatively, the superintendents and secretaries of the smaller London Hospitals are in most cases better paid in proportion. Thus at University College Hospital, with less than 200 beds, a resident medical officer, a secretary, and a clerk to the committee, receive together about £800 per annum. At the present moment, there is a vacancy at the Children's Hospital, Manchester, for a medical superintendent, with a salary of £500 per annum, and the privilege of engaging in private practice. It must be evident, therefore, that, judged by the average of other hospitals, much smaller and much more manageable, a salary of £500 per annum is scarcely likely to secure the right kind of superintendent for St. Thomas's Hospital. In addition to this, it must be remembered that there are at the present time at least two resident officials at St. Thomas's Hospital with a salary of quite £500.

With a knowledge of these facts, and knowing the necessity that exists for a highly qualified officer to fill such a responsible post at so large and important a hospital as St. Thomas's, is it unreasonable to declare that to avoid half measures it is better to remain for the present unreformed? It is declared on good authority that, having furnished the treasurer's house, the reformers will rest content with their labours. They had better do this, unless they determine to take a statesman-like view of all the circumstances, and thus ensure that any changes shall be really to the advantage of St. Thomas's Hospital.—Yours, etc., NEMO.

DR. A. S. JONES.—To take any notice whatever in these columns of such a production as that from which our correspondent quotes is, in our opinion, to give it undue prominence. The person who uses such language on such a subject is self-condemned in the eyes of all reasonable men. It would at least be a degradation to consent to quote from such writings, or to condescend to argue with their author.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the BRITISH MEDICAL JOURNAL, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than Thursday, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the Post Office do not allow letters to be addressed to initials and directed to any Post Office in the United Kingdom, but letters may be addressed to initials to the JOURNAL Office or any stated address other than a Post Office.

COMPOSITION AND QUALITY OF THE METROPOLITAN WATER IN NOVEMBER 1877. The following are the returns made by Dr. C. Meymott Tidy to the Society of Medical Officers of Health.

Names of Water Companies.	Total Solids Matter per Gallon.	OXYGEN REQUIRED TO OXIDISE ORGANIC MATTER.	Nitrogen As Nitrates, &c.	Ammonia.		Hardness. (Clarke's Scale.)	
				Saline.	Organic.	Before Boiling.	After Boiling.
	Grains.	Grains.	Grains.	Grains.	Grains.	Degs.	Degs.
<i>Trades Water Companies.</i>							
Grand Junction ..	1.11	0.047	0.176	0.061	0.057	14.5	3.0
West Middlesex ..	1.42	0.042	0.170	0.011	0.008	15.7	4.2
<i>Southwark and Vauxhall ..</i>							
Chelsea ..	1.72	0.034	0.112	0.001	0.008	15.2	2.8
Lambeth ..	2.02	0.053	0.153	0.000	0.009	14.3	2.9
<i>Other Companies.</i>							
Kent ..	2.73	0.003	0.366	0.000	0.002	19.4	5.1
New River ..	2.53	0.050	0.100	0.000	0.007	14.0	2.4
East London ..	1.00	0.012	0.112	0.001	0.007	15.4	2.8

Note.—The amount of oxygen required to oxidise the organic matter, nitrates, etc., is determined by a standard solution of permanganate of potash acting for three hours; and in the case of the metropolitan waters, the quantity of organic matter is about eight times the amount of oxygen required by it. The water was found to be clear and nearly colourless in all cases.

THE LLANDUDNO WATER SUPPLY.

SIR,—The Sanitary Report of October 12th last contained an analysis of and report on the water-supply of this town by Mr. Wigner. Both were of a very unfavourable and damaging character; and, extracts from these having been copied into and commented upon in some of the London and many of the provincial newspapers, will you do us the favour of inserting the accompanying report and analysis recently made by Professor Wanklyn, at the request of the Llandudno Improvement Commissioners.—Yours truly,

JAMES NICOL, M.D., late Medical Officer of Health.

THOS. T. MARKS, C.E., Engineer and Clerk to the Commissioners.

Commissioners' Office, Llandudno, December 6th, 1877.

[Copy.] "7, Westminster Chambers, Victoria Street, S.W., Dec. 3rd, 1877.

"Dear Sir,—I beg to enclose my analysis and report on the water you sent me, and have to congratulate you on the goodness of your water-supply. As you will see, I have made a very elaborate analysis, which I judged to be required in your case.—Yours truly (Signed), J. ALFRED WANKLYN.—Thos. T. Marks, Esq., Commissioners' Offices, Llandudno.

Reports on the Water supplied to Llandudno.—Two stoppered bottles filled with water, tied over and securely sealed, were received in my laboratory and examined. Each bottle bore the following label: "The water contained in this bottle was taken from the service reservoir, whence the whole town is supplied, by the clerk of the Commissioners. The water was taken and the seal of the Commissioners applied in my presence this 29th day of November, 1877. It was a fair and honest sample of the Llandudno water. (Signed) JAMES NICOL, M.D."—Both bottles were opened, and the water from each was separately examined as to organic purity with the following results: Free ammonia, 0.00 parts; albuminoid ammonia, 0.02 parts; showing almost absolute organic purity. Llandudno is in a mining district, and therefore a careful testing of the drinking-water for poisonous metals is necessary. I have accordingly submitted the water to such testing, and am able to report that the poisonous metals are entirely absent. Like nearly all natural water, the water contains a little mineral matter in solution. This mineral matter has been carefully examined as follows. One gallon of the water yields 22.0 grains of solid residue (dry at 140 deg. Cent.), part of which, consisting mainly of carbonate of lime, does not redissolve on being boiled with a quantity of distilled water; and the remainder, consisting of common salt and sulphates, dissolves in boiling water. The relative portions of the insoluble and soluble residue are as follows: Insoluble residue, 14.2 grains per gallon; soluble residue, 7.8 grains per gallon—in all, 22 grains. On submitting the 22.0 grains to further analysis, they were found to contain: Silica (traces); carbonate of lime, 11.0 grains; carbonate of magnesia, 2.1 grains; sulphate of soda, 2.1 grains; chloride of sodium, 4.9 grains. The hardness of the water is a little less than that of the ordinary London water: it is about thirteen degrees. In conclusion, I have to remark that I consider the Llandudno water to be of excellent quality, and that in the whole course of my experience I have not met with a better water for general domestic purposes. (Signed) J. ALFRED WANKLYN, Corresponding Member of the Royal Bavarian Academy of Sciences, Lecturer on Chemistry and Physics at St. George's Hospital.

MEMO.

SIR,—I have the medical charge of a large school. This disease was introduced by a day-boy on November 25th. On December 1st and 3rd, four lads were attacked, and at once sent to the "sick-house". A parent writes: "Whether there will be the slightest danger of his giving the 'mumps' to his brothers and sisters? We have six of them here." Can a boy who has not had this affection, but who has been the whole time with those affected, convey (as in scarlatina) the contagion to others? I am, &c., M. D.

AN OLD FASHIONED CURIO FOR THE DAY.

The compiler of a curious book, printed in 1668, entitled *A Rich Cabinet*, states: "I have been certified (but how true it is I know not) that three teeth taken out of a dead man's skull and sewed in a clout or piece of leather, and worn about them which were subject to the toothache, it gave them present ease, and they never were troubled with the same so long as they had those about them."

LECTURES ON THE INFECTIVE PROCESSES OF DISEASE.

Delivered in the Theatre of the University of London.

By J. BURDON SANDERSON, M.D., LL.D., F.R.S.,

Professor of Physiology in University College; and Superintendent of the Brown Institution.

LECTURE II.—*Phenomena and Etiology of Septicæmia.*

As a basis for the study of the etiology of septic infection, which we hope to make to-day, I propose to give you an account of the symptoms of that condition as they manifest themselves, first, in the lower animals, and then as they present themselves in man.

By the term septicæmia I mean the aggregate of the effects which are produced in the animal organism when putrid matter is mixed with the blood-stream. By this definition, I exclude all characters which relate to the development of metastatic abscesses or of secondary foci of inflammation. Not that I for a moment question the very close relation which exists between the cause of septicæmia and that which gives rise to those forms of infection which we collectively designate pyæmia, but that I believe that the line of distinction between them, though faint, is yet clearly marked.*

Now, inasmuch as we cannot be certain, in any case of clinical septicæmia, that the symptoms or *post mortem* results are exclusively due to septic contamination, it is clearly necessary to take the experimental facts rather than the clinical as our starting-point, and in this we are fully justified by the historical development of the subject. It was by the experiments of Gaspard made at the beginning of the century, between 1809 and 1820,† that physicians and surgeons acquired the first conception of putrid infection. Gaspard's method consisted in injecting either into the veins, the serous cavities, or the cellular tissue of animals, various kinds of putrilage. When the dose was sufficient, the animals died three or four hours after injection; death being preceded by muscular collapse, vomiting, purging, and other signs of violent gastro-enteric disturbance. Gaspard arrived at no conclusion as to the nature of the poison which produced these symptoms, excepting that it was a product of putrefaction. Knowing that carbonic acid gas and sulphuretted hydrogen were among these products, he made experiments which showed that these bodies were not to blame. He also tried the effects of ammonia, with results which, although not entirely negative, afforded him very little aid in accounting for the effects observed. The experiments of Virchow,‡ made about the middle of the century, constituted his next important step in the investigation of the subject; for they afforded the starting-point for his still more important researches which have been made since. It was, indeed, at Virchow's suggestion that Professor Panum§ of Copenhagen (to whose work we owe the foundation of the accurate knowledge we now possess on the subject) undertook his investigations. Panum was followed by several eminent surgeons,|| particularly Professor Billroth of Vienna and the late Professor O. Weber, and subsequently by Professor Bergmann of Dorpat and his pupils.

The literature of experimental septicæmia is extremely voluminous; for the writers I have mentioned constitute a very small proportion of those who have contributed to it. It would be wearisome to endeavour to estimate the value of these contributions. It is sufficient to say that, of late years, Bergmann and Billroth (each of whom, as being at the head of a large surgical school, enjoys the opportunity of justifying each step of experimental investigation by clinical experience) have contributed in larger measure than most other writers to our knowledge of the subject.

The phenomena observed in an animal after the introduction of

putrid matter into the circulation differs according to the mode of introduction and the species selected. Thus the poison may enter the circulation directly, as when it is infused into a vein or artery, or indirectly, when it is injected into the cellular tissue or into one of the serous cavities. The most typical and characteristic effects have been observed in the dog; for it is in carnivorous animals that the symptoms and pathological results are met with which resemble and illustrate those observed in man; for the dog resembles man physiologically, and although much less readily affected by disturbing causes, it reacts, on the whole, in a very similar manner.

Gaspard, as I before stated, used simply putrid infusions or macerating fluid from the dissecting-room. In all more recent experiments, filtered solutions have been employed, so as to avoid those symptoms which are produced by mechanical interference with the circulation. I will now describe to you the symptoms observed when a fatal dose of a perfectly clear septic extract, such as those I now show you, is employed.

The first indication of disorder is that the animal shudders. If then the hand be placed on the back, the muscles are felt to twitch, but with this exception, it exhibits no sign of distress other than that it moves restlessly from place to place. If these movements are watched, it soon becomes evident that there is a great diminution of muscular power, for the gait becomes more and more unsteady, and in a short time it staggers and falls on its side. In the meantime, symptoms present themselves referable to the alimentary tract. Vomiting, violent tenesmus, followed by the discharge, first of feculent, then of sanguinolent and mucous dejecta in various stages of liquidity, are the phenomena which present themselves in every case, so constantly, indeed, that they are characteristic of this kind of poisoning. They are not, however, by any means necessarily fatal symptoms; for if the quantity employed be just a little below the lethal limit, the most violent gastro-enteric symptoms may pass off, the animal recovering its normal appetite and liveliness with wonderful rapidity. I mention this fact as proving that the septic poison has not the slightest tendency to multiply in the organism, and secondly, as rendering it extremely probable that, when death occurs, it is determined, not so much by the alvine disorder, which is so prominent a symptom, as by the loss of power of the voluntary muscles, and particularly of the heart. The conclusion, that when an animal dies of septic poison, it dies by failure of the circulation, is further warranted by what we observe of the temperature curve. When the dose is sufficiently large to produce well-marked gastro-enteric symptoms, but not sufficiently large to endanger life, the temperature rises gradually during the first four hours and as gradually subsides as the animal returns to its normal condition; but in fatal cases, it is different. Most frequently, it begins to rise at first, attains its maximum at 103 deg. to 104 deg. Fahr., *i. e.*, about a couple of degrees above the normal, and then subsides, at first gradually, then much more rapidly till life is extinguished. Now there is, so far as I know, no other interpretation possible for rapid sinking of temperature before death, excepting failure of the heart.

The appearances after death in animals septically poisoned are quite as characteristic as the symptoms during life. In the circulatory organs, the most remarkable change is observed on the internal surface of the left ventricle. It is found almost invariably that blood is extravasated in patches underneath the endocardium, sometimes on the papillary muscles, sometimes on or in the neighbourhood of the valvular curtains. Similar appearances occur in the right ventricle, but they are by no means comparable in number or extent to those seen in the left. On the serous surfaces of the pleura and pericardium similar points of ecchymosis present themselves. In the abdominal cavity, the spleen is enlarged and infiltrated with blood, and the mucous membrane of the stomach and small intestine so intensely injected that it exhibits in some parts an uniformly dark red colour, the depth of which is partly due to the intensity of the congestion, partly to the fact that the epithelium is detached and floats in the sanguinolent liquid with which this part of the canal is distended. That the other abdominal organs are also congested needs scarcely be added.

The pathological picture thus presented to us is, as compared with many that we are accustomed to see in the *post mortem* room, a simple one. The disorder which it indicates may be brought under two heads: first, there is an obvious tendency to congestion and capillary hæmorrhage; secondly, a localised congestion of the gastro-intestinal mucous membrane, which is so intense that we are tempted, with Bergmann, to speak of it as gastro-enteritis. Nothing, however, can be gained by calling it an inflammation. I much prefer to speak of it as intense congestion and capillary stasis of the mucous membrane, attended by shedding of the epithelium during life—a most remarkable condition, to the cause of which I shall have to recur in the next lecture.

* In these lectures no reference is made to the pyæmic process. The consideration of this subject is reserved for a future occasion.

† They were published in *Magendie's Journal* in 1822, vol. ii, p. 1; and in 1824, vol. iv, p. 1.

‡ Virchow, *Gesammelte Abhandlungen zur Wissenschaftlichen Medicin*, 1856, p. 219.

§ Panum, *Bibliothek für Læger*, April 1856, p. 253.

|| The references to these various researches are given in my paper "On the Preparation and Properties of the Septic Extract of Muscle," in the *Practitioner* for July 1877.

If we compare the pathological appearances of septicæmia in the dog with those which present themselves in other creatures, or that produced by direct infusion into the blood with those which are seen when the poison is injected subcutaneously, we find that the only fact which is common to all cases is the general tendency to capillary hæmorrhage and congestion. This tendency is the expression of a change which the blood itself has undergone—a change which has its primary seat in the corpuscles. The evidence that this is so we shall have before us subsequently; but I may now refer to some of the peculiarities presented by the blood on microscopical examination. There is no doubt that the hue of septic blood is, *cæteris paribus*, darker; and that its corpuscles have a tendency to collect themselves together in clumps, not in rolls: a fact which may, perhaps, be partly attributable to their having undergone a change of form.

The changes of colour and appearance are in relation with the still more important fact that many of the corpuscles are in a state of partial solution in the liquor sanguinis, to which they communicate a red colour. The verification of this discharge of the colouring matter is by no means so easy as we might expect. The only effectual method is to receive the blood into a strong solution of sodic sulphate, or some other suitable neutral salt, in such proportion as to prevent any solution of the corpuscles after death, and at the same time to prevent coagulation. When, in normal blood so prepared, the corpuscles are allowed to subside, the supernatant liquid is, of course, almost colourless; in septicæmic blood, it possesses a bright ruby tinge. In consequence of the change of the corpuscles which this indicates, a large quantity of colouring matter is actually lost in septicæmia, being discharged either by the bowels in the blood-stained evacuations, or by the physiological transformation of the hæmoglobin into bilirubin. Accordingly, it has been found that animals recovered from septicæmia are in the highest degree anæmic.

I shall now claim your indulgence for a few moments while I refer to the symptoms and results of septic infection in man, in doing which I shall attempt nothing more than is necessary to make the meaning clear to you that I intend to convey in employing the word. There are but few instances in clinical experience in which effects are produced by the introduction of septic matter from outside which can be compared with the experimental effects of infusion into the circulating blood of an animal. In the ordinary case of septicæmia—as, for example, in a case of compound fracture, in which the tissues of the injured limb are infiltrated with exudation-liquid which has undergone septic change—the poison has been elaborated within the organism; for, although it is perfectly true that those septic changes would not have occurred unless a doorway had existed for the contamination of the wound, it is not the less obvious that the poison by which the system is affected did not come in from outside, but was generated in the spoiled tissues.

Clinical septicæmia and experimental septicæmia, therefore, differ as regards their mode of origin. They agree, however, in the fact that in both septic poison is mixed with the blood-stream. Do they agree as regards these phenomena?

This is a question difficult to answer; for this reason, that the characteristics of the septicæmic state are difficult to appreciate. The onset of septicæmia in man, as in the dog, is insidious, and contrasts in this respect with the exacerbation of pyæmia, especially in the absence of rigors. The initial pyrexia, although in some fatal cases it leads on to a condition of hyperpyrexia, is in others of short duration, and passes into a state of collapse, in which the bodily temperature tends to fall below the normal. Again, the symptoms which relate to the alimentary canal are much less characteristic than in animals. Nausea, vomiting, and diarrhoea are seldom wanting; but they never attain such intensity as we have seen them to present in the carnivora.

Of the *post mortem* results of surgical septicæmia, it is very difficult to obtain exact information. There is sufficient, however, to show, first, that the same tendency presents itself to capillary congestion and stasis of the alimentary mucous membranes, and the same appearances are seen in the lining membrane of the heart and of the serous membranes; and, secondly, that cases occur in which secondary inflammatory changes are as conspicuously absent.

And now let me say a single word about puerperal septicæmia. Considering that the anatomical conditions present in the puerperal state are in themselves so favourable to direct entry into the circulation of septic matter, we should expect to find, in the records of obstetrical practice, cases more comparable with experimental septicæmia than in surgery. The cases in question—happily rare and exceptional—are those in which the patient dies without any signs of inflammation, either in the uterus itself or in surrounding structures, and in which septic symptoms may appear even as early as twenty-four hours after delivery. These symptoms are simply failure of the circulation,

dyspnœa (the dyspnœa of muscular adynamia), collapse, and death. There are other forms in which symptoms relating to the nervous centres are present, which I do not forget, but content myself with merely mentioning. After death, nothing excepting intense congestion of internal organs, coagula of blood in the vessels before death, and the signs of capillary hæmorrhage. These rare cases afford instances of as pure blood-poisoning from the element of purulent infection as if the patient had a dose of some virulent liquid infused into her veins.

The imperfect sketch I have just given will, I trust, be sufficient to make it clear that what I mean by septicæmia is a constitutional disorder of limited duration, produced by the entrance into the blood-stream of a certain quantity of septic material. It must, therefore, be regarded not so much as a disease as a complication—differing from pyæmia not only in the fact that it has no necessary connection with any local process either primary or secondary, but also in the important particular that it has no development. Pyæmia is a malignant process which goes on and on to its fatal end; but, in the case of septicæmia, inasmuch as the poison which produces it (as I hope to show to-day) has no tendency to multiply in the organism, there is no reason why the morbid process should not come to an end of itself, unless either the original dose is fatal, or a second infection takes place from the same or another source.

Having arrived at this point, we are in a position to enter on the discussion of the *How* and of the *Why* of septicæmia: first, of the *cause* of septicæmia, viz., the morbid poison; and, secondly, of the *mode of operation* of that cause, viz., the pathological process which underlies the phenomena. I will, therefore, to-day occupy your attention with the question: What is it in septic liquids which renders them virulent, and how can we characterise their virulence? I shall begin by once more drawing your attention to this preparation. This perfectly transparent liquid is strongly charged with septic poison, so much so that a dose of a couple of drachms, mixed with the bloodstream of a dog, would certainly produce death. It is obtained by first treating putrid infusion of muscle with strong alcohol at a boiling temperature, then getting rid of the alcohol by filtration and evaporation, and finally extracting it with water. Consequently, it is the aqueous solution of the alcoholic precipitate. The bodies which are dissolved or suspended in it are, therefore, bodies which, insoluble in alcohol are soluble in water. Hence, although it may, notwithstanding the boiling alcohol, contain some proteid matter, it contains no albumen. I can easily show you that tyrosin is present in it, by the beautiful colour it gives with Millon's reagent. No doubt it also contains other analogous products of the breaking up of proteid; but to us the fact of chief interest is that, although the quantity you see would leave but a trace of solid residue if evaporated, it contains *the septic poison*.

Now, with reference to this liquid, which has been proved by experiment to be possessed of virulent properties, and with respect to other equally virulent preparations, I have to prove to you, first, that they contain neither bacteria nor their germs; and, secondly, that we have the strongest reason for believing that the virus itself cannot be produced without the agency of bacteria.

Considering that our virulent liquid is prepared as I have described, it might at first sight appear out of the question to suggest that bacteria could have anything to do with the production of the toxic effects; for it seems very difficult to imagine the existence of any living organisms, however little susceptible, in a material prepared by the action of boiling alcohol. But (without referring at present to the statement made by M. Pasteur the other day, to the effect that although bacteria themselves may object to being boiled in alcohol, it is a matter of indifference to their germs), there are many reasons why it is necessary to exercise the most sceptical caution before you venture on the statement in respect of any liquid that it is germ-free or sterile. I must, therefore, occupy a short time in discussing the value of the means which we possess of proving with respect to any liquid that it is germ-free, *i. e.*, free from living matter capable of germinating.

The first means that suggests itself is microscopical examination. A dozen years ago, we should have expected by means of it to have arrived at something like certainty; for at that time, the evidence of the microscope in respect of any liquid that it was absolutely free from organised particles would have been taken as conclusive. If I had been able to say, I have examined any liquid under a twenty-fifth or a fiftieth, and find nothing, I should probably have felt justified in asserting that nothing living was contained in it. Now, it is entirely otherwise. I am quite willing to admit with Dr. Tyndall that, in deciding the question of the presence or absence of living matter capable of germinating, the microscope has no voice—not because we are less competent than we were formerly to see them, not because the germs themselves have become less visible, but because the accepted conception of a "germ" is different. By my own experiments in 1870, I

found that distilled water in which I discovered nothing microscopically, nevertheless, in the sense in which germs are now commonly spoken of, contained germs. Since that time, Professor Tyndall has rendered every one familiar with the notion that similar germinal particles exist in the air. I fancy that most persons who talk about atmospheric germs have not taken the trouble to realise what sort of objects they are talking about. *Objects*, indeed, they cannot with any accuracy be called, for an object is a thing of which we can take cognisance by some of our senses, aided or unaided. Professor Tyndall has given a definition which, I venture to think, may with advantage be provisionally accepted. A "germ", says he, is that which when sown produces an organism. As regards the germinal matter of the atmosphere, he has told us that he has not seen atmospheric germs, nor does he believe that any one else has seen them. This I take to mean nothing more than that they lie so completely beyond the powers of our present instruments, that their existence is for the present matter of inference, not of direct observation.

The microscope failing, how are we to proceed? I have here two specimens of distilled water, each of which is contained in a hermetically sealed tube. There is no apparent difference between them, and none could be discovered by the most searching microscopical examination. They are, however, different: one is fertile, the other sterile. The only differential test we can employ is a physiological one. To apply it, I must have two test-glasses, and, after having sedulously cleansed them, subject them to high temperature for the purpose of destroying all trace of whatever contaminating material may adhere to the surface. I must then charge each with a suitable liquid, *i.e.*, with a liquid solution which contains all the materials necessary for the support of the life of bacteria in such chemical form as to be most favourable to their vigorous vegetation. The best sort of liquid for the purpose is that originally employed by Pasteur in his invaluable researches. It may, however, be modified for the particular purpose in view in various ways. The mixture now most frequently used is the one of which the composition is given in the table.

If now I add a drop of the one specimen of distilled water to the tube A, and a drop of the other to tube B, I become aware of a difference of property between them which I could not by possibility have discovered otherwise. If, after having made the addition and closed the mouth of each with cotton-wool (which may, if I choose, be carbolicised), I place both tubes in a warm chamber at a temperature between 80 deg. and 100 deg. C., and observe them from day to day, I shall find that A remains clear; tube B, even at the end of twenty-four hours, shows some appreciable trace of opalescence, an opalescence which gradually increases.

The method I have described, as used for the testing of water, may be applied in any case in which an answer is wanted to the same question, and particularly to the examination of any *infective material*, in respect of which the question arises whether or not it owes its infectiveness to the presence of living germinal matter; and it is the only method we possess of obtaining the required information. It is a mode of experiment which, especially in its application to liquids which to the microscope appear free from living particles, is well calculated to impress upon one's mind the impalpable nature of germs, so much so that persons who have but little time for reflection might be excused if, by contrast with the visible germs which were in the field some dozen years ago, they deemed these ultra-microscopical ones as also hypothetical. The realisation of their existence has, however, become much more easy by the beautiful subsidence experiments of Professor Tyndall and M. Pasteur. In the case of water, M. Pasteur has found that, if a quantity of apparently faultless distilled water contained in a tall cylindrical vessel be placed in a cellar, or other place where the temperature is not liable to vicissitudes, and allowed to stand there for several weeks, it can be proved by the method of testing I have already described that the surface-layers are barren, while the deep layers still retain their contaminating power, but possess it in a much higher degree than before subsidence. This admirable experiment shows us not only that water which is apparently pure contains particles in suspension, but also that among those particles are to be found some which are potentially (*i.e.*, in the sense of Dr. Tyndall's definition) germs. All the particles contained in the water, whether organised or not, are included in the invisible sediment, so that, even if we could see the particles so as to acquire a knowledge of their size, we should be as completely without information as we are now as to the size of the germ-particles; for in each visible particle any number of such ultra-microscopical germs might be contained.

With this method of subsidence, another has been combined by Professor Tyndall, which teaches the same lessons in a still more striking manner. I refer to the exploration of the suspended particles of a

liquid by the observation of the track of a beam of sunlight, or other light of comparable intensity transmitted through it. Such a beam in pure water is invisible, but, in passing through common water, exhibits a beautiful luminous track. To learn anything with reference to germs we must, as before, combine the physical with the physiological test, and it is in this combination that the beauty of Professor Tyndall's experiment consists. Each experiment must, in short, consist of two parts or stages. In the first, we observe, as regards a certain specimen of water, that it is opalescent to the beam, and that it has also the power of contaminating. We then make a second observation after subsidence, in which we find that the beam track has become invisible and the liquid sterile. What do we conclude from this? That the particles which have fallen have carried with them the germinal material; not, however, that they are that material, and nothing else.

These facts relating to subsidence are undoubtedly of great interest and importance in several respects. Thus, for example, they render it extremely probable that by perfect subsidence, it would be possible to render water pure, not only of those grosser defilements which in our town water-supply systems we get rid of by subsidence reservoirs, but of the much finer particles—chiefly, no doubt, organic—of which the opalescent beam track affords the most striking evidence. My object in referring to them was not, however, to propose a new method of purifying water, but to show the bearing of the same considerations on the question whether or not the particles which form the sediment that falls to the bottom after prolonged subsidence, and render the luminous beam opalescent, are likely to be pathogenic entities—in the current language of the hour, not only germs, but disease germs. This intention may serve as an excuse, in case an excuse seems required, for having occupied you so long with matters which might appear at first sight to have little to do with pathology.

As I showed just now, the value of the subsidence experiment, whether in relation to air or water, hangs exclusively on the *physiological* test with which it is associated. By itself, the fact that air or water is opalescent, means nothing *quâ* germs. To give it meaning, you must prove that what subsides when sown produces an organism. So, as regards our septic extract, the extract can be prepared as transparent as distilled water. But even when so prepared, the liquid still contains particles, particles not so small as to be invisible by the microscope, yet so small that nothing can be made out of their form. When the liquid is examined with the aid of the luminous beam, the presence of these particles is indicated by an opalescence which, as in all similar cases, may be distinguished from that due to fluorescence by the circumstance that, when viewed through a Nicol's prism in the proper direction, the light which emanates from it is seen to be polarised.

Now, some years ago, it occurred to me that it would be desirable, if possible, to ascertain whether, if these particles could be separated from the liquid, they could be proved to contain in themselves the virulent property of the liquid. I did not particularly care whether they were germs or not. Indeed, I thought it quite out of the question that they should be germs for the reason already mentioned, *viz.*, that they had come out of boiling alcohol; but I thought that they might be morbid particles, and the method that I adopted for separating them was that of filtration through porous porcelain. I have recently published those experiments, which prove that by filtration of this kind the liquid can be deprived of its virulent properties.

Now this is an experiment of the same kind as that of subsidence. A merely mechanical property of the virus, the fact that it consists of particles, and, although apparently in solution, is not really so, is used in the one method as in the other for the purpose of separating these particles. But what is proved by it? As it stands, nothing more—and that is no doubt important enough—nothing more than that the virulent material is not able to go through a porcelain filter.

It is not proved that the particles before referred to as visible under the microscope, are the only particles which are stopped; indeed, I am quite certain that this is not the case, for I can get rid of them by less perfect filters which do not deprive the liquid of its toxic powers. Consequently, there is no evidence that the individual particles which were first in question have a claim to be regarded as morbid elements. It is, of course, still more certain that they are not germs, for the most careful observations have established the conclusion beyond the possibility of doubt, that if the liquid be prepared with the proper precautions against after contamination—by which I mean contamination any moment between that of preparation and use—it is absolutely sterile both before and after filtration.

DR. CARLO GHINOZZI, Professor of Clinical Medicine in Florence, and principal editor of *Lo Sperimentale*, died on the 15th instant.

REMARKS ON BATTEY'S OPERATION.

By J. MARION SIMS, M.D.,

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III.—ANALYSIS OF CASES; AND REMARKS.

BATTEY has now performed his operation twelve times; twice by the abdominal, and ten times by the vaginal section. I have done it seven times; thrice by the abdominal, and four times by the vaginal section. In reviewing these nineteen cases, the question naturally arises "Were any of them submitted unnecessarily to operation?" In all of Battey's cases, I think the operation was wholly justifiable. I saw, with him, two of his most moderate cases (IV and V); and in these, all other means had been exhausted without affording the least relief, and he was obliged to operate, or to do nothing. My fifth case (that died of peritonitis on the seventh day), might have been postponed for a while, but it is certain that no other treatment could have relieved her; for both ovaries had undergone cystic degeneration, and an operation would have been necessary sooner or later. In all of my cases, the ovaries removed were in an abnormal or diseased condition; they had all undergone cystic degeneration. Their fibrous structure (stroma) was greatly altered in appearance, and I have no doubt that the microscope would have shown that it had undergone marked organic change, in consequence, probably, of subacute ovaritis, which blends and amalgamates the nerve-filaments, cellular tissue, and fibrous structure of the organ into a sort of neuroma. In no other way can we account for the persistent neuralgic pains; they are the pains of a neuroma, and the poor sufferer almost invariably and necessarily becomes a morphinist.

Ordinary cystic disease of the ovaries, resulting in true ovarian tumours, never gives rise to severe pain, as the experience of Spencer Wells and our other great ovariologists clearly proves. The peculiar pain of these cases must then depend upon some radical organic change in the nerves and stroma of the ovaries, and not upon the mere development of cysts. This view of the case is further strengthened by the fact that the pain persists after imperfect removal of the ovaries where the cysts are broken down and scraped off while a portion of fibrous structure still remains.

In some of my cases, the ovaries were of twice their natural size. In three, the ovary burst in the act of pulling it out of the peritoneal cavity. In Battey's cases, the ovaries had undergone cystic degeneration in every instance in which he examined them. Some were three or four times larger than the natural size. In six of Battey's cases, the ovaries were bound down by adhesions; in one of mine, this was the case. Battey lost two cases; I lost one. All died of peritonitis. The peritonitis in one of Battey's cases was secondary, the result of a small abscess (holding about an ounce) around the ligature on the right pedicle, which broke into the peritoneal cavity on the ninth day after operation, and the patient died in twenty-four hours. In five of Battey's cases that recovered, the operation was followed by some form of pelvic inflammation. One of these had septicæmia, and one pelvic abscess; their recovery was slow. In the other five, there were no complications, and the recoveries were rapid. In five out of six of my cases that recovered, the operation was followed by pelvic cellulitis or pelvic peritonitis, two terminating in abscess. In all of these, recovery was tedious. In Battey's cases, the removal of both ovaries in no way affected sexual desire. In six cases, he removed both ovaries entire; in three, he removed but one. In three cases, the ovaries were broken down and removed piecemeal; in all of those where but one ovary was removed, or where they were broken down, the operation was unsatisfactory, and without benefit. Of Battey's twelve cases, two are marked improved; four, not improved; two died; and four were cured perfectly. Only twenty-five per cent. cured is not encouraging to the advocates of this operation. My own results are still worse. Out of seven operations, one died; in one, the operation was not finished; three were made worse by the operation; one was greatly improved; and but one was perfectly and permanently cured. In reading this record, one may well feel surprised that I advocate the operation to-day with more earnestness than I did at first. I do it, because I now see where mistakes were made, and how they may be avoided in the future. Without operative procedures, these cases are

all hopelessly incurable. We must improve our methods or leave them where we found them. I see no reason why the operation should not be made safe and successful. Ovariectomy was once opposed because it was unsuccessful; but now it is accepted because it is successful. Battey is the originator of this operation. He is the pioneer in an unexplored field of observation. It is not, then, to be wondered at if he should have done some things he ought not to have done, and left undone some things he ought to have done. He is the leader; I the follower. Let us look back over our work, and see if it has always been well done. Our failures will be lost to science if they do not lead to improved methods and to better results. Our errors, like beacon lights to warn others against hidden dangers, should be made conspicuous. Let us, then, frankly inquire where and how we have made mistakes, that we may profit by them in the future.

Battey started out with the theory that the cure would depend upon bringing about change of life by the removal of the ovaries. The experience of all ovariologists proves conclusively that the removal of one ovary will not do this, and yet we find Dr. Battey ignoring his theory at the very outset, and removing but one ovary in the second case on which he operated; and he did the same thing in his fourth and fifth cases. Thus we see him in three out of five operations departing from the rule laid down for his guidance at the start. He lost sight of his theory, and removed but one ovary in each of these three cases, because but one ovary in each was the fixed seat of pain. Nothing could be seemingly more rational, and yet it was most unfortunate; for in all these cases the operation was unsuccessful. In three of my cases, where but one ovary was removed, the operations were utter failures. In all of these, it will be necessary to repeat the operation for the removal of the remaining ovary if they are ever to be cured. In one of Battey's cases, he has already done this; and he expects to do it in the others. It is bad surgery to submit a patient twice to such a hazardous operation as this, to do what ought to have been done at one. My cases prove that in almost every instance the operation is followed by some form of pelvic inflammation; and this, of course, enhances the danger of a second operation. Battey's only successful operations were those in which he removed both ovaries in their entirety, while he failed in every case where he removed but one ovary, or where they were mutilated and removed piecemeal. The inference is clear that, as a rule, both ovaries should be extirpated whole at one operation. There may be exceptions to this rule; but in Battey's twelve cases, there was none. My first (and the only case I cured perfectly) was an exception, and I know of one more: Dr. Sabine's case. Notwithstanding these two exceptions, it is wise to follow the rule in all cases. Battey's operations and my own would have presented very different results if we had not departed from the theory he laid down at the beginning, viz., to bring about change of life by extirpating the ovaries.

Battey started out with the idea that the operation would be easier of execution, and less dangerous, by the vaginal route than by the abdominal; and I did the same thing. If we could determine beforehand that there had been no pelvic inflammation, and, consequently, no adhesions between the pelvic viscera, then there would be no objection to the vaginal incision for the removal of the ovaries. Four of Battey's vaginal operations (IV, VIII, IX, and XII) failed, because he found the ovaries bound down by adhesions, so that it was impossible to remove them entire. He was obliged to break them down with his finger, and to scratch them out with his nail, and the operations were always unsatisfactory and unsuccessful. In all of these cases, if he had operated by the abdominal section instead of the vaginal, he would certainly have removed the ovaries entire, and the result in each would have been just the reverse of what it was. For Battey has never yet failed to remove the ovaries entire by the abdominal section, no matter how great the adhesions may have been. I repeat that the success of these operations, as a rule, depends upon removing both ovaries entire and not by piecemeal. In Battey's four cases "cured", both ovaries were removed in their entirety. In all the failures, they were removed piecemeal, or only one was taken out. In all those removed piecemeal, the incision was by the vagina, and the result a failure. If it had been by the abdominal section, they would have been removed entire, and the result would have been a cure. In the four that I operated on by the vagina, I removed but one ovary in three cases, and they were all not only not improved, but made worse by the operation; and in the fourth case, I failed entirely to reach the ovaries, because they were bound down by adhesions. Now, if I had removed both ovaries instead of one in the first three, they would have stood the chance of being wholly cured; and if in the fourth case I had operated by the abdominal route, there is every certainty that I would have found the ovaries and removed them although they were bound down by adhesions. Battey evidently went

* Concluded from page 832 of last number.

astray in not following out his original idea as to the necessity of removing both ovaries to effect change of life; and I followed him blindly. Again, he was led astray by theoretical ideas in regard to the facility and safety of the vaginal incision as compared with the abdominal. And here again I followed him blindly, and with results more unfortunate than his. Battey's first and eleventh cases were the most unpromising of his whole series, and yet they were the most successful and the most satisfactory of all. These were his only two by the abdominal section. In each, there had been pelvic inflammation and pelvic cellulitis; and in one, the ovaries were bound down by adhesions, but were removed whole, and the cases were triumphantly cured. If he had attempted the vaginal operation in these two cases, his failure to remove the ovaries entire would have been as signal as it proved to be in all of his other cases by vaginal incision where the ovaries were bound down by adhesions and had to be removed piecemeal, with a failure to cure. Fortunately for Battey's first case, the operation by abdominal incision was performed before the maturation of his ideas on the facility and safety of the vaginal incision, or it could hardly have been successful. Fortunately for the eleventh operation (second by abdominal incision) it could not be performed by the vagina because of the atresia vaginæ, which rendered it a physical impossibility; for if the vagina had been normal, he would (at that time) certainly have operated by the vaginal incision; and as the ovaries were bound down by adhesions, he would certainly have failed to remove them entire, and the result would have been as unsuccessful as it was in all of his other cases of the same sort. I failed completely to remove, by the vaginal incision, ovaries that were bound down by adhesions; and Battey has never succeeded in doing it in a single instance in a satisfactory manner, while by the abdominal incision he has succeeded perfectly in every case, even when the adhesions were extensive and well organised.

The inferences that I draw from this analysis of Battey's and my own operations are these.

1. Remove both ovaries entire in every case.
2. As a rule, operate by the abdominal section, because, if the ovaries are bound down by adhesions, it is possible to remove them entire, whereas by the vaginal incision it is impossible.
3. If we are sure that there has been no pelvic inflammation, no cellulitis, no hæmatocele, no adhesion of the ovaries to the neighbouring parts, then the operation may be made by the vagina, but not otherwise.

Battey's views about the relative advantages of the abdominal and vaginal sections for the removal of the ovaries have been lately undergoing a change; for, in a private communication received from him (October 1877) he says: "Three of my cases (by vaginal incision) have been unsuccessful, because of imperfect removal of the ovaries. In every case where both ovaries have been cleanly removed (and the patient recovered), the change of life has taken place, and the maladies operated for have disappeared. The ovaries are more easily removed by the abdominal method. In three cases, it required greater skill than mine to effect clean removal by the vagina. When we cannot be assured of success by the vaginal route, we should elect the abdominal."

Acting upon this principle, I am sure that Dr. Battey's next series of twelve operations will show a widely different result from that of his first twelve; and I hope, with the light now before me, that my next seven cases will be a great improvement on my last.

The following table shows the number of times this operation has been performed, the number of deaths, and the name of each operator.

	Operations.	Deaths.
Dr. Battey, Georgia	12	2
Professor Hegar, Freiburg	2	0
Dr. Trenholme, Montreal	2	0
Dr. Gilmore, Alabama	1	0
Dr. Thomas, New York	2	1
Dr. Peaslee	1	1
Dr. Sabine	1	0
Dr. Sims	7	1
	28	5

Battey's operation may be resorted to under the following conditions.

1. In cases of amenorrhœa where there is no uterus, or only the rudiments of one, or where there is an incurable atresia uteri, and the menstrual molimen produces such violent disturbance of the whole system as to destroy health and endanger life, the removal of the ovaries is the only means of permanent relief.

2. In cases of prolonged physical and mental suffering attended with great nervous and vascular excitement produced by perturbed

menstrual molimen, whether menstruation be absent, scanty, or otherwise, this operation is justifiable after all the usual remedies fail to relieve.

3. In cases of incipient insanity and of epilepsy depending upon ovarian and uterine disease, this operation is justifiable after all other remedies have failed to cure.

4. In cases of fibroid tumours of the uterus attended with incurable hæmorrhages that endanger life, when the tumours cannot be safely enucleated and removed, this operation may be resorted to with the hope of arresting the bleeding and the prospect of diminishing the tumours.

5. In cases of chronic pelvic cellulitis and of recurrent hæmatocele, when the attacks are traceable to the disturbing influences of the menstrual molimen, we may have recourse to this operation as a *dernier resort*.

Dr. Trenholme of Montreal, and Professor Hegar of Freiburg, have performed Battey's operation in cases in which severe and exhausting hæmorrhage in connection with the menstrual period had resisted all other treatment.

Professor Hegar has performed Battey's operation twice to bring about the menopause, and thus to arrest hæmorrhage from uterine fibroids. In each case, the bleeding ceased entirely and the fibroids appeared to diminish. One of Dr. Trenholme's operations was to arrest hæmorrhage from an uterine fibroid, and, in the end, it proved successful.

Professor Hegar and Dr. Trenholme each had the happy thought of removing the ovaries, as being less dangerous than the extirpation of the uterus with the fibroid. And thus they have enlarged the area of Battey's operation by opening up a field for its use that was hardly contemplated by its author.

The operations of Professor Hegar and Dr. Trenholme triumphantly vindicate the truth of the theory upon which Battey based his operation; viz., that the removal of the ovaries would bring about the menopause. It has been urged that his theory is not in accord with the fashionable physiological doctrines of the day; and, therefore, his theory being wrong, his practice cannot be right. His theory may not be technically correct; but it does not follow that his operation is unjustifiable; for practical results and theoretical opinions are two very different things. And, moreover, we may differ about what really constitutes a *de facto* change of life. The popular idea of change of life is the cessation of menstruation. If we accept this as the definition of change of life, then the removal of the ovaries will not always bring it about. The extirpation of the ovaries will generally arrest the menstrual function, but not always. Now and then, the menses recur at regular intervals for months, and even for years, after the removal of the ovaries. This has occurred at least once in the practice of Dr. Battey; and he quotes Atlee, Peaslee, and Storer as giving illustrations of the same thing. Their cases are mostly examples of what Spencer Wells aptly terms *metrostaxis*. But Atlee gives some cases of *bonâ fide* menstruation after extirpation of both ovaries. In one case, in which Dr. Atlee removed both ovaries at the age of 35, the patient menstruated regularly and normally till the age of 45, when change of life, so-called, occurred in the usual way.

In October 1857, Dr. Atlee extirpated the left ovary for a married lady twenty-seven years old. In November 1864, he extirpated her right ovary. She continued to menstruate regularly; and, in 1870, six years after the last ovary was extirpated, she was "regular as to time, quantity, quality, etc., and free from any abnormal symptoms". In 1846, Dr. Charles Clay of Manchester removed one ovary from a married lady, and Dr. Atlee removed the other in 1861. Two years after this, she writes to Dr. Atlee: "Courses all right every month."

So we see that extirpation of the ovaries is not always followed by cessation of the menstrual flow. But is cessation of the menses actual change of life? By no means. In 1859, I knew a poor woman who had had nine children in fourteen years, and, during all this time, she had menstruated but three times. She had three or four labours consecutively without a single menstruation. Thus we see that ovulation went on regularly, although there was no menstruation. Again, we see cases of complete amenorrhœa, where ovulation, as indicated by the menstrual molimen, occurs regularly every month. In Dr. Battey's first case (of Battey's operation), the patient had menstruated but twice in sixteen years, yet she suffered fearfully every month with the menstrual molimen, and, when he extirpated the ovaries, "each ovary presented a recently ruptured Graafian vesicle, in one of which the blood had not yet coagulated, as if the ovum had but just escaped". There are many cases on record where *post mortem* examinations have shown corpora lutea and recently ruptured Graafian vesicles when there was no menstruation, because there was no uterus. Is it correct, then, to say that change of life consists in the disappearance of the menses?

* Dr. Gilmore's case died of yellow fever nine months after the operation, while convalescing from a peritoneal pyæmic abscess, the result of the operation.

Certainly not; for then the woman who ceased to menstruate while she bore half a dozen or more children had change of life, although she was ovulating and bearing children all the time; and the young woman who menstruates two or three times, and then ceases to menstruate, has change of life, although she may have for years a most violent menstrual molimen every month, and, when the ovaries are extirpated, they may present numerous corpora lutea and recently ruptured Graafian vesicles, which are the real signs of ovulation, and the real evidence that there has been no change of life. It is absurd, then, to say that change of life consists in the disappearance of menstruation. The real change of life consists in the cessation of ovulation, whether this be accomplished by Nature at the climacteric period, or artificially by the operation of ovariectomy, or Battey's operation, which was projected expressly to arrest ovulation and the accompanying menstrual molimen.

When Battey reasoned out his operation of extirpating the ovaries to effect change of life, he reasoned out a truism, for the removal of the ovaries must necessarily stop ovulation, which constitutes a *de facto* change of life, whether the menses recur afterwards or not. The cessation of menstruation may then be regarded as the sign of change of life, but not the actual change. From this point of view, Battey was right in theory; and experience shows that he is right in practice. His operation of extirpating the ovaries to arrest the menstrual molimen is based upon sound physiological doctrine; and in practice it accomplishes what it proposes to do. For we find that, when both ovaries are neatly and cleanly removed, the menstrual molimen ceases. But, if they be imperfectly removed, the menstrual molimen recurs as regularly as it did before the operation.

The term normal ovariectomy, applied by Battey to his operation, is a misnomer; for, in all cases requiring operation, the ovaries are never found in a normal state. This term has been much and justly criticised; and Battey asked me some time ago to give his operation a name. I have always thought that "Battey's operation" would be the most appropriate name for it; and I cherish the hope that the profession in Europe will unite with us in America in giving it the name of the man who originated the operation, and who has, by the most indomitable courage, succeeded in proving its usefulness.

PUERPERAL SCARLATINA.

C. M., AGED 28, primipara, was delivered of a living female child of ordinary dimensions on October 21st. The labour was tedious, lasting about thirty-six hours. The head presented; the placenta and membranes came away entire in twenty minutes, the uterus remaining firmly contracted. The mother did uninterruptedly well until 10 P.M. on the night of October 26th, when she complained of sore-throat and slight shivering, and vomited repeatedly. On October 27th, she was feverish, restless, delirious during the night; the vomiting continued; the lochia were very scanty and extremely offensive; there was total suppression of milk. Light-coloured offensive stools were passed two or three times during the day. Her mother, at 10 A.M., noticed her face and hands to be of a bright scarlet colour, but omitted to examine her body. On October 28th, she had been very delirious the preceding night. Her medical attendant saw her at 11 A.M., for the first time after the morning of October 26th, and found her covered all over with a well marked scarlatina rash. Temperature 103.2 deg.; pulse 128. At 7 P.M., the temperature was 104.6 deg. On October 29th, she was very restless and delirious in the night until 2 A.M., when she became quiet.

I saw her for the first time at 9.30 A.M., and found her lying on her back, with dilated pupils, face pinched, lips bluish; the tongue was dry and brown; the throat dusky red; the whole of her body, with the exception of the face, was covered with a scarlatinal rash of a dusky scarlet colour; there were purpuric spots about the extremities; the hands and legs were of a bluish colour; the muscles were very soft and flabby. There was no tenderness or distension of the abdomen. She was pulseless. Temperature 105.2 deg.; respirations 48, shallow, laboured, and sighing. She was conscious, and, when asked if she felt any pain, answered in the negative. At 11.45, she was unconscious, the whole of her body assuming a livid colour. Temperature 107.4 deg. She died at 12.20. No *post mortem* examination was allowed.

REMARKS.—It is an interesting case, inasmuch as the woman lived long enough for the scarlatina to fully develop itself. It bears out the opinions of Drs. Snow Beck, Meadows, and others, "that scarlatina does not change and produce only 'malignant puerperal fever', but it retains its specific characters in the parturient woman".

W. T. HAINES, M.R.C.S., Jarrow-on-Tyne.

ABSTRACT OF HARVEIAN LECTURES

ON THE MECHANICAL SYSTEM OF UTERINE PATHOLOGY.

Delivered before the Harveian Society of London.

By GRAILY HEWITT, M.D., F.R.C.P.,

Professor of Midwifery and Diseases of Women, University College; and Obstetric Physician to the Hospital.

LECTURE II.—Thursday, December 20th.

IN this lecture, the relations of the various uterine symptoms to alterations of shape of the uterus were considered. First, it was pointed out on *à priori* grounds that the best form for the uterus must be that originally given to it.

Pain is the commonest uterine symptom, and, as a rule, the one most seriously complained of. 1. Spontaneous pain, not very common, is produced by cancer, tumours, acute inflammation, etc. 2. Pain on motion is very common. It has been far too little noticed by pathologists. Formerly, the author spoke of it as "uterine lameness", but the designation now proposed is "*Dyskinesia*". Uterine dyskinesia may be slight or severe. The characteristic is that it is produced by motion, and in not a few cases patients are entirely incapacitated by it and entirely invalided. This cause is distension of the uterus. Two propositions might be given: 1. Uterine distortions and displacements invariably give rise to dyskinesia; 2. Dyskinesia (referable to the uterus) is invariably associated with uterine distortion or displacement. Proposition 1 is more nearly true than is generally imagined. Proposition 2 is almost absolutely true. Chassaignac (in 1862) attributed such pains to jars (*ballottements*) of the displaced uterus. In mere descent of the uterus, with no flexion, there may be little pain. In cases of slight version and slight flexion conjoined, there may be little pain; but severe distortions, with few exceptions, are always painful. Sometimes, again, congestion is absent, or the uterus has been long in the distorted condition and has acquired tolerance of it. Particular positions of the body, exertions, lifting weights, stooping, riding, even sitting, often give rise to this pain, uterine distortion being the probable cause. Why do these movements produce pain? Dr. Graily Hewitt attributed them to temporary aggravation of the flexion, produced by the exertions. The pain is relieved by whatever prevents aggravation of the flexion. Compression and condensation of the uterine tissues at the seat of the bend, and the effect of this compression on the nervous fibres at this point, is the probable cause. Increase of the congestion, generally also existing in cases of flexion, may account partly for the pain. But the compression and condensation theory is the best. Certain sensations, as sinking, bearing down, are probably due to stretching of the uterine ligaments. Displacement of the ovary, a rare event, occasions dyskinesia to a severe extent.

Undue Sensitiveness of the Uterus to the Touch was next considered. Observation shows that the uterus is almost never painful to the touch, unless uterine distortion be present. The more severe distortions, accompanied by congestion, are those in which the tenderness is greatest. But severe ante-flexion may also give rise to exquisite tenderness to the touch, and to a somewhat similar train of symptoms. Acute sensitiveness to the touch is sometimes located at the internal os in chronic flexions, and is found out by the use of the sound.

Menstrual Disorders.—The uterine secretions, fluid, and mucous membrane *débris* have to pass through a small aperture, surrounded by dense tissue. This, the smallest part of the uterine-tube, is at the middle of the uterus. The escape should be continuous. The capacity of a tube is greatest when circular; flatten it, and it becomes less. Such flattening occurs even to the extinguishing of the tube, when the uterus is strongly flexed, and usually the flexion has effect at the middle of the uterus, where the tube is smallest. The condensation of tissues at this spot also renders less easy any dilatation of the tube. The horizontal position alone, the prone or supine, according to circumstances, has great effect in relieving dysmenorrhœa, because it partly relieves the existing flexion. The pain indicates expulsive effort of the uterus, due to the retention. This effort partially opens the tube, and partial escape of fluid occurs. Scanty discharge and brown fluid mean retention and partial disintegration of the menstrual blood. Further, gushes of puriform or watery fluid, observed between the catamenial periods—purulent leucorrhœa in gushes—are another result of dysmenorrhœal retention. This is a very characteristic symptom of chronic flexion, though not one always present. These cases are com-

monly called cases of endometritis. But the endometritis results from the irritation of retained products. It ceases when the canal of exit is made patent by dilatation or straightening of the canal. A further result, in many cases, is hypertrophy of the body of the uterus; the result, as Dr. John Williams has remarked, of increased muscular action of the uterus.

Another symptom is *Menorrhagia*. In most instances, when not due to cancer, fibroid tumour, etc., menorrhagia is due to uterine flexions. First retention, then expansion, then increase of area of uterine cavity, then increased quantity of blood-clots, now and then from causing great pain without expulsion. Sometimes the clots break down: hence various subsequent leucorrhœa. Attention was directed to pouch formed by the flexed enlarged uterus, from which, in the upright position of the body, the fluid cannot readily escape. The flexed constricted uterine canal opposes also this escape. The fluid escapes in gushes. Thus dysmenorrhœa, leucorrhœa, and menorrhagia are, in very many cases, associated with flexions; and the effect, in such cases of treatment of the flexion element, is of itself sufficient proof of the correctness of the relationship indicated between the distortions and symptoms in question.

THE VALUE OF KOUMISS IN THE TREATMENT OF NAUSEA, VOMITING, AND INABILITY TO RETAIN OTHER FOOD ON THE STOMACH.*

By V. JAGIELSKI, M.D., M.R.C.P.L.,

Physician-in-Ordinary to the Infirmary for Consumption and Diseases of the Chest, etc.

IN separating the general and more known effects of koumiss from those of my present paper, I propose to bring before you some of the more prominent features of the treatment by sparkling koumiss, the effects of which I have taken particular care to confirm by clinical investigation. When I began, eight years ago, to study and investigate the physiological effects of koumiss under normal conditions of health, as well as its therapeutical influence in an abnormal state of life, I hardly expected to find it such a powerful agency as I have since discovered it to be in treating successfully the most obstinate cases of nausea, retching, and vomiting.

One of the earliest of the complicated cases in which I ordered koumiss as a preventive against vomiting and inability to retain any food or medicine on the stomach was a patient of Mr. Walter Mason, whose then assistant, Mr. B. B. Floyer, invited me to consultation, as they both considered the state of Mrs. M. G. likely to prove fatal. Mr. Walter Mason has published this case very briefly in the *Lancet* of December 19th, 1874. "In this case", he says, "I believe life was saved by the koumiss." My own notes of this case, and those kindly forwarded to me by Mr. Floyer, show that this lady, Mrs. M. G., twenty-four years old, had had two children. During her third pregnancy, her appetite became very indifferent and her appearance greatly emaciated. Four days before her third confinement, whilst standing up in her room, she suddenly lost all power of keeping her body balanced, and fell by the side of her bed before she had time to call for assistance. She did not lose her consciousness, but was unable to express her feelings in words. Her answers to questions addressed to her followed very slowly; but, four days after this fit, her partial aphasia had disappeared, and she brought forth twins alive and healthy. She apparently soon recovered from the immediate shock of the labour, but wandered and talked during the night. The next day, she seemed to lose some power over her bladder, and passed urine but once during the twenty-four hours, and again so during the following two days. On the fourth day, signs of right hemiplegia existed, having come on during the night. Her face was drawn to the left; her tongue deviated to the right; her speech was thick and indistinct; and moreover she had much difficulty in finding words to express her ideas, and frequently used wrong ones. The right arm and leg were paralysed completely as regards motion, and almost so with respect to sensation. She was quite unable to micturate, although the bladder was distended, and obscured the position of the uterus, thus rendering necessary the use of the catheter twice a day. Her appetite was gone; and, when she had succeeded in taking some broth, milk, wine, and other stimulants or medicine, she could not retain them. She could not possibly keep anything down, whether warm or cold. At this stage, when both her medical attendants feared she would not recover, two more days having elapsed without any sign of improvement, I saw the patient on the sixth day after her confinement, when she was unable to answer

otherwise than by shaking or bending her head. I found her pale emaciated to the highest degree; her skin dry and hot; her pulse 120 very weak, and her heart-sounds equally so; her breathing being scarcely perceptible. There was pain nowhere, but great restlessness, with delirium; the right hemiplegia was unchanged; the urine drawn off by the catheter was very offensive and thick; the bowels had been costive for three days, and remained so, although seven injections had been made into the bowel of sixteen ounces each. The only circumstance which I considered favourable, and which did not leave me without hope for some change for the better, was the constant and free flow of the lochia, which by smell and appearance were normal. I advised full koumiss, No. 2, to be given every two hours; one wineglassful cold from the ice. She immediately kept it in the stomach, and took one pint during the night. In the morning, reaction appeared, followed by perspiration, which was carefully kept up by proper covering. We were then on the 17th day of November; on the 18th, the urine was more copious and became clearer; and, in thirty-six hours after the first glass of sparkling koumiss, she passed urine naturally, which was much clearer and without any ammoniacal odour. I did not order any more enema, or any aperient, because experience had taught me that, if once the koumiss be absorbed, it leaves very little fecal matter, which, of course, gives no indication to interfere with the bowels. The delirium changed into good sound sleep during the second night. She began to ask for the koumiss herself, and seemed every day to like it more. Her doses of koumiss were increased every twelve hours, so that the patient took on the second day a wineglassful every half-hour; and for her breakfast, dinner, and tea, I allowed her one wineglassful, always cold and well shaken. On the third day, the pulse was fuller, and only 90 per minute; her breathing was better; the skin moist; the eyes were brighter; and some slight movements of the arm and leg were possible. On the fourth day, I ordered the first dose of koumiss No. 2 to be mixed to the extent of half with fresh un-boiled milk: my usual and effectual way of bringing on motions in very exhausted patients. This was repeated on the fifth day, and the first spontaneous motion appeared on November 23rd. The patient lived all this time exclusively on koumiss, which was now taken *ad libitum*. As regards her paralysed limbs, the use of the leg returned in about one week after commencing the koumiss; and a few days subsequently to this she was able to move the right arm better. Her voice had regained its natural character, and she answered questions without hesitation. After three weeks, the paralysis disappeared thoroughly, and the patient was considered convalescent. The twins were living and doing well.

I have gone into the particulars of this case, because it shows by its complication the possibility of bringing yet a very exhausted patient around a most dangerous cliff, when apparently there is no remedy left to fall back upon, and the skill, energy, and perseverance of the most hopeful practitioner are most severely taxed. The very easily digestible and rapidly assimilable features of koumiss give in this case also proof of its highly nourishing properties, and show that we may with safety depend upon it as an exclusive food and drink; for it not only renews and maintains the strength of the body during feeble health, but it increases, at the point of greatest exhaustion, the body-weight. Of course, in cases of vomiting, these properties are, although important, yet *secondary*, because our first endeavour is not so much to nourish, but at once to allay the really dangerous and constant vomiting. That this latter end, too, is very readily attained by the koumiss is, I think, shown beyond all dispute by the above mentioned case.

The same valuable property of the sparkling koumiss in nausea and vomiting I had an opportunity of seeing confirmed soon after this case in a lady, Mrs. S., aged 20, during the fifth month of her first pregnancy, when she began to feel first heavy and giddy in her head, then constipated, then flushed in her face—noticing a decline of appetite—until all at once one morning she brought up a considerable quantity of blood, which was preceded by coughing and retching. From this time, she became nervous, restless, lost her appetite entirely, felt sick at the view of food, and became hysterical; her arms were becoming thinner, and she felt some pain in her left anterior subclavian and sub-sternal region. But—what interests us here more than all other particulars—she began, in consequence of taking for a long time iced champagne and brandy and soda-water alternately with cream- and fruit-ices, jellies, etc., to be so sickly, that convulsions, together with the efforts of empty vomiting, became a real danger to her in her motherly state. At this point, I was consulted, and prescribed with confidence, first one wineglassful of the B. or medium koumiss No. 2, iced and well shaken, to be taken every half-hour until I saw her again. On my return at about 6 o'clock P.M., I was told that the vomiting and nausea had ceased after the second glass of the koumiss, and that she had had a nap after her dinner at two o'clock, which consisted of the

* Read in the Section of Medicine at the Annual Meeting of the British Medical Association in Manchester, August 1877.

very great luxury of half a tumblerful of sparkling koumiss. After this, she felt the circulation in her extremities revived; the veins were more visibly filled; and there was an appearance of a healthy moisture on the skin, which I particularly recommended her to favour. To be short, her improvement was surprising. On the fourth day, she was able to walk about, and her chest-symptoms disappeared within a week; her appetite returned; she partook in a fortnight of all kinds of solid food, but continued up to her confinement to drink the koumiss A I as her exclusive beverage, which I advised her to do, in order to relieve her constipation and to strengthen both mother and embryo. The result was a splendid baby, followed in another twenty months by an equally healthy sister; the mother becoming stout, and enjoying her family happiness undisturbed.

Shortly afterwards, in the same neighbourhood, I was one afternoon suddenly called to Mr. A. T., a lawyer, seventy-eight years old, a Polish exile of 1831. He had suffered since 1854 from chronic bronchitis, with excavations in both lungs. In November 1872, he suddenly had an attack of his old complaint, with additional pneumonia of the inferior right lobe, which brought him within six days into a hopeless condition. Besides a temperature of 103 deg. Fahr., an intermittent pulse of 112, and respirations 32 to the minute, he showed a constant tremor in his hands and body; his eyes were injected; he was wild, and had constant low delirium. The expectorations were copious—nearly a pint in twenty-four hours—nummular, and streaked with blood. The urine was dark, thick, and very scanty; and the skin dry. He had no sleep; the tongue was thickly coated; the lips and gums were covered with black crusts; and he had been thoroughly unable to retain anything in the stomach for the last twenty-four hours. I saw him on the sixth day of his illness, when I, merely as a trial—this time with hardly any hope for his recovery—immediately sent for some old A or full koumiss, No. 3, waiting and remaining by his bedside until the arrival of the bottles. I gave him myself the first wineglassful, ice-cold. In a few minutes, he made signs to have some more. I gave him another glassful in ten minutes, and so on for about three hours, when all vomiting was stopped. He continued to take the koumiss during the whole evening and the first part of the night. On my return in the morning, I found this old gentleman quite changed; he had had a good sleep for six hours. In another twenty-four hours, his trembling subsided; his urine became clearer and increased in quantity; his spitting diminished, and was without any blood-streaks after thirty-six hours. Resolution in the attacked lobe soon took place, and in another eight days I found him, at my visit, writing at his table.

In this case, as in others, the koumiss entirely stopped the vomiting, nourished the exhausted body, and checked the excessive expectoration in a surprisingly short time. I could bring before you similar cases from my own practice by the dozen, if I did not fear to impose upon your kind patience and your valuable time; but I hope that these three cases may give you a clear proof of the value of koumiss as a restorative in severe diseases accompanied by emaciation and exhaustion, in which nausea and vomiting are scarcely amenable to the influence of drugs. I have since been able to cure with koumiss cases the favourable end of which would almost make me believe I had made an error in my diagnosis. For instance, a widow, Mrs. S. G., fifty-five years old, who, through the death of her very bad-tempered husband and the nursing during his long-lasting disease, became so ill that, when I first saw her, I believed her suffering from carcinoma pylori. I felt quite convinced that I could feel a tumour with three fingers of my hand beneath the very thin abdominal walls. It corresponded in position to the very place of the pylorus, which normally is situated in the right sternal line below the apex of the ensiform process, lying entirely behind the quadrate lobe of the liver, so that it can only be palpated, when it has descended abnormally, as in this case, below the border of the liver. On palpation, this tumour was painful, and empty vomiting was brought on; but the vomited matter did not contain any blood and no suspicious cells. It came on in about half an hour or an hour after ingestion of food. After a repeated but unsuccessful trial with trisnitrate of bismuth, hydrocyanic acid, and other drugs, I put the patient on full koumiss No. 2, because her strength was rapidly falling off through her constant inability to retain any food on the stomach. Instead, therefore, of ranging over the drugs to which experience and tradition attribute the power of allaying vomiting, but which, when used, would probably have been as unsuccessful as my attempts to arrest sea-sickness by the same means, I gave her stomach as complete a repose as it appeared to me possible and desirable under these circumstances; but there was no time for experiments with drugs. Food and stimulants were wanted, and both she got in her first glass of koumiss, which, as was expected, she did not reject after the third glassful. I scarcely could gauge to a nicety how small a quantity would prevent inanition, and

at how long intervals I might administer the koumiss, bearing in mind that vomiting implies the total loss to the system of all food, solid or liquid; and that the act itself exhausts rapidly muscular and nervous power and tissues by which it is effected. I preferred the retention of a very small but frequently administered quantity of liquid food, advancing soon to larger quantities without provoking any return of the sickness. The patient progressed steadily, although slowly, and went in May to Eastbourne for change of air. The tumour, which I had felt distinctly for several weeks, diminished, and finally disappeared altogether. I scarcely think a carcinomatous tumour would disappear; yet the colour of the patient became healthy, and her good spirits, as before her unhappy marriage, also returned.

The Rev. Th. L., a stout and tall gentleman, suffering from a severe attack of hæmorrhage of the lungs, which continued for nine weeks without interruption, had been under treatment during all the time without any success. On being consulted by his medical attendant, I found his sputa with points and patches of blood; and, in consequence of a very styptic treatment, with perchloride of iron, kino, ergot, etc., used against his hæmoptysis, he presented now a jaundiced appearance, had a dry skin, a very tender and enlarged liver, great costiveness, very dark urine, a thickly coated tongue, foul breath and taste in his mouth, with constant nausea; his spirits were very depressed, and he was unable to take any food; his weakness was very great, and he could obtain no sleep. The exclusive koumiss treatment which I advised, and which consisted in koumiss B. No. 1, quite fresh, encouraged his motions, acted as a diuretic, diaphoretic, and soporific; and in three days his appetite increased to such an extent, that he would not listen to my advice to remain for at least eight or ten days on an exclusive koumiss diet, but sent his brother quite early in the morning to my house to ask me seriously whether I would not allow him to eat a rump-steak, as he had an indescribable and irresistible appetite for it, and his medical attendant had referred him to my strict orders; of course, the answer I gave his brother was very unsatisfactory to the patient; and at my next visit he told me he considered my refusal very cruel; but I found it necessary to caution him and his family against all similar foolishness. His hæmoptysis, however, soon ceased, and his appetite remained good; he was soon so well, that he contemplated a speedy return to his clerical duties.

J. S., a picture-dealer, thirty-five years old, affected with pleuro-pneumonia of the right side, and complaining of very great pain in front of the chest, had, on the day I first saw him, not eaten anything for the last four days, as he was suffering from constant nausea and rejecting everything except some brandy and soda-water, of which, however, very little remained on the stomach. I considered his case hopeless; but, under the circumstances, I thought the sparkling koumiss No. 2 to be the best adapted to him, and in fact it stopped nausea and vomiting and was entirely retained by the stomach from the very first dose up to his convalescence.

Miss M. M., sixty-six years old, was suffering from an acute febrile attack of her chronic bronchitis with pleuritis exudativa dextra, doubly painful through the efforts to vomit up whatever she took; her tongue was coated, white, and trembling; she had great dyspnoea, and was not able to speak four words at a time. When I first saw her on October 2nd, 1875, she had been unable to take anything during the last ten days, with the exception of a little beef-tea and brandy. She had a sensation, when I tried to make her sit up in bed for examination, as if her heart were falling forwards and would burst her chest. As she was so weak and exhausted by pain, cough, expectoration, vomiting, and inanition, I ordered her the koumiss A. 2; it was kept by the stomach and agreed with the patient exceedingly well; her recovery, however, was slow, although sure.

E. B., seventy-four years old, coach-trimmer, suffering from mitral incompetency and general anasarca after rheumatic fever, became all at once, in October 1874, incapable of retaining any food or medicine in the stomach; the koumiss, after a few doses, arrested the vomiting and supplied all the nourishment wanted till he could venture to return to his usual diet.

One more case I may perhaps be allowed to add shortly out of my own practice, as it was a facsimile to a previous case of diabetes mellitus, with thorough exhaustion and vomiting, which I had observed and treated with koumiss in 1870 in one of the wards of the Middlesex Hospital with Dr. Murchison's kind permission.

Mrs. T. L., thirty-two years old, mother of five children, believed by her medical attendant, and in consequence by herself and her husband, to be consumptive, for she had pain in her chest, slight cough, and lost flesh very rapidly. At my first examination, however, I could exclude any disease of her lungs; but from her tongue I immediately suspected diabetes mellitus. Her exceptional thirst, her dry skin, her unusual excretion of urine (five pints and a half per day), together

with her exhaustion and emaciation to a skeleton, made the diagnosis more than probable, but the specific gravity of the urine (1040) and the chemical analysis confirmed it thoroughly. There appeared scarcely anything to be done for this patient, who constantly felt nausea, and vomited after everything she took; but, of course, the results of my first case, in 1870, made it my duty to resort at once to the D. or diabetic koumiss of Messrs. Chapman and Co. of London; so it stopped the vomiting, brought on appetite, sleep, and strength, diminished the specific gravity of the urine to 1034. Within ten days, the patient was up again, and in a fortnight she came with her husband and sister to my house. Shortly afterwards, she went into the country to her sister, where she remained for some time. A few months later, however, her husband called upon me and told me that she had died of peritonitis.

In concluding this paper, I think it may prove interesting to some of you to peruse also some cases reported by other professional brethren upon the same subject on which I have had the honour of addressing you. I, therefore, refer you to those cases in the *Lancet* of December 12th, 1874, by Dr. A. S. Myrtle of Harrogate, who gives four cases treated by koumiss: one of *marasmus* in the adult with unchecked vomiting—successful; one of *pyæmia* with sickness and unchecked vomiting—successful; one of *phthisis* (advanced) with ulceration of mucous membrane, diarrhoea, and hectic—successful; one of *rheumatic fever* with gastric irritability of a most formidable nature—also successful; and in the *Lancet* of January 9th, 1875, by Mr. Carter Wigg of Southminster, Essex, of an equally interesting case of *heart-disease* and *albuminuria* with constant sickness, retching, and vomiting—likewise successful.

From the above cases, you may fairly judge the effects of sparkling koumiss, and I heartily recommend it for your use in such and similar cases. There is no doubt that remedies of this kind, more especially in the expectant mode of treatment, have the advantage over some medicines in being harmless at the worst; they occasion no anxiety to the physician, and are not only not to be reserved for cases in *extremis*, when all hope of recovery by other means has vanished, but are especially the more rational means with which to commence the early and primary treatment.

OSTEO-SARCOMA OF THE FEMUR AND LUNG.*

By F. A. HEATH, M.R.C.S.,
Surgeon to the Royal Infirmary, Manchester.

Primary Osteo-Sarcoma of the Femur: Amputation of the Thigh: No Return in the Stump, nor in Glands of Groin. Secondary Osteo-Sarcoma of the Lung: Death.—The following case, though presenting no novelty, is interesting in its surgical aspect, as tending to confirm the opinion laid down by the late Sir William Fergusson, in his lectures on the Progress of Surgery before the Royal College of Surgeons; that large malignant growths, springing from the long bones, do not, after amputation, if the whole of the diseased structures be removed, return in the stump, but at some distant part; and that, therefore, it is not necessary to amputate above the knee in the case of the tibia, or at the hip-joint in case of the femur.

R. A., aged 19, was admitted into the Royal Infirmary in 1875, with a large tumour connected with the right femur. At a consultation of the medical and surgical staff, some difference of opinion was expressed as to whether amputation at the hip-joint should be performed, or whether it would be sufficient to amputate at the upper third of the thigh. The latter operation was decided upon, and was performed on June 4th, 1875. The patient recovered, and was discharged as cured.

The examination of the tumour was as follows. The lower portion of the thigh was converted into an immense globular mass, beginning just below the knee and extending two-thirds up the thigh. This large mass had a circumference of forty-six inches measured transversely, and thirty-six inches measured in the vertical plane, and, after detaching the foot and leg, the tumour weighed twenty-seven pounds. On making a longitudinal section, it was found that it was a tumour springing from the periosteum of the lower two-thirds of the femur, and surrounding it equally on all sides. It had absorbed all the soft structures, and was just covered by their atrophied remains and the dense glistening skin. The microscopic examination showed the tumour to belong to the class of osteo-sarcomata.

In September, rather more than three months after the operation, hearing that my patient was dying, I went to her home in the country and persuaded her to come again into the infirmary, where she was admitted, on September 25th, in a very exhausted state. The body

temperature seemed much below the normal; the extremities were cold, and the body covered by cold clammy perspirations. She was suffering from intense dyspnoea, and was unable to assume the recumbent posture. She was perfectly conscious, complained of no pain, and had up to the last few days enjoyed a remarkably good appetite. The face and upper extremities were intensely cyanotic and oedematous. The superficial veins of the head, neck, and arms formed prominent large tortuous cords, and the thorax was of an enormous size, with distinct bulging of the right side. The whole of the right side of the chest-wall, both in front and behind, was absolutely dull on percussion, and its dulness extended over to the left side to a line vertical through the left nipple; the left supra- and infra-clavicular and supra- and infra-scapular regions gave normal percussion and sound. On auscultation, no breath-sound could be heard on the right side; while on the left, both in front and behind, harsh vesicular breathing, with loud sonorous rhonchi, were audible. The respirations were 45 per minute. The heart's impulse was felt in the left axillary line, in the fifth intercostal space; the apex-beat was feeble; the sounds of the heart were normal, but weak and irregular; the pulse 110, thin, and easily compressible.

The girl died on October 1st, and, at the *post mortem* examination, on removing the sternum, the right lung was found extending across the anterior mediastinum, displacing the heart and compressing the left lung into a small space by the side of the spinal column. The right lung had assumed truly gigantic proportions, weighing fifteen pounds, and resembling more a solid body; the left lung and heart forming, as it were, a mere appendix. The microscopic examination showed it to have exactly the same structure as the tumour of the femur, which I need not describe; but I may mention that some beautiful sections were kindly made for me by Dr. Dreschfeld, Lecturer on Pathology to Owens College, and may be seen in the Microscopic Section in the Museum. The left lung weighed sixteen ounces; it contained, in the lower lobe, three small nodules of the same nature as the tumour in the right lung. The rest of the organs were healthy. Neither the inguinal, femoral, axillary, nor mediastinal glands were in the least enlarged.

One other case occurred in my practice, where I amputated at the hip-joint for a very large tumour of a similar nature (the whole limb, after removal, weighing nearly forty pounds). The man recovered, but died some months afterwards, with no return in the stump; and your President, I have no doubt, can recall to mind other cases. We have, therefore, I think, sufficient evidence before us to show that we must amputate wide of the disease; but still, as far as possible, from the great centre of the body; and, consequently, with a necessarily diminished risk.

A CONTRIBUTION TO THE CONTROVERSY RESPECTING CHEIRO-POMPHOLYX AND DYSIDROSIS.

By JOHN TWEEDY, F.R.C.S.,

Late Assistant Medical Officer in the Skin Department of University College Hospital; etc.

ALTHOUGH I may, perhaps, after Dr. Tilbury Fox and Mr. Jonathan Hutchinson, claim to have most personal interest in the controversy respecting dysidrosis and cheiro-pompholyx, I have not hitherto thought it necessary to take a public part in it; but recent events seem to demand that I should break silence, and to lay before the profession some facts which, I trust, will assist to clear up some of the matters in dispute.

I regret that Dr. Thin's contribution to the BRITISH MEDICAL JOURNAL of December 1st compels me to refer to the question of priority; but I shall do so as briefly as possible, as I am most concerned to record my own experience of the nature and seat of the disease which Dr. Fox has described under the name dysidrosis.

For more than five years, from the beginning of 1870, I regularly attended the Skin Department of University College Hospital, and for nearly four of these years, I held the post of Assistant Medical Officer therein. With few exceptions, I saw all the patients who attended during that time, numbering at least five thousand different individuals; but at no period in those years did it appear that Dr. Fox was a perfect stranger to the disease which, in the year 1872, he decided to call dysidrosis. I became acquainted with it at the commencement of attendance in the skin department, and was not long in discovering that, although not described in books, it was by no means rare. Under these circumstances, I feel justified in concluding that Dr. Fox had recognised the peculiarities of the disease sufficiently to point them out to his pupils even before the year 1870; how long before, it is not my business to inquire.

* Read in the Section of Surgery at the Annual Meeting of the British Medical Association in Manchester, August 1877.

In the year 1873, Mr. Hutchinson asked me if I had ever met with a bullous eruption on the hands presenting the characteristics which, three years later, he described as those of cheiro-pompholyx; I replied that I knew the disease well and had seen a large number of cases at University College Hospital, and added that Dr. Fox had published an account of it under the name of dysidrosis. So much for the simple question of priority.

The dispute respecting the *locale* and nature of the disease is more important. I may say at once that, as the result of observation of a large number of cases, I do not entertain any doubt whatever that the primary and essential seat of the disease which Dr. Fox has called dysidrosis is the sweat-follicles. Plate LI, figure 3, of Dr. Fox's *Atlas of Skin-Diseases*, the accuracy and correctness of which I can confirm, shows distinctly that the first vesicles correspond exactly in situation with the sweat-follicles; and that the early vesicles *always* so correspond may easily be demonstrated to any one who can believe the evidence of his senses.

The arguments *pro et contra*, which have been drawn from the chemical differences between normal sweat and the fluid which collects in the disease under dispute, seem to me wholly irrelevant. The disease is not, as Dr. Liveing seems to imagine, merely a local hyperidrosis; and Dr. Fox has always sufficiently insisted on this fact. So far from dysidrosis being local hyperidrosis, it would, I believe, on inquiry, be found that the outbreak of the disease is usually preceded by unusual dryness of the hands and feet, accompanied with heat, redness, and tingling. The fluid which collects in so-called dysidrosis is no more normal sweat than the sebaceous excretion in true acne is normal. In both alike, there is a disturbance of the healthy nutritive relation between the blood circulating in the gland wall and the proper tissue of the gland, and in consequence, the excreted products are more or less divergent and perverted, and prone, sooner or later, to set up irritative overgrowth followed by a long train of inflammatory phenomena.

SURGICAL MEMORANDA.

FOREIGN BODIES IN THE EAR.

In confirmation of the well-known fact to which Mr. Dalby refers in his paper in the *JOURNAL* of December 15th, and which, in the interests of general practitioners and their patients, cannot be too often repeated—viz., that a foreign body in the external meatus, if "left alone", cannot do harm—I have to report that a few weeks ago I removed with a syringeful of tepid water, from the ear-canal of a patient, an irregular-shaped stone about as large as a good-sized pea. There was the clearest evidence that it had been in the meatus for fourteen years. Notwithstanding this, on examination of the ear after its removal, no abnormality of tissue was discoverable; but no attempts at its removal had ever been made.

The following brief rules, to be followed as to the removal of foreign bodies from the external auditory meatus, may be of service to practitioners in general. 1. See that there is a foreign body to remove; and 2. Remove it by the simplest means—syringe and water; if you fail, "try, try again". 3. In all attempts at its removal, see the body, and eschew violence in all your manipulations.

JAMES PATTERSON CASSELLS, M.D., M.R.C.S. Lond.,
Aural Surgeon, Glasgow Royal Infirmary; and Lecturer on Aural
Surgery in the Royal Infirmary School of Medicine; etc.

OBSTETRIC MEMORANDA.

SPONTANEOUS EVOLUTION.

IN 1867, immediately before the Fenian outbreak here, I was called to see a poor woman at Kilfrack, who, I was informed by three or four women whom I met there, had been in labour for two or three days previously; the house she was in being uninhabited, she being a vagrant, and her child illegitimate. These women had been visiting her off and on, and supplying her with drinks, etc. On my arrival, they informed me that the child's hand had been "on the world" since the day before; but it was then invisible. I proceeded to make an examination, and the first thing I met was the child's foot coming down. I effected delivery by the feet without much difficulty, and, to my astonishment, found the right arm and shoulder greatly ecchymosed, the line of ecchymosis being distinctly defined. There could be no mistake about this being a case of spontaneous evolution. The hand had appeared externally for about thirty-six hours. The woman

was rather diminutive; and so was the foetus, which was born dead. It weighed six pounds. This woman subsequently suffered from puerperal peritonitis, which I treated with drachm-doses of turpentine every four hours internally, turpentine stupes externally, and small doses of grey and Dover's powder. She made a complete recovery.

MATTHEW S. KENNEDY, Tipperary.

REPORTS

OF

MEDICAL AND SURGICAL PRACTICE IN THE HOSPITALS AND ASYLUMS OF GREAT BRITAIN.

ST. BARTHOLOMEW'S HOSPITAL.

CONSULTATIONS.

December 13th.—*Chronic Disease of the Knee-Joint.*—Mr. SAVORY invited the surgical staff to examine a girl aged 23 in Lucas Ward. She had been subject for three years to chronic disease of the left knee-joint; the tibia had become dislocated backwards in the usual way, and numerous sinuses had formed. The knee had been supported by a splint and thus straightened, the subluxation of the tibia being reduced; but otherwise the young woman's condition had not been much improved after three months' rest in hospital. Mr. Savory believed that the knee was spoilt and the left limb useless. He was ready to wait a little before resorting to extreme measures.—Mr. HOLDEN stated that, in such a case, only those who had treated it and watched it previously were competent to arrive at a satisfactory decision. Judging from its present appearance, he thought the joint should be excised.—Mr. SMITH recommended that an immovable apparatus should be adapted to the left limb, so that the patient might be able to get out of bed. Her constitutional condition would thereby be improved before she underwent amputation or excision.—Mr. WILLETT was in favour of keeping the patient a few weeks more under observation before submitting her to active surgical measures.—Mr. LANGTON had observed the case for over eighteen months, and was decidedly of opinion that no possible good could be done by waiting.—Mr. SAVORY determined upon waiting a few days and then excising the knee-joint.

Ununited Fracture of the Bones of the Forearm.—Mr. THOMAS SMITH showed a patient, aged 33, who had been admitted into the hospital last May with a severe compound comminuted fracture of her left radius and ulna, caused by the wheel of a loaded hay-wagon passing over her forearm. Every attempt was made to save the limb, and, twelve weeks before consultation, Mr. Smith resected the injured bones under carbolic spray, and placed their ends simply in contact without any wires or pegs. The results had not proved satisfactory. Mr. Smith asked his colleagues if they considered it advisable to make another attempt to unite the bones with wires, or else to remove the limb, which, in its present condition, was useless.—Mr. HOLDEN believed that a second conservative operation should be attempted. A similar case had been under his own care, and, after great pains and perseverance, the forearm had been saved and an useful hand preserved.—Mr. SAVORY stated that the idea of repeating the former operation, with the additional precaution of holding the fractured ends of the bones together with wires, was a good one, but was not likely to be successful. It would be better to adapt to the forearm an instrument which would support it, and thus leave to the patient a serviceable left hand: better than the most skilfully contrived artificial limb.—Mr. LANGTON was not in favour of any operation, and agreed with Mr. Savory's suggestion.—Mr. SMITH determined upon acting on that suggestion, and intends, therefore, to order an apparatus to be constructed which will support the affected forearm. The patient was liable to erysipelas, and therefore an unfavourable subject for any cutting operation.

Abscess in the Neighbourhood of the Knee-Joint.—Mr. SMITH also called the attention of the surgical staff to a man, aged 52, whose left knee had been swollen for three years. Six weeks ago, he had injured the affected part by a fall, and a red swelling, fluctuating on pressure, had appeared close to the insertion of the inner hamstrings. The knee and the swelling were very tender, and the patient's temperature at midday about 100 deg. Mr. Smith, who considered that the swelling on the inner side of the knee communicated with the joint, proposed to lay it open under carbolic spray, being prepared, at the same time, to amputate it, if the articulation proved to be seriously involved.—Mr. HOLDEN was in favour of opening the secondary swelling.

After examining the patient, he was not sure that it communicated with the joint. The patient's appearance and general condition were not so indicative of any serious complication as is usual when pus has formed in a large articulation.—Mr. WILLETT and Mr. LANGTON were both in favour of opening the swelling; they believed it was continuous with the joint.—Mr. SMITH determined on abiding by his previous decision mentioned above.

December 20th.—*Tumour of the Upper Jaw.*—Mr. SMITH solicited advice in the case of a boy aged 15. The lad noticed, last May, that his nose and face were beginning to swell on the left side. A large firm tumour now existed, intimately connected with the left superior maxilla. The cheek was very prominent, and the growth could be felt from the mouth, posterior nares, and also from the orbit, the lacrymal bone being perforated or absorbed. Air could be felt, producing crepitation on pressure of the orbital part of the tumour. The boy was anæmic and had become very thin. There was one enlarged lymphatic gland under the chin. Mr. Smith had no doubt that the boy was afflicted with a tumour of a malignant character. Its connections were evidently very deep. In the case of an operation undertaken for a similar tumour of the upper jaw, the deep attachments were so multiple that the patient only survived for ten minutes, after he was brought back to the ward, the mutilation which the operator was obliged to inflict on him. In another instance, Mr. Smith hesitated from the first, and finally refused to operate. The patient applied for relief to another hospital, and there died on the operating-table, though the jaw was removed by a distinguished, bold, and skilful operator. Guided by such experience, Mr. Smith felt most reluctant to remove the growth. None of the other surgeons were in favour of operative interference.

REPORTS OF SOCIETIES.

CLINICAL SOCIETY OF LONDON.

FRIDAY, DECEMBER 14TH, 1877.

THOMAS BRYANT, F.R.C.S., Vice-President, in the Chair.

Excision of the Ankle-joint.—Mr. BARWELL exhibited a boy aged 4½, upon whom the operation had been performed on February 15th. The boy left the hospital on March 27th, with the wounds healed, but with the plaster of Paris bandage still applied. He had an excellent foot, the limb operated upon being as long as the other; and when he wore a boot, whose sole was a little thicker on the inner than on the outer side, he walked perfectly. The case was shown chiefly to exhibit the fact that, although perfect synostosis between the tibia and astragalus should be aimed at, yet excellent results might be obtained when a false ankylosis between those bones resulted, provided that the fibrous bond were short. Mr. Barwell took occasion to point out that he was the first to describe in England Moreau's procedure, and that, although Mr. Holmes (*System of Surgery*), in describing this operation, quoted Mr. Barwell's description in inverted commas, yet Mr. H. Lee called it (*Med.-Chir. Transactions*, vol. lviii, p. 144) the Hancock-Holmes operation; also Mr. Barwell controverted Mr. Lee's opinion that Moreau's method was difficult, and stated that it required far less displacement of and violence to soft parts to make the tibia project at the inner wound, as Moreau recommended, than to present it at the outer wound after the method proposed by Mr. H. Lee. The case exhibited, and photographs of other cases handed round, showed the value of the results obtainable by the method he advocated.

Cases of Severe Ricketty Deformity treated by Division of the Bones by Billroth's Chisel.—Mr. BARWELL described two cases of this operation. The first case, in which the shins were sharply curved, as shown by photograph, was operated upon in consecutive weeks—viz., on the 25th of October and 1st of November respectively. In a fortnight, union was firm, though, lest subsequent bending might take place, the limbs were left five and six weeks on plaster. The result was a very straight condition of the two legs.—The other case was one of excessively bowed legs in a girl aged 17, who on this account could not walk at all. Mr. Barwell divided the two bones beneath the knee on 12th April, and put the limbs straight in plaster of Paris on 3rd May; he divided the femora at the lower part of the upper fourth, and treated them in the same way. The girl had now two very sufficiently straight limbs, and walked well. Especial attention was drawn to the fact that neither of these patients suffered pain or had febrile symptoms.

Subcutaneous Treatment of Exostosis by Fracture.—Mr. MAUNDER read notes of and exhibited two patients whom he had submitted to this novel method of operation for exostosis. The first case was an

exostosis of the femur in a girl aged 15, who was admitted into the London Hospital in June 1874. She had for many months suffered pain and discomfort at the back of the left knee, and was unable to extend the leg fully upon the thigh. When walking, she could only place the toes upon the ground. A bulging of the thigh just above the external condyle was found, and proved to be caused by a pedunculated exostosis attached to the back of the femur at its outer side, just at the junction of the epiphysis with the shaft. The tumour was pressing against the tendon of the biceps muscle and the external popliteal nerve. To relieve pain and enable her to walk, it was necessary either to remove or to dislodge the growth, which might be done either by abscission through an open wound—a formidable proceeding, with many possible concurrent and subsequent dangers—or by subcutaneous division of the pedicle with the saw or chisel, or fracture of the pedicle by violence without any wound whatever. Supposing that by this latter method the tumour might be detached, it might become necrosed and ultimately extruded by suppuration, or might be absorbed or reunited. If suppuration occurred, it would not do so until the bone-cells of the femur, opened by the fracture, had become closed in, and thus protected from danger. If absorption occurred, there would be no further trouble; and, if reunion took place, the body of the tumour might have so changed its position as to no longer interfere with the patient's comfort. Subcutaneous fracture was resolved upon, and was done on July 8th, 1874. The skin being protected by a piece of chamois-leather, the tumour was seized with a pair of gas-fitters' pliers, and, being firmly held, was suddenly jerked and its pedicle broken. Ice was applied for two or three days; and a little tenderness, swelling, and ecchymosis were the only consequences of the operation. Passive movements were afterwards kept up; but, notwithstanding these, reunion occurred. The body of the tumour, however, occupied a new position in the popliteal space, and troubled its owner no longer. The second case was one of exostosis of the tibia, also in a girl aged 14, who was admitted into the London Hospital in February 1877. She stated that, about two years before, she had slipped and sprained her right knee. This accident was followed by pain and swelling, and she could only get about on her toes. Since then, the case had been treated during one period of three months with iodine paint, but without avail. On examination, a rather large pedunculated exostosis was found attached to the inner edge of the tibia just below the internal tuberosity. This was also treated by subcutaneous fracture with the gas-fitters' pliers, but with a result different from the above. The pain and inability to walk were removed; but the tumour had not reunited with the shaft of the bone, and its mobility was readily recognised. The object of the operation—relief to the patient—had been attained without any external wound: a fact upon the desirability of which it was unnecessary to dwell.

Mr. MYERS wished to know what portions of the ankle-joint Mr. Barwell had excised, and how his patient had walked before the operation.—Mr. HOWARD MARSH thought Mr. Barwell had not sufficiently explained the conditions of the case, to enable the meeting to judge exactly of the value of his operation. He himself treated many cases of disease of the joints in children by prolonged rest, rather than by excision. As regarded the division of bones in rickets, there were the two operations of simple division of the bone with a small saw, and that of cutting out the angle of the bend—a much more severe operation, and one which produced in effect a compound fracture. In two cases in which the lesser operation was performed, the temperature only once rose above 100.0 deg. He thought Mr. Barwell's case, now exhibited, was not bad enough to justify the operation. He thought cases of badly curved ricketty limbs became straightened under the use of splints and administration of cod-liver oil, etc.; in children two or three years old, there was almost a spontaneous tendency towards straightening.—Mr. MAUNDER said that, with regard to saving joints the seat of gelatinous disease, such was continually being done in the case of the well-to-do; the patients being able to afford constant surgical supervision and all such aids to recovery as country air, the seaside, good food, etc. But surgical advice, good food and physio, provided by a London hospital, did not secure all that was to be desired, and a great number of these cases progressed insidiously from bad to worse, and operation was then called for. Similar observations applied to bent legs. The poor could not attend efficiently to their children; but, while simple measures, such as the application of splints which prevented walking, often sufficed to correct the deformity, severe cases with hardened bones required operation. Excision of the ankle-joint for disease was an operation not held in much favour, probably on account of the experience of Syme, who, no doubt, resorted to his operation at the ankle-joint on the ground that caries was liable to recur in tarsal bones which were left after partial amputations of the

foot. This observation Mr. MAUNDER has taken from several instances excepting the ankle-joint. In partial amputations of the foot, the small bones which were preserved were called upon to sustain the whole weight of the body, for which they were never intended; but, in excision of the ankle-joint, it would be evident that the bones of the foot were left in their natural relative position, and the arches, with their elastic property, remained, while the anatomical structure of the interior of the bones occupied its original position, that best suited to support the body. It was essential to the comfort of a patient that either a short fibrous or bony ankylosis should be secured to him. In Mr. Barwell's patient, he feared the operation would be, to a certain extent, a failure; the fibrous bond being long and yielding, as though either too much bone had been cut away, or the surfaces had not been sufficiently approximated during repair. The child walked with an unsteady gait, and the foot was in a position of valgus, conditions which could only be relieved by the constant use of mechanical support.—Mr. CROFT, in three cases of excision of the ankle done by himself, had not made lateral incisions, but had reflected the soft parts from before backwards. In one of his cases, the much-to-be-desired result of bony ankylosis had occurred. It was probable the fibrous union in Mr. Barwell's case would, in the course of time, become firmer. The subperiosteal mode of excision had not been sufficiently practised; in one of his cases, by separating the periosteum from the end of the fibula which he removed, he obtained a larger quantity of new bone in its place. A case of pedunculated exostosis of the tibia in a boy eleven years of age he had treated after the manner advocated by Mr. MAUNDER. The boy had, subsequently to the operation, been able to move his leg about freely.—Mr. HOWSE said that Mr. Marsh, in his paper in the *Medico-Chirurgical Transactions*, had rightly restricted the operation for rickety deformity to extreme cases. In the oblique variety of deformity, that in which the anterior and lateral curves were combined, splints could not be well applied, and such cases were consequently suitable for the operation. Mechanical modes of treatment often lasted for years; and this element of time was frequently a matter of the highest importance to patients, especially the poor. In four out of the five cases of doubly curved tibia operated upon by himself, a quick recovery ensued; in the fifth it was delayed, but the child now had an almost straight limb and could walk well.—Mr. W. H. BENNETT said that Mr. Holmes had divided the pedicle of an exostosis with the chisel, with the result that the detached exostosis increased in size, and that a new growth of bone had occurred at the place from which it had been separated. In another case, an exostosis of the femur, being spontaneously separated in a fall, ceased to grow.—Mr. BARWELL said he had always obtained bony union in excision of the ankle, except in this case. Since the operation (six weeks ago), the limb had been suspended in a plaster splint, without extension; and it was possible the union might even yet become bony. Time and rest would certainly greatly benefit diseased joints. As regarded the operation of osteotomy for rickety deformity, it should only be done in severe cases, as recommended by Mr. Marsh, who had introduced the operation. Where the bone could be straightened by being simply bent, osteotomy should, of course, not be performed.

MEDICAL SOCIETY OF LONDON.

MONDAY, NOVEMBER 19TH, 1877.

G. BUCHANAN, M.D., President, in the Chair.

Infantile Paralysis.—Mr. WILLIAM ADAMS read a paper on this subject. He especially referred to the clinical history of cases of infantile paralysis, distinguishing those characterised by rigid muscles, and frequently spoken of as spasmodic affections, from those distinguished by a flaccid condition of the muscles, and always recognised as examples of paralysis. He remarked that the cases of rigid muscles were occasionally met with at the period of birth, and were therefore spoken of as congenital; but they always occurred in connection with prolonged and difficult labour, and evidently resulted from acute congestion of brain and the upper part of the spinal cord, when some inflammatory changes occurred; and, in one *post mortem* examination which he had made, thickening of the membranes and adhesions were found to exist at the base of the brain and along the medulla oblongata. In these cases, both the legs and arms remain rigidly contracted, and such children are unable to walk or stand alone. In more severe cases, the mental faculties are also weakened; the children frequently squint, articulate with difficulty, and sometimes dribble, so that they have more or less an idiotic appearance. Similar cases, but generally in a less severe form, frequently occur between the ages of six and eighteen months, during the period of dentition, and are sometimes ushered in by convulsive affections. In some cases no apparent cause exists, and they

are sometimes supposed to depend upon an accident. Cases of the second class included in the group of "infantile paralysis" are characterised essentially by a flaccid condition of the muscles paralysed. This is the typical form of infantile paralysis—the essential or spinal paralysis of children described by recent authors. These cases never occur at the period of birth, and usually not until the first and sometimes during the second dentition. They not infrequently result from some febrile affections during infancy, and sometimes as late as five or even seven years of age. Cases, in illustration of the suddenness of seizure and tendency to spontaneous recovery, were described. With regard to the seat and nature of the structural changes upon which this form of paralysis depends, the author relied upon and quoted the description given by Professor Charcot, in his recently published *Lectures on Diseases of the Nervous System*. Under the head of lesions of motor nerve-cells, Charcot observes: "Infantile spinal paralysis is, up to the present, the most perfect type of the affections which compose this category;" and then he describes a condition of myelitis affecting the anterior cornua of the grey matter of the spinal cord, and this, existing to a greater or less extent, so as to admit of more or less recovery, satisfactorily explains the paralytic condition of the limbs affected. The author then described in detail the chief points of difference between the two classes of cases, and also the points in which they are generally found to agree. In both these classes of cases, various contractions and deformities frequently occurred at late periods, *i. e.*, some years after the paralytic seizure; but much might be done to prevent their occurrence by the daily use of passive exercises and shampooing, and recovery of power was often contributed to by the use of galvanism. The mild continuous current was found to be especially useful in the class of flaccid muscles, whilst no good was ever done by galvanism in the class of rigid muscles. When deformity had taken place from permanent contraction of the muscles, tenotomy was generally necessary, but should be practised with great caution, especial care being necessary during the after-treatment to secure good union of the divided tendon. In consequence of the feeble nutrition, more especially in the class of flaccid muscles, the reparative power is often very defective; and either non-union, or very feeble union, might leave the patient in a worse condition than before the operation. By the aid of tenotomy, however, and appropriate mechanical supports, these patients were often enabled to stand and walk, when they could not have done so without surgical and mechanical aid.

MEDICO-CHIRURGICAL SOCIETY OF EDINBURGH.

WEDNESDAY, NOVEMBER 7TH, 1877.

J. D. GILLESPIE, M.D., President, in the Chair.

Retropharyngeal Abscess.—Mr. CHIENE showed a boy, on whose case he had read a short communication at the last meeting of the British Medical Association in Manchester (see *JOURNAL*, August 25th, p. 255). The wound healed in July, and he could now move his head with freedom, the only evidence of the disease being a projection of the second cervical vertebra.

Calculi.—Mr. SPENCE showed the following series of calculi. 1. Twenty-four calculi removed from an old man with a deep perineum. 2. A curious heavy calculus which had not been yet examined, but was unpleasantly studded with oxalate of lime, thus causing the patient pain. While operating, he had found difficulty in grasping the stone firmly. The patient was seventy years of age, and had suffered long, but made a good recovery. 3. Seven calculi removed, along with two others not shown, from the same patient, who had also given him two small sample-bags filled with calculi which he had passed. He had been sounded in Montreal and in London, but no calculi had been detected. Those passed were prostatic, containing 90 per cent. of phosphate of lime; but Mr. Spence was not sure if those he had removed were from the prostate. Perhaps, prostatic calculi might have formed nuclei in some cases. The diagnosis in London was that the prostate was completely destroyed. In the operation, he found, however, that the patient had a deep prostate. 4. Two calculi, one of uric acid and phosphate of lime, and another small one of oxalate of lime, he had found on examining the incision with his finger. 5. Three calculi removed from a boy aged 10, who had suffered from his birth. 6. Two small calculi, one of oxalate of lime, another of oxalate of lime and uric acid. He did not crush, because, while the first grasp with the lithotrite gave a diameter of ten lines and a half, the second, by some mistake probably, was fifteen lines. The patient recovered; and he, therefore, did not regret that he had cut.

Alveolar Sarcoma.—Dr. P. H. WATSON showed an alveolar sarcoma which he had removed that morning from a patient eighty-one years of age. It occupied the submaxillary region, and had been ten years in

growing. There were cavities in it from mucoid degeneration, with crystals.

Oxalate of Lime Calculus.—Dr. P. H. WATSON showed an oxalate of lime calculus from a patient aged 70, who had suffered long from it, but more severely recently. There was some difficulty in detecting the stone; but, by depressing the beak of the sound and elevating the trigone of the bladder, he succeeded. He performed the ordinary lateral operation. As the prostate was large, he had some difficulty in removing the stone. It was an oxalate of lime one, with few spicula, and covered with uric acid.

Melanosis of the Eyeball.—Dr. ARGYLL ROBERTSON exhibited the eye of a patient aged 60, which he had excised for melanosis of the eyeball. On section, the interior of the eye was found occupied with it, and it had pierced the sclerotic at two points anteriorly near the cornea, and at one near the optic nerve. The optic nerve itself was not involved. Two years ago, he had trephined the eyeball for glaucoma. It was not probable that the tumour gave rise to the glaucoma, because, twelve months ago, after loss of sight, the ophthalmoscope showed no tumour; and, as the chief mass was in the interior of the eyeball and posteriorly, it could then have been easily recognised. Microscopically, the tumour was a pigmented sarcoma, with small nucleated pigmented cells, scanty stroma, some cholesterine, and oil-globules from fatty degeneration. As the optic nerve was unaffected, and the conjunctiva only at one spot, which he carefully removed, he hoped there would be no recurrence.

Poisoning by Coal-Gas.—Dr. MCBAIN read a case of coal-gas poisoning. The case was that of an elderly lady, who, on retiring to rest, seems to have turned the gas-pipe cock too far, and so allowed the escape of gas. In the morning, her room, on being forced open, was full of gas. She was insensible, and so remained for some hours, pale and cold. The application of heat by hot bottles covered with moist flannel seemed to do great good, by stimulating the action of the skin and keeping up the animal heat. She eventually made a good recovery.—The PRESIDENT said that the only case he knew of was in Sir James Simpson's lifetime, when he was experimenting on anaesthesia. The subject of the experiment was an old horse in Professor Dick's Veterinary College; but, when the animal was supposed to be under the influence of the coal-gas, it was found to be dead, and, therefore, no further experiments were made.—Dr. P. H. WATSON said that a very serious question was, indeed, whether strength and health were not being sapped and weakened by the habitual employment of gas. The result in Dr. McBain's case was more fortunate than usual. He remembered a case in Southampton, where an old woman and her niece were the sufferers. The old woman died, but the niece recovered. In Dr. McBain's case, the aid was fortunately speedy. It was, indeed, difficult to understand how, after so many hours' exposure in a room eight feet by nine, and with the window closed, she recovered.—Mr. SPENCE mentioned a case, published by Dr. Taylor, where an Australian gentleman suffered from coal-gas poisoning. He had been unaccustomed to the use of gas, and had blown it out on going to bed. He only lived forty-eight hours.—Dr. CRAIG suggested that the gas-tap might have been turned so much that not a very great amount of gas escaped.—Dr. PEEL RITCHIE suggested that, as, according to Taylor's *Manual*, carbonic oxide was the poisonous ingredient in coal-gas, perhaps the proportion of it in North Berwick gas was small. The suggestion of the steam-bath was, he thought, a good one.—Mr. BELL knew of two cases where Free Church Members of Assembly from the Highlands had suffered somewhat, owing to their blowing out the gas.—Dr. ARGYLL ROBERTSON thought there was one point wanting in the case, viz., whether the increased perspiration smelt of gas. As this was not mentioned, it was difficult to say whether the treatment was beneficial or not.—Dr. F. B. BUIST mentioned that the case seemed analogous to what occasionally occurred to men engaged in cleaning out large gas-holders. The man who was poisoned was said to be "gased"; and the only treatment employed was plenty of fresh air. Fatal cases were rare.

Antiseptic Dressings.—Mr. CHIENE read a paper on antiseptic dressings, in which he advocated the use of a layer of sponges over the ordinary deep dressings of an antiseptic case, so as to suck up and absorb the discharges. The sponges could be used over and over again after being soaked in carbolic acid, and thus were cheap. They rendered it unnecessary to shift the deep dressing, and thus got rid of the frequent use of the spray-producing engine, which was troublesome, and demanded much time and attention.—The PRESIDENT, as one of the managers of the Royal Infirmary, was delighted to hear that Mr. Chiene was trying to cheapen the antiseptic material. At present, it cost the Infirmary £1,000 yearly. He wished to ask if the sponges could be used more than once.—Mr. CHIENE explained that they could.—Mr. SPENCE said that there was no surgeon now who did not treat his wounds on

an antiseptic plan. He believed that a wound treated by the open method was as antiseptic as those treated in a special manner, since the putrefactive discharges were allowed free exit. Mr. Chiene's paper treated of methods of diminishing the cost of antiseptic dressings and further simplifying them. In this he cordially concurred. As to the antiseptic treatment, he wished to know about its results. For a series of years, he had given forth his: good, bad, and indifferent. Lately, in twenty amputations, one of them double, he had only three deaths, and one of these was an amputation at the hip-joint for a very large cancerous tumour, where the operation, by the patient's express desire, was carried out with the most strict antiseptic precautions. Were there no deaths from amputations in the wards where antiseptics were carried out? The antiseptic treatment was said to be specially applicable in the treatment of chronic abscesses. A modification of it was, he believed, good for such cases. Still, all were not cured by the strict method, as could be seen from the fact that, owing to recent changes in the clinical wards, many of these were sent out uncured. In his own wards, the antiseptic treatment was occasionally tried by its believers, as it was alleged that those who did not believe in it could not practise it aright. He himself, therefore, only watched the effects, and left the management to others. In one case of abscess in the ward, the dressing was carefully done. All went on well; but, after a time, first smell appeared, and then bacteria, so that the special treatment was dropped and carbolic oil used, with the result of diminishing the foetor. The explanation usually given was that some minute precaution had been omitted, that some mistake had been made by a nurse, and so on. What was the use of a treatment where the slightest slip vitiated the result, so that, according to a recent statement, there were only a very few men who could be trusted to carry it out properly? If his own cases went wrong, or if he had pyæmia, then he would do anything to avert such results. But the occurrence of pyæmia and septicæmia was, he believed, more due to the state of the constitution than to any method of treatment. As to the theory on which the antiseptic treatment was founded, the difficulty was that, if germs came from without, how then could we have a series of arm cases unsuccessful and a series of leg ones under similar conditions successful, and why, when in the latter series the wound had a larger surface?—Dr. P. H. WATSON said that everyone who had employed the antiseptic treatment must have noticed that, even in good hands, wounds went wrong. Where the blame was to be laid, was difficult to say. The less one exposed a wound and the less one admitted air, the better it was for the wound. His own great anxiety was to see that there was no tension; and, if this were perfectly ascertained by the thermometer, then an examination might be made outside the dressing. It was interesting to watch the progress of the system. At first, the tension of the system was too strong, even when applied to the membranes of the brain. Now, the great point was to allow as little carbolic acid as possible to touch the wound, so that even the protective was protected. Perhaps, if the wound were left undisturbed and the anti-septics applied elsewhere, the result would be as good. He believed the cases were successful because of the saturation of the wound. In this way, the tension of the urine and breath were affected, or even the nervous system. This was most frequent in the early days of the system, when he had no doubt that tetanus following on compound fractures was due to the irritation of strong solutions of carbolic acid. Now, the applications were so weak that one might wrap a patient in gauze and no bad effects follow. He would be glad to use the sponges, as Mr. Chiene has described. By means of the occlusion of wounds, he had had satisfactory results some years ago. It consisted in introducing drainage-tubes, using carbolic acid in the bandages, shellac, and cotton-wool in shellac. The plan was not difficult, and in small operations the results were good. In extensive ones, however, the tension was great; and in one case an attack of osteo-myelitis made him chary of the plan when he could not see the wound. No long time ago, in Paris, the dressing was introduced into the depths of the wound.—Mr. BELL used the antiseptic plan in some suitable cases and not in others. He kept in mind the teaching of his revered preceptor Mr. Spence, that mere modes of dressing were comparatively unimportant, and that wounds healed by natural processes if left alone; and never forgot that, without any antiseptic precautions, Mr. Syme had thirty-seven cases of ligation of the femoral artery without a death, and that many series of successful amputations quite equalling any statistics under antiseptic treatment had been obtained by no dressings at all.—Dr. A. G. MILLER said that Mr. Chiene was anxious to cheapen and get rid of the spray. In many cases, this was troublesome, needed an intelligent assistant, incommenced the operator, dimmed his eyesight and spectacles, made him perspire, and so on. When he stood for an hour and a half in a carbolic atmosphere, he did not enjoy his dinner, had a bad taste in his mouth, and scanty and high-coloured urine. To get rid of the

spray, would be a good service to surgeons and to anti-epileptics.—The PRESIDENT, referring to chronic and psoas abscesses, asked the gentlemen present if they had not seen patients walking about with cicatrices, who had recovered when there was no antiseptic treatment. But at the Royal Infirmary, if they spoke of sending out such a case when under antiseptic management, they were told the patient would die. Of patients treated antiseptically, some got better, some remained *in statu quo*.—Dr. ARGYLL ROBERTSON said that dressings were not often needed in ophthalmic surgery; but in enucleation the sponge was useful. It kept up pressure, soaked up discharge, and could be used again and again.—Dr. BRUCE had opened one case of psoas abscess without antiseptic precautions, and the patient made a good recovery.—Mr. CHIENE thanked the members. In using the term antiseptics, he meant by it what Germans called "Lister's method". Speaking for himself, he thought that by this method the probability of a cure in a psoas abscess was much greater. In regard to the case he had shown, he believed such were rare. The quantity of pus was great, but yet there was a movable neck and no humpback. This was what he aimed at.—Mr. SPENCE said he had frequently opened abscesses in such cases as Mr. Chiene had brought forward, and with good results.

MEDICAL SOCIETY OF THE COLLEGE OF PHYSICIANS IN IRELAND.

WEDNESDAY, NOVEMBER 14TH, 1877.

SAMUEL GORDON, M.D., President, in the Chair.

Report of Council.—Dr. GEORGE F. DUFFEY, Honorary Secretary, read the annual report of the Council, which was adopted.

Inaugural Address.—The PRESIDENT delivered an inaugural address.

Abstract of Three Hundred and Twenty Cases of Phtisis.—Dr. HAYDEN stated that he recognised genetically only three forms of phtisis—the tubercular, the bronchopneumonic or caseous, and the cirrhotic or fibroid. "Syphilitic" phtisis had not yet made good its claim to be regarded as a distinct species. "Hæmorrhagic" phtisis was merely a form of tubercular phtisis. He believed primary tuberculosis of the lungs to be not only possible, but of very frequent occurrence. With most writers, he recognised three stages of the disease—deposition, softening, and excavation. A careful statistical examination of three hundred and thirty cases gave the following results. As might be expected from the chronicity and slow progress of the disease after forty-five years, both lungs were affected in a larger proportion of cases at that period of life than at any other, whilst both were least frequently affected relatively to number between the ages of fifteen and twenty-five years. Where one lung only was affected, the right maintained a preponderance at all periods save the last. Hæmoptysis was most frequent between the ages of twenty-five and thirty-five years, and at all periods it occurred more than once in the proportion of two to one of the cases in which it was exhibited. The proportion of phtisicals in whom hæmoptysis did not occur at any time was nearly two-thirds. Andral set it down at one sixth. Clubbing of the fingers was presented in very nearly the same numerical proportion at the several periods. Excavation was most common under fifteen years, and was associated with illness of less than six months' duration in the proportion of somewhat less than one-third of all the cases in which it was exhibited. The author proceeded to note such symptoms and physical signs as seemed to possess special diagnostic value. The special symptoms most significant of the first stage were comparative immobility of the infraclavicular region, with retrocession or sinking of the supraclavicular fossa during a full inspiration; and the signs most suggestive of deposition the author believed to be feeble or interrupted respiratory murmur and prolonged expiration. Increased vocal resonance and a flat percussion-note might likewise exist in this stage. A subclavian arterial murmur had been in many cases detected in the stage of deposition. This phenomenon was first noted by Stokes in 1835, who attributed it to a threefold cause—namely, retrocession of the chest-wall, consolidation of the apex, and arterial irritation. Ruelle (in Ziemssen's *Cyclopaedia*, vol. v) erroneously assigns the credit of the discovery of this sign to Friedreich and Gerhardt, who had observed it shortly before the date of his publication in 1875. Dr. Hayden, while agreeing with Dr. Stokes as to the etiology of this sign, thought further that it indicated a limited deposition in the anterior portion of the apex, and that it was due to a passing pressure of the solidified lung-substance on the artery. The second stage was indicated by coarse and resonant crepitant *râle*, limited to the apex of one or both lungs, and associated with flattening, percussion-dulness, and muco-purulent expectoration. The diagnosis from bronchitic *râle* rested mainly on the sharp and resonant quality of the crackle in the case of progressive softening, and

on the localisation of this sign. The author could not admit local bronchitis in the absence of a local irritant. The existence of cavity was positively indicated only by metallic phenomena and *gargouillement*. The *decubitus* was eminently suggestive in this stage. When cavity existed in either lung, the patient in almost every instance lay on the back or on the opposite side, not by preference, but of necessity; the attempt to lie on the affected side being immediately followed by urgent cough, alleviated only by change of position. Pneumonic phtisis was noted in eight of the three hundred and thirty cases. Subclavian murmur existed in four cases. The paper concluded with some practical remarks on treatment. Suitable change of climate Dr. Hayden considered to be, *par excellence*, the remedy for phtisis.—After some remarks from Dr. MACSWINEY, Dr. HENRY KENNEDY said he was glad to find that the views of Dr. Hayden appeared opposed to those of Niemeyer as to the relations of pneumonia to phtisis. Dr. Kennedy believed also that the complication of tubercle with cirrhosis was very exceptional. Where hæmoptysis was followed by phtisis, tubercle must, in his opinion, have been pre-existent in the lung. With respect to treatment, he had found the hypophosphites most useful. Another valuable agent was *uva ursi*.—Dr. HEAD thought that phtisis, especially after measles, might sometimes be traced to the blocking up of the bronchioles by a tenacious mucous and epithelial deposit analogous to that seen in the uriniferous tubes after scarlatina—so much so, that he had been inclined to term the condition "desquamative bronchitis".—Dr. AQUILLA SMITH observed that Dr. Hayden had not stated in how many cases in the female the catamenia were suppressed.—Dr. HAYDEN, in reply, said that, according to his experience, cirrhosis and tubercle were very seldom associated. With respect to treatment, he confessed to a prejudice against hypophosphites on account of the manner in which their use had been introduced. He agreed with Dr. Head, that measles often led to catarrhal pneumonia and to phtisis; and he had also noticed that amenorrhœa was commonly an early symptom of phtisis in females.

PATHOLOGICAL SOCIETY OF DUBLIN.

SATURDAY, DECEMBER 1ST, 1877.

EDWARD HAMILTON, M.D., President, in the Chair.

Congenital Misplacement of the Right Kidney.—Dr. J. M. FINNY showed the specimen, removed from the body of a woman, whose history was unknown. She seemed to be fifty years of age, and had lateral curvature of the spine to the left in the dorso-lumbar region. The right suprarenal body was of natural size and in its normal situation, receiving its arterial supply from the aorta. The left kidney was normal in situation and size. The right kidney lay just above the brim of the true pelvis over the sacro-iliac synchondrosis, the upper half resting on the psoas muscle, the lower projecting as a prominent tumour into the pelvis. The kidney lay behind the peritoneum, surrounded with a small quantity of fat. It was not movable. The right common iliac artery passed under the kidney, causing a slight oblique depression on its under surface; the vessel, which was uncovered in this situation by peritoneum, was one inch and a quarter longer than the left, and was displaced inwards and downwards below the brim of the pelvis. Behind the upper part of the kidney, the spermatic vessels passed on to the psoas muscle. The kidney, which appeared healthy, was smaller than natural, and was lobulated; its convex surface was directed downwards and outwards; its inner was upwards to the spine. On its inner edge lay a large hilus, from which proceeded the ureter and the renal vein, and into which passed a large artery, which issued from the abdominal aorta half an inch above its termination and an inch below the situation of the inferior mesenteric. The vascular supply of the kidney was anomalous, and derived from four sources: 1. A branch from the aorta which entered the hilus; 2. From the right common iliac artery as it sprang from the aorta—this vessel passed behind the upper end of the kidney and entered it on its outer surface; 3. A large branch from the sacra media, which entered the back and lower part of the hilus; and 4. A small branch from the right internal iliac just after its formation. There were three veins opening into (a) the internal iliac; (b) the left common iliac before it joined the inferior vena cava; and (c) the vena cava, one inch below the right spermatic. The ureter, which was short, passed in front of the lower end of the kidney, and it commenced in a double manner from the upper and lower parts of the kidney, the common ureter being found an inch from their points of exit. The upper part of the sling was again made up of two lateral ureters, and the lower of three. The misplacement was in this case congenital, and might probably be attributed to a deficient energy in the movements of the embryonic rudiments of the kidney. This abnormal position would also explain the vascular anomalies, as it was probable

that the vascular system gradually developing in the kidney formed communication with the neighbouring large vessels. The case had further interest in being the first exhibited to the Dublin Pathological Society, in which the kidney was at the brim of the pelvis, forming a tumour therein, and in the fact that it was the right kidney which was displaced. Of forty-four cases collected by Weisbach, thirty-five were on the left side; and of twenty-one collected by Roberts, fifteen were left.

Intermittent Aortic and Quincke's Murmurs.—Dr. NIXON showed the thoracic viscera of a sailor aged 36, who had suffered from two attacks of ague, with epistaxis and splenic enlargement. There was no increase of the white blood-cells. Intense pain attended the enlargement of the spleen. The murmurs of mitral obstruction and regurgitation were both present. At the base of the heart an intermittent aortic regurgitant murmur was heard, and a *bruit de sac*—a peculiar grating murmur—existed, with a flapping second sound at the junction of the second left costal cartilage with the sternum. This murmur was audible, except at the end of a full inspiration. Albuminuria was present, and the urine contained waxy casts. After death, hæmorrhagic infarctions were found in the spleen. The upper lobe of the left lung was airless and carnified, so that removal of the normal pressure exercised by the healthy lung on the pulmonary artery led to the development of Quincke's murmur. The *bruit* of aortic patency was intermittent, because the valves were themselves healthy, the murmur being caused by occasional entangling in them of pieces of fibrin.—In some remarks on the case, Dr. HAYDEN considered that the character of this murmur was against the view that it was produced by pressure.

Ascites in a Boy aged 10.—Dr. BANKS brought forward a remarkable case, in which enormous ascites and exceedingly enlarged superficial abdominal veins occurred in a boy aged 10, the subject of caseous or tubercular deposits in the liver.—The specimen was referred to a Committee for a report on the exact nature of the deposits.

Hydronephrosis.—Dr. LYONS showed the kidneys, etc., of an intemperate man, who had suffered from renal dropsy for a long time. Ascites supervened, and the fluid drawn off by tapping was peculiar. It was of a milky white colour; specific gravity 1011, contained 1.97 per cent. of solids, viz.: ash, .067; and organic matter, 1.3. Urea was present in the fluid to the amount of .2 per cent. When the patient had been tapped eleven times, the ascites ceased. Urgent dyspnoea ushered in death. There was no cirrhosis of the liver, although traces of perihepatitis and of perisplenitis existed. The kidneys were connected with each other by a band of fibrous tissue—horse-shoe kidneys. The right one was fatty to a marked extent. It was lobulated, and its capsule was somewhat adherent. The left kidney was in a state of advanced cystic degeneration. Pressure exercised by the left renal vein on the corresponding ureter was (as pointed out by Dr. R. J. Harvey, who made the *post mortem* examination with great care) the probable cause of the cystic degeneration. Urea had apparently escaped into the peritoneal cavity by a process of dialysis or exosmosis from the vast cysts in the left kidney.

SURGICAL SOCIETY OF IRELAND.

FRIDAY, DECEMBER 7TH, 1877.

ROBERT McDONNELL, M.D., F.R.S., President, in the Chair.

Recent Specimens.—The following specimens were exhibited.

Dr. WHEELER showed a large solid Fibrous Ovarian Tumour which he had that day removed from a woman aged 45 in the City of Dublin Hospital. The tumour weighed ten pounds; and appeared to be constructed of very dense fibrous tissue. The woman was progressing favourably.

Mr. H. G. CROLY exhibited a small Mulberry Calculus which he had the previous week removed from the bladder of a man in the City of Dublin Hospital.

Dr. THOMSON showed the Larynx and Trachea of a man who had died shortly after admission into the Richmond Hospital of Œdema Glottidis. The epiglottis was erect, and all the surrounding parts much swollen and congested. The vocal chords had almost entirely disappeared.

Tracheotomy in Diphtheria.—Surgeon-Major QUILL read a paper on this subject. He said that his attention had been particularly drawn to it by a case which he had under his care, in which tracheotomy had been performed with most satisfactory results. On June 12th, 1876, while he was attached to the 17th Lancers, a boy aged 5½ presented

himself complaining of sore-throat and general sickness. On examination, the appearances were only those of tonsillitis; there was no false membrane. The treatment ordered was that he should be kept in bed; hot poultices applied to the throat, and beef-tea and liquid nutritious diet administered. There was no diphtheria at the time in the barracks. On June 16th, he had slight dyspnoea; there was nothing to account for this except tumefaction of the tonsils. The next day, the symptoms were much aggravated; the tonsils were covered with white patches. The following treatment was then decided on: frequent inhalation of steam, application of nitrate of silver to the tonsils, tartar emetic until nausea was produced, and repeated hot baths. This treatment proved of no avail. Next day, the child's appearance was much altered for the worse, his face being very much congested, and breathing most difficult. In consultation with Dr. Johnstone, it was decided to perform tracheotomy immediately. When the operation was about being performed, a fearful paroxysm came on, after which the child became, to all appearances, dead; notwithstanding this, the trachea was opened. Immediate relief was experienced, the child's appearance at once changed, the face lost its congested look, and air came freely from the opening. A double tracheotomy-tube was then introduced. The second day after the operation, another severe paroxysm came on, during which a large portion of false membrane, moulded in the shape of the parts, was discharged. The tube was removed on the evening of the fifth day, but was replaced on the morning of the sixth, in consequence of a slight return of dyspnoea. On account of complete paralysis of the fauces and pharynx, the child had to be fed with nutrient enemata. Complete recovery took place from this date. Dr. Quill discussed the merits and demerits of tracheotomy under such circumstances. The two great opponents of the operation were Dr. Cheyne and the late Professor Porter. The former said that the larynx was closed by spasm, which spasm was propagated to the trachea, and, therefore, that the operation would be useless. Dr. Quill maintained that the larger size and calibre of the trachea would justify the undertaking. The chief of Professor Porter's objections was founded on the uncertainty of the result; but Dr. Quill contended that all cases would prove fatal unless the operation was performed; he was also of opinion that had Mr. Porter, who wrote forty years ago, lived to the present day, he would have been led to change his mind on the subject. Dr. Quill believed diphtheria and false croup to be one and the same disease. He said that diphtheria, in its primary stage, was a purely local disease, and afterwards became constitutional. On this supposition, he urged the advantage of early operation. He said that, where careful medical treatment had proved of no avail, it was the duty of a surgeon to operate, even though the chances of recovery were *nil*. Dr. Quill laid particular stress on the value of careful after-treatment, the most usual causes of death after the operation being bronchitis and pneumonia, he said that every precaution should be taken to avoid the possibility of such occurrence by means of keeping the air at a suitable temperature. Dr. Quill claimed special advantage for the large tube, as he said it was much easier for false membrane to be discharged through it than through one of smaller calibre. The boy on whom Dr. Quill operated was a strong healthy child; and, doubtless, the success obtained was in part due to this fact.—Dr. JOHNSTONE agreed with Surgeon-Major Quill on the advantages of the operation. He thought that a great part of the success which followed it was due to the healthy state of the patient.—Dr. B. F. McDOWELL thought that sufficient attention had not been given to the operation. He considered that vaporisation of the atmosphere was a very important element in the after-treatment. Dr. McDowell approved of Fuller's bi-valve tube, alleging that it was much easier to apply than Ogle's double tube.—Dr. WHEELER made some remarks on the relative merits of the high and low operations, and supported the latter.—Dr. THOMSON approved the operation. He had not been very fortunate in his cases; for, in the three instances in which he had operated, he had lost his patients; although relief had in every case been experienced. Dr. Thomson was in favour of the high operation. He considered the undertaking sufficiently difficult without trying to make it more so by performing the low operation.—Dr. O'LEARY made a few remarks on the question whether diphtheria was a constitutional or a local affection.—Dr. KENNEDY said that, when the case had proceeded too far to give tartar emetic, he had found great benefit follow from the use of opium. He recommended narcotising the vapour used.—Mr. CROLY said that there was the highest authority for operating early, as Trousseau operated in the earliest stages. Trousseau had laid down that, if the trachea were opened, no false membrane would reappear. Mr. Croly considered this a very consolatory fact in cases of operation. He was in favour of the high operation.—After some further remarks by Dr. COLLINS, Mr. ORMSBY, etc., to which Surgeon-Major QUILL replied, the proceedings terminated.

BRITISH MEDICAL ASSOCIATION:
SUBSCRIPTIONS FOR 1877.

SUBSCRIPTIONS to the Association for 1877 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches, are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 36, Great Queen Street, London, W. C.

BRITISH MEDICAL JOURNAL.

SATURDAY, DECEMBER 29TH, 1877.

CORONERS' INQUESTS IN KENT.

It appears from the Law List that there are no fewer than twenty-two coroners holding office within the county of Kent, in addition to five deputy-coroners; and there can, therefore, be but little doubt that the county is as fully provided with these officials as any other part of England and Wales. There is a coroner for each of five divisions of the county, as well as a coroner for each of sixteen cities, boroughs, or liberties. It is a singular fact, however, that the proportion of inquests held within the county is remarkably small, being very considerably below, not only the average proportion in the whole of England and Wales, but also the proportion in other counties of a generally rural character. Indeed, the system, or rather want of system, which seems to guide the comparatively irresponsible discretion of many of the coroners in Kent, is so dangerously lax as to afford the strongest evidence that a general and sweeping reform in the laws and regulations which at present govern the appointment and duties of coroners is urgently called for.

During the first nine months of this year, the proportion of inquests held in England and Wales averaged more than 5 per cent., whereas, in the extra-metropolitan portion of Kent, it but slightly exceeded 3 per cent. An examination of the death-register for Kent, relating to the three months ending June last, shows that, excluding the unions of Bromley, Dartford, Gravesend, North Aylesford, Hoo, and Medway, only forty-four inquests were held in the remaining extra-metropolitan portions of the county during the three months, although two thousand one hundred and three deaths were registered; the proportion of inquest cases was, therefore, so low as 2.1 per cent., and it is important to note that fifty-six fatal cases of violence occurred within the same area during this period, exceeding the number of inquests by twelve; whereas the inquests held in the whole of England and Wales exceeded the number of deaths from violence by about 50 per cent. The omission of inquests is especially apparent in the returns for the unions of Sevenoaks and Tunbridge, in which nine hundred and twenty-four deaths were registered during the nine months ending September last, while only ten inquest cases were registered, although no fewer than thirty deaths were referred to different forms of violence. In these two unions, the proportion of inquests held very slightly exceeded one per cent. of the total deaths.

As examples of the cases in which no inquests are held in Kent, although they would have been adjudged fit cases for holding inquests in almost any other part of England and Wales, it will be useful to note the following, which have been gleaned from the death-register for that county for the June quarter of this year. On April 4th, the wife of a private in the Royal Marines was "found dead in her room", and the cause of her death was so described in the register, on the information of the occupier of the house, without the production of a medical certificate; no inquest was held. A groom aged 19 was run over at Tunbridge on April 16th; no inquest was held, and the uncertified cause of death was described as "head crushed by wagon". In Maidstone, on April 7th, the infant child of a linendraper's assistant, aged three weeks, died from "suffocation from being accidentally overlaid"; no inquest was held; but the cause of death was certified by a registered

medical practitioner, and the death was registered upon the information of the father. In the Yalding subdistrict of Maidstone, the illegitimate child of C. W., now the wife of B. T., an agricultural labourer, aged eighteen months, was found drowned in a ditch on April 8th, in Wagon Lane, Yalding; no inquest was held, and the cause was not certified, while the informant was J. V., who found the body and signed the register with a mark. In the Penshurst subdistrict of Sevenoaks, a labourer aged 24 was found drowned, on May 4th, in a pond at Cowden; a labourer aged 44 was found drowned in a pond at Chiddingstone on May 11th; and, on June 6th, the son of a labourer was found drowned in the river at Penshurst; although, in accordance with his official instructions, these three cases of drowning were referred by the local registrar to the coroner within whose jurisdiction the deaths occurred, that officer pronounced inquests to be unnecessary, and the deaths were registered without the production of any satisfactory evidence of the cause of death, and upon the information of ordinary informants. A farm-bailiff aged 47 died in Farningham subdistrict of Dartford, on April 18th, and the cause of the death was certified by a registered medical practitioner as "fracture of skull and pelvis, rupture of heart"; but no inquest was held. The illegitimate child, aged 10, of H. C., now the wife of R. C., an agricultural labourer, died in Lenham subdistrict of Hollingbourn, on June 28th; the cause of death was entered in the register as "unknown"; no inquest was held, and the mother, who was the informant of the death, signed the register by mark. A system which allows such cases as these to escape without investigation must entirely fail to afford that protection to human life from gross negligence or foul play, which is the main object of the existence of the ancient office of coroner.

Although neglect to hold inquests in cases which appear imperatively to call for investigation constitutes the main cause of complaint against the coroners holding office within the county of Kent, there is one other ground on which they fail, in common with a large number of coroners in other parts of England and Wales; the verdict or finding of the jury, in so far as it purports to give the cause of death, is often unintelligible. An inquest was held on the case of a labourer, aged 27, who died at Sevenoaks during the second quarter of this year, and the verdict certified by the coroner was "exhaustion from loss of blood". From all points of view, this is an essentially meaningless and causeless verdict; it does not even convey the information whether the loss of blood was due to natural or to violent causes, much less does it afford the means for classifying the cause of death in the interests of mortality statistics, the uses of which are now beginning to be more generally understood. The death at Sevenoaks, to which we have referred, may have been due to hæmoptysis, or to suicide, or murder, so indefinite is the wording of the finding of the jury certified by the coroner.

The few cases to which we have alluded, which might easily be multiplied if space permitted, afford the most conclusive evidence of the unsatisfactory operation of the present law and practice of coroners in the county of Kent. It is needless to say that similar defects exist in other parts of England and Wales, although fortunately in but few counties to so glaring an extent.

THE QUARTERLY RETURN OF THE REGISTRAR-GENERAL.

DURING the second quarter of 1877, 121,972 persons were married in the United Kingdom, 98,108 of whom entered into married life in England and Wales, giving a marriage-rate of 16.6, or 1.0 below the average of the quarter. The rate was lowest (11.4) in the Eastern and (11.8) in the South Midland Divisions; highest (18.4) in the North Midland and (18.9) in the Metropolitan Divisions. The depression in the marriage-rate shows that certain industries (principally mining) were less prosperous than usual.

In the third quarter of 1877, the births of 276,968 children were re-

gistered in the United Kingdom, of which number 213,190 occurred in England and Wales. This was equal to an annual rate of 36.5 per 1,000 persons living, and was 0.2 below the average of the quarter. In the mainly agricultural population of the South-Western Division, the birth-rate did not exceed 28.5 per 1,000, whereas it was equal to 39.3 in the Northern Division, where so large a proportion of the population is engaged in mining. In twenty of the largest English towns, it averaged 36.4, being highest (41.3) in Hull and (45.6) in Oldham.

In the third quarter of 1877, the deaths of 144,528 persons were registered in the United Kingdom; 109,565 in England and Wales, which afforded a death-rate of 17.7 per 1,000 persons living. This rate was 3.1 below the average of the quarter, and was lower than the rate in any quarter since civil registration commenced in 1837, excepting only the remarkably cold and wet summer quarter of 1860, when the death-rate was only 17.2. Both this year and in 1860, the low death-rates which prevailed were mainly due to the low summer temperature, which caused exceptionally low rates of infant-mortality, and especially of mortality from diarrhoea. The 109,565 deaths included 57,057 of males and 52,508 of females; the annual death-rate was equal to 18.9 among males and to 16.5 among females. In equal numbers living, the deaths of males were as 109 to each 100 deaths of females. The highest county death-rates were 20.5 in Leicester and 21.3 in Lancashire. In equal numbers living, the deaths in Lancashire were as 165 to each 100 in the extra-metropolitan portion of Surrey. The urban death-rate throughout England and Wales was equal to 19.2 per 1,000, whilst the rural death-rate did not exceed 15.7; the urban rate was no less than 4.2, and the rural rate 1.5 per 1,000 below the average. To the exceptionally low mortality from diarrhoea in town populations was due the marked reduction in urban death-rates. In the twenty largest English towns, the rate ranged from 17.5 in Sheffield to 25.1 in Leicester and 25.3 in Liverpool. Leicester suffered severely from its annual scourge of infantile diarrhoea, and in Liverpool the general zymotic fatality was excessive. The 109,565 deaths at all ages included 29,376 of infants under one year of age, equal to 138 per 1,000 births registered, which was 24 per cent., or nearly a quarter below the average. In other words, nearly 10,000 children under one year of age in England and Wales survived the summer quarter of this year, who must have died had the rate of infant mortality equalled the average rate. Upon this satisfactory feature in the quarterly return, we have already commented in former numbers of the JOURNAL.

The annual rate of mortality during the quarter among children and adults aged between one and sixty years was equal to 9.9 per 1,000 living at those ages, or 1.3 below the average. Among persons aged sixty years and upwards, the death-rate averaged 55.2 per 1,000 living, or 0.6 below the average.

The 109,565 deaths included 8,136 referred to diarrhoea, 2,830 to scarlet fever, 2,190 to whooping-cough, 2,100 to fever, 1,539 to measles, 516 to small-pox, and 473 to diphtheria; the deaths from these seven principal zymotic diseases were consequently 17,784, and were equal to an annual rate of 2.9 per 1,000, or 1.9 below the average. This low rate was chiefly due to the absence of summer diarrhoea; the mortality from the six other diseases was, however, nearly 30 per cent. below the average. In Dorsetshire, the zymotic death-rate did not exceed 0.9; it was 3.4 in Staffordshire, 3.8 in Warwickshire, and 4.2 in Lancashire. The highest urban zymotic death-rates were 6.6 in Liverpool (whooping-cough and diarrhoea), 6.6 in Leicester (diarrhoea), 6.8 in Wolverhampton (scarlet fever), 5.4 in Preston (whooping-cough and diarrhoea), 5.9 in Shrewsbury (scarlet fever), 6.1 in Yarmouth (diarrhoea), 6.2 in Bolton (scarlet fever), 8.1 in Wigan (scarlet fever), and 9.5 in Exeter (scarlet fever).

The 8,136 deaths referred to diarrhoea were equal to an annual rate of 1.31 per 1,000 persons living; the average death-rate of the quarter from this cause is 2.53. The quarter was the coldest summer quarter on record since that of 1860. The deaths from scarlet fever were, with the exception of the preceding quarter, fewer than in any

quarter since the end of 1873. The disease was fatally prevalent in Manchester, Bradford, Wolverhampton, Exeter, Shrewsbury, and Wigan. The death-rate from whooping-cough scarcely differed from the average of the quarter; but was much higher than the rate in the corresponding quarter of 1876. Whooping-cough was especially fatal in Liverpool. Fever caused much fewer deaths than in any quarter for which records are available. The death-rate from fever was 0.34 per 1,000, the average in the preceding seven years having been 0.56. In many towns, typhoid fever was prevalent. Measles caused a death-rate (0.25 per 1,000) which exactly corresponded with the average rate in the seven preceding summer quarters. The 516 deaths from small-pox were fewer than those so caused in any quarter since the spring quarter of 1876; of these 516 deaths, 304 occurred in London and its suburbs, 89 in Lancashire, and 43 in Cheshire; while but 80 fatal cases were recorded in the rest of England and Wales. In the registration of London, the small-pox deaths, which had been 1,192 and 828 in the first two quarters of the year, declined to 252. The fatality of diphtheria was lower than in any quarter since the third of 1872.

The recorded natural increase of population in the United Kingdom during the quarter, caused by the excess of births over deaths, was 132,440; in England and Wales, it was 103,625. The number of emigrants who left the United Kingdom during the same period was 36,951: a smaller number than in the September quarter of any year since 1862. The English emigrants were 20,930, Scotch 2,870, and Irish 7,525. Of the 31,325 British emigrants, 50 per cent. left for the United States, and 34 per cent. (a large increase) for the Australian colonies.

Excepting a period of genial weather from August 13th to August 21st, the temperature throughout the quarter was low, chilly, and unpleasant, especially from September 15th to September 25th. The mean temperature of the quarter was 58.5 deg., and 1.2 deg. below the average. The deficiency in September was 3.7 deg.; the mean temperature of that month was lower than that of any other September since 1803. The measured rainfall at Greenwich was 6.4 inches, and was an inch below the average. Altogether, the returns are favourable. The birth-rate was near the average of the season; the death rate was extraordinarily low, due chiefly to the subsidence of diarrhoeal diseases.

RANK AND POSITION OF MEDICAL OFFICERS OF THE ROYAL NAVY AND HER MAJESTY'S ARMY.

AN announcement, intimating a proximate change in the status of "certain of the highest grades" "of medical officers of the navy", was inserted in a quasi-cynical paragraph of a weekly contemporary of the 15th instant. The solution of the question is simply thus. On May 1st, 1876, a Royal Warrant was promulgated as follows.

"Victoria R. Whereas We deem it expedient to alter the terms and conditions of service in the Medical Department of Our Army. "It is Our further will and pleasure that"

"1. A Surgeon-General shall rank as Major-General, according to the date of his commission.

"2. A Deputy Surgeon-General shall rank as Colonel, according to the date of his commission."

Previously to this date, a Surgeon-General ranked on promotion with a Brigadier-General, and, after three years' service, with a Major-General. A Deputy Surgeon-General ranked on first promotion with a Lieutenant-Colonel, and, after five years' service, with a Colonel. Similar periods of service had to be passed by Inspectors-General and Deputy Inspectors-General of the Royal Navy, before attaining the rank of Major-General and Colonel; or relatively, in their own service, that of Rear-Admiral and Captain over three years' standing.

To diverge from the medical interests, it may be stated that a Lieutenant-Colonel has to serve five years before attaining the rank of Colonel; while a Captain in the Navy has only to be of three years' standing or seniority before attaining the relative rank of Colonel in the

Army—a manifest advantage to the Naval Captain, but somewhat illogical to the Colonel and Medical Officers.

The effect of the advancement in position to the Army Medical Officer, although justly due, was to place the Medical Officers of the Navy at a disadvantage, as every Inspector-General and Deputy Inspector-General was placed in an inferior position with regard to his brother officer of the Army of the same co-ordinate standing.

We have reason to believe that all these anomalies and intricacies of relative rank will be abolished; and that, as in the Army so in the Navy, the following uniformity will obtain: Surgeon-General, Inspector-General, Major-General and Rear-Admiral, Deputy Surgeon-General, Deputy Inspector-General, Colonel and Captain of three years' standing.

THE PATHOLOGY OF CONCUSSION.

A NEW light has been thrown upon this obscure question by the experimental investigations which M. Duret, already so well known for his careful anatomical and experimental researches on the nervous system, has recently laid before the Société de Biologie. A mere oscillatory disturbance of the encephalon is not a satisfactory explanation of the loss of consciousness and the cardiac and respiratory troubles which supervene after a violent blow on the head; and it is contrary to what we know of the physical and physiological condition of the encephalon to believe that such oscillations could be so slight as to produce such marked disturbances of function without effecting at the same time some anatomical alteration. Blows on other organs do not alter their functions without leaving traces of structural change. In his experiments on animals, M. Duret was able to reproduce the symptoms of concussion in the human subject in all its degrees of temporary loss of consciousness with slow respiration and slow pulse, greater duration of the same phenomena, and, lastly, sudden death. As blows upon the head produced results difficult to analyse, he proceeded by making a small opening in the cranium by means of a perforator, and injecting various fluids through this. Sometimes he used water, sometimes coagulable substances, such as gelatine. As experiments upon the cerebral hemispheres proper have shown that these may be removed in almost their entire extent without producing the cardiac and pulmonary symptoms of concussion, he was led to expect that the medulla was the part in which the lesions, if any, would be found. By injecting a large quantity of fluid, he succeeded in bursting the fourth ventricle and tearing up the aqueduct of Sylvius; and, as the same result followed the injection of a coagulable fluid which could be traced, he was able to demonstrate that the effect was due to the tension of ventricular fluid. By cutting away the cervical muscles, the occipito-atloidean membrane may be laid bare, and its respiratory pulsations watched or recorded by the graphic method. When fluid was injected into the cranial cavity, this membrane became tense, pulsation ceased, and all the clinical phenomena of a shock manifested themselves; but, on perforating this membrane with a bistoury, an escape of cerebro-spinal fluid was followed by the disappearance of all the symptoms. In addition to these results, M. Duret was able to discover numerous small hæmorrhages in the substance of the medulla, and in the subarachnoid spaces, principally at the base, but also over the convexity of the brain. He confirmed these results by directly operating upon the medulla by means of a sound introduced through a small opening in the occipito-atloidean membrane, with which very limited contusions of parts of the medulla and the floor of the fourth ventricle could be caused. According to these experiments, therefore, it is to changes in the tension of the cerebro-spinal fluid, and not directly in the cerebral pulp itself, that we should refer the phenomena of concussion.

PROFESSOR TYNDALL, with Mr. John Simon, paid last week a visit of two hours' duration to the wards of St. Bartholomew's Hospital, accompanied by Mr. Callender, and in his visit studied the methods by which that surgeon has attained the very remarkable re-

sults in the successful healing of wounds and treatment of operations and injuries by the system of scientific cleanliness and minute clinical care, of which the records are to be found in the *St. Bartholomew's Hospital Reports*, and in the Clinical Lectures by Mr. Callender, which have from time to time been reported in the BRITISH MEDICAL JOURNAL.

A BRANCH of the Volunteer Sick-bearers' Association has been started by the officers of the garrison and others at Woolwich. Many of the Arsenal *employés* have promised to attend the classes, and receive instruction in attending to injured persons, and the Association are endeavouring to procure the attendance of as many railway servants as can be spared to attend.

THE HEALTH OF THE POPE.

OUR correspondent in Rome writes:—Since my last letter, there have been several changes in the state of Pius IX, but on the whole he has slightly improved; and during the past week has, on more than one occasion, been able to leave his bed for the easy couch on wheels presented to him by one of the Cardinals. He has not, however, been able to leave his room, and he still sleeps badly, and is much troubled with so-called rheumatic pains in his limbs during the night. His cheerfulness is unabated, and he still expresses his determination to go on with the Consistory on the 28th instant, even should he be obliged to hold it in his bedroom. He has as yet only received a few cardinals and priests there. The weather is in his favour, as it is bright and sunny, with a little frost in the early morning.

THE LATE MR. R. B. BELYSE.

A BEAUTIFUL granite memorial pillar, erected at a cost of £240, bearing the following inscription—"In memory of Richard Barker Belyse, who practised as a surgeon in this town for forty years. Born May 17th, 1809; died January 11th, 1877"—was unveiled in the centre of the town of Audlem, Cheshire, with considerable ceremony. In the speeches which followed, the most prominent residents of the district paid the highest tribute to the late Mr. Belyse, whose loss all deeply deplored.

DEATH OF DR. BERTHIER.

OUR Paris Correspondent writes: The death of Dr. Berthier, Physician to the Bicêtre Asylum, is announced as having taken place on Thursday, the 20th instant, in the forty-eighth year of his age. Dr. Berthier was a self-made man; he was the son of poor parents, but he had an uncle, Dr. Girard de Cailleux, late Inspector-General of Lunatic Asylums in France, who took charge of his education. The deceased gentleman was the author of several works on mental and nervous affections; and he was much esteemed by all who knew him. His weekly articles in the *Patrie*, a daily paper in Paris, will be greatly missed; for, under the title of "Tablettes du Docteur", he used to entertain his readers on medical and other scientific subjects, which by his familiar style he rendered at once attractive and easily comprehensible.

A WELL-EARNED TRIBUTE.

THE *Times* correspondent writes:—I am pleased to be able to chronicle the fact that two of the British members of the Turkish Medical Staff have received the special commendation of the Commander-in-Chief for the gallantry of their behaviour under fire while attending the wounded. Mehemet Ali Pacha was so pleased with the conduct of Dr. Gill that he shook hands with him, after the repulse of the last Russian attack, upon the field of battle, and patted him on the shoulder, with the exclamation, "Bravo, Monsieur le Docteur!" Dr. Murphy shared in these commendations, and was invited to the Pacha's tent, where he was very cordially received. I believe I am not premature in stating that both these gentlemen have been nominated for decorations; and, knowing them both, and having seen their work, I can honestly say that they have deserved the recommendation. It may very fairly be added that these gentlemen, gallant as they are, have

rather been more fortunate than more deserving than their fellows; for it would, indeed, be difficult to exaggerate the devotion with which, almost without exception, the English medical men out here have applied themselves to their duties.

LIQUEFACTION OF OXYGEN.

STUDENTS of chemistry will be interested by the following telegram from Professor Pictet of Geneva, which was received this week by Professor Tyndall: "Oxygène liquifié samedi par acides sulfureux et carboniques combinés. Pression, 320 atmosphères. Temperature, 100 deg. Centigrade de froid." Hitherto, all attempts to liquefy oxygen have failed.

ALCOHOLIC STIMULANTS.

THE Guardians of the Medway Union Workhouse have, after much consideration, at last unanimously adopted the recommendation of a special committee to stop the supply of beer altogether in the case of able-bodied paupers, and from the commencement of the new year give an additional allowance of tea and sugar instead. The proposed alteration does not meet with the approval of the paupers.

ATTEMPTED SUICIDE BY A BOY.

SUICIDAL attempts in children are rare, but a most determined case of the kind is reported at Brighton, where on Friday, the 21st instant, William Carr, aged 12, was charged before the town magistrates with making two desperate attempts on his own life. The boy apparently displayed the utmost violence of temper on the previous evening, and was rescued from death by strangulation, he having suspended himself by the neck from the bedpost; he seized a knife, and tried to cut his throat. The prisoner was remanded for a week.

ALLEGED DEATHS FROM VACCINATION AT SHEFFIELD.

INQUESTS have recently been held at Sheffield on three children who have died soon after vaccination. From the medical evidence, it appears that death was caused in all three by erysipelas and bronchitis. The children were vaccinated by an unqualified assistant named Turner, in the employment of a Mr. O'Meara, who appears to be proprietor of a number of dispensaries in Sheffield, and in charge of one of these he had placed Turner. The jury returned a verdict against Turner in two of the cases, and he is committed for trial at the Assizes on a charge of manslaughter. The coroner passed some severe, though just, strictures on the loose way in which Mr. O'Meara conducted the practice of this dispensary, which he had practically entrusted to an unqualified assistant. As the evidence will be more fully and completely given at the Assizes, we shall reserve further comment till then.

CORONERS' INQUESTS.

IN the prospect of speedy legislation upon the subject of coroners' inquests, we draw attention to the following case. Mr. Edwin Hooper, district coroner, held an inquiry at the Black Horse Inn, Wednesbury, touching the death of James Chadwick, aged 20, who died suddenly. Selina Bowers, sister to the deceased, said that on the afternoon in question her brother left home at half-past three o'clock, and appeared to be in good health and spirits, and at five o'clock she was informed that he was dead. He had always enjoyed good health. Peter Keneally, puddler at the Patent Shaft and Axletree Works, said that whilst he was at work the deceased complained of being ill, and afterwards frothed at the mouth. Witness laid him down in the cabin, where he died in the course of an hour. After the deceased was taken ill, he did not speak. He was quite sure there had not been any foul play, as the deceased had been always on the best of terms with his fellow-workmen. The coroner said that if the jury thought it advisable for a *post mortem* examination to be made, he would authorise Mr. Garman to make one. The jury were of opinion that the deceased, although a stout and robust young man, had died from the effects of a disease, and returned a verdict of "Died from natural causes". The coroner showed a remarkable appreciation of his own duty in shifting the responsibility of

deciding as to the necessity for a *post mortem* examination on to the shoulders of the jury. They, like intelligent British shopkeepers, were anxious enough to get back to their counters, and cared little to attend a second time for the paltry payment of one shilling; therefore, without medical evidence, in the teeth of the testimony of his sister that the deceased had always been quite healthy, and although he was a stout and robust man, they returned a verdict of death from natural causes. The jury are not to be blamed: they acted as one would expect; but what are we to say of the coroner? Surely, whatever changes are made, we hope some day to see these posts held by men having some acquaintance with the requirements of medico-legal investigations.

FOREIGN HONOURS TO BRITISH SURGEONS.

THE Cothenius Medal of the Imperial Leopold Academy of Natural Science has been presented to Mr. Lister, of King's College Hospital, "for his discoveries regarding the nature and treatment of wounds." Cothenius, born 1708, died 1789, at Berlin, was personal physician of Frederick the Great. He was, in 1743, made a Fellow, and afterwards President, of the Imperial Leopold Academy of Naturalists, founded by the Emperor Leopold I for the advancement of the natural sciences. The seat of this learned Society, which is held in great honour in Germany, was originally in Vienna, afterwards in Dresden. Cothenius assigned in his will a sum of money to the Imperial Academy, with the condition that, with the interest of it, a gold medal should be given every two years to the man who had elucidated and answered a practical question in medicine publicly propounded by the President, whereby some new or till then uncertain truth should be established. The distinction is so much the greater for Professor Lister, that we learn from a German source that the medal has been awarded to him, without solicitation, on the unanimous recommendation of Virchow, Rokitsky, Leyden, etc. The Imperial Leopold Academy occupies a very high position in Germany, and is very sparing and select in the bestowal of the Cothenius Medal.

THE BOROUGH OF SALFORD.

THE population of the borough of Salford having increased since 1871 at a far greater rate than prevailed between 1861-71, the Registrar-General has received assistance from the Mayor and Town Council of Salford which has enabled him to calculate an estimate of the present population of the borough undoubtedly more correct than the one that has been hitherto in use. The new estimate, which makes the population of the borough in the middle of the year 162,978 persons, is based upon returns of the numbers of inhabited houses on the rate-books of the borough on July 1st of each year of the seven years 1871-77. It has been assumed that the increase of population since 1871 has been equal to the observed rate of increase of inhabited houses within the borough. Calculated upon the new estimate of population, the annual birth- and death-rates in Salford last quarter were 39.7 and 22.1 per 1,000, instead of 45.8 and 25.6 as they would have been if calculated upon the estimate previously in use, which was based upon the rate of increase that prevailed during the last decade, 1861-71. The recent underestimate of the population of Salford only affords additional evidence of the necessity for a more frequent census enumeration in large towns, in order to afford more trustworthy bases for the important vital statistics which supply the only known means for estimating the sanitary condition of populations.

INQUESTS ON CHILDREN DYING FROM NEGLECT.

THE high rate of infantile mortality which now prevails among us is in large part due to ignorance or carelessness on the part of mothers and nurses, and we are glad to find that coroners consider it incumbent upon them to impress upon the public a sense of their responsibility in the matter of infant life. Privileges entail responsibilities, and the greater amount of knowledge now diffused among the lower classes should tend to a greater sense of duty and responsibility. Mr. Graham, Coroner of Jarrow, lately held an inquest on an infant nine weeks old

who manifestly died from neglect. The mother had suckled her child, but, in addition, gave it bread sop from the time of its birth, and when the child showed signs of disturbance at three weeks old, gave it "tincture of rhubarb, just a little taste on a teaspoon" night and morning. Convulsions followed, and a surgeon was called in, but the child died before treatment could be commenced. Examination by the coroner elicited that the child's life had been insured for £1 10s. Dr. Bradley gave evidence to the effect that the child had died from convulsions, probably due to improper feeding, and that the bread sop was probably the indirect cause of death. Such deplorable instances of ignorance and neglect have frequently attracted our notice, and indicate the necessity of some means of giving instruction to young women as to their duties as mothers. We are glad to see that Mr. Spear, the medical officer of the district, has tried to diffuse knowledge as to the necessary care of infants.

HARVEIAN SOCIETY OF LONDON.

THE following is a list of the names of gentlemen proposed by the Council as officers of the Society for the year 1878. The annual general meeting for the election of officers, etc., will take place on Thursday next, January 3rd, at 8 P.M. *President*: *W. M. Graily Hewitt, M.D., F.R.C.P. *Vice-Presidents*: William B. Owen, Esq.; Hughlings Jackson, M.D.; *John Easton, M.D.; *E. Symes Thompson, M.D. *Treasurer*: Henry Power, Esq. *Hon. Secretaries*: H. E. Sewill, Esq.; J. Milner Fothergill, M.D. *Council*: George Eastes, M.B.; Robert Farquharson, M.D.; Alfred Meadows, M.D.; Percy Boulton, M.D.; Stamford Felce, Esq.; F. J. Gant, Esq.; George Field, Esq.; *T. Carr Jackson, Esq.; *Walter Cheadle, M.D.; *G. Granville Bantock, M.D.; *N. H. Stevens, Esq.; *Alfred Wiltshire, M.D. An asterisk is prefixed to the names of those gentlemen who did not hold the same office the preceding year.

OBSTETRICAL SOCIETY OF LONDON.

THE following is a list of the names of gentlemen proposed by the Council as officers of the Society for the year 1878. The election of officers, and the President's address, will take place on Wednesday next, January 2nd, at 8 P.M. *Honorary President*: Arthur Farre, M.D., F.R.S. *President*: Charles West, M.D. *Vice-Presidents*: James H. Aveling, M.D.; James Braithwaite, M.D. (Leeds); *Lawrence Trent Cumberbatch, M.D.; *Arthur W. Edis, M.D.; *Robert James Wilson, F.R.C.P.Ed. (St. Leonard's); Alfred Wiltshire, M.D. *Treasurer*: *Henry Gervis, M.D. *Honorary Secretaries*: John Williams, M.D.; *Clement Godson, M.D. *Honorary Librarian*: John Baptiste Potter, M.D. *Other Members of Council*: John S. Bartrum, F.R.C.S. (Bath); *Percy Boulton, M.D.; William Frederick Butt, L.R.C.P.; Fredk. Henry Daly, M.D.; *Jas. Matthews Duncan, M.D.; *John Easton, M.D.; *George Eastes, M.B.; Alfred Lewis Galabin, M.A., M.D.; Frederick Heudebourck Gervis; Thomas Crawford Hayes, M.D.; *George Ernest Herman, M.R.C.P.; Wm. Carter Hoffmeister, M.D. (Cowes); William Hope, M.D.; William Nicholson Price, M.R.C.S. (Leeds); *Thomas Savage, M.D. (Birmingham); John Ashburton Thompson, L.R.C.P.; John Thorburn, M.D. (Manchester); *Thos. James Walker, M.D. (Peterborough). Those gentlemen to whose names an asterisk is prefixed were not on the Council, or did not fill the same office last year.

ARTERIAL TENSION.

AT a recent meeting of the Société de Biologie, M. François Franck communicated some very interesting results of his experiments upon the relation between arterial tension and the frequency of the cardiac contractions. Marey has formulated the law of the inverse ratio of the heart-beats to the arterial pressure, other things being equal; but this last condition is very hard to fulfil. If all the connections between the head and trunk of an animal, excepting only the pneumogastric nerves, be severed, the cardiac rhythm may be considerably retarded by injecting defibrinated blood, so as to increase the intracranial arterial tension. A similar effect may be produced by compressing the en-

cephalic organs from without. Another condition which seems to be associated with the preceding, is the increase of the intracardiac tension. If the cardiac muscles of a turtle be divided so as to suppress completely all active innervation, the cardiac rhythm remains the same under all variations of intracardiac pressure. These experiments appear to show that the variations in the rapidity of the heart's action depend upon changes produced in the nervous centres regulating the organ, and not, as might be thought, in the mechanical effect of increased opposing force. This agrees with Bernstein's view (*Med. Centralblatt*, 1867, No. 1). Bernstein says the reduction of the pulse-rate which followed injection of water into the circulation of dogs and rabbits took place through the vagi. At the same time, we must recollect that it is no new discovery that augmentation of the tension in the cerebral circulation retards the heart, and it would be accepting more than the logical conclusion were we to infer that this is the only road by which the heart's action can be affected. The second part of M. Franck's experiments does indicate that, innervation being excluded, mere increase of intracardiac pressure determines no alteration in the cardiac rhythm. We have such scanty details of his mode of operating, that it would be premature to express an opinion; but the tendency of recent physiological investigation has been to centralise all the motor phenomena connected with the circulation, and to make them depend more and more upon impressions generated in the medulla.

THE DIAGNOSIS OF EXTRAPERICARDIAL ADHESIONS.

TWO papers have recently appeared which add a little to our knowledge on this head, which hitherto has been scanty enough. For long it has been known that systolic retraction of the præcordia is by no means a trustworthy sign of these adhesions, the sign having been present when no adhesions were found after death, and the converse has been equally common. Dr. O. von Widmann, writing in the July number of Virchow's *Archiv*, suggests that the essential factor for the production of systolic retraction is a change in the position of the heart, with or without adhesions. During systole, the heart's right to left diameter undergoes shortening, so that, if by any means the organ were so displaced that its normally lateral surfaces became antero-posterior, during systole a shortening would take place which would permit the atmospheric pressure to exert its influence on the chest wall, and cause a depression over the cardiac area. Still more lately, Dr. Riegel, in the *Berliner Klin. Wochenschrift* for November 5th, draws attention to a sign which he thinks of importance in the diagnosis of the actual pressure of adhesions; this is, a diminution of the heart's impulse during respiration. Normally, the heart's apex-beat is felt more forcibly and reveals itself more decidedly on a cardiogram during respiration than inspiration; the converse condition, which Riegel has observed in several cases of pericardial adhesion to the border of the lung, is explained, he thinks, by the inability of the latter organ to come forward during inspiration, while in respiration they retract full upon the pericardium, and so impede the heart.

THE "CHRISTIANISMI RESTITUTIO" OF SERVETUS.

THE name of Servetus is associated in most people's minds with the history of clerical intolerance, of which he was so unfortunate an illustration; an intolerance which was not content with burning his books and his body, but which, being handed down to later generations, was perpetuated even in a church that calls itself Protestant, and that allowed the Bishop of London, in 1623, to prevent the publication by Dr. Mead of the chief work of Servetus, the title of which heads this notice. A small number of copies of the *Christianismi Restitutio* were struck off at Vienna in 1790, but they are so rare that the work is all but unknown. The association of a volume which possesses an interest for all students of the history of civilisation may be regarded as a significant sign of our times. The occurrence is opportune, as Servetus' name has often been mentioned of late in connection with the question of priority regarding the discovery of the circulation of the blood. He

certainly recognised a part of that truth, which was fully propounded by our Harvey; and, as a contribution to the history of medicine no less than to the history of the general intellectual development of Europe, we cordially welcome the promise held out to scholars by Messrs. Davidson, D.D., and Willis, M.D., of a republication of this work. We cannot but express a regret that no Society exists amongst us which would, like the old Sydenham Society, undertake the publication of a work such as the one to which we wish to draw our readers' attention, or of the important volume of Schlegel which, equally rare, fully establishes the claim of Harvey to the title of regenerator of physiology, by his discovery of the circulation of the blood and of the moving power of the heart. Let it not be said that the present generation, in its onward march, forgets those who have struggled, and perhaps even suffered martyrdom, in their attempts to guide the first tottering steps of baby humanity towards the goal of intellectual freedom. We trust that the subscriptions asked for by Drs. Davidson and Willis, to enable them to publish the work of Servetus, will amply prove that we are grateful to them for the labour they have undertaken; and that, as far as in us lies, we may secure to one of the great pioneers of modern intellectual development a just though tardy recognition.

BROCA ON ANTHROPOLOGY.

M. BROCA commenced his lectures at the Paris School of Anthropology, by a general summary of the limits, object, and divisions of the science, and then went on to determine man's place in nature. The historical summary which he put before his audience showed how greatly various authors have differed as to the distance which separates man from his nearest neighbours in the animal series. Some writers, indeed, cannot make the gap sufficiently wide, and propose the admission of a fourth kingdom: the human or hominal. Others, on the contrary, will not admit that the human race forms an isolated family, distinct from that of the anthropoid apes. Almost every step of the zoological ladder, between these two extremes, has been assigned to man, who would thus, according to the different methods of classification, form an offshoot, a class, a subclass, an order, or a family. M. Broca had an easy task to demonstrate the fanciful or arbitrary side of these classifications. In his opinion, strict examination leads to the truly scientific idea of comparative anatomy, *viz.*, that which constitutes the human group a family of the order of *primates*.

SCOTLAND.

THE Christmas vacation at the Edinburgh School of Medicine commenced on Saturday last. Lectures will be resumed on Thursday, January 3rd.

No death from typhus, scarlet fever, small-pox, or erysipelas, occurred in Edinburgh during the month of November. There were only two from measles.

AT the last meeting of St. Cuthbert's Parochial Board, Edinburgh, seven defaulters under the Vaccination Act were ordered to be prosecuted.

IT is stated that, owing to an outbreak of puerperal fever in the wards of the Glasgow Maternity Hospital, the directors have under consideration the advisability of closing the institution for a short time.

A DANGEROUS LUNATIC.

AN alarming accident occurred last week in Galashiels. A man named Osborn, from a distant part of the county, walked into the shop of a man named Richardson, and began to talk about religious matters. Mr. Richardson went out, leaving Osborn in the shop, who then proposed that he and Mrs. Richardson should get married, so that they might go to heaven together. She endeavoured to divert him until her personal safety could be secured; but he instantly lifted a knife

from the table, and said he would cut her throat. A scuffle ensued, in which Mrs. Richardson's hands were cut; but she succeeded in escaping from the apartment, and the lunatic was afterwards secured by the police. He has since been certified to be insane.

ANDERSON'S COLLEGE, GLASGOW.

AT a quarterly meeting of the Trustees of Anderson's College, Glasgow, held on Saturday last, the Secretary reported that the expenses of the College Act (£613) had been paid by Mr. Young of Kelly, who, as President, asked to be allowed to retire on account of ill-health. This was agreed to. Dr. Fergus gave notice of the following motion: "That as, in the present position of Anderson's College, it is desirable there should be a fund provided for endowing the several professorships, for providing class apparatus and scholarships, and for defraying class expenses, which have to be borne by the professors; and as additional accommodation is urgently needed,—it be remitted to a Committee to consider the pecuniary resources of the College, and report to the trustees at the next quarterly meeting."

EDINBURGH UNIVERSITY BUILDINGS EXTENSION FUND.

SINCE November 30th, subscriptions have been intimated to the secretary of the fund to the amount of £2,300, bringing the total sum subscribed up to £95,500, leaving £12,000 still to be raised in order to secure the grant of £80,000 from the Government. The Royal Medical Society, "recognising the importance of all *alumni* and students of the University co-operating in the work of raising the sum required to secure the Government grant", has opened a subscription for this purpose, and issued collecting cards to past and present members of the Society, which are to be returned on or before January 31st. A similar card has been prepared by a "Committee of Graduates and Undergraduates of the Medical Faculty", and last week the distribution of them was made among the medical students attending the University.

TOWN AND COUNTRY.

AT a meeting, held last week, of the Glasgow Philosophical Society—Dr. Fergus, President, in the chair—an opening address was given on the Sanitary and Social Economy question, by Dr. J. B. Russell, Medical Officer of Health for the City. The lecturer explained that it was his object to test the comparative success of town and country in managing so to get rid of the excreta of the population as to avoid the production of disease; and he selected as his tests the death-rate from diphtheria and enteric fever, because these two were the most purely faecal diseases known in this country, and widely distributed as epidemics. After sketching the "history" of diphtheria and enteric fever in this country, Dr. Russell exhibited diagrams showing that, in most cases, the death-rate from diphtheria, during the ten years 1861-71, was in favour of the towns of over 10,000 inhabitants, as compared with the rural area around them. Similar statistics were not available for enteric fever, but he believed the results would be the same. The odds against the town, in such a comparison with the country, were great. They compared, for instance, Glasgow, with its dense population, and Caithness, a thinly populated district. Yet the people managed to poison each other at more than twice the rate in Caithness that they did in Glasgow. If everything were left to chance in Glasgow as in Caithness, all would be swept away with these diseases; but, as matters stood, a citizen of Glasgow ran less risk of dying of diphtheria, enteric fever, or cholera, than an inhabitant of almost any rural district of Scotland. In Glasgow, by applying certain data embodied in a return obtained by the President (Dr. Fergus), the relation between the sewage question and the health could be defined. The figures illustrated a great general law of mortality increase with the decrease of rental, and, consequently, of accommodation and attendant sanitary and social advantages. Dr. Russell concluded by saying that, if all water-closets were banished from the inside of small houses, and their sinks made to discharge in the open air over a gully in the court;

if all water-closet and other sewer arrangements in large houses were thoroughly revised as to position, construction, etc.; if the public sewers and house-drains were ventilated on the separate system, and the drinking of cistern-water were entirely given up, the mortality from diphtheria and enteric fever would be reduced to the lowest possible minimum.

IRELAND.

ENTERIC fever of a bad type is very prevalent at present in Balinasloe.

THE Convalescent Home in connection with the Belfast Royal Hospital has received a donation of one thousand pounds from Mr. A. W. Craig of London.

MR. J. B. STORY was elected last week Junior Surgeon to St. Mark's Ophthalmic Hospital. Another well-known Dublin oculist of long standing was also a candidate for the appointment, which has been vacant since the election of Mr. Rainsford to the vacancy caused by Mr. Wilson's death last June. Since his graduation in medicine and surgery last year, Mr. Story has devoted himself especially to the subject of ophthalmic and aural diseases, and has pursued his studies with great diligence and success in the chief Continental schools.

PHARMACEUTICAL SOCIETY OF IRELAND.

THE next examination for the qualification of Pharmaceutical Chemist will be held at the College of Physicians on Wednesday next. The usual quarterly preliminary examination is fixed for Monday, January 7th. The professional examinations of the Apothecaries' Hall of Ireland also commence on the same day.

THE LATE DR. HANDSEL GRIFFITHS.

WE regret to learn that the untimely death of this estimable gentleman has left his family in great need. Some of his professional friends, accordingly, are endeavouring to raise a fund for their benefit, so as to enable his widow to furnish a house and make a struggle for the maintenance of herself and her little ones. The promoters of this laudable object feel assured that the unfailing courtesy of Dr. Griffiths in his position as Assistant Librarian of the Royal College of Surgeons, and his cheerful readiness to oblige all those with whom he was brought into contact, will not now be forgotten. Dr. James Little, Vice-President of the College of Physicians, 24, Lower Baggot Street, will receive any subscriptions; or they may be lodged to the credit of an account for the "Griffiths' Fund", which has been opened in the joint names of the President of the Royal College of Surgeons, Dr. R. McDonnell, and Dr. Little, in the Ulster Bank, Lower Baggot Street.

SANITARY CONDITION OF CORK.

THE inquiry instituted by the Local Government Board, to which we have already referred, was completed on the 11th instant, before Dr. McCabe, Local Government Inspector. Evidence was given by the engineer of the waterworks, who stated that within the past ten years the consumption of water in the city had doubled, which he attributed to the greater attention paid to sanitary matters. The only means used at present for preventing foul matter passing into the reservoirs at the waterworks consisted of a system of gratings and screens; but a new filtering tunnel was being erected, and would be finished in a few months. He believed that the main sewer of the lunatic asylum was allowed to pass too close to the reservoir. The witness thought that the plan proposed by the late Mr. Ronayne, M.P., for supplying water to the city by impounding the river Shournoe, a small river about five miles from Cork, would be too expensive. Some evidence was given contradicting the statements of Dr. Crooke of Macroom, after which the inquiry was closed. The sworn evidence, with a report from Dr. McCabe, has been forwarded to the Local Government Board, who will communicate with the urban sanitary authority.

ROYAL COLLEGE OF PHYSICIANS OF LONDON.

AT the meeting of the College of Physicians on the 17th instant, the President referred with much regret to the death of Dr. Francis Hawkins, and it was resolved that the sympathy of the Fellows of the College should be expressed to the family of Dr. Hawkins.

The adjudication of the sum of one hundred pounds, offered by a gentleman for the best essay on Hydrophobia in Man and in the Dog, was accepted by the College.

The nomination of two members on the Committee of Reference resulted in the election of the President and Registrar, who had been nominated by the Council. It was thought by some Fellows present that the interests of Obstetric Medicine might have been better represented if one of the Fellows of the College devoted to that branch of the profession were chosen; but there was only little support given to this opinion, which deserves, we think, far more serious attention than was bestowed on it, and will, we hope, be again brought to the notice of the College.

The important question of the relation of different Universities to the College, and the value of their examinations, was considered, with a view to determine how far candidates at the College examinations might be regarded as qualified by preliminary examinations conducted by the various examining bodies. The subject was referred to the Censors.

Dr. Barclay and Sir A. Armstrong were elected as members of Council in the room of Drs. Fincham and Barnes.

A NEW IRISH BRANCH OF THE ASSOCIATION.

WE have much satisfaction in announcing that the organisation into Branches of the members of the British Medical Association resident in Ireland is extending itself to the northern provinces. The Association contains in the northern parts a considerable number of distinguished members, who have up to the present not acquired their due influence in the conduct of medical affairs from the want of a Branch organisation and consequent representation in the central Council. We have already referred to the flourishing condition of the South of Ireland Branch, which has in an early period of its existence tendered a warm invitation to the Association at large, which has been cordially accepted for the year 1879; and to the vigorous growth in the West of Ireland of the Dublin Branch, which will hold its second annual meeting in a few weeks, under the presidency of Dr. Hudson. We learn that a meeting of the members of the British Medical Association will be held in the Lombard Hall, Lombard Street, Belfast, on Thursday, January 3rd, at twelve o'clock, for the purpose of forming a North of Ireland Branch. We are able to announce also that the necessary preliminary steps have been taken, and at the forthcoming meeting by-laws will be submitted, and office-bearers will be selected for the ensuing year. Members of the Association desirous of joining the Branch, and members of the profession wishing to join the Association and the Branch, are requested to communicate with Dr. John Moore, Carlisle Terrace, Belfast. We trust that we shall soon have a flourishing Branch in the North; and, if Galway follow, the members of the Association resident in Ireland would then have the North, South, East, and West of Ireland Branches; and we shall be able to congratulate the Association and our Irish professional brethren on the completion of an organisation which aims at the promotion of professional interests by local self-government, and a common union with the object of elevating the status, increasing the influence, and advancing the knowledge of the members of the profession.

MALFORMATION BY DUPLICATION OF THE LOWER HALF OF THE BODY.

THE following is a slightly abridged translation of an account, by Dr. Heschl, Professor of Pathological Anatomy in the University of Vienna, of a curious case of malformation lately exhibited there.

At the present time, there is in Vienna a girl seventeen years old, named Blanche Dumas, who is the subject of an unusual formation of

the body. Through the kindness of Professor Dittel, to whom she was first shown by her foster-parents, I have had an opportunity of making a general examination of her. She has also been seen by Dr. Hoffmann, Dr. Chiari, and others.

Among malformations by excess, there are a group not rare—among men—characterised by doubling of the upper half of the body; and another more rare, characterised by doubling of the lower half. Mlle. Dumas belongs to the latter group. She is of a modest and quiet disposition. Her countenance is pleasant; and the upper half of the body, though of slender build, is normal. Her stature is small, not exceeding that of a child twelve or thirteen years old; the mammary glands are well developed; the chest is rather broad below. The dorsal spine is single; but, at the second lumbar vertebra, the spinal column divides at a nearly right angle into a right and left lumbar spine, to which is attached an evidently imperfect double pelvis, appearing at first sight as an unusually broad one, with what appear to be three lower extremities. The two pelves are placed almost side by side; the extremities are almost in a row from right to left, the supernumerary one lying a little behind.

If the doubling of the limbs were complete, the arrangement from right to left would be as follows: first, the right hip with the right limb; then the supernumerary left, the supernumerary right, and lastly the lower limb corresponding to the left arm; so that there would be two lateral and two median limbs, the latter being supernumerary. Here, however, the lateral limbs are perfect, the median incomplete.

The two outer (normal) limbs are tolerably well formed, with the exception of varus of the left foot; they are of almost equal length, well developed and muscular, and for the most part perform their functions well; in consequence, however, of the great distance of the acetabula from each other—exceeding the normal distance by more than one-half—they cannot be brought into contact at the knees and ankles, but remain always separated by an interval of nearly twelve inches. The gait is hence waddling, and, on account of the club-foot, very tottering, as in many diseases of the spine.

The umbilicus is single. The *cristæ iliorum*, the anterior spines of the ilia, the pubic symphyses, and the tuberosities of the ischia, can be felt; the first distinctly, the others only partly. In a line drawn from the normally situated umbilicus, and nearly in a place corresponding to the normal situation of the sexual organs, two lower extremities grow from an enlargement at the lower end of the body, on which roundish bones can distinctly be felt. Of these, the right has the appearance of an amputation stump a few centimetres long, while the left, which passes downwards and somewhat inwards, consists of a tolerably large thigh, and a leg bent at the knee towards the left and immovably ankylosed; the leg is apparently almost destitute of muscle, and ends in a small rudimentary toeless foot, which lies near the normal left knee. The double middle extremity is quite destitute of motion and also of sensation. Neither touching nor any other irritation is perceived, nor is any pain felt in the limb, although a rather wide and deep ulcer has been produced on its posterior surface by the pressure of sitting.

There are an urethra and a vulva on each side between the median and the outer limbs; those on the left are the more perfect. On the right the vagina is only rudimentary, not admitting a sound, while that on the left is apparently normal. Urination and menstruation take place on both sides, simultaneously and regularly; it is said. There is only a trace of an anus on the left side; on the right the anus is in the usual situation and is said to perform its functions normally.

On the anterior surface of the above described rudiment of the inner left lower extremity is a perfectly well formed mammary gland, of normal size and form, with erectile nipple. A more minute examination of the uro-genital organs could not be made.

At about the point of transition from the right sacrum to the coccyx, there projects a cylindrical cutaneous prominence, half a finger long, soft and dangling, reminding one of the caudal projection in the siren-malformation, and evidently having the same meaning.

It now remains to comment on the general character of the malformation. We have here before us an imperfect doubling of the lower half of the body, the upper half being single. This belongs to Förster's *terata anadidyma*, of which all forms may occur, from commencing duplication of the axial structures to complete duplication of the axis and limbs, with the enclosed organs. In the most perfect condition, all four extremities are present, and the pelvic organs are double; but this is very rare, Förster being able to meet with only three cases in 1865. The generic name *diphygus* has been given to these cases; but it is impossible to make this denote all, and the term *diphygus tetrapus* seems applicable to the present case.

A malformation similar to that above described was to be seen some years ago in a young Portuguese male. Here, however, the left lower

limb had ten toes, and evidently consisted of two lower limbs fused together. A drawing of this *diphygus tripus* is found in Förster's work on *Deformities*.

HOSPITAL AND DISPENSARY MANAGEMENT.

IN an early number of the BRITISH MEDICAL JOURNAL, we shall publish a coloured map of the metropolitan district, prepared with the aid of the Charity Organisation Society, so as to show, side by side, the local distribution of the free and provident dispensaries, with an analysis of the existing relation of provident medical organisation amongst the poor to the indiscriminate provision of gratuitous medical relief by the voluntary hospitals. The able letters on the organisation of provident medical dispensaries and clubs, and the abuse of out-patient relief, which have appeared in our columns, from the pen of a member of the Charity Organisation Society, will be concluded in an early number. We regret that we are unable to find space this week for the sixth letter, which has been standing in type for some time.

COVENTRY AND WARWICKSHIRE HOSPITAL.

FROM the recent report of this hospital, it appears that the Committee last year turned their attention to the abuses of out-patient relief, and that they determined that subscribers' privileges should be abolished, and that inquiries should be made as to the fitness of all applicants. This was duly notified to the subscribers; but the announcement met with so much opposition that the entire scheme had to be withdrawn. The plan, though good in itself, appears to have taken the subscribers by surprise. At the annual meeting in November, Dr. Moore, in an excellent speech, tried to obtain the consent of the governors to the proposed changes; but they were not yet prepared to adopt them. It will require longer time and further reflection to lead them to see the justice and the wisdom of the new method. Still we cannot doubt that, in a city like Coventry, where the provident dispensary system has been long and efficiently carried out, the subscribers to the hospital will ultimately adopt the alterations recommended by their Committee.

THE GUEST HOSPITAL, DUDLEY.

AT the annual meeting of this hospital, which was recently held, the report stated that, both in subscriptions and donations, as well as in the collections of the Hospital Saturday and Sunday, there had been a large falling off. There was a decrease in the subscriptions of £28 8s.; in the donations of £82 10s. 1d.; in the Hospital Saturday and Sunday collections of £237 18s. 9d. when compared with the same sources of income last year. The Committee, therefore, have to acknowledge an adverse balance of £185 5s. 10d. But this deficiency, they say, can be easily accounted for. For two years, bad trade has been draining the neighbourhood of its resources; and even such a useful institution as the Guest Hospital suffers along with other charities.

PROVIDENT DISPENSARIES.

A RECENT number of the *Edinburgh Review*, speaking of the difficulties with which provident dispensaries have to contend, says, some, "such as the Marylebone Provident Dispensary, have been run down by the competition of the free medical charities". The *Charity Organisation Reporter* for November 15th supplies a case in point.

"The Whitechapel and St. George's-in-the-East Medical Club.—About a year ago, a small committee was formed, by which rules and a scale of payment were drawn up, founded on the experience of provident dispensaries, and suited to the wants of the neighbourhood. The doctors most popular among the poor agreed to find medicine, and attend, if necessary, at the houses of members, for the usual club payment of four shillings a year. A collector was appointed, who canvassed from house to house, offering to people the care of their favourite doctor in illness for a payment of about one penny a week. The people thus canvassed were well able to afford such payments, and the men were generally found to belong to clubs; the women, however, persistently refused. After a year of struggling, it has therefore been determined to give up the effort. The Committee attribute the failure to the fact that so many means exist for obtaining free treatment. There are several free dispensaries, the Metropolitan Free Hospital, and the London Hospital, all offering to supply the people with medicine and advice in the time of sickness. There are also many practitioners who, for one shilling a week paid during the time of illness, attend the sick. To these causes, and not to poor-law relief, which is given very strictly, must be attributed the ill-success with which our collector met."

SUFFOLK COUNTY MEDICAL CLUB.

A PUBLIC meeting of the Suffolk County Medical Club was held lately at Ipswich, under the presidency of Sir E. C. Kerrison, Bart., for the purpose of electing a permanent committee to manage the general affairs of the Club. It appears that up to the present time sixty surgeons have expressed their willingness to co-operate in the work of the Club. For so short a period of existence, the association has progressed most satisfactorily. In the parish of Soham and adjoining districts, with a population of 3,000, the Club already includes 1,300 names among its members, and there is no doubt that the members will largely increase the moment the work is fully started. We learn that, in consequence in great measure of the attention drawn to the recent proceedings in the reports of the BRITISH MEDICAL JOURNAL, this movement in Suffolk has attracted considerable attention, and the Secretary has received letters from almost every county in England, and also from America, asking for the rules of the Club. The hope is entertained that, as wages increase, it may be possible to raise the payments of ordinary members, and that, as the value of the Club becomes appreciated by the people, it may become entirely self-supporting.

PROVIDENT DISPENSARIES.

SIR, The *Manchester Evening Chronicle* remarks that there is a class of the community below that of the labouring classes, i.e., an annual rental, which is able to pay small fees for private medical aid; that it would impress on those members of the profession whose other engagements will permit, the advisability of attending this class at a rate of charges below the lowest given in the tariff; and that such charges should be made, as far as practicable, for ready money. I wish to call attention to the fact, that provident dispensaries are rapidly absorbing this class of the community, to the advantage of their medical officers and the detriment of outside practitioners. As a matter of equity, the profession, as a body, has the right to share in the advantages of the new condition of things, having been deprived of previous, and, in my opinion, superior, advantages for the benefit of the community. To accomplish this, it has been proposed that all the practitioners resident in a provident dispensary district shall, if they wish, be medical officers of the dispensary; but I agree with the managers, that this would be almost impracticable as a matter of administration, injurious to the estimation of the dispensaries in the eyes of the public generally and the benefit members in particular, and of little or no advantage to the medical officers themselves. I would suggest that the medical officers be replaced by other practitioners, according to their seniority of residence in the district, every three years. A change every three years would not seriously embarrass the management. By limiting the succession to seniority of residence, the benefit members of the dispensary would still have the advantage of being attended by men with whom they were more or less familiar, and the resident members of the profession could not complain that the dispensary system was being used to their disadvantage by the introduction of new men. To guard the managers against being saddled with undesirable officers by this plan, I would suggest that the successors must be, by rule, members of the British Medical Association or of the local Medical Society. There are unobjectionable men who are not members of medical societies; but no men, professionally and socially respectable, would object to comply, or have any difficulty in complying, with this condition. Without this condition, notwithstanding previous residence in the town and unexceptionable testimonials, the managers would, when too late, sometimes find that they had substituted bad men for good. I know of no other condition that would so well answer the purpose, and could be so easily complied with. Perhaps, however, it may be as well to mention, for the benefit of those who do not belong to the profession, that the medical societies are not trades-unions. I mention this because I have been surprised to hear persons of superior position and education—clergymen and lawyers, for instance—call them so. The direct interests of the profession are not looked after by the learned societies, but by a completely distinct organisation, to which, of course, I do not refer in my proposal.

To show that the present monopoly by a few of what rightfully belongs to the whole profession is a real grievance, I estimate my yearly loss at £100 minimum. To decide the proposed triennial elections by open competition, instead of by strict residential seniority, subject only to the condition I have suggested, would only aggravate present injustice, and set us all by the ears. Of course, if the other residents did not care to take their turn, the existing officers might be re-elected, but not otherwise. With this alteration in the medical officership, the grave objection which at present exists on the part of the profession, and which must of necessity continue to exist under present arrangements, so long as the practice of medicine is an industrial unbeneficed occupation, will have been removed; and it will then also be to the advantage of the poorer classes, and also of the profession, for the latter to refuse its services to the medical aid departments of friendly societies unless they see fit to be more reasonable in their demands, and exclude persons who are very often far wealthier than their club-doctors—an act of justice which reflects credit on the provident dispensaries, and deserves the thanks of the profession; though I am aware that, with the utmost vigilance, persons ineligible as regards their means are admitted, but not with the knowledge of the managers—at least, such is my impression. As regards the clubs, again, the patients are all driven to one doctor—too often to their mutual dissatisfaction—whereas the provident dispensaries allow a reasonable choice of medical attendants, and the patients have the satisfaction of knowing that their interests are looked after by a disinterested and vigilant body. It is clearly, therefore, to the advantage of the poorer working classes to prefer the provident dispensary to the old club system of medical aid; and if the dispensaries can see their way to the alteration I now suggest, they will gain the hearty and all but unanimous support of the medical profession; but at present a very large number of poorer practitioners feel themselves seriously aggrieved.

Would it not also be well for each provident dispensary to add a consulting physician and surgeon to its staff, to be called in at the discretion of the ordinary medical attendant, and paid a minimum fee of one guinea for each consultation? According to my experience and observation, it would. My disapproval of the old system of club medical aid was recorded in the JOURNAL of August 4th; and, to judge by the private letters I have received on the subject, that disapproval is wide and deep. I am sanguine enough to anticipate that, when medical men compare the two systems, and have the privilege of taking their triennial term of office by right

in the provident dispensaries of their districts, the old club system of medical aid, unless reformed, will fall to the ground.

Will others who are at present left out in the cold by the present system of the provident dispensaries, or who sympathise with those who are, support my complaint and sign the enclosed? I am, Sir, your obedient servant,
W. J. MARSH.
Newbury, November 1777.

AN EYE-HOSPITAL ON THE SELF-SUPPORTING PRINCIPLE.

SIR,—It is no light matter to move the profession out of a beaten track, to ask it to go back to those good old times when the out-patient department of hospitals had no existence. It is equally difficult to get individual members to see in its true light, and without distortion of vision, that an attempt to bring about a change in the administration of medical charity will ultimately be attended with benefit to the general body. Disheartening as this must be to any one engaged in the work of reform, on the other hand it is extremely gratifying to receive encouragement from you, sir, who have so consistently advocated a change in the demoralising system of administering hospital charitable relief. No one knows better than yourself that all special institutions, and eye-hospitals in particular, are grossly abused. If an impostor be detected in getting out of his brougham, his excuse is, "I come here because I get better advice". This, we know, is not the truth; and although it may hold good of the working classes—for they cannot afford to pay the full fee of a consultation—the well-to-do tradesmen can urge no excuse of the kind; he is mean enough to attempt to cheat the profession.

My experience of the working classes, however, enables me to say with confidence that they are quite ready for any change which will enable them to consult a skilled practitioner for a sum within their means. It is scarcely necessary to make an appeal to their sense of justice and independence in a matter of the kind, for they are fully alive to their own interests in the matter, and have long groaned under the grievous loss of time and money involved in the gratuitous system of the out-patient department. The advice is dear enough at the price they are called upon to pay for it. There is no necessity whatever to exhort the wage-earning and artisan classes to emulate their more frugal and provident neighbours in establishing co-operative or provident associations, which shall ensure for them on all occasions prompt and efficacious treatment at the hands of properly remunerated practitioners in times of sickness. A greater and far more insurmountable difficulty will have to be encountered in the shape of "vested interests". Committees of management would buy cheaply a reputation for works of benevolence in this world, and perhaps think they are purchasing a little towards happiness in the next, by a reckless expenditure of other people's abundance, in what they consider works of charity. These are the class blocking the way. It is these same people who floutingly parade their hundred thousand cases of indiscriminately administered sham charity before the public, and render the existence of the provident institution impossible. But, then, is it not known that charity covereth a multitude of sins? Is it not also a disagreeable and invidious task to expose to those who can afford to distribute their own and other people's money, that their *protégés* are either not deserving or do not desire their charity? Be this as it may, it cannot be denied that our profession has suffered long and patiently under the parasitic growth of the out-patient department, and, under the cloak of charity, a cruel spoliation of a most useful and meritorious body of educated men is effected. Is it not time that some attempt were made to bring about a change in a system that, fungus-like, destroys the life upon which it feeds?—I am, yours, etc.,
JABEZ HOGG.

SPECIAL CORRESPONDENCE.

THE TURKISH ARMY IN ASIA.

[FROM OUR OWN CORRESPONDENT.]

IN a letter dated from Kars, October 18th, our correspondent writes as follows:

On Sunday morning (October 14th), I got a message that I had better move a little higher up the hill, near to the Turkish ambulance and the *Idairé* or *Commissariat Local*. Accordingly, we took up our position a quarter of a mile higher, where we seemed to be more out of the direct line of fire from a battery which was beginning to do some execution against Eolia-tepe and the head-quarters. I left, however, everything packed, as far as possible, for our next move, which might be a very speedy one. I opened a few of my newly arrived treasures, and made the few wounded comfortable with the comparatively luxurious dressings provided by the Red Cross Society, and served out all round an allowance of lime-juice, which was wonderfully grateful to us all, "medical comforts", and the much needed blankets. Late in the afternoon, it became apparent that a large force was working round to our rear; and, for the last hour before nightfall, a smart engagement took place to the rear of our line of defence formed by the Eolia-tepe and the lesser Yhanilagh; the Russians, too, were plainly seen to be completing their occupation of the greater Yhanilagh, which had commenced partially the previous day. I sent out my *milazim* (lieutenant) with strict orders to ascertain at the *Idairé* if any move were to be made by them, and also charged him to secure for us sufficient arabas and baggage-horses to enable us to move when the order should come. He came back without being able to get any information of any value, and without any signs of any other means of transport. Later in the evening, when an endless movement of troops, baggage, and all the *impedimenta* of war had begun to take place, he came into my tent and begged me to move off. He could not tell me whither or how; but he was evidently in a state of the most abject terror. He had been again to the commissariat, and found that everything belonging to it had gone or was on the move, and I had to keep a very sharp eye on

his movements, or he would have run away there and then. I found that the Turkish ambulance had received no more instructions than myself, and, as we had no means of transport, there was nothing left but to remain where we were till morning. All night, however, the interminable procession to the rear went on: troops and guns, arabas, horses, camels, asses, and oxen, all bearing heavy loads, thus being removed out of the way of the evidently dreaded approach of the enemy.

As soon as it was daylight, I sent out in search of arabas or horses; but had not much hope of finding many. At a quarter to six o'clock on the morning of Monday, October 15th, the English ambulance, with a large white flag, having on it the red crescent, flying in a most prominent position on a rocky eminence just above, received definite orders to move its situation, in the shape of a large shell thrown deliberately into the middle of the little encampment. It fell and exploded ten yards in front of the tent in which I and my sick colleague were, and the fragments, with a shower of earth, fell all around us—thank God! without hurting anyone. In about five minutes' time, this shot was succeeded by a second, evidently aimed at the Turkish ambulance about one hundred yards lower down the hill; there was here, too, the ambulance flag flying conspicuously in front. This second shell also exploded, providentially, without inflicting damage. I immediately conveyed poor Buckley and the four other patients to a spot sheltered by the rocks from the direct fire, and gave them each a cupful of warm cocoa with a little brandy in it. Just then, up rode Ahmet, one of the Mushir's aide-de camps, and he told me that the fighting was going on near the Nalban-tepe, about two miles to our rear. My search for arabas and horses had now been attended with partial success, and, taking a few of the horses, my wretched milazim, contrary to my express orders, which were for all to move together or not at all, packed on them his personal belongings, with a couple of bales of our blankets, and while I was attending to the safety of the patients, taking his guard-soldiers with him, he made off, caring for nothing but his own safety. I mustered among the men I had left and the attendants of the wounded British two sets of four men to carry Buckley and that officer on their stretchers, the other three patients being able to ride horses. Having arranged everything in as orderly a manner as possible, we set off in the direction of the Nalban-tepe. When we had arrived at the foot, I rode to the summit to consult the Mushir as to the best course to pursue, and he advised a temporary erection of the ambulance anywhere in that neighbourhood for the reception of the wounded, who would soon be beginning to come in, from the very hot fighting going on. I rode down again, and was going to unpack a few things for the dressing of the wounded, when we saw close on our right the whole mass of our skirmishers being driven in in utter confusion. There were Cossacks mixed up with them, fighting hand-to-hand, and a sweeping fire commenced right in our direction. I took out my revolver, and told the bearers of the litters that the first man who attempted to desert from his post or to leave the sufferers I would shoot like a dog, without a moment's hesitation, and they kept manfully and steadily to their arduous toil. We were now in the midst of a crowd of troops of all arms who were all flying in the utmost confusion from the face of the advancing enemy. We were forced into a narrow defile, where the shells from Russian batteries on each side of us, and Congreve rockets, were incessantly pouring down upon the retreating masses. One large fragment of shell actually fell between Buckley's stretcher and Fortunato, who was riding close by his left side; I was on his right, and it passed just over my head. Our greatest danger, however, was perhaps in the fear of the litter-bearers being knocked down and trampled under foot by the mad crowd of men and beasts, or run over by the artillery, battery after battery of which had now joined the general stampede. I saw many of the patients of the Turkish ambulance, who had been deserted by their doctors—a Greek and a Turk—who had ridden off to Kars as fast as their horses could carry them immediately the shell was fired at their ambulance, as well as some poor fellows who had been wounded in that day's fighting, thus trampled down. At last, we passed safely out of this "valley of the shadow of death", and, having got out into the open plain, we at length pushed on to the village of Vezivkui.

[Here our correspondent and his charge were exposed to great danger from the disorderly retreating mass of the defeated Turkish army, and, finding that there was no safety, proceeded to Kars.]

Hussein Bey, colonel of artillery, the camp-commandant, with a small body of men (who made a most determined attempt to arrest the mad rush onwards of the panic-stricken herd of soldiers), let me pass through with my charge, giving me as I passed by what cheered me as much as it astonished me—a few words of encouraging compliment, in the best of English, for what was my simple duty and my high privilege to do. By the time we approached the lines, the mad

rush was thicker and more desperate than ever, and, to avoid being actually trampled down, we made a few yards' digression to our right. Fortunately for us we did so; for suddenly a terrible explosion shook the ground, while there was showered all around us a hail of fragments of metal. A limber-wagon full of shells, jolting in its rapid flight over the rough ground, had exploded in the path we had just left, and the amount of destruction and death it dealt out to those immediately around was terrific. A few minutes afterwards, I had the intense satisfaction of depositing all my patients, with a few other sick I had picked up on the road, in safety in the consultation-room of the principal hospital, where, after getting such food as the Greek doctor "on guard" could procure for us, I was glad to lie down with them and seek repose after the fearful events of the day, and the words of my great Master found their way into the few utterances of thanksgiving I was capable of: "Of those whom thou hast given me have I lost none." This is not the place for what might be considered "religious cant"; but I am not ashamed to record my thanks to the Almighty, who had protected and preserved us unhurt through all.

ASSOCIATION INTELLIGENCE

COMMITTEE OF COUNCIL: NOTICE OF MEETING.

A MEETING of the Committee of Council will be held at the Freemasons' Tavern, Great Queen Street, Lincoln's Inn Fields, London, on Wednesday, the 9th day of January next, at Two o'clock in the afternoon.

FRANCIS FOWKE,

General Secretary.

36, Great Queen Street, London, W.C., December 22nd, 1877.

NORTH OF IRELAND BRANCH.

THE first meeting of this Branch will be held in Lombard Street Hall, Lombard Street, Belfast, on Thursday, January 3rd, 1878, at 12 o'clock, noon, at which by-laws will be submitted for acceptance, and office-bearers appointed for the year. Members of the Association wishing to join the Branch will please communicate with

JOHN MOORE, M.D., 2, Carlisle Terrace, Belfast.

SOUTH-EASTERN BRANCH: EAST SURREY DISTRICT.

A MEETING of the East Surrey District of the South-Eastern Branch of the British Medical Association was held at the Greyhound Hotel, Croydon, on December 13th, at 4 P.M. Forty-seven members and visitors were present.

Next Meeting.—It was agreed that the next meeting should be held at the Crystal Palace Hotel, Upper Norwood; and that Dr. Miller be requested to take the chair.

Papers.—The following papers were read.

1. Dr. Goodhart read some cases of Enlargement or Inflammation of the Mediastinal Glands.
2. Mr. Howard Marsh exhibited Sayre's Apparatus and mode of applying Plaster of Paris for Curvature of the Spine.
3. Dr. Lanchester read some Remarks on Calomel as a Medicine.
4. Dr. Duncan exhibited sections of Diphtheritic Tonsils under the microscope.
5. Dr. Adams exhibited a patient with Tabes Dorsalis, showing, with Carter's ophthalmoscope, extensive Choroiditis.

Dinner.—Thirty members and visitors sat down to dinner.

SOUTH-EASTERN BRANCH: EAST AND WEST SUSSEX DISTRICTS.

A CONJOINT meeting of the above Districts was held at the Dispensary, Queen's Road, Brighton, on Friday, November 30th: F. A. HUMPHRY, Esq., Surgeon to the County Hospital, in the Chair. Forty-one members and visitors were present.

Communications.—1. Dr. W. Withers Moore read Remarks on a Case of Lardaceous Disease.

2. Mr. G. F. Hodgson read Illustrations of Aural Surgery.

3. Dr. Fussell read Remarks on a Severe Case of Lead-poisoning.

New Member.—One was proposed.

The Dinner took place at Markwell's Hotel. Twenty five members were present: Mr. Humphry in the Chair.

The next Meeting is to be held at Tunbridge Wells in March 1878: Mr. F. Manser in the Chair.

CORRESPONDENCE.

PHYSICIANS' FEES.

SIR,—F.R.C.P. writes to complain of the smallness of his fees, and demands counsel on the subject. I think the reason is to be found in his mode of practice and the want of recognition by his patients of his position in the profession. He says: "And when patients, or patients' friends, fail to pay you at all, as I regret to say is often the case, where you are called in by yourself and allow the visits to 'run on'; or, again, when the patients die, as must happen sometimes, and the executors do not fulfil the obligations incurred by the defunct, what is to be done?" The answer is plain, Don't give credit. If F.R.C.P. acts as a general practitioner and "runs bills", he ought not to feel surprised if he is not rated at the same value as the pure consultant physician. He and others who do like him are alone to blame in this matter, and not the public. They sit at home in the morning, and, with much pretension, exact, if they can, two guineas for a consultation which occupies them half-an-hour; they then step into their carriage and drive off two miles to see a titled lady, who has ordered them to visit her at half-past two, when her luncheon is over; they spend a long time with her in the drawing-room, and accept her sovereign. Why, I would ask, should this lady go to the doctor's house, wait her turn, and, perhaps, be mulcted of two guineas, when she can send for him to her own home and slip a sovereign into his hand?

If F.R.C.P. will keep strictly to consulting practice, and induce other fellows to do the same, the remedy is in their own hands.—Your obedient servant,
A PAST CENSOR R.C.P.

SIR,—I have read with much interest the letter on "Physicians' Fees" in the last number of the JOURNAL. Although my experience is a short one, it is quite in harmony with that of your correspondent; but I can see no possible remedy, unless any modification in the present custom which may be thought desirable be adopted simultaneously by the whole profession, physicians, surgeons, and practitioners; and this, I think, is unlikely.

The subject is well worth discussion, and I would venture to suggest the following as possible changes. In the first place, in the case of a morning visit (whether with or without a practitioner), the fee might be given in advance in all cases. About this, I think, there need be no difficulty. But, as regards country visits and prolonged attendance at patients' homes, this seems hardly feasible. The only way out of the difficulty that occurs to me is that fees should no longer be looked on as honoraria, but as payment for work done (their scale being, perhaps, fixed by tariff from time to time). If this were so, legal recovery would be possible. Finally, the names of defaulters might be published in the medical journals; this might, perhaps, in time, sharpen the moral senses of those patients who at present consider it no disgrace to "do" the doctor.—I am, sir, your obedient servant,

December 1877.

A YOUNG F.R.C.P.

THE BRISTOL MEDICAL SCHOOL.

SIR,—Presuming that Dr. Burder has finished the recital of his grievances and has sufficiently exposed and "laid bare before the profession" the wrongs he imagines the school has suffered at our hands—in the shape of "ready evasion of responsibility", "conspiracy", etc.—we, the four Infirmary lecturers at the school, will, with your permission, make this one reply. We have, in conjunction with all our Infirmary colleagues, appealed to the Council of the Royal College of Surgeons to interfere in the affairs of the school, and to decide the terms upon which the school is hereafter to be conducted. We await the results and consequences of our appeal. We are prepared to give the Council at any time the fullest possible answer to all charges that Dr. Burder has made, or can make, against us, and any explanations or information the Council may require. We do not think that the profession or the public, to whom Dr. Burder has appealed, will expect from us more than this.—We are, sir, yours obediently,

R. W. TIBBELS R. SHINGLETON SMITH
WM. H. SPENCER HENRY WALDO.

Bristol, December 22nd, 1877.

SIR,—In my letter, which appeared in the JOURNAL of December 8th, commenting on the statement put forward by the staff of the Bristol Royal Infirmary in defence of their course of action towards the Bristol Medical School, I felt it my duty to point out that that statement teemed with inaccuracies, and that the allegations upon which the Infirmary staff relied for a justification of their conduct were without foundation in fact.

Dr. Brittan, in his reply, wisely abstains from any attempt to defend the assertions which I had controverted; but, taking special exception to my remarks upon the conduct of those members of the Infirmary staff who are not connected with the school, he, as one of those members, announces his intention of refuting my imputations. This he proceeds to do by an attempt to show, from the statistics of the College of Surgeons, that the teaching arrangements and discipline of the school are inefficient.

I shall not follow Dr. Brittan into an argument upon this question; but I cannot avoid remarking that, by taking up such a line of defence as this, he seems to show that he has not yet realised the true character of the charge to which he and those acting with him have exposed themselves. There is something more involved in this question than the success or non-success of a particular school of medicine. This is a matter of local concern only. But the profession at large is interested in the maintenance of a high and generous tone of feeling amongst its members—a tone of feeling above the level of petty jealousies and rivalries. That many of the members of the Infirmary staff are actuated by such a tone of feeling, I am well convinced; and it is much to be regretted that the influence of these was not exerted to stay the hands of their less scrupulous colleagues, and to avert a proceeding which, I will venture to say, has brought more discredit to their own body than it has to the institution which was the object of their attack.

—I am, sir, your obedient servant,
GEORGE F. BURDER, M.D.,
Honorary Secretary, Bristol Medical School.

December 22nd, 1877.

OPHTHALMIA IN PAUPER SCHOOLS.

SIR,—As the case of the Mitcham (Holborn) Poor-law School has been prominently noticed in your columns, it may possibly be useful to attract still more attention to the matter by stating that the bad condition of this school as regards ophthalmia has for long been well known, and that the conditions which have given rise to the call for a specialist at the present time are probably only a little worse than what has for years been the, so to speak, normal state of the school.

In a Report on Ophthalmia in all the London Pauper Schools, published in 1875, I had occasion to say that Mitcham School "appears always to have suffered a good deal from the disease, and has a bad name among the other schools", and this evil reputation goes even as far back as 1857.....Again, "it is hopeless to expect any great improvement as long as the present administrative and structural defects are allowed to continue". When I made that report, 45 per cent. of the children were *under treatment* for ophthalmia, and this miserable state of things was, owing to great efforts on the part of the medical inspector and of the medical officer to the schools, a notable improvement on what had gone before.

There are three things to be especially taken into account in dealing with these schools, viz.:—1. Quarantine for new comers; this term applying both to the workhouses through which the children, as a rule, pass on their way to the school, and to the schools themselves; 2. The sanitary state of the body of the school; a very important point as regards ophthalmia being frequent medical inspection of the eyes; 3. Medical treatment and infirmary accommodation.

The fault may lie in any one or more of these three departments. At Mitcham, it was, and probably still is, mainly in the first two; and we may predict with certainty that periodical inspection by oculists will do no great or permanent good until the guardians take efficient measures on a large and permanent scale.

There must, of course, be some clerical error in the statement, attributed in your last notice to Mr. Bader, that "the nerve of the eye in most of the children was afflicted".—Yours, etc.,

London, December 22nd, 1877. EDWARD NETTLESHIP.

WEST KENT MEDICO-CHIRURGICAL SOCIETY.—The third meeting of the twenty-second session was held on Friday, December 7th, at the Royal Kent Dispensary, Greenwich Road, at 8 P.M.: W. Johnson Smith, F.R.C.S., President, in the Chair. Dr. John Curnow read a paper on the Diagnosis and Treatment of Acute Diseases induced by Alcohol. The next meeting will be held on Friday, January 4th, at the same place and hour. Dr. J. Milner Fothergill will read a paper on Diseases which Simulate Heart-Disease.

PUBLIC HEALTH AND POOR-LAW MEDICAL SERVICES.

YORKSHIRE ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

At the annual meeting of this Association lately held at Ilkley, when S. W. North, Esq., of York, was elected President for 1877-8, and Drs. Britton and Goldie Vice-Presidents, a report was read briefly enumerating the titles of the papers read during the past year, and also stating that the Association had considered the question of tenure of office, and arrived at the decision that the time has not yet come for a satisfactory conclusion in this matter. The President referred to the sewage purification and utilisation works at Ilkley, which showed that sewage can be rendered sufficiently pure, at any rate, to be poured into rivers. Dr. Goldie then read a paper on Vaccination, and said that, for the stamping out of small-pox, he should begin with "universal complete vaccination"; and insisted upon the necessity for the registration of every disease at the Public Health Department, and the disinfection of articles of clothing and bedding, of the houses and drains. Dr. Britton thought that imperfect vaccination assisted the spread of small-pox, as it tended to give an unwarrantable feeling of security. Dr. Parsons referred to the want of power to close shops when infectious diseases were raging in a house. Several of the speakers said that vaccination-marks frequently wear out in four or five years, which they attributed to the use of worn-out lymph. The President thought that vaccination might be imperfect not only from ineffective lymph, but that it was quite possible for a child to be vaccinated from a perfectly healthy subject, and "yet for the vaccination to be imperfect in consequence of some imperfect condition in the health of the child"; also that the smallest amount of disease in a child might so modify the lymph as to deprive it of part of its protective power.

POOR-LAW MEDICAL OFFICERS' ASSOCIATION.

The Council of the Poor-law Medical Officers' Association have issued a circular to the Poor-law Medical Officers of the United Kingdom, soliciting co-operation. The objects of the Association are stated to be: 1. The further adoption of the dispensary system in all large towns and rural districts where practicable; 2. The promotion of the interests generally of Poor-law medical officers; defending, if necessary legally or otherwise, its members against oppression on the part of the authorities; 3. The continuance of agitation in favour of compulsory superannuation. The Council will feel obliged if members will kindly signify their willingness to act as local secretaries. Council meetings are held at the Rooms of the Association, 3, Bolt Court, on the first Tuesday in every month (May and August excepted), at 7 P.M.; and, for the convenience of provincial members, at 3 P.M. in March, June, September, and December. The Annual General Meeting will be held on the first Tuesday in May, at 3 P.M., at the Freemasons' Tavern, after which it is proposed to dine at 6 P.M. It has been resolved that a Special General Meeting shall be held at Bath during the visit of the British Medical Association, to which all medical men are invited, whether in the Poor-law Medical service or not. The financial state of the Association continues in every way satisfactory.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

BETHNAL GREEN.—We have received a letter from Dr. Bate in reply to our observations on his report, wherein he states that, in making his report up to March 31st in each year, he has followed the practice of his predecessor; further, that he believes he has no option in the matter, and refers, in support of his opinion, to 25 and 26 Vict., cap. 102, s. 43. But, on referring to this section, and to the 18 and 19 Vict., cap. 120, s. 132, under which he is appointed, we do not find any words compelling him to do more than make an annual report on the sanitary condition of the parish or district, which is to be appended to the annual report of the vestry or board to be made in the month of June in each year. The general practice, as well as the wording of the Acts, is against him; besides which, his vital statistics can be framed for the year ending December 31st, with the addition, if deemed advisable, of the number of births and deaths for the quarter ending March 31st. He also says that he did not add the proportion of deaths in hospitals because he was not furnished by his vestry with the local registrars' returns, and consequently could not make the required corrections.

MEDICAL NEWS.

UNIVERSITY OF DURHAM.—First Professional Examination for the Degree of M.B., held on December 17th, 18th, 19th, and 20th.

Loves, Septimus, University of Durham College of Medicine
Mahony, L. F., M.R.C.S.I., L.S.A., London Hospital
Price, H. E., B.Sc.Lond., L.R.C.P., M.R.C.S., London Hospital
Robinson, A. H., M.R.C.S., L.S.A., University College
Rygate, B., M.R.C.S., L.S.A., London Hospital

KING AND QUEEN'S COLLEGE OF PHYSICIANS IN IRELAND.—At the ordinary monthly examination meetings of the College, held on Tuesday, Wednesday, and Thursday, December 11th, 12th, and 13th, 1877, the following candidates were successful.—For the Licence to practise Medicine and Midwifery.

Dodel, Henry Francis
Drury, Maurice O'Connor
Flanagan, John William Henry

Marques, Louenço Pereira
O'Sullivan, Daniel
White, Thomas George

For the Licence to practise Midwifery.
MacNeele, James Gausson

UNIVERSITY OF DUBLIN.—At the Michaelmas Term Examination for the Degree of Bachelor of Medicine, held on Monday and Tuesday, December 3rd and 4th, 1877, the successful candidates passed in the following order of merit.

Woodroffe, John F.
Powell, Blacker C.
White, Edward W. W.
Casement, Brabazon
O'Donnell, Joseph F.
Thompson, R. Norman

Fogarty, Thomas F.
McCullagh, James A.
Galbraith, John
Taylor, Rogers
Cox, Henry L.

At the examination for the Degree of Bachelor in Surgery, held on Monday and Tuesday, December 10th and 11th, 1877, the following was the order of merit in which the successful candidates passed.

Woodroffe, John S.
Hurford, Cedric H.

O'Donnell, Joseph F.
Manning, George H.

At this examination, the Degree of Master in Surgery was also obtained by

West, Arthur Annesley, M.D.Univ. Dubl.

At the examination for the Diploma in State Medicine, held on Thursday, December 13th, and following days, this qualification was granted to

Goode, William Henry, M.D.Univ. Dubl.

MEDICAL VACANCIES.

The following vacancies are announced:—

- CENTRAL LONDON SICK ASYLUM DISTRICT**—Assistant Medical Officer. Salary, £100 per annum, with board and residence. Applications to be made on or before January 7th.
- COUNTY DOWN INFIRMARY**—House-Surgeon and Registrar. Salary, 60 guineas a year, with board, apartments, and washing. Applications to be made on or before January 31st instant.
- DORE UNION**—Medical Officer. Salary, £75 per annum, and fees, with £17 per annum as Medical Officer of Health. Applications to be made on or before the 31st instant.
- DUNDALK UNION**—Medical Officer for the Ravensdale Dispensary District. Salary, £120 per annum, and the usual sanitary and vaccination fees. Applications before the 29th instant.
- GUEST HOSPITAL, Dudley**—Resident Medical Officer. Salary, £120 per annum, with furnished apartments, board, coals, and gas. Applications to be made on or before January 1st.
- HAILSHAM UNION**—Medical Officer for the Parish of Heathfield. Salary, £60 per annum, and fees. Applications to be made on or before January 7th.
- HANTS COUNTY LUNATIC ASYLUM**—Second Assistant Medical Officer. Salary, £100 per annum, with board, lodging, washing, and attendance. Applications to be made on or before January 9th.
- NEWCASTLE-UPON-TYNE INFIRMARY**—Senior House-Surgeon. Salary, £100 per annum, with board, lodging, and washing. Applications to be made on or before February 4th, 1878.
- NORTHAMPTON GENERAL INFIRMARY**—Physician. Applications to be made on or before January 9th.
- SUBURBY UNION**—Medical Officer for No. 1 District. Salary, £50 per annum, and fees. Applications to be made on or before January 10th.
- SUNDERLAND and BISHOPWEARMOUTH INFIRMARY**—Senior House-Surgeon. Salary to commence at £100 per annum, with board and residence. Applications to be made on or before January 24th.

MEDICAL APPOINTMENTS.

Names marked with an asterisk are those of Members of the Association.

- *REID, Thomas W., L.R.C.P., M.R.C.S.Eng., elected Surgeon to the Kent and Canterbury Hospital, *vice* H. E. Hutchings, M.R.C.S.Eng., resigned.
- WALKER, William, M.R.C.S., appointed Surgeon to the Convalescent Home, Coatham.
- WALTER, William, B.A., MB., Senior Resident Surgeon to the Salford Royal Hospital, appointed Obstetric and House-Surgeon to St. Mary's Hospital, Manchester, *vice* H. Runcorn, M.R.C.S., deceased.
- *WHISTLER, M. MacNeill, M.D., M.R.C.P., appointed Honorary Physician to the National Training School for Music.

OPERATION DAYS AT THE HOSPITALS.

MONDAY.....	Metropolitan Free, 2 P.M.—St. Mark's, 9 A.M. and 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Royal Orthopaedic, 2 P.M.
TUESDAY.....	Guy's, 1.30 P.M.—Westminster, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Royal Westminster Ophthalmic, 1.30 P.M.—West London, 3 P.M.—National Orthopaedic, 2 P.M.
WEDNESDAY..	St. Bartholomew's, 1.30 P.M.—St. Mary's, 1.30 P.M.—Middlesex, 1 P.M.—University College, 2 P.M.—King's College, 1.30 P.M.—London, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Great Northern, 2 P.M.—Samaritan Free Hospital for Women and Children, 2.30 P.M.—Cancer Hospital, Brompton, 3 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—St. Peter's, 2 P.M.
THURSDAY....	St. George's, 1 P.M.—Central London Ophthalmic, 1 P.M.—Charing Cross, 2 P.M.—Royal London Ophthalmic, 11 A.M.—Hospital for Diseases of the Throat, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—Hospital for Women, 2 P.M.—St. Thomas's (Ophthalmic Department), 4 P.M.
FRIDAY.....	Royal Westminster Ophthalmic, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—Central London Ophthalmic, 2 P.M.—Royal South London Ophthalmic, 2 P.M.—Guy's, 1.30 P.M.
SATURDAY....	St. Bartholomew's, 1.30 P.M.—King's College, 1.30 P.M.—Royal London Ophthalmic, 11 A.M.—East London Hospital for Children, 2 P.M.—Royal Westminster Ophthalmic, 1.30 P.M.—St. Thomas's, 1.30 P.M.—Royal Free, 9 A.M. and 2 P.M.

MEETINGS OF SOCIETIES DURING THE NEXT WEEK.

WEDNESDAY.—	Obstetrical Society of London, 8 P.M. Specimens. Annual Meeting. President's Address.
FRIDAY.—	Pathological Society of London, 8.30 P.M. Annual Meeting for Election of Officers. The following specimens will be shown. Dr. Ralfe: 1. Urine from a Case of Phosphatic Diabetes. 2. Gangrene of the Lung in a Case of Lead-poisoning. Mr. Wagstaffe: Dermoid Cysts growing along Line of Branchial Fissures. Dr. Dowse: Case of Paralysis Agitans. Dr. Goodhart: Symmetrical Sarcoma of Iliac, with Hyperostosis of Cranium. Dr. Garlick: Diaphragmatic Hernia. Mr. Butlin: Mollities Ossium, with Myeloid Sarcoma. Dr. Greenfield: 1. Cases of Aneurysm of Cerebral Arteries. 2. Aneurysm of Branchial Artery, probably due to Embolism. Dr. Burney Yeo: Heart and Aorta—Sequel to Case of Rupture of Aortic Valves. Mr. Bryant: 1. Prostatic Tumours removed during Lithotomy. 2. Impacted Fracture of the Shaft of the Femur.

LETTERS, NOTES, AND ANSWERS TO CORRESPONDENTS.

CORRESPONDENTS not answered, are requested to look to the Notices to Correspondents of the following week.

AUTHORS desiring reprints of their articles published in the *BRITISH MEDICAL JOURNAL*, are requested to communicate beforehand with the printer, Mr. THOMAS RICHARDS, 37, Great Queen Street, W.C.

PUBLIC HEALTH DEPARTMENT.—We shall be much obliged to Medical Officers of Health if they will, on forwarding their Annual and other Reports, favour us with *Duplicate Copies*.

WE CANNOT UNDERTAKE TO RETURN MANUSCRIPTS NOT USED.

COMMUNICATIONS respecting editorial matters, should be addressed to the Editor, 37, Great Queen Street, W.C.; those concerning business matters, non-delivery of the *JOURNAL*, etc., should be addressed to the General Manager, at the Office, 36, Great Queen Street, W.C., London.

CORRESPONDENTS, who wish notice to be taken of their communications, should authenticate them with their names—of course not necessarily for publication.

A RENEWED PLEA FOR BREVITY.

WITH the continued increase of the number of readers of the *BRITISH MEDICAL JOURNAL* (which has now a circulation of eight thousand copies weekly), the pressure on space by correspondents naturally grows apace, and we must once more remind our contributors of all classes of the necessity of cultivating brevity to the utmost degree. Of many communications of great interest which we publish from time to time, it is difficult to suppose that the same amount of information could not be conveyed in fewer words.

SIR,—I require two good practical reference books—one on medicine, the other on midwifery—for a general practitioner. Will any member kindly advise me?—I am, &c.

CHILLAINS.

A **CORRESPONDENT** in Paris sends us the following for an ointment for chillblains, which has been communicated to him by a brother practitioner, who describes it as being better than any other application that he has used. Take of lard 15 drachms; rose pomade, burnt alum, each 2½ drachms; iodide of potassium, Rousseau's laudanum, each 1 drachm. To be applied with gentle friction twice a day, after washing the affected parts with a watery solution of carbonate of soda.

VOLUNTEER SURGEONS.

MR. F. DAVISON (Elton, Bury).—Volunteer surgeons, who must be registered practitioners, are required to be acquainted with the nature and intended application of the various articles composing the equipment of army hospitals in the field, and with the authorised means of the transport of sick and wounded soldiers, and the proper modes of employing them. They are also examined in the treatment of wounds and injuries to which troops are exposed, and in the duty to be performed by army medical officers in camps and bivouacs and during marches, as named in Section 21 of the Sanitary Regulations for Field Service.

NOTICE TO ADVERTISERS.—Advertisements for insertion in the *BRITISH MEDICAL JOURNAL*, should be forwarded direct to the Publishing Office, 36, Great Queen Street, W.C., addressed to Mr. FOWKE, not later than *Thursday*, Twelve o'clock.

ADVERTISERS are requested to take notice that the regulations of the *Post Office* do not allow letters to be addressed to initials and directed to any *Post Office* in the United Kingdom, but letters may be addressed to initials to the *JOURNAL* Office or any stated address other than a *Post Office*.

AN APPEAL.

SIR,—May I ask the favour of your inserting in the *JOURNAL* an appeal to the profession for assistance? I am now in my eighty-third year, and have been bedridden more than three years. I practised in St. Osyth, Essex, nineteen years, and twenty-five years in the Vassall Road, Brixton, where I had a very severe illness in 1865, lasting eight months, so that I had no practice to sell. Since the death of my son in June last, I have no means of support, and my two daughters are quite unable to assist me. Trusting you will grant my petition, I am, sir, yours respectfully,

1, Frederick Place, Penton Place, S.E., December 1877.

* * We are informed on good authority that this case is a deserving one. The applicant is a Licentiate of the Society of Apothecaries, his licence being dated 1822. He has already been relieved by the Medical Benevolent Fund. Contributions should be sent to Mr. Scarnell at the address given above.

MEDICAL ETIQUETTE.

SIR,—Dr. Beresford intimates that I ought to substantiate by some evidence the case I laid before your readers a fortnight since. I think I offered the evidence when I named the three surgeons by whom the man Morris was examined. Dr. Beresford also requests me to obtain certificates from Messrs. Wood and Harries upon the minor consideration whether the injury to the ulna was or was not the result of fracture. I think the better plan will be for me to state here, once more, what I conceived to be the result of the examination, and leave these gentlemen to correct me if I err.

1. It was decided, without question, that the fracture of the radius was well and thoroughly repaired, and the bone so firm and good that it was not possible it could have been either broken or bent, or in any way interfered with in Dr. Beresford's manipulation a fortnight previously.

2. It was decided that there was no sign of injury to the ulna opposite the fracture of the radius.

3. There was the question as to the cause of the very obvious injury to the ulna that was now seen some two or three inches above the site of the fracture of the radius; and here I believe an opinion was generally formed that it was not from fracture, but I am open to correction; and if this was not the opinion of all or either of the examiners, I have no doubt I shall be set right.

The opinion "that the injury was caused by pressure against some sharp edge" is my own, and I still hold to it, though I am not so foolish as to believe for one moment the pressure was caused by a splint or a bandage. I am prepared to swear this injury was not present while the man was under my care; and I still think I shall be able, in due time, to show that it could not have occurred at the time when the radius was broken.

Dr. Beresford was fully justified in publishing my second note. It was withheld by me because it seemed in some degree to prejudice the case.—I am, sir, yours obediently,

W. H. Box.

Chirk, December 17th, 1877.

SIR,—I am much obliged to you for your insertion of my letter respecting my conduct towards A. B. and his patient; but his last letter demands from me a reply, which I, too, hope may be the last one. I much regret that I should have been compelled to introduce personalities; but as my professional honour was assailed I was obliged to do so, to vindicate my character; and in one respect I must do so still further, to explain why I saw the patient more than once whilst he was under the care of A. B. Three of my boys were under the patient's tuition, and the first time I saw the patient was when paying the school-fees for the past half-year; the second time, when the patient wrote to ask me to come and see him; and the third time, when I took my third son to school, after he had been detained a few weeks at home with a fractured radius and ulna. As previously stated and admitted by A. B., the patient expressed to me a wish that I should meet A. B. in consultation, but I declined for the reasons previously given. The patient then told me that A. B. was consulting Dr. George Johnson by letter respecting his case, but that he was not satisfied with it, as he wished for a personal examination of his case, and a consultation with A. B. and myself. I then asked him, "Why not ask A. B. to bring Dr. G. Johnson down?" To that he replied, "I do not feel justified in paying so large a fee." Then I replied, "If you wish for a personal consultation, there is Dr. William Roberts of Manchester, who is a specialist on kidney-disease, and whom, I am sure, A. B. will meet, and who will do you more good than I can." On the two other occasions when I saw him, the patient expressed a strong wish that I should meet A. B.; but to this I answered, "I am indebted to A. B. for much kindness when on my back with a compound Pott's fracture, and I would much rather not do anything that would be unpleasant to him." This I can positively assert. I declined on three separate occasions the patient's request, out of respect to A. B.'s feelings. If the advice tendered to ask for a consultation with Dr. William Roberts instead of myself be "meddling with the patient", I admit that to such extent I did meddle. Now, if I had not mentioned what took place on November 23rd between A. B. and the patient (please remember I have given the statement as reported me by his friends, the statement not being my own), I could not have explained the sudden revulsion of feeling towards A. B. after he and his patient had been for so many years on such good terms; but A. B. states in his last letter, "his distress of mind was of the most poignant character". Why? A. B. doubtless thinks that it was due to a fancied separation of their friendship. The patient's friends set it down to the cause previously mentioned; hence their determination and the patient's wish not to send for A. B. again. I can but express my regret that such should be the case, but I feel perfectly innocent of being the cause of the estrangement. I hope you will not assume that I wish to lay any cruelty to A. B.'s door: far from it. I do not hesitate to tell you that he is of a most kind and humane disposition, and would be the last person in the world, knowingly, to wound any person's feelings. I perhaps may have been guilty of one oversight—viz. that it would have been more in accordance with etiquette to have written to A. B. before going to see the patient than after I had seen him; but the urgency of the message, the positive assurance that A. B. would not be sent for, and that the homoeopath would not come again (for he had been sent for more to gratify the

wishes of some old friends of the patient than his own), induced me to go to him at once, and immediately on my return to write as I did to A. B. I cannot but feel sorry that A. B. should be annoyed, as to annoy him was the last thing contemplated. And now, apologising for occupying so much of your space, may I venture to ask you to reconsider your expression, "that C. D. was harrassed." Very faithfully,
C. D., M.D., 1, R. S. S. L. B. B.

* Both the parties to this correspondence are gentlemen of high standing and well known professional honour. If the explanations now exchanged have not sufficed to remove all misunderstanding and restore mutual confidence and amity, as we trust they may, we would suggest the friendly intervention of a common arbiter to remove any differences. We feel sure that both acted from excellent motives.

SIR,—I am called up at night to see a woman who had engaged me to attend her in her confinement. My presence being not then required, I leave. Next day, I have another case on hand; and, on returning home after it is over, I find that a message has arrived an hour previously from the former case. I hurry up, and find, on my arrival, another medical gentleman in attendance. The medical gentleman has received his fee, and has continued the after-attendance on the case.

Now, sir, will you kindly tell me what is your opinion of the conduct of a medical gentleman who, when called in on an emergency to a case belonging to another, does not think it worth while to inform the medical man to whom the case belongs, and thus save him a fruitless journey at a late hour, and who pockets the fee and continues to attend subsequently without one word of explanation of his (to say the least of it) unusual behaviour.—I am, sir, your obedient servant,

Sheffield, December 1877. C. NELSON GWYNNE, M.B.

* We are decidedly of opinion that our correspondent has, upon the case stated, been ill used. We would advise that application be made to the *quondam* patient for payment for the two visits; and, in the event of this being refused, that the matter be taken to the county court. At the same time full publicity should be given to the case. We hope that the medical man in question may have some satisfactory explanation, which does not appear on the facts above stated.

SIR,—In answer to a "Member's" letter in the JOURNAL of December 15th, allow me to give B.'s explanation, as required, although it is with deep regret that I am compelled to do so. C. was an assistant with S. for two years, and after leaving his employ he commenced practice in opposition in the same town. B. was the pupil of another practitioner (L.), and on the decease of L., B. being then his assistant, and literally carrying on the entire practice, bought it. To this practice there were attached six appointments, four of which C. tried to obtain by canvassing personally, and using, directly and indirectly, various other means. He was successful in getting the club-surgery, of which his letter speaks; two he knew it was impossible to sever from the practice, and the remaining three B. kept with no little trouble.

Now, sir, the surgeon to the club in question is appointed annually; and, at the expiration of the twelve months, B. is waited on by several men representing a numerous body of the members and urged again to apply for the appointment. After some hesitation, and considering the money the practice cost B., and that this club formed part of the practice when bought, B. consented, and sent in a written application, after the members had each received a summons to attend a special meeting for electing a surgeon and other officers, etc. (copy of which is enclosed), and consequently after, and not before, the time of re-election. In regard to letter-writing, C. has made a mistake; no letter of any kind whatsoever was written by B.—I remain, sir, yours obediently,
B.

* From B.'s explanation, it would seem that "A Member" must have been misinformed as to his having applied for the office of surgeon to the club before the day of election. It appears, further, that B. only applied for the office on the solicitation of certain of the members. We think that B. acted quite within his right in competing for an office which was declared vacant.

ERRATA.

In the JOURNAL of November 3rd, page 645, column 2, last line but two, for "Dr. Lake," read "Dr. Wattie".—In the JOURNAL of December 15th, page 861, column 1, second paragraph of notes from Ireland, last line but one, for "County Donegal," read "County Galway".

THE DEGREE OF M.D. IN ENGLAND.

DR. BASSETT (Birmingham) writes:—The solution of the difficulty under which your numerous correspondents labour who have had educations at our English medical schools, and who are anxious to take a degree in medicine, would be readily brought about by the creation of a Queen's University for England and Wales—an institution which should have power to grant degrees in arts, law, science, and medicine, of course after proper examinations, and to which the numerous educational centres scattered throughout the kingdom could be affiliated. The programme of such an University should be the educational lines followed at Oxford and Cambridge, and the pass standard as high. Such an institution will meet the difficulty which has arisen with reference to Owens College, a charter to which cannot be granted without injustice to other colleges which are doing good work, but which have the misfortune not to be so well endowed.

ONE WHO HAS PASSED THE PRELIMINARY SCIENTIFIC EXAMINATION writes:—Considering the many obstacles which obstruct the student's path in his endeavours to obtain the M.D. London, could not some modified examination be provided for those who have passed the matriculation, Preliminary Scientific, or First M.B., and have, in addition, obtained a medical and surgical qualification elsewhere? There are many such in practice who, from want of funds or the requisite time, have been unable to complete the University curriculum. A certain number of years in practice and a searching examination would, I think, meet the requirements of any British University.

FOREIGN DEGREES.

A FOREIGN AND BRITISH SURGEON writes:—With regard to the letter signed "Medicus", particulars relating to the examinations for medical degrees at European Continental Universities will be found in the work advertised in the JOURNAL of December 15th, entitled *Guide to European Universities*, and which, according to advertisement, is in the press. With regard to the questions asked by "X. Y. Z." I should think the Universities he mentions grant degrees of pretty equal repute. I have visited a great number of Continental Universities, and am possessed of a foreign degree by examination. I am certainly of opinion that, no matter how foreign degrees are classified in this country with regard to value, the French, German, and Austrian take the precedence on the Continent. There is not one German or Austrian University that I am aware of which will grant a medical degree

except after strict examination in medicine, surgery, midwifery, etc., and these examinations are mostly held in German or Latin. The University of France, likewise, grants medical degrees only after severe examination in the French language. The Swiss and Italian Universities, in like manner, require examinations to be passed, held in the language of their respective countries, and, I should think, rank very little, if at all, inferiorly to the French, German, or Austrian. Dutch and Belgian degrees seem to be held in fair repute. About Universities of other European countries I know little. There is no Continental University that I am aware of which requires any residence at all for the medical degree, except what is necessary for the passing of the examination. I am not aware of any Continental University which grants a medical degree in the present day without an examination, except in the case of M.D. *honoris causa* conferred on a "Jenner" or "Harvey". I am sure that no French, German, Austrian, Italian, Swiss, Dutch, or Belgian University will do so. The M.D. of Brussels, unlike other Continental degrees, may be obtained after a "practical" examination of some days' duration, which perhaps renders it rather easier for an Englishman, especially as an interpreter may be used. That, however, is the only instance of even an attempt at modification in the examinations for M.D. "X. Y. Z." had better consult the *Medical Directory* for the regulations of Scotch Universities: he will find all particulars contained there. I think, sir, that your comment on these two letters is very much to the point. We want a British University which will admit registered practitioners (who, by reason of their registration, are well educated men in medical science) to an examination for M.D.—Before concluding, I must just add, for the benefit of those who intend going abroad for their M.D., that the French, Austrian, and Italian Universities grant degrees which entitle them to practise in those countries; but in Germany and Belgium a state examination, similar to our proposed conjoint scheme, must be passed before one may practise there.—One word with regard to registration of foreign degrees in this country. Many foreign graduates are justly indignant at the non-official recognition of their degrees here, but I cannot see why registration should better their status. If a man register a diploma in medicine and surgery, it is surely all that he requires, as the only object in registration is to enable him to practise legally.

"M. S." writes:—Concerning the requirements for the German M.D. examination, a knowledge of the language is necessary. Residence at any of the Universities is not compulsory. The degrees of Würzburg, Leipsic, and Berlin take the highest standard: the former is at present frequented by the largest amount of medical students. Besides the proof of having completed four years of medical study, it is required to send in a written dissertation; and when this is approved of by the Dean of the Faculty, the candidate is admitted to the *viva voce* examination: the fee is about £15.

DR. A. G. VESEY forwards to us the notes on a case of Dislocation of the Left Femur on the Dorsum Ilii in a child four years and four months old, reduced by manipulation, forming a supplement to the interesting case of Dr. Batteredby, published in the BRITISH MEDICAL JOURNAL of the 15th instant. Dr. Vesey's case has already been recorded in the *Medical Press and Circular*.

THE INQUEST AT THE CATERHAM ASYLUM.

WE have received two communications—one from Dr. William G. Cortis, Chairman of the Committee of this Asylum, and another from Dr. James Adam, the Medical Superintendent of the institution—together with a series of annual reports, from its foundation to the present time. The documents relate to the note which we published last week, with reference to the inquest at the Asylum touching a charge, wholly unjustifiable, as we then thought and still think, raised by the coroner's jury, on the evidence of one of the medical officers, that the death of a patient, forwarded to the Asylum with very great care and under circumstances to be stated, was accelerated by her removal. It appears, Dr. Adam informs us, that a full Local Government Board inquiry into the matter will be held. This, therefore, dispenses us from meantime continuing the discussion: and, as the documents forwarded to us are of considerable length, and would entail a very voluminous intermediate discussion, we shall wait the result of inquiry. We need only observe that, however great the administrative objection of the officials at Caterham Asylum may be to the reception of patients in an advanced state of disease, or approaching to the end of their lives, such administrative objections afford no justification for the attempt to fortify them by criminal charges. It is one thing to object to receive a particular class of patients, or to endeavour to reduce the apparent death-rate; but it must always be remembered that even a high death-rate may be the indication, not of the inefficiency, but of the efficiency, of a public institution in relieving the worst forms of disease, and that officials who allow themselves to be frightened by the probability of a high death-rate into such extreme measures as were resorted to in this case, apparently for the sake of frightening medical officers out of sending to the Asylum cases likely to have an early fatal termination, are fighting a windmill with a double-edged sword, very likely to wound themselves as well as others. Whatever be the result of the Local Government Board inquiry, and it is quite evident that a formidable array of official influence is being prepared to give to it a definite bias, we shall always protest against the unjust employment of official authority to oppress individuals in order to secure rose-coloured reports for public institutions.

CONSULTANTS ACCEPTING SMALL FEES.

SIR,—A considerable amount of interest is just now being shown by the profession in the subject of consultants accepting small fees, provident dispensaries, club practice, etc.; and perhaps it may not be uninteresting if I tell you how we manage some of these matters in this part of the world. In this city, there is an institution called a "Mutual Assurance and Friendly Society for Health, Life Assurance, and Medical Attendance". The amount paid for "medical advice and attendance to the members subscribing, their wives, and such of their children as are under fourteen years of age", is about four shillings and eightpence *per annum* for each family. This is not a munificent sum; but you will be surprised to hear that the medical attendant to this Society is—to give him all his titles—a Doctor of Medicine, Doctor of Laws, and Fellow of the Royal Society, all of Edinburgh; an Honorary Member of the Clinical Society of London, a Professor of Surgery in a Scotch University, Senior Surgeon to a Hospital, and a Surgeon to the Prince of Wales for Scotland. I may also add, that he may be considered a leading consulting physician and surgeon in the north.

Now, sir, I am a poor general practitioner, and you will easily understand that when I send in my modest bill for medical attendance, I am often met with grumbling at the amount (small enough, in all conscience), and a gentle hint that for a much smaller sum in the above Society the eminent services of a professor and court-surgeon can be obtained.

Comment on the above bare statement of facts is superfluous, and I can only express my satisfaction that I am able to sign myself your obedient servant,
Aberdeen, November 1877. NOT A COURT-SURGEON AND CLUB-DOCTOR.

NOTICES of Births, Deaths, Marriages, and Appointments, intended for insertion in the BRITISH MEDICAL JOURNAL, should arrive at the Office not later than 10 A.M. on Thursday.

PUERPERAL SEPTICÆMIA.

SIR.—In the JOURNAL of November 17th, I noticed a lecture by Dr. Playfair on puerperal septicæmia and its treatment. I wish to notice one or two points, which are apparent to any one who studies the lecture. 1. There was no certain cause of the production of the disease in the case narrated: all is mere speculation; and the mere fact of the skin peeling off does not convey the impression to my mind that the *materies morbi* was scarlatinal poison. 2. In regard to treatment, it is quite evident that the continued application of cold to the patient made no material difference in the symptoms. Quinine also failed; and it was reserved for Warburg's tincture to complete the recovery of the woman. To me it appears that any beneficial effects to be noticed after the administration of this remedy were due to its power of producing diaphoresis; and perhaps had this been tried at the outset of the disease, it might have been shortened. Some time ago, I had a case under treatment with somewhat similar symptoms, and the temperature rose very high, one day reaching 108 deg. At the time, I had little hope that I could do anything to mend matters; but I resolved to commence with a diaphoretic mixture, containing liquor ammoniæ acetatis, tincture of aconite, antimonial wine, spirit of camphor, and spirit of nitrous ether, in the usual doses, and in a few hours I was glad to find that there was an appreciable difference in the temperature. The case was a head-presentation; and there was an excessive amount of liquor amnii, with the presence also of a very short cord, which seemed to retard the birth of the child, the placenta being expelled along with the child. The woman did well till the second day, when the usual symptoms of septicæmia appeared. After a considerable time, the disease was controlled by diaphoretics, warm poultices to the abdomen, ice to suck for the great thirst present, and brandy to restore the extreme prostration. Surely it should be our endeavour to enable the system to cast off the deleterious matter in the blood; and there appears to me no better method than by employing drugs which have some power in this direction. My case made a good recovery; and should another such case occur, I would have no hesitation in adopting the same treatment. As to the aphorism "that we have to use our utmost endeavours to keep the patient alive until the intensity of the disease has worn itself out", would it not be preferable to make the attempt to shorten the disease before it attains to an alarming height? Certainly we have as potent diaphoretics as the patent medicine which goes by the name of Warburg's tincture. Perhaps the method adopted by Dr. Matthews Duncan in cases of pyæmia arising from the retention of putrid matter in the uterus may be the more scientific; and there is no reason to doubt that it is a most sensible and judicious line of treatment in all cases where there is the least suspicion of any such retention.—I am, etc.,

JOHN COCHRANE, L.R.C.P. Ed., L.R.C.S. Ed., Parochial Medical Officer and Public Vaccinator, Kirkmichael, Perthshire.

SIR.—Dr. Playfair's carefully recorded case of "puerperal septicæmia" has called forth two very interesting letters on the subject. Dr. Griffiths holds the case to have been one of true septicæmia, unconnected with scarlatina-poison; while Dr. Seaton agrees with Dr. Playfair in believing that the exceedingly early appearance of the symptoms excludes the possibility of septic material having been the cause, and he suggests that the poison was probably that of typhus fever. In a paper read before the Liverpool Medical Institution, and which is at present in your hands, I have endeavoured to show that infection from decomposing blood-clots in the uterus may take place within a very few hours after delivery; therefore, I believe that there is no need to drag into the explanation of such a case some mysteriously communicated scarlatina-poison. On the other hand, it is well to remember that the zymotic diseases frequently produce abortion, and that they may not unfrequently be the determining cause of labour within a fortnight or a week from term, or at another time when another (seemingly satisfactory) reason is given by the patient. In such cases, the more urgent symptoms of labour serve to disguise those of pyrexia, and it is not till some hours after delivery that the patient is discovered to be in a condition of grave disease. The following case is a good illustration.

Mrs. K., aged 22, eight months pregnant, had a fall, which was supposed to be the cause of premature labour. I was called to see her on February 19th, 1877, and found nothing to distinguish her from any other woman in whom there were strong labour-pains. The os being rigid, there was no progress for three or four hours, so that the forceps was applied, as soon as its introduction was possible, and delivery accomplished without difficulty. After the application of the binder, the thermometer was applied in the axilla, as a matter of routine, when, to my surprise, it registered 101.5 deg. Such a temperature is very rarely met with so soon after delivery; and as the labour was not a severe one, there seemed no reason for it. The pulse at the same time was 114. Next day the temperature was 102.5 deg., pulse 132. There were nausea and vomiting, with tenderness and swelling of the abdomen; and I felt certain that the case would prove one of septicæmia. The same afternoon the small-pox eruption appeared on the face and chest, which soon became confluent, and the patient died on February 26th.

Now, had this been a case of typhus or typhoid instead of small-pox, it is extremely probable that it would have been pronounced one of septicæmia. The aggravating and disguising influence of the puerperal condition, together with the short time available for carefully observing the progress of the disease, would have had the effect of obscuring the nature of the illness. Dr. Seaton's suggestion of typhus as the probable cause of the symptoms in Dr. Playfair's case is certainly very plausible; nevertheless, there seems no reason to suppose, unless infection can be traced, that it was other than poison from septic material.—I am, sir, yours truly,

JAMES MILLER H. WIE, M.D., F.R.S.E., 50, Rodney Street, Liverpool, December 8th, 1877.

SMALL-POX.

"M.D." writes:—In the report of the inquiry before the Royal Commissioners as to the Factories Acts, it is reported in vol. II, page 402, question 8,160, that one of the medical witnesses, in reply to a question put to him, stated:—"I think it is important that all children working in factories should be properly vaccinated. I believe, if the duties of the medical officers of factories were efficiently carried out with regard to vaccination, it would be a means of stamping out the disease of small-pox." Notwithstanding that the Royal Commissioners concur in this evidence, I find that the Home Secretary has not in his Factories' Bill adopted the recommendation. Can you understand how this is?

SIR.—I think the member who wishes for lectures on the five senses will find the work to suit him in *The Five Senses and their Organs*, by George Wilson, M.D., F.R.S.E., etc.; published by Macmillan and Co.—Yours faithfully,

36, Ladbroke Road, W., Dec. 22nd, 1877. W. DOUGLAS HEMMING.

CORRESPONDENTS are particularly requested by the Editor to observe that communications relating to Advertisements, changes of address, and other business matters, should be addressed to Mr. Francis Fowke, General Secretary and Manager, at the Journal Office, 36, Great Queen Street, W.C., and not to the Editor.

POMPHOLYX.

SIR.—Dr. Robinson's deduction, quoted by Dr. Thin in his paper on "Pompholyx or Dysidrosis", that "the disputed point between Mr. Hutchinson and Dr. Fox was clearly decided", because he found albumen in the vesicular contents and not in the sweat, is open to doubt, unless the sweat was taken from the part affected, which could not have been effected without having the contents of the vesicles mixed with it. Blood-serum and corpuscles may also be found in the sweat-ducts when they are in a catarrhal or inflammatory condition, such as may be induced to a varying degree by retained sweat. I have seen the "sago-grain" vesicles following an attack of "prickly heat" in a sailor in the Mediterranean during excessively hot weather in June, and I have also seen them in a girl whose hands were generally cold, and whose sweat-glands acted slightly. It seems quite possible, and even probable, to have both forms of the disease; that which is seen most frequently during the extreme heat being probably an affection of the sweat-ducts. It is a remarkable fact, that these cases have been less prevalent this summer, during which there has been fewer extremely hot days, a lower average rate of temperature, and consequently the skin has had less work to perform.—I am, sir, your obedient servant,

FRED. S. ALFORD, Haverstock Hill, December 1st, 1877.

WARBURG'S TINCTURE.

SIR.—Having recently seen the great advantage of "Warburg's tincture" in cases of malarial and other fevers in India, I recommended a practitioner in a country district in Scotland to use it in a case of puerperal fever. Two doses were given, but none of the characteristic effects—such as profuse perspiration, reduction of temperature and pulse—were produced. On examining the bottle, I found it was the spurious "tincture of Madame Warburg" that had been given, which accounted for the results being *nil*.—Your obedient servant,

December 11th, 1877.

FLEET-SURGEON, R.N.

WE are indebted to correspondents for the following periodicals, containing news, reports, and other matters of medical interest:—The Birmingham Daily Post; The Durham Chronicle; The Harrogate Herald; The Sunderland Times; The Lincolnshire Chronicle; The Bromsgrove Weekly Messenger; The Manchester Courier; The Broad Arrow; The Cork Examiner; The Cork Daily Herald; The Rotherham and Masbro' Advertiser; The Liverpool Daily Courier; The York Herald; The North Wales Chronicle; The Sheffield Daily Telegraph; The Blyth Weekly News; The Glasgow Herald; The Nottingham Journal; The Eastbourne Standard; The Scarborough Daily Post; The Isle of Wight Observer; The Sussex Daily News; The Metropolitan; The Leeds Mercury; The Belfast News Letter; The Scotsman; The Cork Constitution; The Freeman's Journal; The Hampshire Post; The Somersetshire Herald; The Isle of Man Times; The Sussex Advertiser; The Herts Advertiser; The Manchester Guardian; The Evesham Journal; The Devonport Independent; The St. Pancras Gazette; The Bath Herald; The Western Morning News; The Hull News; The Redditch Indicator; The Derby Mercury; The Preston Guardian; The Scarborough Express; The Jewish World; The Yorkshire Post; The Coventry Herald; The Wisbech Advertiser; The West Briton and Cornwall Advertiser; etc.

* * We shall be greatly obliged if correspondents forwarding newspapers will kindly mark the passages to which it is desired to direct attention.

COMMUNICATIONS, LETTERS, etc., have been received from:—

Dr. Graily Hewitt, London; Dr. J. B. Bradbury, Cambridge; Dr. J. Burdon Sanderson, London; Dr. Humphry, Cambridge; Dr. Coats, Glasgow; Dr. W. Fairlie Clarke, Southborough; Dr. J. Milner Fothergill, London; Mr. Alban Doran, London; Dr. Saundby, Birmingham; Mr. E. G. C. Snell, London; The Secretary of the Obstetrical Society; Dr. T. W. Hime, Sheffield; Mr. Cawley Dawson, Leeds; Mr. C. G. Wheelhouse, Leeds; Dr. E. M. Skerritt, Clifton; The Secretary of Apothecaries' Hall; Dr. J. W. Moore, Dublin; The Registrar-General of England; Dr. Edis, London; Dr. Joseph Bell, Edinburgh; M.D.; Mr. Eastes, London; The Registrar-General of Ireland; Dr. Levinge, Bristol; Mr. W. Douglas Hemming, London; Mr. Howard Marsh, London; Dr. W. H. Spencer, Clifton; Dr. W. M. Whistler, London; Mr. W. Walker, Coatham; Dr. I. Ashe, Dundrum; Dr. J. Clarke, Leicester; Dr. G. F. Burder, Bristol; Mr. G. Rice, Manchester; Mr. G. R. Gilruth, Edinburgh; D. J. Adam, Caterham; Mr. W. J. Weston, Leicester; Mr. A. Ford, Harrogate; Dr. Sieveking, London; Dr. Cavafy, London; Our Edinburgh Correspondent; Dr. Thompson, Melbourne; Dr. Sinclair Coghill, Ventnor; Dr. Wilks, London; Dr. Parsons, Dover; The Secretary of St. Mary's Hospital; Mr. Golding-Bird, London; Dr. A. S. Taylor, London; Dr. Macrae, Leyton; Dr. R. J. Lee, London; The Secretary of the Pathological Society; Our Dublin Correspondent; Mr. Riddale, Hull; Mr. R. S. Lewis, Llandi county; Our Paris Correspondent; Dr. Bateman, Norwich; Mr. Arthur N. Turner, Penge; Dr. H. Macnaughton Jones, Cork; Dr. Collie, Homerton; Dr. Cortis, London; Mr. Y. J. Jay, Nantwich; Mr. W. Mitchell, Rothel; Dr. Sawyer, Birmingham; Mr. T. Holmes, London; The Secretary of the Epidemiological Society; Dr. Aitken, Rome; Mr. James Elliott, Sowerby Bridge; Mr. W. Walter, Manchester; Dr. Rogers, London; etc.

BOOKS, ETC., RECEIVED.

Auscultation and Percussion, together with other Methods of Physical Examination of the Chest. By Samuel Gee, M.D. London; Smith, Elder and Co. 1877.
A Treatise on the Ear. By Charles H. Burnatt, A.M., M.D. London: J. and A. Churchill. 1877.
Diet and Opium in Intestinal Obstructions. By Hugh Owen Thomas. London: H. K. Lewis. 1877.
Transactions of the New York Pathological Society. By John C. Peters, M.D. New York: William Wood and Co. 1877.

Experiments on the Biliary Secretion of the Dog.

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Experiment 12.—Dog that had fasted seventeen hours. Weight, 6.8 kilogrammes. (Fig. 12.)

AUTOPSY.—The appearances of the intestine were similar to those observed in the preceding experiment.

Results of Experiments with Ipecacuan.—1. Sixty grains of powdered ipecacuan, mixed with a small quantity of bile and placed in the duodenum, powerfully stimulated the liver. Even three grains had an effect on a dog weighing 6.8 kilogrammes very nearly as great as the effect of sixty grains on a dog weighing 27.2 kilogrammes, the amount of bile secreted per kilogramme of dog being nearly the same in both cases. 2. The bile secreted under its influence was of normal composition as regards the biliary matter proper. 3. No purgative effect was produced, but there was an increased secretion of mucus in the small intestine. The composition of the bile did not afford any evidence of an increased secretion of mucus having taken place from the glands of the bile-ducts.

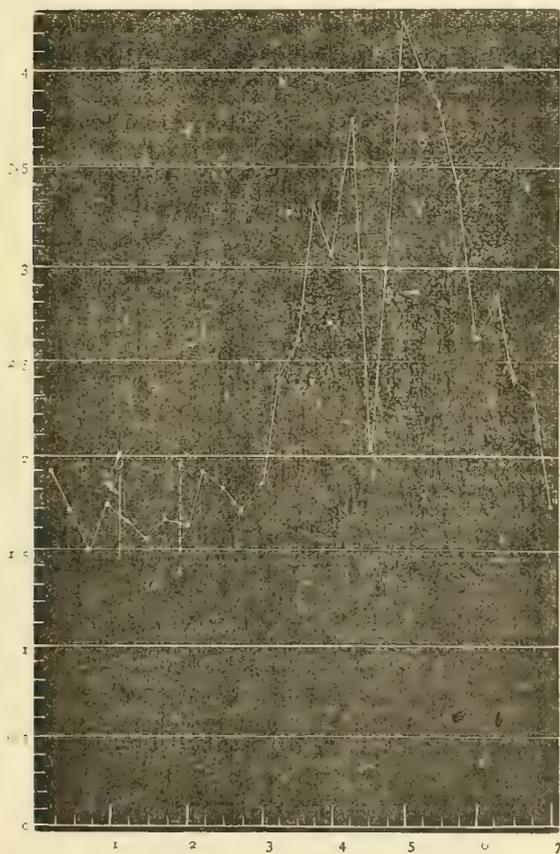


Fig. 10.



Fig. 11.

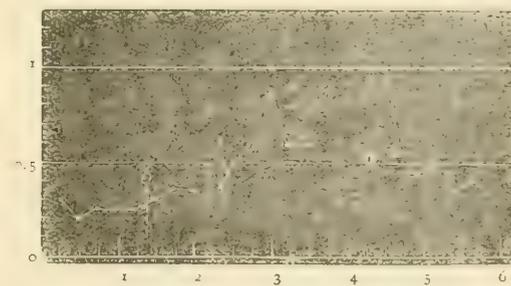


Fig. 12.

Fig. 10.—Secretion of bile before and after ipecacuan. 2 cc. of bile and 5 cc. of water injected into the duodenum at *b*; the same fluid, with 60 grains of ipecacuan powder injected at *i*.

Fig. 11.—Secretion of bile before and after ipecacuan. 1.5 cc. of bile and 2 cc. of water injected into the duodenum at *b*; the same fluid, with 3 grains of ipecacuan powder, injected at *i*.

Fig. 12.—Secretion of bile before and after ipecacuan. 1.5 cc. of bile and 2 cc. of water injected into the duodenum at *b*; 3 grains of ipecacuan powder in the same fluid injected at *i*.

The increased biliary flow that followed ipecacuan could not in these experiments be ascribed to any relaxation of spasm of the bile-ducts; for that no such thing existed, was clearly shown by the free flow of the bile before the substance was given. Nor could it be owing to contraction of the gall-bladder, for the cystic duct was clamped. Nor can it be ascribed to contraction of the bile-ducts, for the increased flow was far too prolonged to be attributable to any such cause. It is, therefore, certain that this substance, like the others, has the power of stimulating the *secretory* apparatus of the liver. This being now proved as regards the dog, it can scarcely be doubted that the *modus operandi* is the same in man. The results of these experiments will, therefore, lead to new speculations regarding the pathology of dysentery; for *as regards the greater accuracy of knowledge regarding the modus operandi of any therapeutic agent is certainly calculated to advance our knowledge of the true nature of the pathological condition that is relieved or cured by it.*

ACTION OF COLOCYNTH.

Colocynth and jalap are substances whose action on the biliary secretion of the dog has already been investigated by Röhrig (Stricker's *Jahrbücher*, 1873, p. 240). According to that observer, croton-oil is a powerful cholagogue, and colocynth and jalap stand near it in importance. We have already, in our first report, pointed out the falliness of Röhrig's method.

and have shown that croton-oil is scarcely worthy of being classed amongst cholagogues. It seemed, therefore, desirable that we should experiment with colocynth and jalap, in order to have results comparable with those of our experiments on other substances.

Experiment 13.—Dog that had fasted sixteen hours. Weight, 26.3 kilogrammes. (Fig. 13.)

AUTOPSY.—Gastric mucous membrane very vascular. The mucous membrane of the small intestine was intensely vascular throughout its entire length. There was evidence of powerful purgation, the small intestine containing 82 cc. of fluid.

Experiment 14.—Dog that had fasted sixteen hours. Weight, 16.3 kilogrammes. (Fig. 14.)

<i>Experiment 9.</i>		<i>Experiment 10.</i>		<i>Experiment 11.</i>		<i>Experiment 12.</i>	
Secretion of bile per 15".	Secretion of bile per kilogramme of dog per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog per hour.
cc.		cc.		cc.		cc.	
0.8	} 0.113 cc.	1.9	} 0.24 cc.	0.2	} 0.18 cc.	0.3	} 0.186 cc.
0.55		1.7		0.2		0.3	
0.25		1.5		0.2		0.25	
0.4		1.7		0.25		0.3	
<i>b</i> —		<i>b</i> —		0.25		0.3	
0.3		1.65		0.25		0.3	
0.4		1.55		0.3		0.35	
0.5		1.65		0.3		0.32	
0.5		<i>i</i> —		0.2		0.3	
<i>i</i> —		1.6		<i>b</i> —		0.25	
0.8	} 0.4 cc.	1.9	} 0.555 cc.	0.25	} 0.385 cc.	<i>i</i> —	} 0.506 cc.
2.0		1.8		0.25		0.45	
1.1		1.7		0.3		0.6	
1.4		1.85		0.3		0.9	
1.5		2.4		<i>i</i> —		0.6	
1.1		2.6		0.4		0.6	
1.0		3.3		0.25		0.9	
0.9		3.05		0.3		1.0	
1.2		3.75		0.7		0.8	
1.3		2.02		0.7		1.15	
1.5	3.0	0.45	0.55				
1.0	4.25	0.5	0.45				
1.0	4.0	0.7	0.5				
1.0	3.85	0.7	0.35				
0.5	3.42	0.35	0.4				
1.0	2.6	0.45	0.3				
1.0	2.8	0.5					
1.0	2.35	0.45					
1.05	2.3	0.4					
1.1	1.7						
0.8							
0.7							

TABLE III.—Composition of the Bile before and after Ipecacuan.

<i>Experiment 10.</i>		Before.	After.
Water	...	89.631	89.77
Bile-acids, pigments, cholesterin, fats	...	8.13	8.129
Mucus	...	1.01	0.87
Ash	...	1.229	1.231
		100.000	100.000
Velocity of secretion per half-hour	...	3.2 cc.	6.35 cc.

TABLE IV.—Composition of the Bile before and after Ipecacuan.

<i>Experiment 12.</i>		Before.	After.
Water	...	91.32	91.51
Bile-acids, pigments, cholesterin, fats	...	6.73	6.73
Mucus	...	0.98	0.79
Ash	...	0.97	0.97
		100.00	100.00
Velocity of secretion per half-hour	...	0.65 cc.	1.9 cc.

These analyses show that, notwithstanding the acceleration of secretion by ipecacuan, the percentage amount of the special biliary constituents remains unchanged.

AUTOPSY.—There was increased vascularity throughout the whole length of the mucous membrane of the small intestine, especially marked in the upper part. There was considerable evidence of purgation.

TABLE V.—Composition of the Bile before and after *Colocynth*.

Experiment 13.								Before.	After.
Water	...	...	...	...	...	...	92.99	94.13
Bile-acids, pigments, cholesterin, fats	...	...	...	...	...	...	5.49	4.70
Mucus	...	...	...	...	...	...	0.90	0.70
Ash	...	...	...	...	...	...	0.62	0.47
								100.00	100.00
Velocity of secretion per half-hour								3.4 cc.	6.35 cc.

TABLE VI.—Composition of the Bile before and after *Colocynth*.

Experiment 14.								Before.	After.
Water	...	...	...	...	...	...	91.48	91.72
Bile-acids, pigments, cholesterin, fats	...	...	...	...	...	...	6.85	6.69
Mucus	...	...	...	...	...	...	0.83	0.77
Ash	...	...	...	...	...	...	0.84	1.82
								100.00	100.00
Velocity of Secretion per half-hour								1.15 cc.	2.35 cc.

These analyses show that *colocynth* renders the bile more watery, although at the same time it increases the secretion of the special biliary matters.

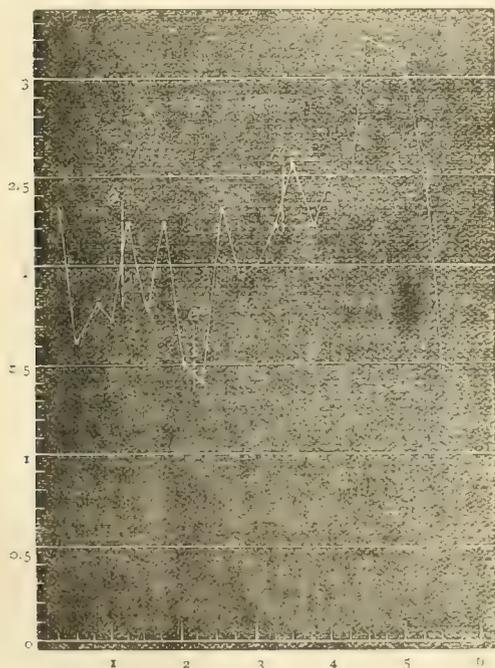


Fig. 13.

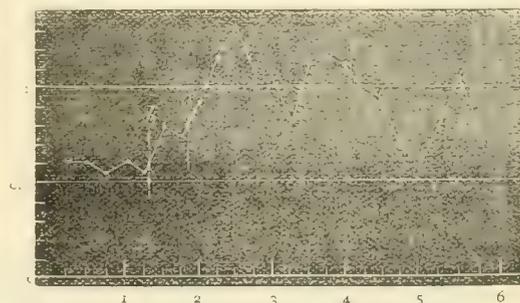


Fig. 14.

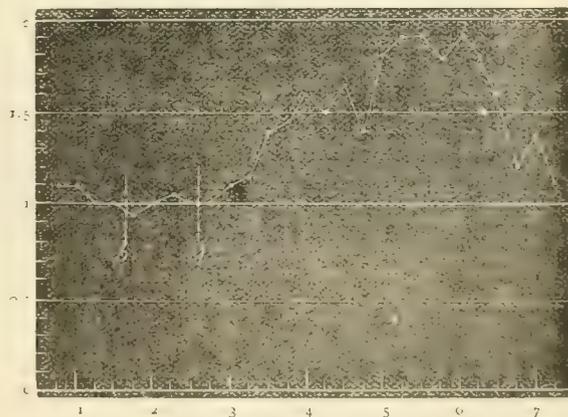


Fig. 15.

- Fig. 13.—Secretion of bile before and after *colocynth*. 2 cc. of bile and 2 cc. of water injected into the duodenum at *b*; the same fluid, with 7 grains of powdered *colocynth* pulp, injected at *c*; the same dose repeated at *c*.
- Fig. 14.—Secretion of bile before and after *colocynth*. 3 cc. of bile and 3 cc. of water injected into the duodenum at *b*; the same fluid, with 7 grains of powdered *colocynth* pulp, injected at *c*; the same repeated at *c*.
- Fig. 15.—Secretion of bile before and after *jalap*. 2.5 cc. of bile and 2.5 cc. of water injected into the duodenum at *b*; 35 grains of *jalap* powder in the same fluid injected at *c*.

In Experiment 14, the pulse became very weak towards the close of the experiment, and it may be that this weakness rendered the effect of the colocynth upon the liver less than it otherwise might have been. Be this as it may, we did not think it necessary to perform another experiment, for the first experiment with this substance may be regarded as sufficient.

Results of the Experiments with Colocynth.—1. Colocynth is a hepatic stimulant of considerable power. It renders the bile more watery, but nevertheless increases the secretion of biliary matter. 2. It is also a powerful stimulant of the intestinal glands.

ACTION OF JALAP.

Experiment 15.—Dog that had fasted seventeen hours. Weight, 25 kilogrammes. (Fig. 15.)

AUTOPSY.—The jalap had extended along about four-fifths of the small intestine, the mucous membrane of which was more vascular than usual, especially so at the lower part of the duodenum. The purgative effect was considerable, there being 64 cc. of fluid in the intestine. The fluid was of a very watery character.

Experiment 16.—Dog that had fasted twenty-two hours. Weight, 12.3 kilogrammes. (Fig. 16.)

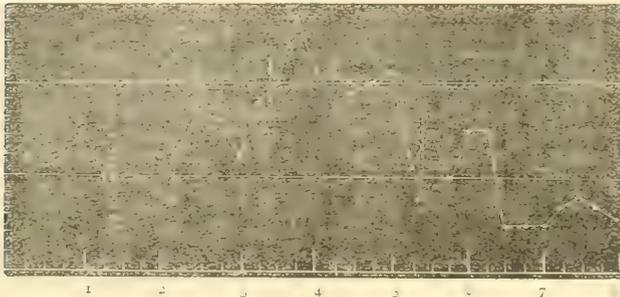


Fig. 16.

Fig. 16.—Secretion of bile before and after jalap. 10 cc. of bile and 20 cc. of water injected into the duodenum at *b*; 20 grains of jalap powder in the same fluid injected at *c*, *d*, and *e*.

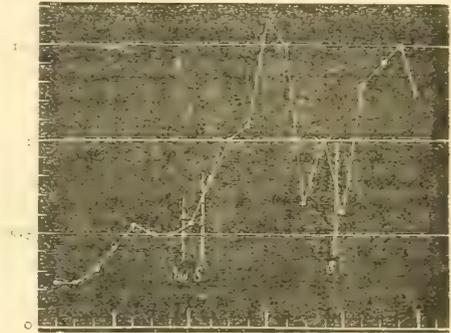


Fig. 17.

Fig. 17.—Secretion of bile before and after sodium sulphate. 10 cc. of water injected into the duodenum at *a*; 6 grains of sodium sulphate in 10 cc. of water injected at *s*, and again at *t*.

AUTOPSY.—Twenty cc. of fluid had been injected into the duodenum, much of which had probably been absorbed. The small intestine, however, contained in its upper third 117 cc. of watery fluid, showing that a profuse purgative action was taking place. The jalap had extended along only a third of the small intestine.

The fall of the bile-secretion towards the close of the experiment is only another illustration of the fact often witnessed by us—that severe purgation diminishes the secretion of bile.

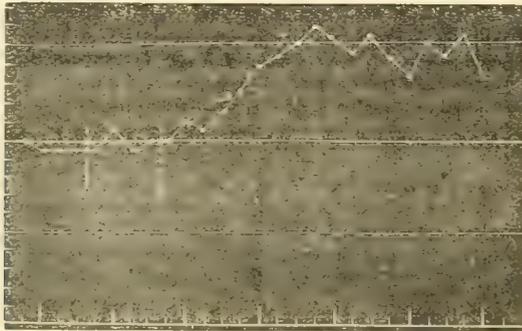


Fig. 18.

Fig. 18.—Secretion of bile before and after sodium sulphate. 3 cc. of bile and 5.5 cc. of water heated to 37 deg. C. injected into the duodenum at *b*; 508 grains of sodium sulphate in the same fluid, heated to 37 deg. C., injected at *a*.



Fig. 19.

Fig. 19.—Secretion of bile before and after magnesium sulphate. 10 grains in 2 cc. of water injected into the duodenum at *m*, *m'*, and *m''* (130 grains given in all).

Results of Experiments with Jalap.—1. Jalap is a hepatic stimulant of considerable power. It renders the bile more watery, but at the same time increases the secretion of biliary matter. 2. Its effect on the liver is, however, far less notable than its effects on the intestinal glands. Its hydragogue cathartic effects on the latter were fully manifested in these experiments.

ACTION OF SODIUM SULPHATE.

Works on therapeutics generally make no mention of any certain cholagogue action of this substance. In the fourth edition of Garrod's *Medical Jurisprudence*, however, it is stated that, in addition to its action as a saline purgative, it "probably influences the biliary secretion".

Experiment 17.—Dog that had fasted nineteen hours. Weight, 19.5 kilogrammes. (Fig. 17.)

AUTOPSY.—Evidence of decided purgative action in small intestine, the mucous membrane of which exhibited a considerably increased vascularity.

Experiment 18.—Dog that had fasted twenty hours. Weight, 15.7 kilogrammes. (Fig. 18.)

AUTOPSY.—Mucous membrane of whole length of small intestine slightly reddened. The small intestine contained 147 cc. of clear liquid with greenish-white flakes, thus affording evidence of decided purgative effect.

Experiment 13.		Experiment 14.		Experiment 15.		Experiment 16.			
Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.		
cc.		cc.		cc.		cc.			
2.3		0.6		1.1		0.6			
1.6		0.6		1.1		0.55			
1.8		0.55		1.0		0.6			
b —		0.6		1.0		0.75			
1.7	} 0.2903 cc.	0.55	} 0.165 cc.	i —	} 0.16 cc.	0.5	} 0.0178 cc.		
2.2				0.95				b —	
1.75				0.8				0.5	
2.2				0.75				1.0	
1.5				c —				1.05	
c —		0.9		1.0		0.6			
1.4		1.15	} 0.279 cc.	j —		0.65			
2.3		1.3			1.0		0.85		
1.95		1.05			1.15		0.8		
2.0		1.05			1.4		0.6		
2.2		0.8			1.45		0.9		
c' —		1.1		1.6		j' —			
2.55		1.15		1.5		1.0			
2.2		1.1		1.65		1.35	} 0.357 cc.		
2.5		c' —		1.4		1.05			
2.5		1.0		1.8		1.05			
3.2	} 0.452 cc.	0.95		1.9	} 0.296 cc.	0.95			
3.15			0.65			1.9			
3.05			0.6			1.8			
2.45			0.8			1.9			
1.5			1.05			1.8			
1.4		0.85		1.6		j'' —			
		0.65		1.2		0.75			
				1.4		0.5			
				1.1		0.75			
						0.75			
						0.25			
						0.25			
						0.25			
						0.35	} 0.113 cc.		
						0.4			
						0.35			
						0.3			

Results of Experiments with Sodium Sulphate.—Doses of 60 grains twice repeated (Experiment 17), and a single dose of 508 grains (Experiment 18), increased the biliary secretion. Sodium sulphate is undoubtedly, therefore, a hepatic stimulant, but not of great power; for even in the second case the hourly secretion of bile per kilogramme of body-weight did not rise higher than 0.388 cc. The positive character of this result is important, because it is well known that the waters of Carlsbad have a cholagogue action; and, although they contain a number of salts, sodium sulphate is the chief, and it is, in all probability, to this salt that the cholagogue effect is principally due.

Sodium sulphate, however, has for a considerable time been, in practical medicine, almost entirely superseded by magnesium sulphate, on account of its "more agreeable taste" (Garrod). We, therefore, performed the two following experiments to determine whether or not that substance has any cholagogue action.

ACTION OF MAGNESIUM SULPHATE.

Experiment 19.—Dog that had fasted seventeen hours. Weight, 5.4 kilogrammes. (Fig. 19.)

AUTOPSY.—Great purgative action in upper half of small intestine. Mucous membrane intensely reddened.

Experiment 20.—Dog that had fasted seventeen hours. Weight, 8.2 kilogrammes. (Fig. 20.)

AUTOPSY.—Small intestine contained 90 cc. of fluid, whereas only 42 cc. had been injected. There was, therefore, evidence of decided purgation; and there was intense irritation of the mucous membrane in the upper half of the small intestine.

Results of Experiments with Magnesium Sulphate.—Experiment 19, but especially Experiment 20, clearly show that, unlike sodium sulphate, this substance has no cholagogue action. The curve in Experiment 20 exhibits remarkably well the effect on the secretion of bile produced by a substance that stimulates the intestinal glands, but not the liver. In such a case, the biliary secretion is simply diminished.

ACTION OF POTASSIUM SULPHATE.

Potassium sulphate is sometimes employed as a purgative agent, but no mention is made in the books of its having any action on the liver. Dr. Wade of Birmingham, however, informed us that he finds this substance a cholagogue in man; and, at his request, we tested by our method its action on the dog.

Experiment 21.—Dog that had fasted seventeen hours. Weight, 17 kilogrammes. (Fig. 21.)

AUTOPSY.—Small intestine contained 137 cc. of greenish fluid with mucous flakes. The mucous membrane exhibited increased vascularity, with small ecchymoses in its upper fourth.

In this case, therefore, this substance irritated the intestine and produced purgation, but did not excite the liver. It was decided to give in the next case a larger dose.

Experiment 22.—Large dog that had fasted seventeen hours. Its weight, unfortunately, was not recorded. (Fig. 22.)

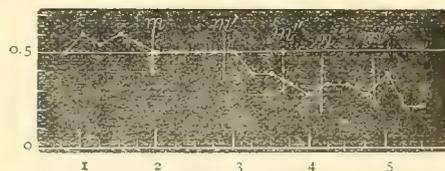


Fig. 20.

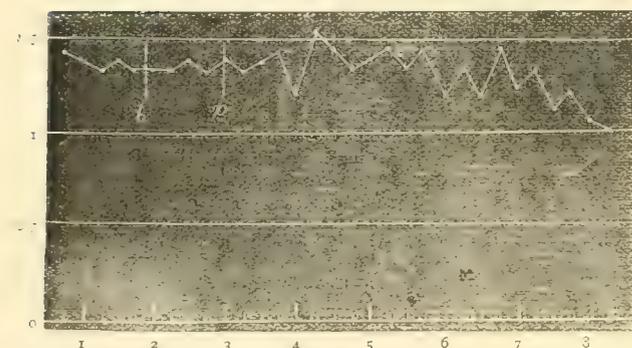


Fig. 21.

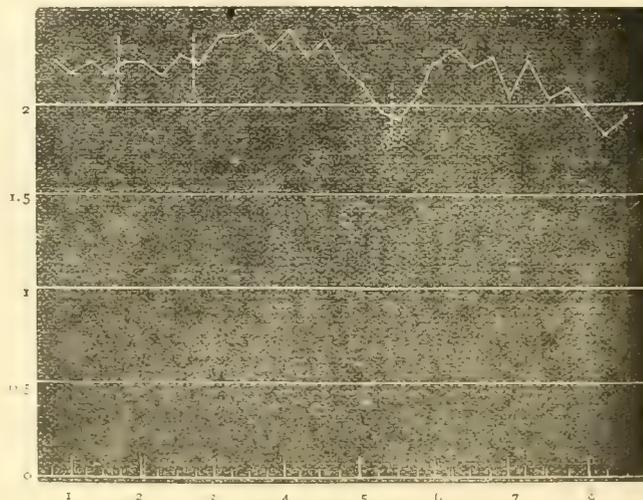


Fig. 22.

Fig. 20.—Secretion of bile before and after magnesium sulphate. 60 grains in 12 cc. of water at *m*; 60 grains in 6 cc. of water at *m'*, *m''*, *m'''*; and 120 grains in 12 cc. of water at *m''''*; all injected into the duodenum (360 grains given in all).

Fig. 21.—Secretion of bile before and after potassium sulphate. 2½ cc. of bile and 16 cc. of water injected into the duodenum at *b*; the same with 124 grains of potassium sulphate, heated to 37 deg. C., injected at *s*.

Fig. 22.—Secretion of bile before and after potassium sulphate. 2½ cc. of bile and 35 cc. of water injected into the duodenum at *b*; the same with 142 grains of potassium sulphate injected at *s*, and again at *s'*.

AUTOPSY.—Small intestine contained 143 cc. watery fluid. The vascularity of the mucous membrane in the whole length of the small intestine was slightly increased.

There being in this case evidence of a slight increase of the biliary secretion, another experiment was thought desirable.

Experiment 23.—Dog that had fasted seventeen hours. Weight, 21.5 kilogrammes. (Fig. 23.)

AUTOPSY.—Increased vascularity of mucous membrane in whole length of small intestine. The small intestine contained 90 cc. clear brownish fluid with numerous mucous flakes. There was, therefore, evidence of considerable purgative action.

Results of Experiments with Potassium Sulphate.—Experiment 23 clearly shows that potassium sulphate is undoubtedly a hepatic stimulant. The dose of 232 grains given in this case to a full-sized dog was just the maximum dose for a man. The negative effect of 124 grains in Experiment 21, and the slight effect of 142 grains twice repeated in Experiment 22, suggest that this substance is uncertain in its action on the liver. Regarding its action on the intestinal glands, however, there was no uncertainty, for its purgative action was pronounced in all the three experiments. Possibly the sparing solubility of the salt may render its absorption into the portal vein uncertain. The bile given along with the salt in Experiments 21 and 22 had probably nothing whatever to do with the result. The result of Experiment 23 completely supports Dr. Wade's opinion that potassium sulphate is a cholagogue. Indeed, the amount of bile secreted per kilogramme of body-weight under its influence in Experiment 23 was greater than in either of the experiments with sodium sulphate (17 and 18). The apparent uncertainty, however, in the action of potassium sulphate must not be lost sight of.

ACTION OF SODIUM PHOSPHATE.

Sodium phosphate is described in the text-books as a mild saline purgative, nothing being said about its action as a cholagogue. Professor Stephenson of Aberdeen, however, has found it specially useful for children when there is a deficiency of bile in the discharges (*Edinburgh Medical Journal*, 1867, vol. xiii, p. 336). The dose as a purgative for a man is 120—480 grains.

Experiment 24.—Dog that had fasted twenty hours. Weight, 26.9 kilogrammes. (Fig. 24.)

Experiments on the Biliary Secretion of the Dog.

AUTOPSY.—Somewhat increased vascularity of mucous membrane of small intestine. Evidence of a very decided purgative effect, the contents of small intestine being of a very watery character.

Results of Experiment with Sodium Phosphate.—1. It is undoubtedly a hepatic stimulant of very considerable power. 2. Although it renders the bile more watery, it increases the amount of biliary matter secreted per unit of time. 3. While acting as a purgative, it irritates the intestinal mucous membrane very slightly.

The results of Experiment 24 were so satisfactory—both doses of the substance producing an effect—that it was thought needless to repeat it, as it confirms Dr. Stephenson's observations on the human subject; adding to these, however, the definite knowledge that it has the power of actually stimulating the hepatic cells to secrete more biliary matter.

TABLE VII.—*Composition of the Bile before and after Jalap.*

Experiment 15.						Before.	After.
Water	...	...	...	...	...	89.31	89.75
Bile-acids, pigments, cholesterin, fats	...	...	...	...	...	8.41	8.05
Mucus	...	...	...	...	...	0.93	0.87
Ash	...	...	...	...	...	1.35	1.33
						100.00	100.00
Velocity of secretion per half-hour						2.1 cc.	3.7 cc.

ACTION OF ROCHELLE SALT.

Nothing is stated in the books regarding any cholagogue action of this substance. Its dose as a purgative for a man is from 120 to 240 grains.

Experiment 25.—Dog that had fasted seventeen hours. Weight, 5.2 kilogrammes. (Fig. 25.)

No autopsy.

Considering the small size of this animal, the exciting effect of the salt on the liver was very remarkable. The fall in the secretion towards the close of the experiment was doubtless owing to purgative action taking place.

<i>Experiment 17.</i>		<i>Experiment 18.</i>		<i>Experiment 19.</i>		<i>Experiment 20.</i>	
Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.
cc.		cc.		cc.		cc.	
0.25	} 0.107 cc.	1.0	} 0.251 cc.	0.7	} 0.564 cc.	0.5	} 0.28 cc.
0.25		0.95		0.45		0.6	
0.3		0.95		0.7		0.55	
0.4		0.95		0.95		0.6	
0.55		<i>b</i> —		0.95		0.55	
0.5		0.95		1.2		<i>m</i> —	
0.5		1.05		1.2		0.5	
<i>s</i> —		0.95		1.0		0.5	
0.55		1.0		<i>m</i> —		0.5	
0.8		1.0		0.9		0.5	
1.0	} 0.266 cc.	1.1	} 0.388 cc.	0.55	} 0.342 cc.	<i>m'</i> —	} 0.146 cc.
1.05		1.05		0.4		0.5	
1.65		1.15		0.4		0.4	
1.5		1.25		<i>m'</i> —		0.4	
0.65		1.4		0.3		<i>m''</i> —	
1.0		1.45		0.4		0.35	
<i>s'</i> —		1.45		0.45		0.3	
0.6		1.5		<i>m'</i> —		<i>m'''</i> —	
1.3		1.6		0.65		0.35	
1.4		1.55		0.5		0.35	
1.5	1.45	0.4	0.3				
1.25	1.55	0.3	<i>m''''</i> —				
	1.45		0.4				
	1.35		0.25				
	1.5		0.25				
	1.45						
	1.55						
	1.35						

Experiment 26.—Dog that had fasted twenty hours. Weight, 12.5 kilogrammes. (Fig. 26.)

AUTOPSY.—Small intestine contained 130 cc. of a clear mucous fluid. Mucous membrane of small intestine showed a slightly increased vascularity.

Results of Experiments with Rochelle Salt.—It is certainly a hepatic stimulant. Experiment 25 shows what a rapid secretion of bile it called forth in a liver that was nearly passive before it was given. The effect was by no means so remarkable in Experiment 26, where the liver was relatively more active before the substance was given. Probably the latter affords a better general indication than the former of the power of this substance as a cholagogue; and it must be remembered that in both cases, considering the size of the animals as compared with man, the doses were large; so that, on the whole, it may be anticipated that observations on man will show that this substance is a cholagogue, but not a powerful one.

TABLE VIII.—Composition of the Bile before and after Sodium Phosphate.

Experiment 24.							Before.	After.
Water	...	...	...	...	...	84.69	85.15
Bile-acids, pigments, cholesterin, fats	...	...	...	...	...	13.23	12.91
Mucus	...	...	...	...	...	1.01	0.93
Ash	...	...	...	...	...	1.07	1.01
							100.00	100.00
Velocity of secretion per half-hour							3.6 cc.	5.5 cc.

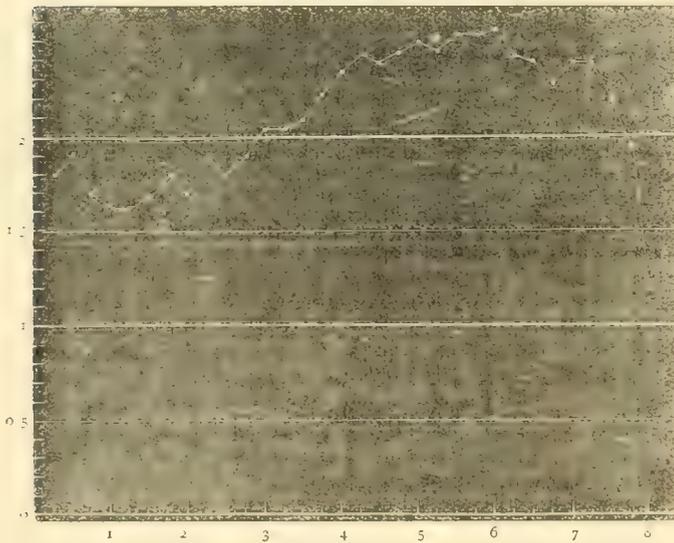


Fig. 23.

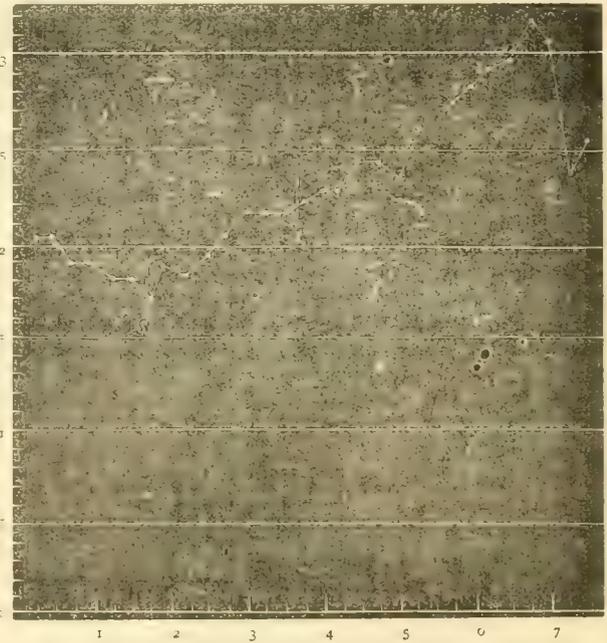


Fig. 24.

Fig. 23.—Secretion of bile before and after 232 grains of potassium sulphate, dissolved in 32 cc. of water, at 37 deg. C., injected into the duodenum at *a*.

Fig. 24.—Secretion of bile before and after sodium phosphate. 77 grains in 15 cc. of water injected into the duodenum at *s*; and 124 grains in 25 cc. of water injected at *s'*.



Fig. 25.

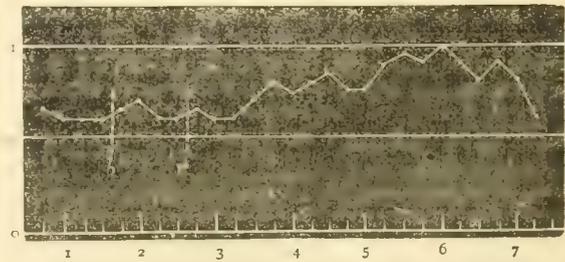


Fig. 26.

Fig. 25.—Secretion of bile before and after tartrate of soda and potash—10 cc. of water injected into the duodenum at *a*; the same, with 60 grains of Rochelle salt, injected at *s*, *s'*, and *s''*—240 grains given in all.

Fig. 26.—Secretion of bile before and after Rochelle salt. 3 cc. of bile and 55 cc. of water, heated to 37 deg. C., injected into the duodenum at *b*; the same, with 463 grains of Rochelle salt, heated to 37 deg. C., injected at *s*.

Experiments on the Biliary Secretion of the Dog.

ACTION OF AMMONIUM CHLORIDE.

Chloride of ammonium is "by some considered a cholagogue" (Garrod's *Materia Medica*, 4th ed., p. 51). Dr. W. Stewart (quoted in Wood's *Therapeutics*, 1874, p. 446) has highly recommended it in cases of chronic torpidity of the liver, given in doses of twenty grains thrice a day for weeks or even months.

Experiment 27.—Dog that had fasted eighteen hours. Weight, 7 kilogrammes. (Fig. 27.)

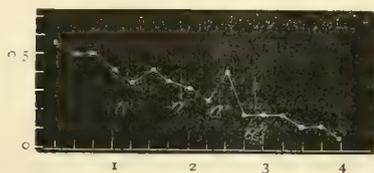


Fig. 27.

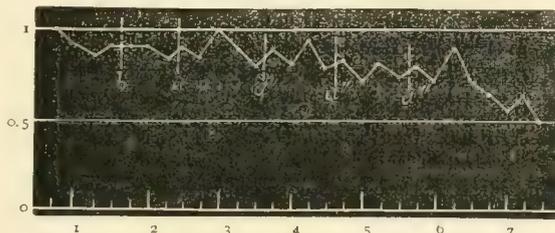


Fig. 28.

Fig. 27.—Secretion of bile before and after ammonium chloride. 6 cc. of water injected into the duodenum at *w*; the same, with 6 grains of ammonium chloride, injected at *a*, *a'*, and *a''* (18 grains given in all).

Fig. 28.—Secretion of bile before and after ammonium chloride. $\frac{3}{4}$ cc. of bile and 5 cc. of water injected into the duodenum at *b*; the same, with 10 grains of ammonium chloride, injected at *a*; at *a'*, the same with 20 grains; at *a''*, the same with 40 grains; at *a'''*, the same with 60 grains.

AUTOPSY.—The small intestine, in nearly its whole length, contained a large quantity of a very watery fluid. The vascularity of the mucous membrane was only slightly increased.

Experiment 21.

Experiment 23.

Experiment 24.

Experiment 25.

Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	
cc.		cc.		cc.		cc.		
1.45	} 0.315 cc.	1.80	} 0.316 cc.	2.05	} 0.278 cc.	0.25	} 0.115 cc.	
1.40		1.90		2.07		0.15		
1.35		1.70		1.90		<i>w</i> —		0.15
1.40		1.65		1.90		0.05		
1.32		1.65		1.80		<i>r</i> —		0.25
<i>b</i> —		1.70		1.80		0.30		
1.32		<i>p</i> —		1.80		0.35		
1.32		1.80		1.95		<i>a'</i> —		0.35
1.40		1.90		2.07		0.50		
1.32		2.05		2.15		0.60		
<i>p</i> —	1.80	2.17	<i>a''</i> —	0.80				
1.40	1.70	2.17	1.00	} 0.653 cc.				
1.32	1.70	2.20	<i>a'''</i> —		1.00			
1.40	1.90	2.27	0.60					
1.42	1.90	2.25	0.50					
1.42	1.80	2.40	0.50					
1.20	1.90	2.40	0.50					
1.52	2.05	2.30	6.55					
1.42	2.07	2.60	0.35					
1.35	2.10lost						
1.40	2.25	2.70						
1.42	2.37	2.80	} 0.448 cc.					
1.35	2.45	2.90						
1.42	2.40	2.95						
1.20	2.45	3.15						
1.35	2.45	3.05						
1.40	2.50	2.30						
1.42	2.47	2.57						
1.20	2.55							
1.35	2.55							
1.20	2.57							
1.45	2.45							
1.27	2.40							
1.37	2.30							
1.17	2.40							
1.22	2.20							
1.10	1.95							
1.02	1.20							

Experiment 28.—Dog that had fasted twenty hours. Weight, 13.7 kilogrammes. (Fig. 28.)

AUTOPSY.—Somewhat increased vascularity of the mucous membrane of the upper three-fourths of the small intestine. There was evidence of a moderate purgative effect.

Result of Experiments with Ammonium Chloride.—The two experiments with this substance show that doses capable of stimulating the intestinal glands did not excite the liver. The effect on the biliary secretion is comparable to that of sulphate of magnesia (Experiments 19 and 20), or other substances having a stimulant effect on Lieberkuhn's glands, but not on the liver.

Inasmuch, therefore, as these experiments give no evidence of any stimulant action of this substance on the liver, and seeing that in the human subject also there is no certain evidence of its having any *direct* cholagogue action, one is led to ask whether the effects observed by Dr. Stewart in cases of chronic hepatic torpidity may not have been the result of some indirect action of the liver, due to a slight but prolonged increase of the intestinal secretion, or to some effect on the system generally.

ACTION OF NITROHYDROCHLORIC ACID.

The dilute nitrohydrochloric acid employed by us was prepared thus (*British Pharmacopœia*). Mix 3 cc. of nitric acid with 4 cc. of hydrochloric acid. After an interval of twenty-four hours, add 25 cc. of water. The dose for a man is from five to twenty minims. The employment of this substance in hepatic disorder was first recommended by Dr. Scott of Bombay, who used it largely in congestion of the liver. It was administered as a foot-bath, and also internally. Its effects, however, were by some held to be so doubtful, that its use appears to have been abandoned for a time (*Christison's Dispensatory*, 1848, p. 41). Annesley, Martin, and others—experienced in the diseases of India—have, however, supported the opinion held by Scott. Wood (*A Treatise on Therapeutics*, London, 1874, p. 88, maintains, from his own observations, that it increases the flow of the bile.

Experiment 29.—A small dog (weight not ascertained) that had fasted seventeen hours. (Fig. 29.)

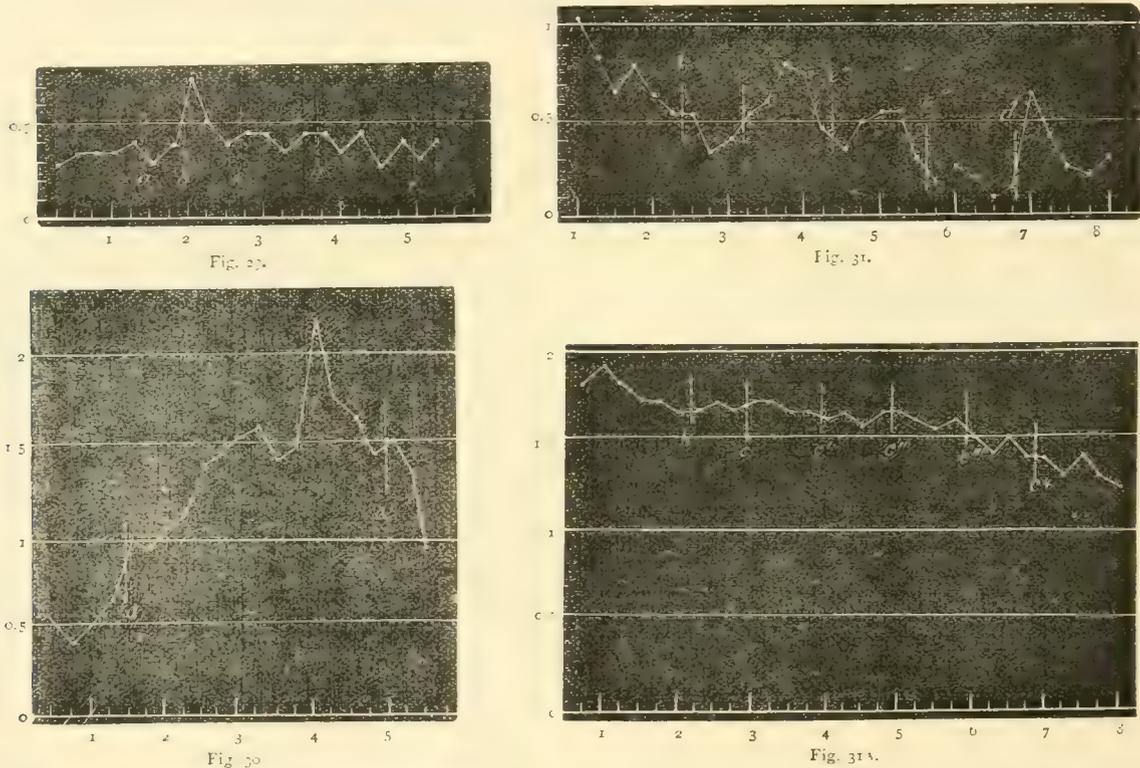


Fig. 29.—Secretion of bile before and after nitrohydrochloric acid. 20 cc. of water injected into the duodenum at *a*; the same, with 20 minims of dilute nitrohydrochloric acid, injected at *b*, *c*, *d*, and *e*.

Fig. 30.—Secretion of bile before and after nitrohydrochloric acid. 40 minims of dilute nitrohydrochloric acid in 8 cc. of water injected into the duodenum at *a*, and again at *a'*.

Fig. 31.—Secretion of bile before and after calomel, given with bile. 0.5 cc. of bile and 2.5 cc. of water injected into the duodenum at *b*; 2 grains of calomel in the above fluid injected into the duodenum at *c*, *c'*, *c''*, and *d* respectively.

Fig. 31A.—Secretion of bile before and after calomel, given with bile. 0.5 cc. of bile and 2.5 cc. of water injected into the duodenum at *b*; 1 grain of calomel in the above fluid injected into the duodenum at *c*, *c'*, *c''*, *c'''*, and *d* respectively.

AUTOPSY.—The duodenal mucous membrane was slightly congested. There was no evidence of purgation.

Experiment 30.—Dog that had fasted seventeen hours. Weight, 17.7 kilogrammes. (Fig. 30.)

AUTOPSY.—There was slight congestion of the upper part of the small intestine to the extent of about ten inches. In the duodenum, the mucous membrane had a yellowish-grey appearance, as if it had been slightly corroded by an acid. There was no evidence of any purgative effect.

Results of Experiments with Nitrohydrochloric Acid.—The positive effect of the acid in Experiment 30 is a remarkable contrast to the negative result observed in Experiment 29. In consequence of the positive result in the latter case, and seeing that it completely agrees with observations on man, we did not think it necessary to perform another experiment. In view of the positive effect in Experiment 18, we do not attach any importance to the negative result of Experiment 29; for the animal was a small one, and in such a case a cholagogue sometimes fails to act—probably for the reason mentioned at page 80. It is

proved, then, that this acid actually stimulates the hepatic cells. This result is a step in advance of previous knowledge; for observations on man have not determined whether its cholagogue power is due to reflex stimulation of the gall-bladder or to excitement of the hepatic secreting apparatus.

ACTION OF MERCURY.

Experiments on the action of calomel have already been detailed in our *first series* (Report for 1876). In three of the four experiments there mentioned, calomel caused no increase of the biliary secretion. In the fourth experiment, however, a trivial increase was the result. Many observers having stated that calomel is a cholagogue in the human subject, the results of our experiments seemed to us very remarkable, inasmuch as every other substance save ammonium chloride, believed to be a cholagogue in man, is also a cholagogue in the dog. The harmony existing between the results of our experiments and those of clinical experience, in all cases save those mentioned, induced us to submit the action of mercurial salts to a more searching investigation.

In all the four previous experiments, the calomel was simply suspended in water and injected into the duodenum. Seeing that it never failed to stimulate the intestinal glands, and thus to produce a purgative action, its negative effect on the liver was the more remarkable. Calomel is insoluble in water; and, as Headland (*The Action of Medicines*, 4th ed., London, 1867, p. 380) has pointed out that it is to a slight extent soluble in bile, we were led to suppose that possibly its non-action on the liver in these cases might have resulted from the absence of bile from the intestinal canal. We accordingly performed the two following experiments, in which the calomel was mixed with bile and then injected into the duodenum.

Experiment 26.		Experiment 28.		Experiment 29.		Experiment 30.	
Secretion of bile per 15'.	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15'.	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15'.	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15'.	Secretion of bile per kilogramme of dog : per hour.
cc.		cc.		cc.		cc.	
0.75	} 0.236 cc.	1.00	} 0.267 cc.	0.55	} 0.117 cc.	1.05	} 0.125 cc.
0.70		0.90		0.40		0.85	
0.70		0.87		0.50		0.65	
0.70		0.90		0.65		0.55	
<i>b</i> —		<i>b</i> —		<i>a</i> —		<i>b</i> —	
0.75	} 0.332 cc.	0.90	} 0.169 cc.	1.00	} 0.392 cc.	0.55	} 0.129 cc.
0.80		0.90		0.95		0.35	
0.70		0.85		1.05		0.40	
0.70		0.90		1.10		0.55	
<i>r</i> —		<i>a</i> —		1.40		<i>c</i> —	
0.75	} 0.332 cc.	0.85	} 0.169 cc.	1.45	} 0.392 cc.	0.60	} 0.196 cc.
0.70		1.00		1.55		0.80	
0.70		0.90		1.60		0.75	
0.80		0.80		1.40		0.45	
0.90		0.90		1.50		0.35	
0.85		0.80		2.20		0.50	
0.90		0.80		1.72		0.55	
0.95		0.95		1.62		0.55	
0.85		0.77		1.45		0.30	
0.85		0.80		1.50		0.15	
1.00		0.70		1.35		0.25	
1.05		0.80		0.95		0.20	
1.00	0.75		0.10				
1.00	<i>a''</i> —		0.15				
0.90	0.80		0.65				
1.00	0.70		0.40				
0.90	0.90		0.25				
0.70	0.70		0.20				
0.70	0.65		0.15				
	0.55		<i>d</i> —				
	0.62		0.65				
	0.50		0.40				
			0.25				
			0.20				
			0.30				

Experiment 31.—Dog that had fasted seventeen hours. Weight, 14.7 kilogrammes. (Fig. 31.)

AUTOPSY.—The upper half of the small intestine contained evidence of decided purgation. Its mucous membrane was considerably congested.

The main result of this experiment was diminished biliary secretion. Nevertheless, the slight increments of secretion that followed the first, second, and fourth doses rendered a repetition of the experiment desirable.

Experiment 31A.—Dog that had fasted seventeen hours. Weight, 25.7 kilogrammes. (Fig. 31 A.)

AUTOPSY.—The upper half of the small intestine contained 187 cc. of a viscous fluid with grey flakes, thus affording evidence of strong purgation. The vascularity of the mucous membrane was decidedly increased.

Result of Experiments with Calomel mixed with Bile.—The biliary secretion in Experiment 31 was so regular, and the doses of calomel so graduated, that its result may be regarded as conclusively showing that calomel, when mixed with bile and

placed in the duodenum, does not excite the liver, although it powerfully stimulates the intestinal glands. *The addition of bile to the calomel made, therefore, no difference in the result.*

Since the first series of these experiments was published, some have asked whether the negative effect of the calomel on the liver there recorded may not have been owing to the circumstance that the drug was introduced directly into the duodenum, and thus escaped the action of the gastric juice, to which it is subjected when administered by the mouth. As this is the only instance in which our method of administering the various drugs might with the least show of reason be regarded as leading to fallacious results, we resolved to probe this point thoroughly.

As is well known, Mialhe (*Chimie Appliquée*) ascribed all the effects of calomel and other mercurial preparations to the production of mercuric chloride by the action of the alkaline chlorides in the secretions of the alimentary canal, more especially in the gastric juice. This theory has, however, been strongly opposed by Buchheim, Oetinger, and Winckler referred to in Wood's *Therapeutics*, 1874, p. 330, on the ground that, at a temperature so low as that of the body, calomel undergoes no transformation into mercuric chloride in a solution of alkaline chlorides. Nevertheless, one must remember that the gastric juice contains free hydrochloric acid. The amount is only 0.02 per cent. in the juice of man, mixed with saliva; in that of the dog, the amount is 0.031 per cent. (C. Schmidt). When Mialhe wrote, the free acid of the gastric juice was thought to be lactic; therefore the effect of very dilute hydrochloric acid on calomel at the body-temperature has not hitherto been investigated. As no conclusion could be legitimate in the absence of definite information on this point, we performed the following experiment.

Experiment 31B.—Calomel was washed with ether, the filtrate tested with caustic potash, and proved to contain no mercuric chloride. Of the calomel—thus ascertained to be pure—we placed three grammes in 500 cc. of distilled water containing 0.02 per cent. anhydrous hydrochloric acid, and submitted the whole to a constant temperature of 100 deg. Fahr.—the temperature of the stomach—for thirty-six hours. The fluid was then filtered, concentrated, and tested with sulphuretted hydrogen. A distinct precipitate first white, then changing to yellow, and finally to black—was obtained; thus proving the presence of corrosive sublimate. Judging from the precipitate, the amount was considerable: but a large quantity of calomel had been employed, and it had been acted on by the acid for a lengthened period. We repeated the experiment, using the same amount of calomel and acid fluid, but keeping it only seventeen hours at the temperature of the body. The fluid was then filtered, the filtrate evaporated, the residue dried and weighed, and it was found that three grammes of calomel had yielded only seventeen milligrammes of mercuric chloride. Under similar circumstances, five grains of calomel—the ordinary dose for a man—would, if digested seventeen hours with about 50 cc. of acid fluid, have yielded one-thirty-fifth of a grain of mercuric chloride. Whether or not so minute a quantity of the latter substance is likely to affect the human liver, will be considered in the sequel. Calomel is usually taken at bedtime, on an empty stomach. We do not know if it can call forth a secretion of gastric juice sufficient to exert an appreciable influence upon it: but, in any case, it probably does not remain in the stomach more than five or six hours at the utmost. We, however, postpone for the present the further consideration of this point.

Experiment 32.—Dog that had fasted seventeen hours. Weight, 8.8 kilogrammes. (Fig. 32.)

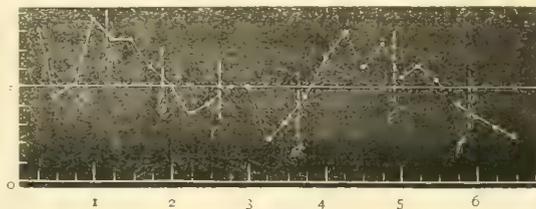


Fig. 32.

Fig. 32.—Secretion of bile before and after mercuric chloride (corrosive sublimate), given without bile. *a*, 1-20th of a grain; *b*, 1-15th of a grain; *c*, 1-15th of a grain; *d*, 1-20th of a grain; *e*, 1-15th of a grain; *f*, 1-10th of a grain of mercuric chloride in 3 cc. of water injected into the duodenum (2-5ths of a grain given in all).

AUTOPSY.—The mucous membrane of about fourteen inches of the upper portion of the small intestine was much congested. In the upper part of the duodenum, there were minute hæmorrhagic extravasations. There was evidence of a very slight purgative effect.

The increase of secretion that followed the fourth dose of mercuric chloride was so slight that, on the whole, the result must be regarded as negative. Considering the solubility of mercuric chloride in water, and the striking contrast between it and calomel in this respect, it is not at all probable that the negative result in Experiment 32 was due to the non-absorption of the mercurial salt. Probably it was simply owing to the circumstance that in small somewhat weak dogs, such as that employed in the above experiment, the most certain cholagogues sometimes fail to stimulate the liver—probably because of the depressing effect of the preliminary operation adopted in these experiments. Whatever be the explanation of the result in the preceding case, we resolved in the next to add some bile to the mercuric chloride solution, in case its presence might facilitate absorption, or, at any rate, in order that the conditions encountered in the intestine in a normal case might be more exactly imitated.

Experiment 33.—Dog that had fasted nineteen hours. Weight, 16.2 kilogrammes. (Fig. 33.)

AUTOPSY.—The mucous membrane of the upper ten inches of the small intestine was decidedly reddened, and there was evidence of a very slight purgative action in this portion of the intestine.

Experiment 34.—Dog that had fasted nineteen hours. Weight, 17.5 kilogrammes. (Fig. 34.)

AUTOPSY.—The state of the duodenum and its contents was precisely similar to that described in the preceding experiment.

Experiments 33 and 34 prove conclusively and in a very striking manner that mercuric chloride is a hepatic stimulant; and that it is a powerful one, is shown by the fact that in Experiment 33 one-eighth of a grain raised the bile-secretion per kilo-

gramme of body-weight to 0.472 cc. per hour, while in Experiment 34 it raised the secretion to 0.557 cc. per kilogramme per hour.

The contrast between the two last experiments with mercuric chloride and those with calomel is remarkable, both as regards the effect on the *liver* and on the *intestine*; for, while the mercuric chloride powerfully excited the liver, but scarcely affected the intestinal glands, notwithstanding its immediate contact with the latter, the calomel did not stimulate the liver, but did powerfully excite the intestinal glands.

This startling result, so clearly established by these experiments, is a striking proof of the value of this method of investigation as an auxiliary to the clinical observations on man.

To render these experiments still more complete, we in the next two cases injected into the duodenum a minute dose of mercuric chloride along with calomel and bile. These experiments are valuable in showing a very remarkable stimulation of the liver that followed an unusually small dose of the mercurial. It should be stated, however, that when we planned the two following experiments we were still under the influence of Mialhe's untenable idea, before referred to, that mercuric chloride is formed from calomel by the action of the alkaline chlorides of the gastric juice.

Experiment 35.—Dog that had fasted seventeen hours. Weight, 9.9 kilogrammes. (Fig. 35.)

AUTOPSY.—Slightly increased vascularity of mucous membrane of duodenum. No purgation.

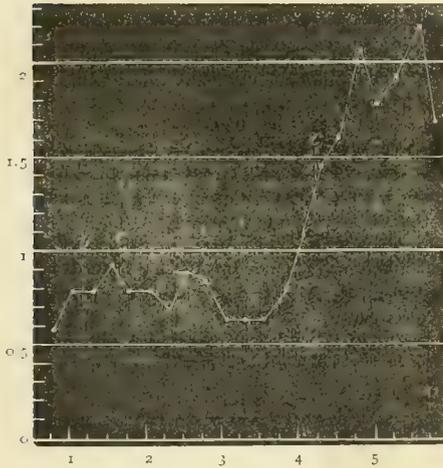


Fig. 33.

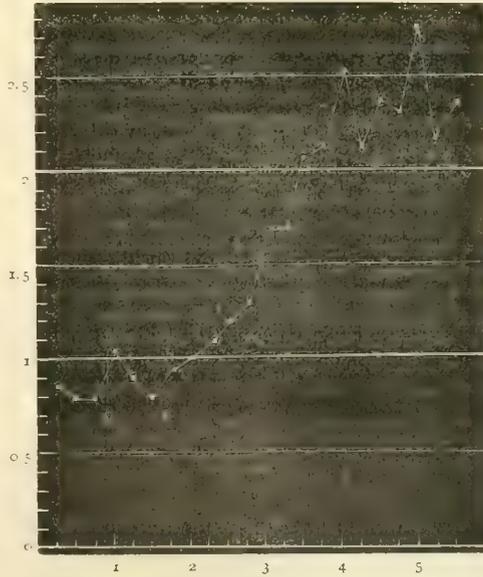


Fig. 34.

Fig. 33.—Secretion of bile before and after mercuric chloride given with bile. 0.5 cc. of bile and 2.5 cc. of water injected into the duodenum at *b*; the same fluid, with 1-16th of a grain of mercuric chloride, injected into the duodenum at *c*, and again at *c'* (1-8th of a grain given in all).

Fig. 34.—Secretion of bile before and after mercuric chloride given with bile. *b*, *c*, and *c'*, indicate precisely the same as in fig. 23.

In the above experiment, the bile-secretion per hour rose to 0.72 cc. per kilogramme of body-weight; but the secretion was so high—0.48 cc.—before the drug was given, that it was difficult to know exactly how to regard the very high figure first mentioned. Another experiment was, therefore, desirable.

Experiment 36.—Dog that had fasted seventeen hours. Weight, 18.4 kilogrammes. (Fig. 36.)

AUTOPSY.—Considerable irritation of the mucous membrane of upper fourth of small intestine. The contents of this portion of the canal indicate considerable purgative action.

The increase of bile-secretion in Experiment 36 is very remarkable, not only for its absolute extent, but also because of the smallness of the dose that occasioned it. The amount of bile secreted per kilogramme of body-weight rose to 0.85 cc. per hour: a very large secretion, that has only been surpassed in the remarkable experiment with podophyllin detailed in the *first series* (Report for 1876; Experiment 8. See also Table in the sequel). The effect of so small a dose as one-twentieth of a grain of mercuric chloride in the last experiment is very remarkable, for the animal was rather larger than those employed in Experiments 33 and 34, where one-sixteenth and even one-eighth of a grain had not so powerful an effect. Considering the results of Experiment 31A, it is not in the least likely that the addition of one grain of calomel to the dose of the mercuric chloride had anything to do with the difference in the result. We can only suggest, by way of explanation, that possibly in some cases the liver is more susceptible to a mercurial stimulus than it is in others.

With the mercuric chloride, we had given bile in every case save in Experiment 32, and that was the only instance where the result was negative. We therefore thought it desirable to perform another experiment with mercuric chloride given without bile.

Experiment 37.—Dog that had fasted seventeen hours. Weight, 13.4 kilogrammes. (Fig. 37.)

AUTOPSY.—The upper fourth of the small intestine contained a considerable quantity of somewhat dark fluid, looking as if bile had been injected. Possibly some bile had in this case escaped from the bile-ducts into the intestine during the perform-

ance of the operation. The presence or absence of bile would have been determined by testing the fluid for bile-pigment; but, unhappily, a portion set aside for that purpose was lost.

This experiment, therefore, is inconclusive as regards the point at issue; viz., whether or not mercuric chloride is absorbed from the intestine without the presence of bile. But we feel that it would scarcely be justifiable to perform yet another experiment to settle the point; for it is to the last degree improbable that bile is necessary, and probably no one will feel inclined to maintain that it is.

Result of Experiments with Mercuric Chloride.—These experiments conclusively prove that mercuric chloride is a powerful hepatic stimulant in the dog. Probably, now that attention is specially directed to the subject, it will also be found to stimulate the liver of man; for a series of experiments carried out by the reporter for Hughes Bennett's Committee (*British*

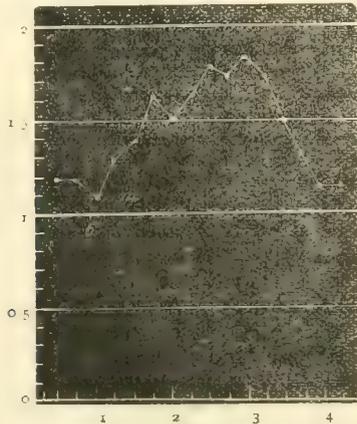


Fig. 35.

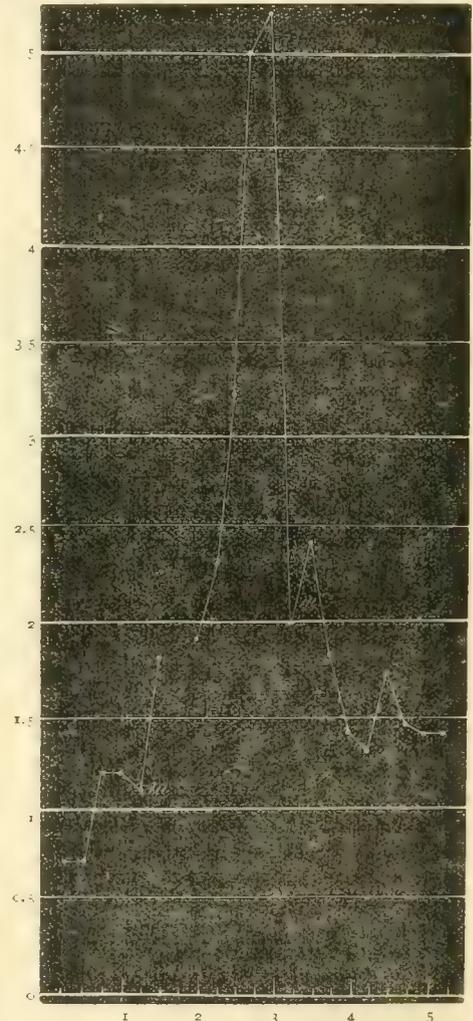


Fig. 36.

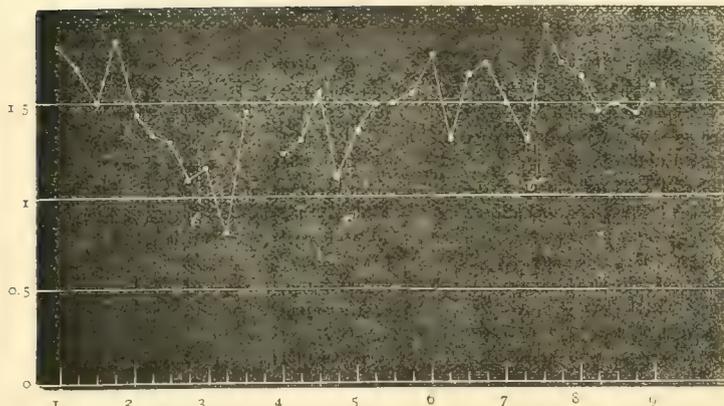


Fig. 37.

Fig. 35.—Secretion of bile before and after mercuric chloride and calomel given with bile. 0.5 cc. of bile and 2 cc. of water injected into the duodenum at *b*; 1-20th of a grain of mercuric chloride and 1 grain of calomel in the same fluid injected into the duodenum at *m*.

Fig. 36.—Secretion of bile before and after mercuric chloride and calomel given with bile. 1-20th of a grain of mercuric chloride with 1 grain of calomel in 0.5 cc. of bile and 2 cc. of water injected into the duodenum at *m*, *m'*, and *m''*, respectively.

Fig. 37.—Secretion of bile before and after mercuric chloride given without bile. 1/8th of a grain of mercuric chloride in 6 cc. of water injected into the duodenum at *c*, *c'*, and *c''* (3/8ths of a grain given in all).

Association Reports, 1868, p. 201) showed that the general effects of mercuric chloride on the dog are similar to those observed in man. Doubtless the converse will be found to hold.

In the series of experiments just referred to, on the production of mercurialism in the dog, the mercuric chloride was always injected subcutaneously; and in two experiments on the action of this substance on the biliary secretion, performed for that Committee, the drug was given in the same manner. This mode of administering a substance for the purpose of acting on the liver was faulty, and its results are not fairly comparable with those of the ordinary method, where the substance is placed in

the alimentary canal, from which its molecules are absorbed into the radicles of the portal vein, and so pass to the liver in a much more concentrated stream than they possibly can when the substance passes first into the general and then into the portal circulation. With regard to these two experiments, Hughes Bennett stated in the Report (*lib. cit.*, p. 221. "that corrosive sublimate, when given" [*subcutaneously*] "in small doses, gradually increased in strength, does not augment the biliary secretion; but that it diminishes it the moment the dose reaches a strength sufficient to deteriorate the general health". The latter part of the statement was warranted by the results of both experiments; but the first part, though true as regards one of the experiments, was certainly untrue as regards the other (*lib. cit.*, Table XIII, p. 212), where an unequivocal increase of bile-secretion took place when the dose of mercuric chloride, given subcutaneously, was raised from one-sixth of a grain *once* a day to one-sixth of a grain *twice* a day (*loc. cit.*, June 9 and 10). The reporter of the experiments on that occasion overlooked the important fact here stated, and deduced the above general conclusion from misleading results arrived at by taking the daily average quantity of bile secreted during too prolonged a period.

Experiment 31A.		Experiment 33.		Experiment 34.	
Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15".	Secretion of bile per kilogramme of dog : per hour.
cc.		cc.		cc.	
1.80		0.60		0.85	
1.90		0.80		0.80	
1.80		b —	0.171 cc.	0.80	
1.70		0.80		b —	
1.70		0.95		1.05	0.202 cc.
1.65		c —		0.90	
b —	0.253 cc.	0.80		0.80	
1.65		0.80		c —	
1.70		0.70		0.95	
1.65		0.90		1.00	
c —		0.85		1.10	
1.70		0.65		1.20	
1.70		0.65		1.30	
1.65		0.65		c' —	
1.62		0.80		1.70	
c' —		1.1		1.70	
1.60		c' —		2.10	
1.62	0.248 cc.	1.45		2.15	
1.57		1.60		2.55	
1.62		2.10		2.15	
c'' —		1.80	0.472 cc.	2.40	
1.62		1.95		2.35	
1.60		2.20		2.80	0.557 cc.
1.55		1.70		2.20	
1.60				2.40	
c''' —					
1.50					
1.40					
1.50					
1.40					
c ⁴ —					
1.40					
1.30	0.204 cc.				
1.40					
1.30					
1.25					

Result of Experiments with Calomel.—With regard to calomel, we have proved the following. 1. Calomel, in doses of ten grains, five grains, or two grains several times repeated, when placed, *without bile*, in the duodenum of a fasting dog, produces a purgative effect varying with the dose, but, so far from increasing the secretion of bile, only diminishes it, just as happens when any other substance that is not a hepatic stimulant—*e. g.*, magnesium sulphate—is administered. 2. When calomel is *mixed with bile* and then introduced into the duodenum, there is no difference in the result, even when, as in Experiment 31A, the calomel is given in one-grain doses several times repeated, and the chance of acting on the liver previously to supervention of the depressing effect of purgation thus allowed. 3. If five grains of calomel be subjected, at 100 deg. Fahr., for seventeen hours to the action of dilute hydrochloric acid of the same strength as that of the human gastric juice, not more than one-thirty-fifth of a grain of mercuric chloride is produced.

The question now arises, seeing that calomel does not usually remain in the human stomach for more than a night, probably not more than from five to six hours, is it likely that even so much as one-thirty-fifth of a grain of mercuric chloride is produced from the ordinary dose of five grains; and, if it be, what effect may it be supposed to have on the human liver? It must be borne in mind, however, that we are here on dangerous ground; for we are inclining to reason about the action of the gastric juice itself from experiments on the action of dilute hydrochloric acid and a solution of alkaline chlorides. Our reasoning may be legitimate enough, but it would clearly be more conclusive if we could substitute direct experiment for mere inference. We are in a position to do this.

As regards the dog, it is evident that the only link wanting to complete our chain of evidence is, that we should place the

calomel in the *stomach* instead of the *duodenum*, and thus render the case analogous to that of the human subject as regards the administration of this drug.

Experiment 38.—Into the stomach of a curarised dog, that had fasted the usual time, we injected five grains of calomel in water. The injection was made with a fine syringe, through the *gastric wall*, in order that the whole of it might certainly reach the interior of the viscus. Injection through an œsophagus-tube was avoided, because a substance so insoluble as calomel would certainly have clung to the interior of the tube, and would thus have been partly lost.

The result of the experiment was entirely negative, both as regards the liver and the intestinal glands. This was readily explained by the fact that at the autopsy the calomel was found apparently unchanged, enveloped in the mucus of the stomach. The saliva of the dog is peculiar in containing a very large quantity of mucin. As previously stated (page 63), the accumulation of this viscous saliva in the stomach during fasting is calculated so seriously to interfere with absorption, that we on this account, in nearly all these experiments, injected the various drugs directly into the duodenum.

<i>Experiment 35.</i>		<i>Experiment 36.</i>		<i>Experiment 37.</i>	
Secretion of bile per 15'.	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15'.	Secretion of bile per kilogramme of dog : per hour.	Secretion of bile per 15'.	Secretion of bile per kilogramme of dog : per hour.
cc.	} 0.48 cc.	cc.	} 0.228 cc.	cc.	} 0.388 cc.
1.2		0.7			
1.2		0.7			
<i>b</i> —		1.2			
1.1		1.2			
1.3		1.1			
<i>m</i> —		<i>m</i> —			
1.4		1.8			
1.65		lost			
1.50		1.9			
1.65	2.3	} 0.85 cc.	1.15	} 0.50 cc.	
1.80	3.2		0.80		
1.75	5.0		1.45		
1.85	5.2		lost		
1.75	2.0		1.25		
1.50	<i>m'</i> —		1.30		
1.35	2.4		1.55		
1.15	1.8		1.10		
1.15	1.4		<i>c</i> —		
	1.3		1.35		
	1.7	1.50			
	<i>m''</i> —	1.50			
	1.45	1.55			
	1.4	1.75			
	1.4	1.30			
		1.65			
		1.70			
		1.50			
		1.30			
		<i>c'</i> —			
		1.90			
		1.70			
		1.65			
		1.45			
		1.50			
		1.45			
		1.60			

We would not, however, have attempted the preceding experiment, had we at the moment recollected that the question at issue had already received a satisfactory answer from the previous experiments of Scott (Beale's *Archives*, vol. i), and still more so from the experiments performed by Professor Gamgee and the reporter for Hughes Bennett's Committee. In those experiments, we tied the common bile-duct in the dog, and established a permanent fistulous opening through the fundus of the gall-bladder. When the wound in the abdominal wall had healed, we placed a cannula in the fistula, and collected, day after day, the whole bile secreted. In order that variations in the secretion might not be occasioned by variations in the amount of food, the animals were, as far as possible, placed on a fixed diet. After observing the amount of fluid bile and bile solids secreted during three or four days, we caused the animal to swallow calomel or *Pilula hydrargyri*, and observed the amount of bile secreted thereafter. As the result of four experiments, it was found (*British Association Reports*, 1868, p. 214) that

- "1. *Pil. hydrargyri*, given in doses that did not produce purgation, caused no increase of the biliary secretion.
- "2. *Pil. hydrargyri*, given in doses that produced purgation, diminished the biliary secretion.
- "3. Calomel, given in doses of one-twelfth of a grain from six to fourteen times a day, and in doses of two grains from two to six times a day, did not produce purgation or increase the biliary secretion.
- "4. Calomel, given in doses* that produced purgation, diminished the biliary secretion.

* The dose of calomel was ten grains, given on three successive days. On the first it produced "slight", and on the two other days "decided", purgation; but on all days the fluid and the solid bile was diminished.

In the experiments of which these are the results, the calomel was introduced into the stomach, and the animal had its usual diet. *Every opportunity was therefore afforded for a transformation of the calomel into mercuric chloride*: probably, indeed, a better opportunity than is afforded in the human subject, for the gastric juice of the dog is, as previously stated, p. 80, more acid than that of man; and yet we find that the action of the calomel, when placed in the stomach of the dog, was just the same as when introduced directly into the duodenum. We have proved that one-twentieth of a grain of corrosive sublimate with one grain of calomel, when placed in the duodenum (Experiment 36), can powerfully stimulate the liver of the dog, but we find no reason for entertaining the idea that the amount of mercuric chloride produced by the gastric juice from five grains of calomel has any appreciable effect on the liver; for, in one of the experiments for Bennett's Committee, the amount of calomel placed in the stomach was ten grains, and it occasioned no increased secretion of bile (see foot-note, p. 84, and also the remarks on Experiment 31B).

But it may be said, although these facts render it impossible to entertain the idea that the action of calomel is due to the mercuric chloride produced from it by the gastric juice, is it not possible that the entire absence of the bile from the intestine in the case of the experiments of Bennett's Committee, interfered with the absorption of the drug, so that, while it excited the intestinal glands with which it came directly in contact, it failed to excite the liver because it could not reach it? This objection cannot be entertained, 1. Because Experiments 31 and 31A of the present series prove that when calomel mixed with bile is placed in the duodenum, it does not stimulate the liver; 2. In the experiments of Bennett's Committee, although the calomel could not possibly encounter bile in the alimentary canal, *a part of it must have been absorbed*, because, when given in small doses frequently repeated, the animal speedily lost its appetite and became extremely unwell, although the doses were too small to produce purgative action.

The conclusion is inevitable that, while corrosive sublimate does, calomel does not, stimulate the liver of the dog, and that, when calomel is placed in the stomach of the dog, there is, if the dose be sufficient, the characteristic action on the intestinal glands, but no excitement of the liver. There is, therefore, no evidence that a purgative dose of calomel, when acted on by the gastric juice, gives rise to mercuric chloride sufficient to exert any appreciable effect on the liver.

Seeing that in these observations we have submitted to direct experiment on the liver of the dog every substance that has any reputation as a cholagogue in the case of man, and seeing that we have found that, with the exception of ammonium chloride and calomel, they all increase the biliary secretion in the dog, it appears to us that the remarkable harmony between the vast majority of our results and those of clinical experience entitles us to maintain that our experiments with calomel are not to be set aside by the clinical observer merely because he may be of the opinion that calomel in some way or other increases the flow of the bile in man. There has been on the part of some physicians, who, in their lamentable ignorance and narrow-mindedness, imagine that physiological pharmacology studied on a dog cannot help them to know the action of a drug on man, a tendency to altogether set aside the results of the experiments on calomel because they do not harmonise with their previously entertained opinions. These physicians appear to imagine that they can end the discussion by simply saying, "The liver of a dog is not that of a man". That truism cannot be disputed, and we are perfectly willing to admit that it is possible that the human liver may be more or less susceptible than the liver of the dog to the influence of various substances; but we maintain that, up to this time, there *is really no proven discord* between our results and those arrived at by observations on man.

All our experiments concern the secretion, and not the expulsion, of bile. For the purpose of arriving at definite knowledge, we intentionally—in the manner described at the outset of these experiments—threw out of action the bile-expelling mechanism, in order that we might have to deal with the bile-secreting apparatus only. *We do not profess to have ascertained anything regarding the action of any drug on the bile-expelling mechanism.*

The clinical observer has supplied most valuable information regarding the power of various substances to increase the amount of bile in the dejections. He observes dejections of a clay-colour, he gives five grains of calomel, and further observes that in some cases the dejections thereafter assume their natural appearance. He cannot be certain of the manner in which this result is brought about. For anything he knows, it might be occasioned—1. By stimulation of the hepatic secreting apparatus; or 2. By stimulation of the muscular fibres of the gall-bladder and larger bile-ducts, to wit, the bile-expelling apparatus; or 3. By removing a catarrhal or congested state of the orifice of the common bile-duct, or of the general extent of the larger bile-ducts; or 4. By removing from the intestine substances which had been passing therefrom into the portal vein and depressing the action of the hepatic cells; or 5. By stimulating the intestinal glands, and thus producing drainage of the portal system, whereby the "loaded" liver might possibly be relieved. Yet, notwithstanding the inability of the clinical observer to unravel this complicated web, and supply us with any definite statement, he has felt inclined to think our results of no value,* merely because we prove by direct experiment that calomel does not, in the dog, stimulate the hepatic secreting apparatus.

Seeing that calomel stimulates the intestinal glands in the dog as in man—seeing that mercury produces salivation, ulceration of gums, and other characteristic phenomena in the dog as in man—the obvious inference is that the reputed cholagogue action of calomel in the human subject is probably not owing to stimulation of the bile-secreting apparatus. And why should we, in the face of our experiments, believe the opposite, until the clinical observer substitutes for *vaing conjecture* definite proof of that opposite, by experimenting in a case of biliary fistula in the human subject when it happens that no bile enters the intestine?

Our experiments, therefore, suggest that the cholagogue action of calomel in the human subject is to be sought for, not in any supposed power of stimulating the bile-secreting mechanism, but in some one or more of the last four modes of action above indicated. Calomel undoubtedly excites the intestinal glands, and for anything we know there may be something peculiar in the nature of its action thereon. For anything we know, it may also have some special influence on the mucous glands and mucous membrane generally of the larger bile-ducts, whereby a catarrhal condition of these ducts may be relieved and the pent-up bile be thus permitted to escape. There is evidently still abundant room for conjecture; but our experiments plainly narrow its range, and thus contribute to the attainment of definite knowledge.

* Vide Dr. Moxon's Hunterian Oration, 1877 (*Medical Press and Circular*, March 1877).

COMPARATIVE RESULTS OF THE PRECEDING EXPERIMENTS.

Although a fourth series of experiments will be published, it is inexpedient longer to delay a comparative analysis of the preceding experiments, for in them nearly every substance supposed to be a cholagogue has been investigated. It does, not, however, appear necessary to give a tabular analysis of experiments with those substances which have been ascertained to have no notable cholagogue action.

TABLE IX.

Series.	Experiment.	SUBSTANCE GIVEN.			Secretion of bile per <i>kilogramme</i> of body weight : per hour.	
		Name	Total dose in grains.	Grs. per <i>kilogramme</i> of body weight.	Before.	After.
I.	—				cc	cc.
..	—	Normal secretion of bile during the influence of small doses of curara			0.35	
..	—				0.25	
..	—				0.15	
..	8	Podophylline	6, without bile	0.9	0.04	0.47
..	11	"	4, with bile	0.23	0.32	1.01
..	13	Aloes	60, without bile	6.9	0.34	0.69
..	14	"	60, "	12.0	0.29	0.93
..	16	I.ubarb	60, "	3.06	0.17	0.32
..	—	Senna	135, "	5.8	0.21	0.23
..	22	Colebicum	60, "	2.7	0.13	0.45
II.	1	Euonymin	5, with bile	0.26	0.25	0.47
..	2	"	5, "	0.21	0.07	0.46
..	3	Sanguinaria	3, "	0.11	0.16	0.30
..	4	"	1, "	0.05	0.12	0.47
..	5	Iridin	5, "	0.22	6.22	0.53
..	6	"	5, "	0.02	0.16	0.63
..	8	Leptandria	1, "	1.4	0.03	0.31
..	10	Ipecacuan	60, "	2.2	0.24	0.53
..	11	"	3, "	0.49	0.18	0.38
..	13	Colocynth	14, "	0.53	0.29	0.45
..	14	"	7, "	0.4	0.16	0.27
..	15	Jalap	30, "	1.2	0.15	0.29
..	17	Sodium sulphate	508, "	32.3	0.25	0.53
..	23	Potassium sulphate	232, without bile	10.7	0.31	0.47
..	24	Sodium phosphate	201, "	7.4	0.27	0.44
..	25	Sodic and potassic tartrate (Rochelle salt)	463, with bile	37.0	0.23	0.33
..	30	Dilute nitrohydrochloric acid	36.4, without bile	2.0	0.11	0.37
..	33	Mercuric chloride	1-7th, with bile	0.0077	0.17	0.47
..	34	"	1-8th, "	0.0071	0.29	0.55
..	35	{ H ₂ Cl ₂	1-20th, "	0.0055	0.48	0.72
..		{ H ₂ Cl	1, "	0.101		
..		{ H ₂ Cl ₂	1-20th, "	0.027		
..	6	{ H ₂ Cl	1, "	0.054	0.22	0.65

Remarks on Table IX.—The high secretion of 0.35 cc. per *kilogramme* of body-weight per hour in the first experiment of Series I was unusual, seeing that no cholagogue had been administered. The two following experiments give results that much more closely represent the normal secretion in a fasting curarised dog.

The doses of podophyllin, aloes, and colebicum are excessive, owing to the erroneous impression produced on our minds by Röhrig's research—that the dog requires very large doses. In the other experiments quoted in the Table, the doses were in most cases similar to those employed for a man.

The Table cannot furnish any precise indication of the relative powers of the cholagogues in the human subject; nevertheless, it is of much value in showing *approximatively* their relative powers as regards the liver of the dog.

Speaking broadly, we may say that if, in a fasting dog, the hourly bile-secretion per *kilogramme* of body-weight rise to 0.4 cc., the cholagogue may be regarded as a powerful one.

VI.--REPORT ON THE ANTAGONISM OF ACONITE AND DIGITALIS.

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THE present report can give but the commencement of a series of experiments which are being continued, and of which a further and more complete report will be given in the ensuing year. Already the results are instructive and encourage further experimentation.

The first point to be ascertained was the minimum fatal dose in different animals. The method adopted was the subcutaneous injection of solutions of aconitine and digitaline, made by Messrs. Morson and Son, into the guinea-pig. The following experiments were made on June 28th, 1875.

No.	Weight.	Dose of Aconitine.	Result.
1	7 ounces	1-60th of a grain	} All were dead in less than three minutes, almost before any observations were started Died in twenty minutes Died in forty-five minutes.--All soon became stiff
2	7 "	1-90th "	
3	7½ "	1-120th "	
4	Do.	1-360th "	
5	Do.	1-480th "	

The symptoms of aconite-poisoning in the guinea-pig are, opisthotonos (not very pronounced); all the dorsal muscles are thrown into spasm; the fore-legs are stretched out close to the side, like a soldier at attention; the hind-legs are kicked out, with the palmar surfaces turned up; there are also clonic spasms in the affected parts, and a very marked dribbling of saliva. At the same time, the respiration becomes gasping and slow; and at every fifth respiration, or nearly so, there is a violent gasp, with a general struggle. Death is sudden at last, in the attitude just described. In No. 4, one-thirtieth of a grain of digitaline was given without any effect.

On July 4th, four more guinea-pigs were experimented on.

No.	Weight.	Dose of Aconitine.	Result.
6	1 pound 5 ounces	1-480th of a grain	Death in an hour
7	1 " 9 "	1-480th*	" twenty minutes
8	1 " 7 "	1-1440th "	" two hours
9	1 " 11 "	1-1130th "	" three hours and a half

The minimum fatal dose of aconitine for a guinea-pig weighing 1½ lbs. is very small. Buchheim gives a sixtieth of a grain of aconitine as the fatal dose for a rabbit 3 lbs. in weight. It will be seen further on that the fatal dose of English manufactured aconitine is far below this.

On July 5th, attempts were made to ascertain the minimum fatal dose of digitaline on the guinea-pig.

No.	Weight.	Dose of Digitaline.	Result.
10	10 ounces	1-260th of a grain	No effect
11	Ditto	1-360th "	Ditto
12	Ditto	1-120th "	Ditto

On the 9th, the following experiments were made on the animals 10, 11, and 12.

No.	Dose of Digitaline.	Result.
10	1-120th of a grain	No effect
11	1-60th "	"
12	1-60th "	"

Experiment 13.—A guinea-pig weighing 8½ oz. had, on the 11th, one-tenth of a grain of digitaline. This was followed by loss of power in the fore-paws, the animal dragging itself on its belly by means of its hind-legs. Next day, it had 1-2400th of a grain of aconitine, and was the better for it, commencing to eat. Later on in the day, it had a second 1-2400th of a grain, and seemed much better. It died during the night.

Experiment 14.—A guinea-pig weighing 9 oz. had, on the 12th, one-fifth of a grain of digitaline at 10 A.M., and at 3 P.M. 1-1200th of a grain of aconitine. It died at 4.15 with all the symptoms of aconitine-poisoning.

Experiment 15. A guinea-pig weighing 1 lb. 6 oz. had, on the 15th, 1-1200th of a grain of aconitine. The symptoms were slight. Next day, it had a second 1-1200th of a grain with marked effect, but it survived. This animal showed a marked tolerance of aconitine. On the 18th, it got one-fifth of a grain of digitaline, and died in the night.

Experiment 16.—A guinea-pig weighing 1 lb. 6 oz. had, on July 18th, one-fifth of a grain of digitaline. At 6.45 P.M., it was very ill. Next morning, at 11.45 A.M., it had 1-1200th of a grain of aconitine with marked improvement, but relapsed in the afternoon. A second 1-1200th of a grain of aconitine soon proved fatal.

So much for the effect on the guinea-pig.

Experiment 17.—A rabbit weighing 3 lbs. had 1-120th of a grain of aconitine and one-fifth of a grain of digitaline at 4.25. At 5 P.M. (thirty-five minutes), it was dead, with the usual symptoms of aconite-poisoning.

Experiment 18.—A rabbit weighing 3 lbs. had one-fifth of a grain of digitaline alone. No effects were produced.

Experiment 19.—A guinea-pig weighing 1 lb. 5 oz. had, on July 21st, one-fifth of a grain of digitaline at 10 P.M. At 11.45 A.M. on the 22nd, it had 1-1200th of a grain of aconitine, whereupon it commenced to eat. It had but slight imperfect spasms, and soon was well.

Experiment 20.—A guinea-pig weighing 1 lb. 7 oz. had 1-1200th of a grain of aconitine. It died in seventy minutes.

Experiment 21.—A rabbit weighing 1½ lbs. had one-third of a grain of digitaline, from which it apparently never rallied, but lingered a week.

Experiment 22.—A rabbit weighing 1 lb. 6 oz. had, on July 22nd, three-fifths of a grain of digitaline at 7.40 P.M. Next morning, at 10 A.M., it had 1-400th of a grain of aconitine. The rabbit was never seriously ill, and recovered.

Experiment 23.—A rabbit weighing 1 lb. 5 oz. had three-fifths of a grain of digitaline at 4.45 P.M.; and next morning, at 11.30, 1-400th of a grain of aconitine. It died at 1 P.M. of aconite-poisoning.

Experiment 24.—A guinea-pig weighing 1 lb. 7 oz. had one-fifth of a grain of digitaline at 4.45 P.M. on July 26th. At 11.30 A.M. on the 27th, it had 1-1200th of a grain of aconitine. It died of aconitine-poisoning at 1.45 (one hundred and thirty-five minutes after).

Experiment 25.—A rabbit weighing 2 lb. 13 oz. had, on July 27th, 1-600th of a grain of aconite. It survived.

Experiment 26.—A rabbit weighing 1 lb. 3 oz. had 1-800th of a grain of aconite. It survived.

Experiment 27.—A guinea-pig weighing 1 lb. 9 oz. had, at 10 P.M. on July 28th, one-fifth of a grain of digitaline; and, at 11.30 next morning, 1-1200th of a grain of aconitine. It died of aconite-poisoning in one hundred and forty minutes.

Experiment 28.—A rabbit weighing 1 lb. 3 oz. had three-fifths of a grain of digitaline, and next morning (at the same hour) 1-400th of a grain of aconitine. It died at noon (in one hundred and twenty minutes).

In both these cases, the digitaline, though failing to prevent a fatal result, greatly modified the symptoms; the gasping being least affected. Death was caused in the above cases by paralysis of the respiratory centres.

As to the minimum fatal dose, it seems that 1-1200th of a grain of aconitine is the dose for a guinea-pig weighing 1 lb. 7 oz., and 1-400th of a grain for a rabbit of that weight.

Experiment 29.—A cat weighing 3 lb. 1 oz. had one-sixtieth of a grain of aconitine. It died in fifty-five minutes, with dorsal spasms and dribbling of saliva; it did not gasp much, but stretched itself out and died.

VII.—SECOND REPORT ON THE ANTAGONISM OF ACONITE AND DIGITALIS, AND OF OTHER AGENTS CHIEFLY AFFECTING THE CIRCULATION.

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The first report gave some conclusions as to the antagonism of aconite and digitalis in the rabbit and the guinea-pig, as well as some more exact information than has hitherto existed as to the minimum lethal doses of these agents. It was found that the minimum lethal dose of aconitine was about 1-400th of a grain for a rabbit weighing 1½ lbs.; and 1-1200th of a grain, or even less, for a guinea-pig of that weight.

It seemed desirable, in instituting a second series of experiments, to restrict the inquiry to rabbits; and accordingly I started such a series with the aid of Dr. R. Pairman, who not only permitted me to prosecute my inquiries on his premises, but gave me the most substantial aid and assistance in the carrying out of the experiments, many of which required much patience and careful attention.

The first experiment, or rather series of experiments, to be performed was that of ascertaining more precisely the minimum fatal dose of aconitine in the rabbit according to weight.

Table showing the Minimum Fatal Dose of Aconitine.

No.	Weight of Rabbit.	Dose.	Result.
1	4 pounds 7 ounces	1-400th of a grain	Recovery
2	3 " 5 "	Ditto	Ditto
3	2 " 14 "	Ditto	Ditto
4	1 " 11 "	Ditto	Death in one hour and a quarter
5	1 " 10½ "	1-300th of a grain	" two hours and a half
6	1 " 2½ "	Ditto	" one hour and a half
7	1 " 9 "	1-350th of a grain	Recovery
8	1 " 8 "	1-400th "	Death in one hour
9	1 " 8 "	Ditto	" five hours
10	1 " 8 "	1-500th of a grain	Ditto
11	3 " 1 "	1-255th "	Ditto
12	3 " 1 "	1-300th "	Death in one hour
13	1 " 8 "	1-600th "	Recovery
14	1 " 8 "	Ditto	Ditto
15	1 " 8 "	1-500th of a grain	Death in one hour and a quarter
16	3 " 2 "	1-300th "	Recovery
17	3 " 0 "	Ditto	Death in one hour

From this it will be seen that, though the results were not quite uniform (indeed, such could scarcely be anticipated), there is a coarse agreement among them. Thus, of rabbits weighing 1 lb. 8 oz., 1-600th of a grain was survived, while 1-400th was fatal; while, of rabbits at and over 3 lbs., 1-400th was recovered from (in one instance, 1-300th was survived); though to a 3 lb. rabbit 1-300 of a grain was fatal in three out of four instances. For practical purposes, then, 1-400 of a grain is the minimum lethal dose for a rabbit 1½ lbs in weight, and 1-300ths for a rabbit of 3 lbs.

This series of experiments shows that the minimum lethal dose of aconitine is much less than has hitherto been supposed.

The next attempt was to arrive at the minimum lethal dose of digitaline. One-third of a grain having been found fatal to a rabbit of 1½ lbs., though after a long interval, we determined to start with a small dose.

Table showing the Minimum Fatal Dose of Digitaline (Morson's).

No.	Weight of Rabbit.	Dose.	Result.
18	3 pounds 4 ounces	1-7th of a grain	Recovery
19	2 " 14 "	1-3rd "	"
20	2 " 14 "	2-3rds "	"
21	2 " 12 "	1 "	"
22	2 " 7 "	1½ "	"
23	2 " 6 "	2 "	"

The deductions from this set of experiments were in favour of the digitaline not being very trustworthy; it was, therefore, determined to procure another specimen and test it. A specimen was accordingly procured from Messrs. T. and H. Smith.

Table showing the Minimum Fatal Dose of Digitaline (Succin).

No.	Weight of Rabbit.	Dose of Digitaline.	Result.
24	1 pound 11 ounces	1-10th of a grain	Recovery
25	1 " 11 "	2-10ths "	" "
26	1 " 9 "	3-10ths "	" "
27	2 " 0 "	4-10ths "	" "
28	2 " 7 "	5-10ths "	" "
29	2 " 2 "	6-10ths "	" "
30	2 " 6 "	8-10ths "	" "
31	3 " 1 "	1 grain	" "
32	3 " 0 "	1 "	" "
33	1 " 7 "	6-10ths of a grain	" "
34	2 " 14 "	1 4-10ths "	" "
35	1 " 8 "	7 10ths "	" "
36	1 " 12 "	1 grain	" "
37	2 " 0 "	1 "	" "
38	2 " 0 "	1 2-10ths of a grain	" "
39	3 " 1 "	1 8-10ths "	" "
40	2 " 0 "	1 4-10ths "	Death in forty-seven hours
41	2 " 15 "	2 grains	" seventy-two "
42	2 " 1 "	1 4-10ths "	" fifty-two "
43	1 " 13 "	1 3-10ths "	" fifty-seven "
44	2 " 2 "	2 grains	" three "
45	1 " 8 "	1 2-10ths "	" three "

From this table, it would appear that $1\frac{1}{2}$ grains of digitaline are about the minimum lethal dose for a rabbit weighing $1\frac{1}{2}$ lbs., or a grain to the pound; but farther experiments with other specimens of digitaline may be found necessary to determine this.

The ground having been so far cleared, an attempt was made to ascertain the antagonism of the two drugs. First, the drugs were given simultaneously, with the following results.

No.	Weight of Rabbit.	Dose of Digitaline.	Dose of Aconitine.	Result.
46	2 pounds 3 ounces	4-10ths of a grain	1 3-10th of a grain	Death in thirty minutes
47	2 " 4 "	7 10ths "	" "	" sixty "
48	2 " 12 "	1 grain	" "	" eleven hours

This set of experiments showed that the simultaneous administration of digitaline did little or nothing to moderate the action of aconitine. It having been found in a previous experiment on the guinea-pig that, when a dose of digitaline had been administered some hours previously, the minimum fatal dose of aconitine was readily survived, it was determined to proceed with a series of similar experiments on the rabbit, in order to contrast the results with those of the simultaneous exhibition of the two agents.

Table showing Result of Administration of Digitaline if Used after an Interval by Aconitine.

No.	Weight.	Dose of Digitaline.	Interval.	Aconitine.	Result.
49	2 pounds 14 ounces	1 4-10ths of a grain	Nine hours	1-300th of a grain	Recovery
50	1 " 8 "	7-10ths "	" "	1-500th "	" "
51	2 " 0 "	1 grain	Seven hours and a half	1 350th "	" "
52	1 " 12 "	1 "	" "	1-400th "	" "
53	2 " 0 "	1 3-10ths "	Five hours	1-300th "	Death in ten hours
54	3 " 1 "	1 3-10ths "	" "	1-200th "	Recovery
55	2 " 7 "	7-10ths "	" "	1-300th "	Death in one hour
56	2 " 7 "	4-10ths "	" "	1-300th "	" 1 1/2 hours

From this table, it will be seen that, if the digitaline be given in sufficient dose, and a sufficient time from five to nine hours before the dose of aconitine is administered, a decided protection against the aconitine is conferred. The following table will confirm this view.

The survivors, Nos. 49, 50, 51, 52, and 54, were subjected to a crucial test after the lapse of a week, when they might fairly be expected to have recovered from the effects of the previous experimentation.

No.	Dose of Aconitine alone.	Effects.
49	1-300th of a grain.	Death in half an hour
50	1-500th "	" one hour and a half
51	1-350th "	" four hours and a half
52	1-400th "	" one hour and a quarter
54	1-200th "	" fifty minutes

These last experiments leave no reasonable doubt as to the protective power of digitaline, previously administered, over the minimum lethal dose of aconitine.

It was then thought advisable to test the effect of less than the minimum lethal dose of aconitine upon lethal doses of digitaline.

Effects of Digitaline, followed after an interval by Aconitine.

No.	Weight.	Digitaline.	Interval.	Aconitine.	Result.
57	2 pounds 4 ounces	1 8-10ths of a grain	Five minutes	1-500th of a grain	Death in 1 3/4 hours
58	2 .. 4 ..	1 8-10ths ..	One hour	1-600th ..	" 2 ..
59	2 .. 4 ..	1 5-10ths ..	One hour and a half	1-500th ..	" 2 1/2 ..
60	2 .. 1 ..	1 5-10ths ..	Five minutes	1-700th ..	" 1 1/4 ..
61	1 .. 12 ..	1 4-10ths ..	One hour	1-700th ..	" 1 1/2 ..
62	2 .. 0 ..	1 4-10ths ..	Twenty-five minutes	1-700th ..	" 2 1/2 ..
63	1 .. 9 ..	1 1-10th ..	Thirty minutes	1-700th ..	" 1 1/2 ..

These results are very curious when compared to those given in the last table, showing the effects of time upon the antagonism of digitaline and aconitine. When given at an interval of not less than five hours, the protective power of digitaline against the aconitine subsequently given was marked; but, when the interval was reduced, the effect of the two poisons combined was to produce death in less time than when the same dose of aconitine was given alone. This result is in accordance with what was found by Fraser to occur when testing the antagonism of belladonna and Calabar bean.

I then determined to ascertain the effects of sulphate of atropia upon aconite-poisoning, and proceeded to do so by administering a dose of atropia before the aconitine was given. The interval was varied from one to ten minutes. The results are interesting.

Effect of Atropine, followed by Aconitine.

No.	Weight.	Atropia.	Interval.	Aconitine.	Result.
64	1 pound 7 ounces	1 grain	One minute	1-500th of a grain	Recovery
65	2 .. 7 ..	1 ..	"	1-250th ..	Death
66	2 .. 7 ..	4 grains	Five minutes	1-300th ..	Recovery
67	1 .. 8 ..	4 ..	Ten minutes	1-300th ..	"
68	2 .. 6 ..	3 ..	Six minutes	1-300th ..	"
69	1 .. 7 ..	3 ..	Five minutes	1-300th ..	Died in five hours
70	1 .. 8 ..	2 ..	Eight minutes	1-500th ..	Recovery
71	1 .. 3 1/2 ..	2 ..	Ten minutes	1-500th ..	"

In order to test the results thoroughly, after an interval of seven days, Nos. 64, 65, 67, 68, 70, and 71, were subjected to the crucial test of the administration of the same dose of aconitine alone.

Effects of Aconitine alone.

No.	Weight.	Dose of Aconitine.	Result.
64	1 pound 7 ounces	1 500th of a grain	Recovery
66	2 .. 7 ..	1-300th ..	Death in ninety minutes
67	1 .. 8 ..	1-300th ..	" thirty minutes
68	2 .. 6 ..	1 300th ..	" two hours and a half
70	1 .. 8 ..	1-500th ..	" sixty minutes
71	1 .. 3 1/2 ..	1-500th ..	" forty minutes

These experiments demonstrate pretty distinctly the effects of comparatively small doses of atropia, previously administered, over the action of aconitine subsequently given. The results of the crucial experiments are conclusive.

It then seemed desirable to try the effects of small non-lethal doses of aconitine upon full lethal doses of atropia. Consequently, the following experiments were performed.

No.	Weight.	Dose of Atropia.	Dose of Aconitine.	Result.
72	2 pounds 10 1/2 ounces	21 grains	1-900th of a grain	Death in three hours
73	2 .. 10 ..	21 ..	1 500th ..	" three days
74	1 .. 8 ..	11 ..	1 800th ..	Recovery
75	1 .. 6 ..	11 ..	1 800th ..	"
76	1 .. 5 ..	11 ..	1 800th ..	Death in thirty minutes
77	1 .. 9 ..	12 ..	1 800th ..	" twenty minutes
78	1 .. 5 ..	11 ..	1 700th ..	" "

Nos. 74 and 75 were then subjected to the crucial test of the eleven grains of atropia alone. No. 74 died in three hours, while No. 75 again recovered. From this it would appear that small doses of aconitine do not exercise any influence over the consequences of lethal doses of atropia. What the effects of larger doses of aconitine would be, must be left for further experiments to determine.

It was then determined to test the effects of small doses of atropine (given afterwards) upon the consequences of lethal doses of aconitine. The results are very satisfactory.

Effects of Aconitine in Fatal Doses, followed by Small Doses of Atropine.

No.	Weight	Dose of Aconitine.	Interval	Atropia.	Result.
79	2 pounds 4 ounces	1-300th of a grain	Two minutes	4 grains	Recovery
80	2 " 6 "	1-300th "	Four minutes	4 "	"
81	2 " 0 "	1-350th "	Six minutes	4 "	"
82	1 " 15 "	1-350th "	Eight minutes	4 "	"
83	1 " 13 "	1-400th "	Ten minutes	4 "	"
84	2 " 9 "	1-300th "	Thirteen minutes	4 "	"
85	2 " 2 "	1-380th "	Sixteen minutes	4 "	"
86	2 " 1 "	1-380th "	Twenty minutes	4 "	Death in 12 hours
87	1 " 8 "	1-500th "	Twenty-five minutes	4 "	" 1 hour

In order to make these experiments conclusive, the survivors were put to the crucial test, with the result that they all died.

The power of non-lethal doses of atropine—that is, of doses up to four grains—to counteract lethal doses of aconitine is fairly established by these experiments. Not only does atropine exercise this effect when previously administered, but it possesses an equally protective effect when given some minutes afterwards—so far as sixteen: a long time, when we remember how swift the poisonous action of aconitine is.

So far, then, as experiments on the rabbit go, in atropine we possess a distinct and undoubted antidote to aconitine. The previous administration of digitaline will also affect the results of minimum fatal doses of aconitine. (It is very interesting to see how the rabbits, under the influence of aconitine, but protected by the previous administration of digitaline, or the previous or subsequent administration of atropine, will become exceedingly ill; but instead of a fatal result, there follows a process of rapid recovery.)

The antagonism of digitalis and atropia to aconitine having been thus tested, it seemed desirable to extend the observations to their effects upon other vascular depressants. Dr. T. R. Fraser having thoroughly examined the relations of atropine and Calabar bean and recorded their antagonism, and Dr. J. Hughes Bennett having found the antagonism existing between strychnia and chloral-hydrate, the idea of testing the relations of atropine and digitalis to chloral-hydrate suggested itself.

The first point was to test the minimum lethal dose of chloral in the rabbit, as authorities differ, much of the difference being probably due to the temperature of the surrounding atmosphere at the time of the experiments. It was soon apparent that the rabbit nearest the fire survived the largest dose.

Effects of Chloral-Hydrate on Rabbits.

No.	Weight.	Dose of Chloral.	Grains per lb.	Result.
88	3 pounds 4 ounces	22 $\frac{1}{4}$ grains	7	Recovery
89	2 " 3 "	21 $\frac{1}{4}$ "	10	Death in three hours and a half
90	2 " 2 "	25 $\frac{1}{2}$ "	12	Recovery
91	2 " 0 "	20 "	10	Death in fourteen hours
92	4 " 0 "	40 "	10	" seven hours
93	2 " 11 "	18 $\frac{3}{4}$ "	7	Recovery
94	3 " 4 "	32 $\frac{1}{2}$ "	10	"
95	4 " 7 "	44 $\frac{1}{8}$ "	10	"

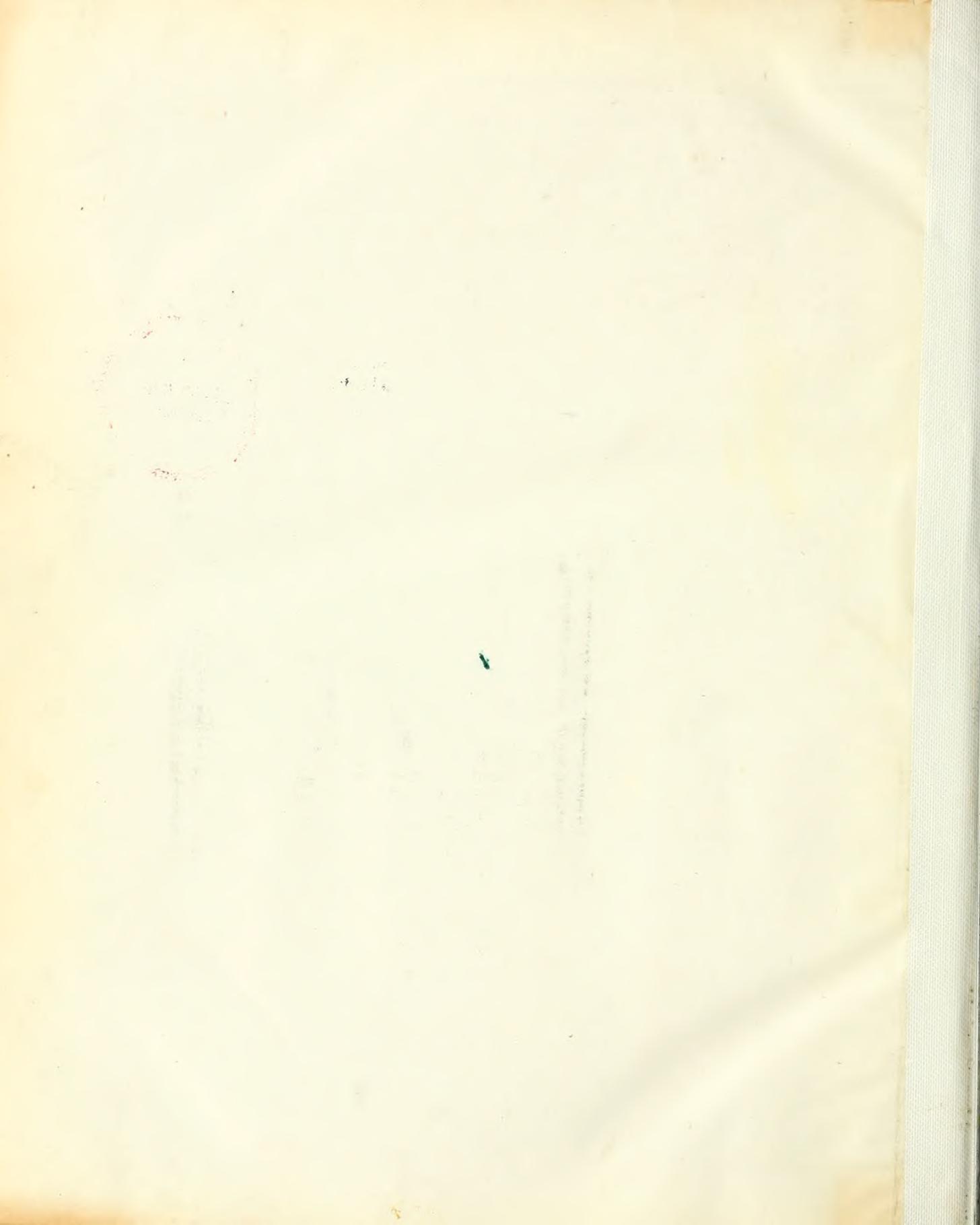
Having so gained an idea of the minimum lethal dose of chloral under the circumstances of this set of experiments, the next step was to try the simultaneous administration of atropia and chloral-hydrate. Eight experiments were done, with the following results.

Effect of Simultaneous Administration of Atropine and Chloral.

No.	Weight.	Dose of Chloral.	Dose per lb.	Dose of Atropia.	Result.
96	3 pounds 12 ounces	45 grains	12 grains	6 grains	Lived three days
97	3 " 6 "	40 $\frac{1}{2}$ "	12 "	4 "	Death in one hour
98	2 " 11 "	32 $\frac{1}{4}$ "	12 "	5 "	" one hour and a half
99	4 " 3 "	50 $\frac{1}{4}$ "	12 "	8 "	Recovery
100	3 " 14 "	47 $\frac{1}{4}$ "	12 "	7 "	Death in twelve hours
101	3 " 12 "	41 $\frac{1}{4}$ "	11 "	3 "	" three days
102	1 " 8 $\frac{1}{2}$ "	18 $\frac{1}{4}$ "	12 "	8 "	" nine days
103	1 " 8 "	18 "	12 "	8 "	" four days

These results are chiefly negative, as the one which recovered (No. 99) was, after the interval of a week, subjected to a further test—viz., of the same dose of chloral without any atropia—and again recovered.

It was thus apparent that medium non-lethal doses of atropia did not exercise over the minimum fatal dose of chloral any such influence as they possess over the effects of the minimum lethal dose of aconitine. The next point was to test the effects, if any, of doses of chloral-hydrate upon lethal doses of atropine. With this intention, the following six experiments were performed.



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